Navy_CLEAN_PFAS_FOIA_request_covers.indd

NAVFAC
Naval Facilities Engineering Command

Groundwater Sample Results, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Report, SDG B819794

Naval Air Station Cecil Field
Jacksonville, Florida

July 2019

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

N60200_009709
NAS CECIL FIELD, FL
SSIC 5000-33c

LABORATORY DATA PACKAGE B819794 NAS CECIL FIELD FL

03/16/2018

MAXXAM ANALYTICAL LABORATORIES

Approved for public release: distribution unlimited.

Prepared for: Earth Toxics Inc

Project: JM10 CECIL

Analytical Data Package
(Level IV)

Analysis: PFOS and PFOA in water (Method 537 mod.)

Maxxam Job #: B819794

Maxxam Analytics International
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com



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Maxxam Analytics International
6740 Campobello Rd.
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I hereby certify that to the best of my knowledge all analytical data presented in this report:

- Has been checked for completeness.
- Is accurate, legible and error free.
- Has been conducted in accordance with approved SOP's and that all deviations are clearly listed in the Case Narrative.
- This report has been generated in .pdf format.

Review Performed By:

Project Manager

Maxxam
A Bureau Veritas Group Company

Stephanie Pollen
2018.03.16 12:18:39 -04'00'

Maxxam Analytics International
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Glossary of Terms

- ***Detection Limit (DL)*** this can also be called ***Method Detection Limit (MDL***): The lowest concentration or amount of the target analyte that can be identified, measured, and reported with confidence that the analyte concentration is not a false positive value. (Clarification): The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. At the DL, the false positive rate (Type I error) is 1%.

- ***Limit of Detection (LOD*)**: An estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. (Clarification): The smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

- ***Limits of Quantitation (LOQ)*** this can also be called ***Reporting Detection Limit (RDL)***: The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. (Clarification): The lowest concentration that produces a quantitative result within specified limits of precision and bias. For DoD projects, the LOQ shall be set at or above the concentration of the lowest initial calibration standard.

- ***Acceptance Criteria*** are values used by the laboratory to determine that a process is in control.

- ***Accuracy*** is the degree of agreement of a measured value with the true or expected value.

- ***Calibration Standards*** are a set of solutions containing the analytes of interest at a specified concentration.

- ***Calibration Verification Standard*** consists of a calibration standard solution of intermediate concentration (mid-point initial calibration level) used to access whether the initial calibration is still valid

- ***Certified Reference Material*** is a stable homogenous material that is certified by repetitive analysis from a supplier who is certified to generate said materials.

- ***Internal Standard*** a deuterated or ^{13}C-labelled analyte that is added to a sample extract prior to instrumental analysis to compensate for injection variability.

- ***Isomer*** is a member of a group of compounds that differ from each other only in the locations of a specific number of common substituent atoms or groups of atoms on the parent compound.

- ***Method Blank*** is a laboratory control sample using reagents that are known to be free of contamination.

- ***Precision*** is the degree of agreement between the data generated from repetitive measurements under specific conditions.

- ***Quality Assurance*** is a system of activities whose purpose is to provide the producer or user of a product with the assurance that the product meets a defined standard of quality.

- ***Quality Control*** is the overall system of activities whose purpose is to control the quality of a product so that it meets the needs of the end user.

- ***RSD*** is the relative standard deviation.

- ***Blank Spike*** is a laboratory control sample that has been fortified with native analytes of interest.

- ***Window Defining Mixture*** is a solution containing only the earliest and latest eluting congeners within each homologous group of target analytes on a specified GC column.

- ***RPD*** or Relative Percent Difference. A measure used to compare duplicate sample analysis.

- ***EMPC/NDR –*** Peak detected does not meet ratio criteria and has resulted in a higher detection limit.



1.0 Project Narrative

Maxxam Analytics International
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Sample Analysis

Samples were initially pre-screened and estimated concentrations were obtained so that appropriate sample volumes could be extracted on QC batches 5383466 (2018/02/06), 5383485 (2018/02/06), 5386102 (2018/02/08), 5387452 (2018/02/08), 5389177 (2018/02/08-09), 5390275 (2018/02/09-10) and 5391181 (2018/02/09). Due to high concentrations, the following samples were analyzed for selected analytes using reduced sample extraction volumes:

FZH306	*CEF-002-06S-0118*	*Perfluorooctanoic acid (PFOA)*
FZH331	*CEF-342-06S-0118*	*All analytes*
FZH332	*CEF-342-06S-0118-D*	*Perfluorooctanesulfonate (PFOS)*
FZH333	*CEF-342-12S-0118*	*All analytes*
FZH324	*CEF-008-TW02-0118*	*All analytes*
FZH325	*CEF-008-TW01-0118*	*All analytes*
FZH326	*CEF-007-TW01-0118*	*Perfluorohexanesulfonate (PFHxS), Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonate (PFOS)*
FZH327	*CEF-007-TW01-0118*	*Perfluorohexanesulfonate (PFHxS), Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonate (PFOS)*

Detection limits were adjusted accordingly.

A reduced sample volume was also extracted for the following sample:

FZH334 *CEF-013-03S-0118*

This was due to the foamy and discolored appearance of the sample matrix, which would likely have resulted in clogging of the solid phase extraction (SPE) cartridge if the full sample volume had been extracted. Detection limits were adjusted accordingly.

The recoveries observed for Perfluorododecanoic acid (PFDoA), Perfluorotridecanoic acid (PFTrDA), Perfluorotetradecanoic acid (PFTeDA), Methylperfluorooctanesulfonamidoacetic acid (MeFOSAA) and Ethylperfluorooctanesulfonamidoacetic acid (EtFOSAA) were below acceptance criteria for the Spike (LCS) on QC batches 5383466 (2018/02/06) and 5383485 (2018/02/06). Samples were re-extracted and re-analyzed for these analytes on QC batches 5396699 (2018/02/15-16) and 5396714 (2018/02/15), past the method defined hold time. Because of their chemical structures, per- and polyfluorinated alkyl substances (PFAS) are chemically and biologically stable in the environment and resist typical environmental degradation processes. This would suggest the hold time exceedance would not have a significant impact on the data quality.

Extracted Internal Standard Analytes

The extracted internal standard analyte $^{13}C_2$-Perfluorotetradecanoic acid ($^{13}C_2$-PFTeDA) is used to quantify native Perfluorotridecanoic acid (PFTrDA) & Perfluorotetradecanoic acid (PFTeDA). The recoveries observed for this extracted internal standard analyte were below the defined lower control limit (LCL) for the following samples on QC batch 5387452 (2018/02/08):

FZH332 *CEF-342-06S-0118-D*
FZH334 *CEF-013-03S-0118*

These samples were re-extracted and re-analyzed for the associated native analytes on QC batch 5396699 (2018/02/15-16), past the method defined hold time. Acceptable $^{13}C_2$-PFTeDA recoveries were obtained on re-analysis.

QC Samples

Matrix Spike and Matrix Spike Duplicate (MS/MSD) was required for sample FZH334 *(CEF-013-03S-0118)* but not performed as a reduced sample volume was extracted for this sample. A Matrix Duplicate (MD) was prepared and analyzed instead on QC batch 5387452 (2018/02/08).

Revised Report

During assembly of the Level IV data package, it was observed that incorrect analytes had been reported for the re-analysis on QC batch 5396699 (2018/02/15-16). A revised report was issued with the correct re-analyzed compounds, Perfluorododecanoic acid (PFDoA), Perfluorotridecanoic acid (PFTrDA), Perfluorotetradecanoic acid (PFTeDA), Methylperfluorooctanesulfonamidoacetic acid (MeFOSAA) and Ethylperfluorooctanesulfonamidoacetic acid (EtFOSAA).

In addition, it was observed that incorrect extraction dates had been initially entered for samples on QC batch 5386102 (2018/02/08). The correct date (2018/02/06) was entered into the LIMS system for re-issue of the report.

Data Qualifiers

U – Analyte was not detected and is reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.

J – The reported result is an estimated value (e.g., matrix interference was observed, or the analyte was detected at a concentration outside the calibration range).

Sin Chii Chia, B.Sc.
schia@maxxam.ca
Office 905 817 5700

PROJECT NARRATIVE

Maxxam Analytics
Client Project #: JM10 CECIL

Client: Earth Toxics Inc
Client Project: JM10 CECIL

I. SAMPLE RECEIPT/ANALYSIS

a) Sample Listing

Maxxam ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Date Run	Initial Calibration
PFOS and PFOA in water by SPE/LCMS						
FZH306	CEF-002-06S-0118	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH307	EB-CEF-007-012518-8	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH308	EB-CEF-007-012518-9	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH309	EB-CEF-007-012518-10	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH310	FB-CEF-007-012518-8	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH311	CEF-013-12S-0118-D	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH312	CEF-013-12S-0118	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH313	FB-CEF-013-012518-7	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH314	FB-CEF-860-012518-9	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH318	FB-CEF-008-012418-6	2018/01/24	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH321	EB-CEF-008-012418-5	2018/01/24	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH322	EB-CEF-008-012418-6	2018/01/24	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH323	EB-CEF-008-012418-7	2018/01/24	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH324	CEF-008-TW02-0118	2018/01/24	2018/01/26	2018/02/07	2018/02/09	2018/02/08-09
FZH325	CEF-008-TW01-0118	2018/01/24	2018/01/26	2018/02/07	2018/02/08	2018/02/08-09
FZH326	CEF-007-TW01-0118	2018/01/25	2018/01/26	2018/02/08	2018/02/09	2018/02/09
FZH327	CEF-007-TW02-0118	2018/01/25	2018/01/26	2018/02/08	2018/02/09	2018/02/09
FZH328	CEF-003-38S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH329	CEF-002-04S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH330	FB-CEF-002-012318-5	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH331	CEF-342-06S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH332	CEF-342-06S-0118-D	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08 & 2018/02/15-16
FZH333	CEF-342-12S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH334	CEF-013-03S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08 & 2018/02/15-16
FZH334 Dup	CEF-013-03S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08 & 2018/02/15-16
FZH335	FB-CEF-342-012318-4	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH337	CEF-076-109S-0118	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15
FZH338	CEF-372-08-0118	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15-16
FZH339	CEF-372-08-0118-D	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15-16
FZH340	CEF-003-28S-0118	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15-16
FZH341	FB-CEF-016-012218-2	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15-16
FZH342	CEF-016-07S-0118	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15-16
FZH343	CEF-016-17S-0118	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15-16
FZH344	FB-CEF-003-012318-3	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH347	CEF-003-04S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH348	CEF-003-04S-0118-D	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08

Run Date is defined as the date of injection of the last calibration standard (12 hours or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

b) Shipping Problems: none encountered

c) Documentation Problems: All FB and EB samples were initially not reported as per client request. Client later requested that these samples be reported.

II. SAMPLE PREP:

No problems encountered

III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis

a) Hold Times: Due to rework requirements, the following samples were analyzed for PFDoA, PFTrDA, PFTeDA, MeFOSAA and EtFOSAA past hold time: FZH336, FZH338, FZH339, FZH340, FZH341, FZH342, FZH343, FZH337. The following samples were analyzed for PFTeDA and PFTrDA past hold time: FZH332 and FZH334.

b) Instrument Calibration: all within control limits

c) Quality Control: All applicable QC meets control criteria, except where otherwise noted.

d) All analytes requiring manual intergration(s) are noted on the sample chromatograms

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for other than the conditions detailed above.

In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate. Release of the data contained in this data package has been authorized by the cognizant laboratory official or his/her designee, as verified by this signature.

Steph Fallon

Project Manager- Site Assessment and Remediation/ Ultra Trace

2018/03/16

Date



2. Sample Management Records

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
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2.1 Sample Custody

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Tetra Tech, Inc. **AIR** CHAIN OF CUSTODY | NUMBER No. 3184 | PAGE 1 OF 4

PROJECT NO: JM10	FACILITY: Cerl	PROJECT MANAGER Megan Ved	PHONE NUMBER	LABORATORY NAME AND CONTACT: Maxxam / Stephano
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER David Siefken	PHONE NUMBER 904-334-7260	ADDRESS 6740 Campobello, Rd
		CARRIER/WAYBILL NUMBER Fed-Ex		CITY, STATE Mississauga, Ont. CANADA

STANDARD TAT ☑ RUSH TAT ☐ ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P

PRESERVATIVE USED: —

DATE YEAR 2018	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PFAS	COMMENTS
1/25	1215	CEF-002-065-0118						2	x	Cool 4°C
1/25	1335	EB-CEF-007-012518-8						2	x	
1/25	1345	EB-CEF-007-012518-9						2	x	
1/25	1355	EB-CEF-007-012518-10						2	x	
1/25	1420	FB-CEF-007-012518-8						2	x	
1/25	1248	CEF-013-125-0118-D						2	x	
1/25	1248	CEF-013-125-0119						2	x	
1/25	1246	FB-CEF-013-012518-7						2	x	
1/25	1550	FB-CEF-860-012518-9						2	x	
1/25	1610	EB-CEF-860-012518-11						2	x	
1/25	1615	EB-CEF-860-012518-12						2	x	
1/25	1620	EB-CEF-860-012518-13						2	x	

26-Jan-18 13:30
Cristina (Maria) Bacchus
B819794
GID ENV-727

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	1-25-18	1900	1. RECEIVED BY Guerrero	2018/01/26	13:30
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

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Maxxam Analytics

Tetra Tech, Inc. CHAIN OF CUSTODY NUMBER No. 3182 PAGE 2 OF 4

PROJECT NO: JM10	FACILITY: Cecil	PROJECT MANAGER: Meg Uehling	PHONE NUMBER	LABORATORY NAME AND CONTACT: Maxxam / Stephanie
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: D. Slefhen	PHONE NUMBER: 904.334.7260	ADDRESS: 6740 Campobello Rd
		CARRIER/WAYBILL NUMBER: Fed Ex		CITY, STATE: Mississauga, Ontario, Canada

STANDARD TAT ☒
RUSH TAT ☐ ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2018	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G): P	PRESERVATIVE USED: —	TYPE OF ANALYSIS: PFAS ...	COMMENTS
Y24	1030	FB-CEF-008-012418-6				QC		2	X			Cool 4°C
Y24	1035	EB-CEF-PublixDI-012418-3						2	X			
Y24	1040	EB-CEF-LabChem DI-012418-4						2	X			
Y24	1240	EB-CEF-008-~~Screen~~-012418-5						2	X			
Y24	1245	EB-CEF-008-~~Rod~~-012418-6						2	X			
Y24	1250	EB-CEF-008-~~Tubing~~-012418-7						2	X			
1/24	1542	CEF-008-TW02-0118				GW		2	X			
Y24	1643	CEF-008 TW01 0118				GW		2	X			
1/25	1645	CEF-007-TW01-0118				GW		2	X			
1/25	1630	CEF-007-TW02-0118				GW		2	X			

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	1-25-18	1900	1. RECEIVED BY Guardian	2018/01/26	13:30
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

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CHAIN OF CUSTODY | NUMBER No. 3179 | PAGE 3 OF 4

PROJECT NO: JM10	FACILITY: Cecil	PROJECT MANAGER: Megan Ved	PHONE NUMBER:
SAMPLERS (SIGNATURE): [signature]		FIELD OPERATIONS LEADER: Dave Siefken	PHONE NUMBER: 904.334.7260
		CARRIER/WAYBILL NUMBER: Fex Ex	

LABORATORY NAME AND CONTACT: Maxxam Analytical Int / Stephanie
ADDRESS: 6740 Campobello Rd
CITY, STATE: Mississauga, Ontario, Canada

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G)
PRESERVATIVE USED

DATE YEAR 2018	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS PFOS								COMMENTS
1/23	1210	CEF-003-38s-0118						2	X								Cool 4°C
	1400	CEF-002-04s-0118						2	X								
	1345	FB-CEF-002-012318-5						2	X								
S	1035	CEF-342-06s-0118						2	X								
S	1035	CEF-342-06s-0118-D						2	X								
S	1137	CEF-342-12s-0118						2	X								
S	1310	CEF-343-03s-0118						6	X								
S 1/23	1032	FB-CEF-342-012318-4						2	X								

1. RELINQUISHED BY [signature]	DATE 1-25-18	TIME 1900	1. RECEIVED BY GP Gurnkal	DATE 2018/01/26	TIME 13:30
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

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Tetra Tech, Inc.

CHAIN OF CUSTODY | NUMBER No. 3178 | PAGE 4 OF 4

PROJECT NO: Jmio	FACILITY: Cecil	PROJECT MANAGER Megan Ved	PHONE NUMBER	LABORATORY NAME AND CONTACT: Maxxam Analytical Int / Stephanie
SAMPLERS (SIGNATURE) [signature]		FIELD OPERATIONS LEADER Dave Siefken	PHONE NUMBER 904.334.7260	ADDRESS 6740 Campobello RD
		CARRIER/WAYBILL NUMBER FED-Ex		CITY, STATE Mississauga, Ontario Canada

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P
PRESERVATIVE USED: –

DATE YEAR 2018	TIME	FB SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS PFOS								COMMENTS
1/22	1145	CEF-NFF-~~FB~~-012218	1					2	x								Cool 4°C
	1200	CEF-076-109s-0118						6	x								
	1300	CEF-372-08-0118						24	x								
	1300	CEF-372-08-0118-D						2	x								
	1435	CEF-003-28s-0118						2	x								
	1543	FB CEF-016-~~FB~~-012218	2					2	x								
	1548	CEF-016-07s-0118						2	x								
	1615	CEF-016-17s-0118						2	x								
1/23	1000	FB-CEF-003-012318	3					2	X								
1/23	0950	EB-CEF-003-012318	2					2	X								
1/22	1440	EB-CEF-017-012218	1					2	X								
1/23	1050	CEF-003-04s-0118						6	x								
1/23	1050	CEF-003-04s-0118-D						2	X								

1. RELINQUISHED BY [signature]	DATE 1-25-18	TIME 1900	1. RECEIVED BY GP Gurpreet Kaur	DATE 2018/01/30	TIME 13:30
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

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3. Analytical Results

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com



3.1 Summary Report

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Maxxam
A Bureau Veritas Group Company

Your Project #: JM10 CECIL
Your C.O.C. #: 3184, 3182, 3179, 3178

Attention: Rick Carr

Earth Toxics Inc
PO Box 3382
Logan, UT
USA 84321

Report Date: 2018/03/09
Report #: R5035709
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B819794
Received: 2018/01/26, 13:30

Sample Matrix: Water
Samples Received: 35

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
PFOS and PFOA in water by SPE/LCMS (1)	7	2018/02/03	2018/02/06	CAM SOP-00894	EPA 537 m
PFOS and PFOA in water by SPE/LCMS (1)	15	2018/02/06	2018/02/08	CAM SOP-00894	EPA 537 m
PFOS and PFOA in water by SPE/LCMS (1)	1	2018/02/07	2018/02/08	CAM SOP-00894	EPA 537 m
PFOS and PFOA in water by SPE/LCMS (1)	1	2018/02/07	2018/02/09	CAM SOP-00894	EPA 537 m
PFOS and PFOA in water by SPE/LCMS (1)	2	2018/02/08	2018/02/09	CAM SOP-00894	EPA 537 m
PFOS and PFOA in water by SPE/LCMS (1)	9	2018/02/08	2018/02/10	CAM SOP-00894	EPA 537 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Per- and polyfluoroalkyl substances (PFAS) identified as surrogates on the certificate of analysis represent the extracted internal standard.

Your Project #: JM10 CECIL
Your C.O.C. #: 3184, 3182, 3179, 3178

Attention: Rick Carr

Earth Toxics Inc
PO Box 3382
Logan, UT
USA 84321

Report Date: 2018/03/09
Report #: R5035709
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B819794
Received: 2018/01/26, 13:30

Encryption Key

Please direct all questions regarding this Certific Project Manager.
Stephanie Pollen, Project Manager
Email: SPollen@maxxam.ca
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH306				FZH307				
Sampling Date		2018/01/25 12:15				2018/01/25 13:35				
COC Number		3184				3184				
	UNITS	CEF-002-06S-0118	DL	LOD	LOQ	EB-CEF-007-012518-8	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters										
EtFOSAA	ng/L	11 U	3.6	11	22	10 U	3.3	10	20	5390275
MeFOSAA	ng/L	11 U	3.2	11	22	10 U	2.9	10	20	5390275
Perfluorobutane Sulfonate (PFBS)	ng/L	14 J	5.9	17	22	15 U	5.4	15	20	5390275
Perfluoroheptanoic Acid (PFHpA)	ng/L	20 J	8.1	17	22	15 U	7.4	15	20	5390275
Perfluorohexanoic Acid (PFHxA)	ng/L	160	3.9	11	22	10 U	3.5	10	20	5390275
Perfluorohexane Sulfonate (PFHxS)	ng/L	640	6.2	17	22	15 U	5.6	15	20	5390275
Perfluorononanoic Acid (PFNA)	ng/L	20 U	9.6	20	22	18 U	8.7	18	20	5390275
Perfluorotetradecanoic Acid	ng/L	11 U	3.0	11	22	10 U	2.7	10	20	5390275
Perfluorotridecanoic Acid	ng/L	11 U	4.2	11	22	10 U	3.8	10	20	5390275
Perfluoroundecanoic Acid (PFUnA)	ng/L	11 U	2.8	11	22	10 U	2.5	10	20	5390275
Perfluorodecanoic Acid (PFDA)	ng/L	17 U	6.7	17	22	15 U	6.1	15	20	5390275
Perfluorododecanoic Acid (PFDoA)	ng/L	11 U	5.5	11	22	10 U	5.0	10	20	5390275
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	1100 (1)	36	110	200	10 U	3.3	10	20	5390275
Perfluorooctane Sulfonate (PFOS)	ng/L	110	6.6	17	22	15 U	6.0	15	20	5390275
Surrogate Recovery (%)										
13C2-Perfluorodecanoic acid	%	99				97				5390275
13C2-Perfluorododecanoic acid	%	87				83				5390275
13C2-Perfluorohexanoic acid	%	101				99				5390275
13C2-perfluorotetradecanoic acid	%	81				88				5390275
13C2-Perfluoroundecanoic acid	%	93				91				5390275
13C4-Perfluoroheptanoic acid	%	107				95				5390275
13C4-Perfluorooctanesulfonate	%	96				88				5390275
13C4-Perfluorooctanoic acid	%	98				98				5390275
13C5-Perfluorononanoic acid	%	106				99				5390275
18O2-Perfluorohexanesulfonate	%	99				91				5390275
D3-MeFOSAA	%	90				78				5390275
D5-EtFOSAA	%	88				83				5390275

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca
Maxxam Analytics
227 of 2177

Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH308	FZH309	FZH310				
Sampling Date		2018/01/25 13:45	2018/01/25 13:55	2018/01/25 14:20				
COC Number		3184	3184	3184				
	UNITS	EB-CEF-007-012518-9	EB-CEF-007-012518-10	FB-CEF-007-012518-8	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters								
EtFOSAA	ng/L	10 U	10 U	10 U	3.3	10	20	5390275
MeFOSAA	ng/L	10 U	10 U	10 U	2.9	10	20	5390275
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	15 U	15 U	5.4	15	20	5390275
Perfluoroheptanoic Acid (PFHpA)	ng/L	15 U	15 U	15 U	7.4	15	20	5390275
Perfluorohexanoic Acid (PFHxA)	ng/L	10 U	10 U	10 U	3.5	10	20	5390275
Perfluorohexane Sulfonate (PFHxS)	ng/L	15 U	15 U	15 U	5.6	15	20	5390275
Perfluorononanoic Acid (PFNA)	ng/L	18 U	18 U	18 U	8.7	18	20	5390275
Perfluorotetradecanoic Acid	ng/L	10 U	10 U	10 U	2.7	10	20	5390275
Perfluorotridecanoic Acid	ng/L	10 U	10 U	10 U	3.8	10	20	5390275
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	10 U	10 U	2.5	10	20	5390275
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	15 U	15 U	6.1	15	20	5390275
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	10 U	10 U	5.0	10	20	5390275
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	10 U	10 U	10 U	3.3	10	20	5390275
Perfluorooctane Sulfonate (PFOS)	ng/L	15 U	15 U	15 U	6.0	15	20	5390275
Surrogate Recovery (%)								
13C2-Perfluorodecanoic acid	%	98	97	86				5390275
13C2-Perfluorododecanoic acid	%	88	87	81				5390275
13C2-Perfluorohexanoic acid	%	101	101	95				5390275
13C2-perfluorotetradecanoic acid	%	87	88	80				5390275
13C2-Perfluoroundecanoic acid	%	89	92	87				5390275
13C4-Perfluoroheptanoic acid	%	103	101	94				5390275
13C4-Perfluorooctanesulfonate	%	88	94	92				5390275
13C4-Perfluorooctanoic acid	%	98	101	93				5390275
13C5-Perfluorononanoic acid	%	102	100	92				5390275
18O2-Perfluorohexanesulfonate	%	94	103	91				5390275
D3-MeFOSAA	%	85	90	75				5390275
D5-EtFOSAA	%	83	90	75				5390275

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH311	FZH312	FZH313				
Sampling Date		2018/01/25 12:48	2018/01/25 12:48	2018/01/25 12:46				
COC Number		3184	3184	3184				
	UNITS	CEF-013-12S-0118-D	CEF-013-12S-0118	FB-CEF-013-012518-7	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters								
EtFOSAA	ng/L	10 U	10 U	10 U	3.3	10	20	5390275
MeFOSAA	ng/L	10 U	10 U	10 U	2.9	10	20	5390275
Perfluorobutane Sulfonate (PFBS)	ng/L	31	29	15 U	5.4	15	20	5390275
Perfluoroheptanoic Acid (PFHpA)	ng/L	14 J	14 J	15 U	7.4	15	20	5390275
Perfluorohexanoic Acid (PFHxA)	ng/L	65	55	10 U	3.5	10	20	5390275
Perfluorohexane Sulfonate (PFHxS)	ng/L	300	250	15 U	5.6	15	20	5390275
Perfluorononanoic Acid (PFNA)	ng/L	18 U	18 U	18 U	8.7	18	20	5390275
Perfluorotetradecanoic Acid	ng/L	10 U	10 U	10 U	2.7	10	20	5390275
Perfluorotridecanoic Acid	ng/L	10 U	10 U	10 U	3.8	10	20	5390275
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	10 U	10 U	2.5	10	20	5390275
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	15 U	15 U	6.1	15	20	5390275
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	10 U	10 U	5.0	10	20	5390275
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	77	72	10 U	3.3	10	20	5390275
Perfluorooctane Sulfonate (PFOS)	ng/L	15 U	15 U	15 U	6.0	15	20	5390275
Surrogate Recovery (%)								
13C2-Perfluorodecanoic acid	%	94	88	98				5390275
13C2-Perfluorododecanoic acid	%	83	78	92				5390275
13C2-Perfluorohexanoic acid	%	85	100	108				5390275
13C2-perfluorotetradecanoic acid	%	59	60	89				5390275
13C2-Perfluoroundecanoic acid	%	86	83	93				5390275
13C4-Perfluoroheptanoic acid	%	94	101	107				5390275
13C4-Perfluorooctanesulfonate	%	93	97	97				5390275
13C4-Perfluorooctanoic acid	%	92	95	100				5390275
13C5-Perfluorononanoic acid	%	95	100	100				5390275
18O2-Perfluorohexanesulfonate	%	89	109	104				5390275
D3-MeFOSAA	%	82	81	86				5390275
D5-EtFOSAA	%	77	80	84				5390275

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Analytics

Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH314		FZH318	FZH321				
Sampling Date		2018/01/25 15:50		2018/01/24 10:30	2018/01/24 12:40				
COC Number		3184		3182	3182				
	UNITS	FB-CEF-860-012518-9	QC Batch	FB-CEF-008-012418-6	EB-CEF-008-012418-5	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters									
EtFOSAA	ng/L	10 U	5390275	10 U	10 U	3.3	10	20	5387452
MeFOSAA	ng/L	10 U	5390275	10 U	10 U	2.9	10	20	5387452
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	5390275	15 U	15 U	5.4	15	20	5387452
Perfluoroheptanoic Acid (PFHpA)	ng/L	15 U	5390275	15 U	15 U	7.4	15	20	5387452
Perfluorohexanoic Acid (PFHxA)	ng/L	10 U	5390275	10 U	10 U	3.5	10	20	5387452
Perfluorohexane Sulfonate (PFHxS)	ng/L	15 U	5390275	15 U	15 U	5.6	15	20	5387452
Perfluorononanoic Acid (PFNA)	ng/L	18 U	5390275	18 U	18 U	8.7	18	20	5387452
Perfluorotetradecanoic Acid	ng/L	10 U	5390275	10 U	10 U	2.7	10	20	5387452
Perfluorotridecanoic Acid	ng/L	10 U	5390275	10 U	10 U	3.8	10	20	5387452
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	5390275	10 U	10 U	2.5	10	20	5387452
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	5390275	15 U	15 U	6.1	15	20	5387452
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	5390275	10 U	10 U	5.0	10	20	5387452
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	10 U	5390275	10 U	10 U	3.3	10	20	5387452
Perfluorooctane Sulfonate (PFOS)	ng/L	15 U	5390275	15 U	15 U	6.0	15	20	5387452
Surrogate Recovery (%)									
13C2-Perfluorodecanoic acid	%	95	5390275	92	94				5387452
13C2-Perfluorododecanoic acid	%	85	5390275	78	81				5387452
13C2-Perfluorohexanoic acid	%	92	5390275	87	96				5387452
13C2-perfluorotetradecanoic acid	%	79	5390275	70	74				5387452
13C2-Perfluoroundecanoic acid	%	80	5390275	83	83				5387452
13C4-Perfluoroheptanoic acid	%	97	5390275	96	98				5387452
13C4-Perfluorooctanesulfonate	%	88	5390275	89	85				5387452
13C4-Perfluorooctanoic acid	%	92	5390275	84	94				5387452
13C5-Perfluorononanoic acid	%	95	5390275	94	91				5387452
18O2-Perfluorohexanesulfonate	%	94	5390275	82	83				5387452
D3-MeFOSAA	%	80	5390275	83	76				5387452
D5-EtFOSAA	%	78	5390275	84	81				5387452

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH322	FZH323				
Sampling Date		2018/01/24 12:45	2018/01/24 12:50				
COC Number		3182	3182				
	UNITS	EB-CEF-008-012418-6	EB-CEF-008-012418-7	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters							
EtFOSAA	ng/L	10 U	10 U	3.3	10	20	5387452
MeFOSAA	ng/L	10 U	10 U	2.9	10	20	5387452
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	15 U	5.4	15	20	5387452
Perfluoroheptanoic Acid (PFHpA)	ng/L	15 U	15 U	7.4	15	20	5387452
Perfluorohexanoic Acid (PFHxA)	ng/L	10 U	10 U	3.5	10	20	5387452
Perfluorohexane Sulfonate (PFHxS)	ng/L	15 U	15 U	5.6	15	20	5387452
Perfluorononanoic Acid (PFNA)	ng/L	18 U	18 U	8.7	18	20	5387452
Perfluorotetradecanoic Acid	ng/L	10 U	10 U	2.7	10	20	5387452
Perfluorotridecanoic Acid	ng/L	10 U	10 U	3.8	10	20	5387452
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	10 U	2.5	10	20	5387452
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	15 U	6.1	15	20	5387452
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	10 U	5.0	10	20	5387452
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	10 U	10 U	3.3	10	20	5387452
Perfluorooctane Sulfonate (PFOS)	ng/L	15 U	15 U	6.0	15	20	5387452
Surrogate Recovery (%)							
13C2-Perfluorodecanoic acid	%	86	94				5387452
13C2-Perfluorododecanoic acid	%	75	73				5387452
13C2-Perfluorohexanoic acid	%	88	89				5387452
13C2-perfluorotetradecanoic acid	%	54	65				5387452
13C2-Perfluoroundecanoic acid	%	81	85				5387452
13C4-Perfluoroheptanoic acid	%	92	90				5387452
13C4-Perfluorooctanesulfonate	%	81	82				5387452
13C4-Perfluorooctanoic acid	%	88	95				5387452
13C5-Perfluorononanoic acid	%	90	92				5387452
18O2-Perfluorohexanesulfonate	%	90	84				5387452
D3-MeFOSAA	%	80	80				5387452
D5-EtFOSAA	%	82	79				5387452

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH324		FZH325				
Sampling Date		2018/01/24 15:42		2018/01/24 16:43				
COC Number		3182		3182				
	UNITS	CEF-008-TW02-0118	LOQ	CEF-008-TW01-0118	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters								
EtFOSAA	ng/L	100 U (1)	200	100 U (1)	33	100	200	5389177
MeFOSAA	ng/L	100 U (1)	200	100 U (1)	29	100	200	5389177
Perfluorobutane Sulfonate (PFBS)	ng/L	130 J (1)	200	190 J (1)	54	150	200	5389177
Perfluoroheptanoic Acid (PFHpA)	ng/L	1000 (1)	200	2000 (1)	74	150	200	5389177
Perfluorohexanoic Acid (PFHxA)	ng/L	1300 (1)	200	2600 (1)	35	100	200	5389177
Perfluorohexane Sulfonate (PFHxS)	ng/L	2200 (1)	200	12000 (2)	56	150	2000	5389177
Perfluorononanoic Acid (PFNA)	ng/L	180 J (1)	200	900 (1)	87	180	200	5389177
Perfluorotetradecanoic Acid	ng/L	100 U (1)	200	100 U (1)	27	100	200	5389177
Perfluorotridecanoic Acid	ng/L	100 U (1)	200	100 U (1)	38	100	200	5389177
Perfluoroundecanoic Acid (PFUnA)	ng/L	100 U (1)	200	100 U (1)	25	100	200	5389177
Perfluorodecanoic Acid (PFDA)	ng/L	150 U (1)	200	120 J (1)	61	150	200	5389177
Perfluorododecanoic Acid (PFDoA)	ng/L	100 U (1)	200	100 U (1)	50	100	200	5389177
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	990 (1)	200	1600 (1)	33	100	200	5389177
Perfluorooctane Sulfonate (PFOS)	ng/L	21000 (2)	2000	37000 (2)	600	1500	2000	5389177
Surrogate Recovery (%)								
13C2-Perfluorodecanoic acid	%	87		84				5389177
13C2-Perfluorododecanoic acid	%	88		82				5389177
13C2-Perfluorohexanoic acid	%	104		92				5389177
13C2-perfluorotetradecanoic acid	%	78		80				5389177
13C2-Perfluoroundecanoic acid	%	91		82				5389177
13C4-Perfluoroheptanoic acid	%	106		89				5389177
13C4-Perfluorooctanesulfonate	%	109		86				5389177
13C4-Perfluorooctanoic acid	%	94		92				5389177
13C5-Perfluorononanoic acid	%	98		85				5389177
18O2-Perfluorohexanesulfonate	%	90		104				5389177
D3-MeFOSAA	%	89		87				5389177
D5-EtFOSAA	%	85		84				5389177

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).
(2) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (100x).

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RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH326	FZH327				
Sampling Date		2018/01/25 16:45	2018/01/25 16:30				
COC Number		3182	3182				
	UNITS	CEF-007-TW01-0118	CEF-007-TW02-0118	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters							
EtFOSAA	ng/L	10 U	10 U	3.3	10	20	5391181
MeFOSAA	ng/L	10 U	10 U	2.9	10	20	5391181
Perfluorobutane Sulfonate (PFBS)	ng/L	38	92	5.4	15	20	5391181
Perfluoroheptanoic Acid (PFHpA)	ng/L	36	150	7.4	15	20	5391181
Perfluorohexanoic Acid (PFHxA)	ng/L	220	750	3.5	10	20	5391181
Perfluorohexane Sulfonate (PFHxS)	ng/L	1600 (1)	3400 (1)	56	150	200	5391181
Perfluorononanoic Acid (PFNA)	ng/L	16 J	37	8.7	18	20	5391181
Perfluorotetradecanoic Acid	ng/L	10 U	10 U	2.7	10	20	5391181
Perfluorotridecanoic Acid	ng/L	10 U	10 U	3.8	10	20	5391181
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	10 U	2.5	10	20	5391181
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	74	6.1	15	20	5391181
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	10 U	5.0	10	20	5391181
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	2300 (1)	4200 (1)	33	100	200	5391181
Perfluorooctane Sulfonate (PFOS)	ng/L	1000 (1)	2300 (1)	60	150	200	5391181
Surrogate Recovery (%)							
13C2-Perfluorodecanoic acid	%	86	96				5391181
13C2-Perfluorododecanoic acid	%	83	85				5391181
13C2-Perfluorohexanoic acid	%	92	101				5391181
13C2-perfluorotetradecanoic acid	%	64	63				5391181
13C2-Perfluoroundecanoic acid	%	72	92				5391181
13C4-Perfluoroheptanoic acid	%	96	99				5391181
13C4-Perfluorooctanesulfonate	%	94	95				5391181
13C4-Perfluorooctanoic acid	%	90	98				5391181
13C5-Perfluorononanoic acid	%	86	101				5391181
18O2-Perfluorohexanesulfonate	%	105	92				5391181
D3-MeFOSAA	%	80	86				5391181
D5-EtFOSAA	%	80	81				5391181

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Due to high concentrations of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

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RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH328	FZH329	FZH330				
Sampling Date		2018/01/23 12:10	2018/01/23 14:00	2018/01/23 13:45				
COC Number		3179	3179	3179				
	UNITS	CEF-003-38S-0118	CEF-002-04S-0118	FB-CEF-002-012318-5	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters								
EtFOSAA	ng/L	10 U	10 U	10 U	3.3	10	20	5386102
MeFOSAA	ng/L	10 U	10 U	10 U	2.9	10	20	5386102
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	15 U	15 U	5.4	15	20	5386102
Perfluoroheptanoic Acid (PFHpA)	ng/L	15 J	15 U	15 U	7.4	15	20	5386102
Perfluorohexanoic Acid (PFHxA)	ng/L	17 J	10 U	10 U	3.5	10	20	5386102
Perfluorohexane Sulfonate (PFHxS)	ng/L	11 J	15 U	15 U	5.6	15	20	5386102
Perfluorononanoic Acid (PFNA)	ng/L	13 J	18 U	18 U	8.7	18	20	5386102
Perfluorotetradecanoic Acid	ng/L	10 U	10 U	10 U	2.7	10	20	5386102
Perfluorotridecanoic Acid	ng/L	10 U	10 U	10 U	3.8	10	20	5386102
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	10 U	10 U	2.5	10	20	5386102
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	15 U	15 U	6.1	15	20	5386102
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	10 U	10 U	5.0	10	20	5386102
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	31	24	10 U	3.3	10	20	5386102
Perfluorooctane Sulfonate (PFOS)	ng/L	110	20 J	15 U	6.0	15	20	5386102
Surrogate Recovery (%)								
13C2-Perfluorodecanoic acid	%	85	82	89				5386102
13C2-Perfluorododecanoic acid	%	75	79	77				5386102
13C2-Perfluorohexanoic acid	%	87	86	97				5386102
13C2-perfluorotetradecanoic acid	%	69	73	72				5386102
13C2-Perfluoroundecanoic acid	%	79	81	90				5386102
13C4-Perfluoroheptanoic acid	%	89	86	94				5386102
13C4-Perfluorooctanesulfonate	%	89	95	93				5386102
13C4-Perfluorooctanoic acid	%	87	87	88				5386102
13C5-Perfluorononanoic acid	%	82	90	99				5386102
18O2-Perfluorohexanesulfonate	%	89	101	101				5386102
D3-MeFOSAA	%	68	85	90				5386102
D5-EtFOSAA	%	68	82	86				5386102

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Analytics

Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH331					FZH332				
Sampling Date		2018/01/23 10:35					2018/01/23 10:35				
COC Number		3179					3179				
	UNITS	CEF-342-06S-0118	DL	LOD	LOQ	QC Batch	CEF-342-06S-0118-D	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters											
EtFOSAA	ng/L	20 U (1)	6.6	20	40	5387452	10 U	3.3	10	20	5387452
MeFOSAA	ng/L	20 U (1)	5.8	20	40	5387452	10 U	2.9	10	20	5387452
Perfluorobutane Sulfonate (PFBS)	ng/L	53 (1)	11	30	40	5387452	50	5.4	15	20	5387452
Perfluoroheptanoic Acid (PFHpA)	ng/L	580 (1)	15	30	40	5387452	350	7.4	15	20	5387452
Perfluorohexanoic Acid (PFHxA)	ng/L	620 (1)	7.0	20	40	5387452	410	3.5	10	20	5387452
Perfluorohexane Sulfonate (PFHxS)	ng/L	860 (1)	11	30	40	5387452	680	5.6	15	20	5387452
Perfluorononanoic Acid (PFNA)	ng/L	96 (1)	17	36	40	5387452	63	8.7	18	20	5387452
Perfluorotetradecanoic Acid	ng/L	20 U (1)	5.4	20	40	5387452	10 U	2.7	10	20	5396699
Perfluorotridecanoic Acid	ng/L	20 U (1)	7.6	20	40	5387452	10 U	3.8	10	20	5396699
Perfluoroundecanoic Acid (PFUnA)	ng/L	20 U (1)	5.0	20	40	5387452	9.6 J	2.5	10	20	5387452
Perfluorodecanoic Acid (PFDA)	ng/L	25 J (1)	12	30	40	5387452	15 J	6.1	15	20	5387452
Perfluorododecanoic Acid (PFDoA)	ng/L	20 U (1)	10	20	40	5387452	10 U	5.0	10	20	5387452
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	450 (1)	6.6	20	40	5387452	330	3.3	10	20	5387452
Perfluorooctane Sulfonate (PFOS)	ng/L	5400 (2)	120	300	400	5387452	3700 (3)	60	150	200	5387452
Surrogate Recovery (%)											
13C2-Perfluorodecanoic acid	%	94				5387452	85				5387452
13C2-Perfluorododecanoic acid	%	88				5387452	71				5387452
13C2-Perfluorohexanoic acid	%	98				5387452	88				5387452
13C2-perfluorotetradecanoic acid	%	71				5387452	93				5396699
13C2-Perfluoroundecanoic acid	%	82				5387452	79				5387452
13C4-Perfluoroheptanoic acid	%	102				5387452	94				5387452
13C4-Perfluorooctanesulfonate	%	77				5387452	88				5387452
13C4-Perfluorooctanoic acid	%	101				5387452	95				5387452
13C5-Perfluorononanoic acid	%	98				5387452	91				5387452
18O2-Perfluorohexanesulfonate	%	95				5387452	82				5387452
D3-MeFOSAA	%	88				5387452	77				5387452
D5-EtFOSAA	%	83				5387452	75				5387452

DL = Detection Limit

LOD = Limit of Detection

LOQ = Limit of Quantitation

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x).

(2) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (20x).

(3) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

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Maxxam Analytics

Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH333					FZH334				
Sampling Date		2018/01/23 11:37					2018/01/23 13:10				
COC Number		3179					3179				
	UNITS	CEF-342-12S-0118	DL	LOD	LOQ	QC Batch	CEF-013-03S-0118	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters											
EtFOSAA	ng/L	100 U (1)	33	100	200	5387452	100 U (2)	33	100	200	5387452
MeFOSAA	ng/L	100 U (1)	29	100	200	5387452	100 U (2)	29	100	200	5387452
Perfluorobutane Sulfonate (PFBS)	ng/L	72 J (1)	54	150	200	5387452	150 U (2)	54	150	200	5387452
Perfluoroheptanoic Acid (PFHpA)	ng/L	7000 (1)	74	150	200	5387452	150 U (2)	74	150	200	5387452
Perfluorohexanoic Acid (PFHxA)	ng/L	4400 (1)	35	100	200	5387452	100 U (2)	35	100	200	5387452
Perfluorohexane Sulfonate (PFHxS)	ng/L	3500 (1)	56	150	200	5387452	150 U (2)	56	150	200	5387452
Perfluorononanoic Acid (PFNA)	ng/L	1200 (1)	87	180	200	5387452	180 U (2)	87	180	200	5387452
Perfluorotetradecanoic Acid	ng/L	100 U (1)	27	100	200	5387452	100 U (2)	27	100	200	5396699
Perfluorotridecanoic Acid	ng/L	100 U (1)	38	100	200	5387452	100 U (2)	38	100	200	5396699
Perfluoroundecanoic Acid (PFUnA)	ng/L	100 U (1)	25	100	200	5387452	100 U (2)	25	100	200	5387452
Perfluorodecanoic Acid (PFDA)	ng/L	150 U (1)	61	150	200	5387452	150 U (2)	61	150	200	5387452
Perfluorododecanoic Acid (PFDoA)	ng/L	100 U (1)	50	100	200	5387452	100 U (2)	50	100	200	5387452
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	5700 (1)	33	100	200	5387452	110 J (2)	33	100	200	5387452
Perfluorooctane Sulfonate (PFOS)	ng/L	60000 (3)	600	1500	2000	5387452	150 U (2)	60	150	200	5387452
Surrogate Recovery (%)											
13C2-Perfluorodecanoic acid	%	99				5387452	80				5387452
13C2-Perfluorododecanoic acid	%	95				5387452	62				5387452
13C2-Perfluorohexanoic acid	%	93				5387452	86				5387452
13C2-perfluorotetradecanoic acid	%	86				5387452	57				5396699
13C2-Perfluoroundecanoic acid	%	96				5387452	76				5387452
13C4-Perfluoroheptanoic acid	%	101				5387452	89				5387452
13C4-Perfluorooctanesulfonate	%	94				5387452	73				5387452
13C4-Perfluorooctanoic acid	%	97				5387452	94				5387452
13C5-Perfluorononanoic acid	%	95				5387452	79				5387452
18O2-Perfluorohexanesulfonate	%	99				5387452	85				5387452
D3-MeFOSAA	%	98				5387452	74				5387452
D5-EtFOSAA	%	99				5387452	73				5387452

DL = Detection Limit

LOD = Limit of Detection

LOQ = Limit of Quantitation

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

(2) Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

(3) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (100x).

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Maxxam Analytics

Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH334					FZH335				
Sampling Date		2018/01/23 13:10					2018/01/23 10:32				
COC Number		3179					3179				
	UNITS	CEF-013-03S-0118 Lab-Dup	DL	LOD	LOQ	QC Batch	FB-CEF-342-012318-4	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters											
EtFOSAA	ng/L	100 U (1)	33	100	200	5387452	10 U	3.3	10	20	5386102
MeFOSAA	ng/L	100 U (1)	29	100	200	5387452	10 U	2.9	10	20	5386102
Perfluorobutane Sulfonate (PFBS)	ng/L	150 U (1)	54	150	200	5387452	15 U	5.4	15	20	5386102
Perfluoroheptanoic Acid (PFHpA)	ng/L	150 U (1)	74	150	200	5387452	15 U	7.4	15	20	5386102
Perfluorohexanoic Acid (PFHxA)	ng/L	100 U (1)	35	100	200	5387452	10 U	3.5	10	20	5386102
Perfluorohexane Sulfonate (PFHxS)	ng/L	150 U (1)	56	150	200	5387452	15 U	5.6	15	20	5386102
Perfluorononanoic Acid (PFNA)	ng/L	180 U (1)	87	180	200	5387452	18 U	8.7	18	20	5386102
Perfluorotetradecanoic Acid	ng/L	N/A	27	100	200	5396699	10 U	2.7	10	20	5386102
Perfluorotridecanoic Acid	ng/L	N/A	38	100	200	5396699	10 U	3.8	10	20	5386102
Perfluoroundecanoic Acid (PFUnA)	ng/L	100 U (1)	25	100	200	5387452	10 U	2.5	10	20	5386102
Perfluorodecanoic Acid (PFDA)	ng/L	150 U (1)	61	150	200	5387452	15 U	6.1	15	20	5386102
Perfluorododecanoic Acid (PFDoA)	ng/L	100 U (1)	50	100	200	5387452	10 U	5.0	10	20	5386102
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	130 J (1)	33	100	200	5387452	10 U	3.3	10	20	5386102
Perfluorooctane Sulfonate (PFOS)	ng/L	150 U (1)	60	150	200	5387452	15 U	6.0	15	20	5386102
Surrogate Recovery (%)											
13C2-Perfluorodecanoic acid	%	81				5387452	97				5386102
13C2-Perfluorododecanoic acid	%	60				5387452	86				5386102
13C2-Perfluorohexanoic acid	%	85				5387452	103				5386102
13C2-perfluorotetradecanoic acid	%	N/A				5396699	81				5386102
13C2-Perfluoroundecanoic acid	%	71				5387452	102				5386102
13C4-Perfluoroheptanoic acid	%	92				5387452	98				5386102
13C4-Perfluorooctanesulfonate	%	81				5387452	103				5386102
13C4-Perfluorooctanoic acid	%	87				5387452	103				5386102
13C5-Perfluorononanoic acid	%	81				5387452	95				5386102
18O2-Perfluorohexanesulfonate	%	83				5387452	100				5386102
D3-MeFOSAA	%	72				5387452	89				5386102
D5-EtFOSAA	%	72				5387452	90				5386102

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

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Maxxam Analytics

Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH337		FZH338	FZH339				
Sampling Date		2018/01/22 12:00		2018/01/22 13:00	2018/01/22 13:00				
COC Number		3178		3178	3178				
	UNITS	CEF-076-109S-0118	QC Batch	CEF-372-08-0118	CEF-372-08-0118-D	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters									
EtFOSAA	ng/L	10 U	5396714	10 U	10 U	3.3	10	20	5396699
MeFOSAA	ng/L	10 U	5396714	10 U	10 U	2.9	10	20	5396699
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	5383485	5.8 J	5.8 J	5.4	15	20	5383466
Perfluoroheptanoic Acid (PFHpA)	ng/L	15 U	5383485	15 U	15 U	7.4	15	20	5383466
Perfluorohexanoic Acid (PFHxA)	ng/L	10 U	5383485	11 J	11 J	3.5	10	20	5383466
Perfluorohexane Sulfonate (PFHxS)	ng/L	7.2 J	5383485	19 J	20	5.6	15	20	5383466
Perfluorononanoic Acid (PFNA)	ng/L	18 U	5383485	18 U	18 U	8.7	18	20	5383466
Perfluorotetradecanoic Acid	ng/L	10 U	5396714	10 U	10 U	2.7	10	20	5396699
Perfluorotridecanoic Acid	ng/L	10 U	5383485	10 U	10 U	3.8	10	20	5396699
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	5396714	10 U	10 U	2.5	10	20	5383466
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	5383485	15 U	15 U	6.1	15	20	5383466
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	5396714	10 U	10 U	5.0	10	20	5396699
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	10 U	5383485	10 U	10 U	3.3	10	20	5383466
Perfluorooctane Sulfonate (PFOS)	ng/L	15 U	5383485	15 U	7.3 J	6.0	15	20	5383466
Surrogate Recovery (%)									
13C2-Perfluorodecanoic acid	%	99	5383485	90	112				5383466
13C2-Perfluorododecanoic acid	%	105	5396714	114	104				5396699
13C2-Perfluorohexanoic acid	%	100	5383485	98	105				5383466
13C2-perfluorotetradecanoic acid	%	80	5383485	83	86				5396699
13C2-Perfluoroundecanoic acid	%	107	5396714	86	108				5383466
13C4-Perfluoroheptanoic acid	%	104	5383485	100	114				5383466
13C4-Perfluorooctanesulfonate	%	107	5383485	92	113				5383466
13C4-Perfluorooctanoic acid	%	106	5383485	100	113				5383466
13C5-Perfluorononanoic acid	%	108	5383485	104	106				5383466
18O2-Perfluorohexanesulfonate	%	99	5383485	100	116				5383466
D3-MeFOSAA	%	121	5396714	116	114				5396699
D5-EtFOSAA	%	112	5396714	115	108				5396699

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH340	FZH341	FZH342				
Sampling Date		2018/01/22 14:35	2018/01/22 15:43	2018/01/22 15:48				
COC Number		3178	3178	3178				
	UNITS	CEF-003-28S-0118	FB-CEF-016-012218-2	CEF-016-07S-0118	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters								
EtFOSAA	ng/L	10 U	10 U	10 U	3.3	10	20	5396699
MeFOSAA	ng/L	10 U	10 U	10 U	2.9	10	20	5396699
Perfluorobutane Sulfonate (PFBS)	ng/L	8.3 J	15 U	5.5 J	5.4	15	20	5383466
Perfluoroheptanoic Acid (PFHpA)	ng/L	38	15 U	14 J	7.4	15	20	5383466
Perfluorohexanoic Acid (PFHxA)	ng/L	33	10 U	21	3.5	10	20	5383466
Perfluorohexane Sulfonate (PFHxS)	ng/L	35	15 U	13 J	5.6	15	20	5383466
Perfluorononanoic Acid (PFNA)	ng/L	21	18 U	18 U	8.7	18	20	5383466
Perfluorotetradecanoic Acid	ng/L	10 U	10 U	10 U	2.7	10	20	5396699
Perfluorotridecanoic Acid	ng/L	10 U	10 U	10 U	3.8	10	20	5396699
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	10 U	10 U	2.5	10	20	5383466
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	15 U	15 U	6.1	15	20	5383466
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	10 U	10 U	5.0	10	20	5396699
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	120	10 U	10 J	3.3	10	20	5383466
Perfluorooctane Sulfonate (PFOS)	ng/L	170	15 U	11 J	6.0	15	20	5383466
Surrogate Recovery (%)								
13C2-Perfluorodecanoic acid	%	97	111	101				5383466
13C2-Perfluorododecanoic acid	%	106	100	101				5396699
13C2-Perfluorohexanoic acid	%	106	109	100				5383466
13C2-perfluorotetradecanoic acid	%	81	102	109				5396699
13C2-Perfluoroundecanoic acid	%	85	102	92				5383466
13C4-Perfluoroheptanoic acid	%	109	118	107				5383466
13C4-Perfluorooctanesulfonate	%	98	106	108				5383466
13C4-Perfluorooctanoic acid	%	103	109	101				5383466
13C5-Perfluorononanoic acid	%	112	110	104				5383466
18O2-Perfluorohexanesulfonate	%	111	108	94				5383466
D3-MeFOSAA	%	122	97	123				5396699
D5-EtFOSAA	%	117	95	116				5396699

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH343		FZH344	FZH347				
Sampling Date		2018/01/22 16:15		2018/01/23 10:00	2018/01/23 10:50				
COC Number		3178		3178	3178				
	UNITS	CEF-016-17S-0118	QC Batch	FB-CEF-003-012318-3	CEF-003-04S-0118	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters									
EtFOSAA	ng/L	10 U	5396699	10 U	10 U	3.3	10	20	5386102
MeFOSAA	ng/L	10 U	5396699	10 U	10 U	2.9	10	20	5386102
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	5383466	15 U	15 U	5.4	15	20	5386102
Perfluoroheptanoic Acid (PFHpA)	ng/L	38	5383466	15 U	13 J	7.4	15	20	5386102
Perfluorohexanoic Acid (PFHxA)	ng/L	29	5383466	10 U	14 J	3.5	10	20	5386102
Perfluorohexane Sulfonate (PFHxS)	ng/L	11 J	5383466	15 U	9.8 J	5.6	15	20	5386102
Perfluorononanoic Acid (PFNA)	ng/L	14 J	5383466	18 U	18 U	8.7	18	20	5386102
Perfluorotetradecanoic Acid	ng/L	10 U	5396699	10 U	10 U	2.7	10	20	5386102
Perfluorotridecanoic Acid	ng/L	10 U	5396699	10 U	10 U	3.8	10	20	5386102
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	5383466	10 U	10 U	2.5	10	20	5386102
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	5383466	15 U	15 U	6.1	15	20	5386102
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	5396699	10 U	10 U	5.0	10	20	5386102
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	33	5383466	10 U	31	3.3	10	20	5386102
Perfluorooctane Sulfonate (PFOS)	ng/L	59	5383466	15 U	21	6.0	15	20	5386102
Surrogate Recovery (%)									
13C2-Perfluorodecanoic acid	%	101	5383466	99	68				5386102
13C2-Perfluorododecanoic acid	%	84	5396699	84	68				5386102
13C2-Perfluorohexanoic acid	%	109	5383466	104	75				5386102
13C2-perfluorotetradecanoic acid	%	76	5396699	77	65				5386102
13C2-Perfluoroundecanoic acid	%	99	5383466	90	70				5386102
13C4-Perfluoroheptanoic acid	%	113	5383466	99	69				5386102
13C4-Perfluorooctanesulfonate	%	101	5383466	100	78				5386102
13C4-Perfluorooctanoic acid	%	117	5383466	99	71				5386102
13C5-Perfluorononanoic acid	%	118	5383466	96	73				5386102
18O2-Perfluorohexanesulfonate	%	109	5383466	98	87				5386102
D3-MeFOSAA	%	95	5396699	85	74				5386102
D5-EtFOSAA	%	93	5396699	86	72				5386102

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N/A = Not Applicable

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RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH348				
Sampling Date		2018/01/23 10:50				
COC Number		3178				
	UNITS	CEF-003-04S-0118-D	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters						
EtFOSAA	ng/L	10 U	3.3	10	20	5386102
MeFOSAA	ng/L	10 U	2.9	10	20	5386102
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	5.4	15	20	5386102
Perfluoroheptanoic Acid (PFHpA)	ng/L	11 J	7.4	15	20	5386102
Perfluorohexanoic Acid (PFHxA)	ng/L	13 J	3.5	10	20	5386102
Perfluorohexane Sulfonate (PFHxS)	ng/L	7.8 J	5.6	15	20	5386102
Perfluorononanoic Acid (PFNA)	ng/L	18 U	8.7	18	20	5386102
Perfluorotetradecanoic Acid	ng/L	10 U	2.7	10	20	5386102
Perfluorotridecanoic Acid	ng/L	10 U	3.8	10	20	5386102
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	2.5	10	20	5386102
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	6.1	15	20	5386102
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	5.0	10	20	5386102
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	23	3.3	10	20	5386102
Perfluorooctane Sulfonate (PFOS)	ng/L	17 J	6.0	15	20	5386102
Surrogate Recovery (%)						
13C2-Perfluorodecanoic acid	%	80				5386102
13C2-Perfluorododecanoic acid	%	72				5386102
13C2-Perfluorohexanoic acid	%	77				5386102
13C2-perfluorotetradecanoic acid	%	67				5386102
13C2-Perfluoroundecanoic acid	%	76				5386102
13C4-Perfluoroheptanoic acid	%	87				5386102
13C4-Perfluorooctanesulfonate	%	87				5386102
13C4-Perfluorooctanoic acid	%	82				5386102
13C5-Perfluorononanoic acid	%	83				5386102
18O2-Perfluorohexanesulfonate	%	82				5386102
D3-MeFOSAA	%	84				5386102
D5-EtFOSAA	%	82				5386102

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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TEST SUMMARY

Maxxam ID: FZH306 **Collected:** 2018/01/25
Sample ID: CEF-002-06S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5390275	2018/02/08	2018/02/10	Marian Godax

Maxxam ID: FZH307 **Collected:** 2018/01/25
Sample ID: EB-CEF-007-012518-8 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5390275	2018/02/08	2018/02/10	Marian Godax

Maxxam ID: FZH308 **Collected:** 2018/01/25
Sample ID: EB-CEF-007-012518-9 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5390275	2018/02/08	2018/02/10	Marian Godax

Maxxam ID: FZH309 **Collected:** 2018/01/25
Sample ID: EB-CEF-007-012518-10 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5390275	2018/02/08	2018/02/10	Marian Godax

Maxxam ID: FZH310 **Collected:** 2018/01/25
Sample ID: FB-CEF-007-012518-8 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5390275	2018/02/08	2018/02/10	Marian Godax

Maxxam ID: FZH311 **Collected:** 2018/01/25
Sample ID: CEF-013-12S-0118-D **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5390275	2018/02/08	2018/02/10	Marian Godax

Maxxam ID: FZH312 **Collected:** 2018/01/25
Sample ID: CEF-013-12S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5390275	2018/02/08	2018/02/10	Marian Godax

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TEST SUMMARY

Maxxam ID: FZH313 **Collected:** 2018/01/25
Sample ID: FB-CEF-013-012518-7 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5390275	2018/02/08	2018/02/10	Marian Godax

Maxxam ID: FZH314 **Collected:** 2018/01/25
Sample ID: FB-CEF-860-012518-9 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5390275	2018/02/08	2018/02/10	Marian Godax

Maxxam ID: FZH318 **Collected:** 2018/01/24
Sample ID: FB-CEF-008-012418-6 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5387452	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH321 **Collected:** 2018/01/24
Sample ID: EB-CEF-008-012418-5 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5387452	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH322 **Collected:** 2018/01/24
Sample ID: EB-CEF-008-012418-6 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5387452	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH323 **Collected:** 2018/01/24
Sample ID: EB-CEF-008-012418-7 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5387452	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH324 **Collected:** 2018/01/24
Sample ID: CEF-008-TW02-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5389177	2018/02/07	2018/02/09	Marian Godax

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TEST SUMMARY

Maxxam ID: FZH325 **Collected:** 2018/01/24
Sample ID: CEF-008-TW01-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5389177	2018/02/07	2018/02/08	Marian Godax

Maxxam ID: FZH326 **Collected:** 2018/01/25
Sample ID: CEF-007-TW01-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5391181	2018/02/08	2018/02/09	Marian Godax

Maxxam ID: FZH327 **Collected:** 2018/01/25
Sample ID: CEF-007-TW02-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5391181	2018/02/08	2018/02/09	Marian Godax

Maxxam ID: FZH328 **Collected:** 2018/01/23
Sample ID: CEF-003-38S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5386102	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH329 **Collected:** 2018/01/23
Sample ID: CEF-002-04S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5386102	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH330 **Collected:** 2018/01/23
Sample ID: FB-CEF-002-012318-5 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5386102	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH331 **Collected:** 2018/01/23
Sample ID: CEF-342-06S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5387452	2018/02/06	2018/02/08	Marian Godax

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

TEST SUMMARY

Maxxam ID: FZH332 **Collected:** 2018/01/23
Sample ID: CEF-342-06S-0118-D **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5387452	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH333 **Collected:** 2018/01/23
Sample ID: CEF-342-12S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5387452	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH334 **Collected:** 2018/01/23
Sample ID: CEF-013-03S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5387452	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH334 Dup **Collected:** 2018/01/23
Sample ID: CEF-013-03S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5387452	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH335 **Collected:** 2018/01/23
Sample ID: FB-CEF-342-012318-4 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5386102	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH337 **Collected:** 2018/01/22
Sample ID: CEF-076-109S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5396714	2018/02/13	2018/02/15	Anjan Desai

Maxxam ID: FZH338 **Collected:** 2018/01/22
Sample ID: CEF-372-08-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5396699	2018/02/13	2018/02/15	Anjan Desai

TEST SUMMARY

Maxxam ID: FZH339 **Collected:** 2018/01/22
Sample ID: CEF-372-08-0118-D **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5396699	2018/02/13	2018/02/15	Anjan Desai

Maxxam ID: FZH340 **Collected:** 2018/01/22
Sample ID: CEF-003-28S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5396699	2018/02/13	2018/02/15	Anjan Desai

Maxxam ID: FZH341 **Collected:** 2018/01/22
Sample ID: FB-CEF-016-012218-2 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5396699	2018/02/13	2018/02/15	Anjan Desai

Maxxam ID: FZH342 **Collected:** 2018/01/22
Sample ID: CEF-016-07S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5396699	2018/02/13	2018/02/15	Anjan Desai

Maxxam ID: FZH343 **Collected:** 2018/01/22
Sample ID: CEF-016-17S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5396699	2018/02/13	2018/02/15	Anjan Desai

Maxxam ID: FZH344 **Collected:** 2018/01/23
Sample ID: FB-CEF-003-012318-3 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5386102	2018/02/06	2018/02/08	Marian Godax

Maxxam ID: FZH347 **Collected:** 2018/01/23
Sample ID: CEF-003-04S-0118 **Shipped:**
Matrix: Water **Received:** 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5386102	2018/02/06	2018/02/08	Marian Godax

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

TEST SUMMARY

Maxxam ID: FZH348
Sample ID: CEF-003-04S-0118-D
Matrix: Water

Collected: 2018/01/23
Shipped:
Received: 2018/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water by SPE/LCMS	LCMS	5386102	2018/02/06	2018/02/08	Marian Godax

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.2°C

Revised Report (2018/03/02): Including results for FB samples. Correction to report results for FZH338, FZH339, FZH340, FZH342, FZH343 (PFuNA, PFTrDA) from the correct analytical batch. Extraction date corrected for batch 5386102.
Results reported in ng/L as per client request.

Revised Report (2018/03/09): Sample FZH334 ID updated to "CEF-013-03S-0118" as per client request. Including results for EB samples.

Sample FZH332, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH334, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH337, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH338, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH339, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH340, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH341, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH342, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH343, PFOS and PFOA in water by SPE/LCMS: Test repeated.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
5383466	M_G	Matrix Spike	13C2-Perfluorodecanoic acid	2018/02/06		85	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/06		92	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/06		87	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/06		102	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/06		101	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/06		97	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/06		100	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/06		104	%	50 - 150
			Perfluorobutane Sulfonate (PFBS)	2018/02/06		83	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06		87	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/06		92	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06		88	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/06		93	%	72 - 131
			Perfluoroundecanoic Acid (PFUnA)	2018/02/06		96	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/06		102	%	71 - 133
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06		96	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/06		95	%	72 - 131
5383466	M_G	Matrix Spike DUP	13C2-Perfluorodecanoic acid	2018/02/06		104	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/06		97	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/06		97	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/06		103	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/06		99	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/06		105	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/06		101	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/06		102	%	50 - 150
			Perfluorobutane Sulfonate (PFBS)	2018/02/06		96	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06		94	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/06		93	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06		96	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/06		97	%	72 - 131
			Perfluoroundecanoic Acid (PFUnA)	2018/02/06		102	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/06		95	%	71 - 133
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06		94	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/06		109	%	72 - 131
5383466	M_G	MS/MSD RPD	Perfluorobutane Sulfonate (PFBS)	2018/02/06	14		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06	8.1		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/06	0.89		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06	8.8		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/06	3.5		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/06	5.8		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/06	7.3		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06	2.1		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/06	13		%	30
5383466	M_G	Spiked Blank	13C2-Perfluorodecanoic acid	2018/02/06		103	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/06		90	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/06		122	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/06		92	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/06		88	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/06		90	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/06		97	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/06		89	%	50 - 150
			Perfluorobutane Sulfonate (PFBS)	2018/02/06		100	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06		94	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/06		89	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06		97	%	67 - 132

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorononanoic Acid (PFNA)	2018/02/06		93	%	72 - 131
			Perfluoroundecanoic Acid (PFUnA)	2018/02/06		72	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/06		83	%	71 - 133
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06		97	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/06		101	%	72 - 131
5383466	M_G	Method Blank	13C2-Perfluorodecanoic acid	2018/02/06		85	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/06		106	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/06		55	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/06		109	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/06		104	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/06		107	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/06		104	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/06		104	%	50 - 150
			Perfluorobutane Sulfonate (PFBS)	2018/02/06	15 U, LOD=15		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06	15 U, LOD=15		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/02/06	10 U, LOD=10		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06	15 U, LOD=15		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/02/06	18 U, LOD=18		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/02/06	10 U, LOD=10		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/02/06	15 U, LOD=15		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06	10 U, LOD=10		ng/L	
			Perfluorooctane Sulfonate (PFOS)	2018/02/06	15 U, LOD=15		ng/L	
5383485	M_G	Matrix Spike(FZH337)	13C2-Perfluorodecanoic acid	2018/02/06		99	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/06		110	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/06		95	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/06		116	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/06		117	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/06		119	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/06		115	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/06		124	%	50 - 150
			Perfluorobutane Sulfonate (PFBS)	2018/02/06		83	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06		92	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/06		90	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06		86	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/06		93	%	72 - 131
			Perfluorotridecanoic Acid	2018/02/06		92	%	67 - 143
			Perfluorodecanoic Acid (PFDA)	2018/02/06		100	%	71 - 133
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06		90	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/06		95	%	72 - 131
5383485	M_G	Matrix Spike DUP(FZH337)	13C2-Perfluorodecanoic acid	2018/02/06		88	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/06		93	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/06		74	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/06		100	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/06		87	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/06		97	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/06		93	%	50 - 150

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			18O2-Perfluorohexanesulfonate	2018/02/06		98	%	50 - 150
			Perfluorobutane Sulfonate (PFBS)	2018/02/06		100	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06		94	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/06		101	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06		97	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/06		106	%	72 - 131
			Perfluorotridecanoic Acid	2018/02/06		109	%	67 - 143
			Perfluorodecanoic Acid (PFDA)	2018/02/06		98	%	71 - 133
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06		99	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/06		114	%	72 - 131
5383485	M_G	MS/MSD RPD	Perfluorobutane Sulfonate (PFBS)	2018/02/06	18		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06	1.9		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/06	11		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06	12		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/06	13		%	30
			Perfluorotridecanoic Acid	2018/02/06	17		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/06	2.0		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06	9.6		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/06	18		%	30
5386102	M_G	Matrix Spike(FZH347)	13C2-Perfluorodecanoic acid	2018/02/08		80	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/08		70	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/08		84	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/08		43 (1)	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/08		74	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/08		82	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/08		86	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/08		85	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/08		86	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/08		85	%	50 - 150
			D3-MeFOSAA	2018/02/08		78	%	50 - 150
			D5-EtFOSAA	2018/02/08		82	%	50 - 150
			EtFOSAA	2018/02/08		95	%	73 - 128
			MeFOSAA	2018/02/08		102	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/08		112	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08		98	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/08		96	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08		104	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/08		95	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/08		155 (2)	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/08		158 (2)	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08		98	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/08		98	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/08		106	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08		92	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/08		91	%	72 - 131
5386102	M_G	Matrix Spike DUP(FZH347)	13C2-Perfluorodecanoic acid	2018/02/08		77	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/08		75	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/08		84	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/08		66	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/08		75	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/08		84	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/08		91	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/08		81	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/08		75	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/08		103	%	50 - 150

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			D3-MeFOSAA	2018/02/08		76	%	50 - 150
			D5-EtFOSAA	2018/02/08		75	%	50 - 150
			EtFOSAA	2018/02/08		104	%	73 - 128
			MeFOSAA	2018/02/08		100	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/08		101	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08		98	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/08		99	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08		91	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/08		104	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/08		105	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/08		112	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08		101	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/08		100	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/08		93	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08		96	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/08		87	%	72 - 131
5386102	M_G	MS/MSD RPD	EtFOSAA	2018/02/08	9.1		%	30
			MeFOSAA	2018/02/08	1.8		%	30
			Perfluorobutane Sulfonate (PFBS)	2018/02/08	11		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08	0.038		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/08	3.0		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08	13		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/08	9.4		%	30
			Perfluorotetradecanoic Acid	2018/02/08	38 (3)		%	30
			Perfluorotridecanoic Acid	2018/02/08	34 (3)		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08	3.2		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/08	2.3		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/02/08	13		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08	4.0		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/08	4.7		%	30
5386102	M_G	Spiked Blank	13C2-Perfluorodecanoic acid	2018/02/08		64	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/08		59	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/08		77	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/08		63	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/08		66	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/08		76	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/08		71	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/08		71	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/08		72	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/08		73	%	50 - 150
			D3-MeFOSAA	2018/02/08		68	%	50 - 150
			D5-EtFOSAA	2018/02/08		69	%	50 - 150
			EtFOSAA	2018/02/08		98	%	73 - 128
			MeFOSAA	2018/02/08		98	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/08		117	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08		98	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/08		97	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08		110	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/08		106	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/08		102	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/08		104	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08		97	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/08		111	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/08		113	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08		105	%	71 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorooctane Sulfonate (PFOS)	2018/02/08		103	%	72 - 131
5386102	M_G	Method Blank	13C2-Perfluorodecanoic acid	2018/02/08		58	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/08		58	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/08		71	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/08		54	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/08		62	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/08		67	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/08		74	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/08		65	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/08		63	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/08		72	%	50 - 150
			D3-MeFOSAA	2018/02/08		61	%	50 - 150
			D5-EtFOSAA	2018/02/08		59	%	50 - 150
			EtFOSAA	2018/02/08	10 U, LOD=10		ng/L	
			MeFOSAA	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorobutane Sulfonate (PFBS)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/02/08	18 U, LOD=18		ng/L	
			Perfluorotetradecanoic Acid	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorotridecanoic Acid	2018/02/08	10 U, LOD=10		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluorododecanoic Acid (PFDoA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorooctane Sulfonate (PFOS)	2018/02/08	15 U, LOD=15		ng/L	
5387452	M_G	Spiked Blank	13C2-Perfluorodecanoic acid	2018/02/08		89	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/08		86	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/08		88	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/08		78	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/08		88	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/08		100	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/08		91	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/08		97	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/08		88	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/08		89	%	50 - 150
			D3-MeFOSAA	2018/02/08		86	%	50 - 150
			D5-EtFOSAA	2018/02/08		85	%	50 - 150
			EtFOSAA	2018/02/08		88	%	73 - 128
			MeFOSAA	2018/02/08		88	%	77 - 127

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorobutane Sulfonate (PFBS)	2018/02/08		78	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08		86	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/08		92	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08		79	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/08		96	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/08		93	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/08		88	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08		95	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/08		94	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/08		89	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08		86	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/08		82	%	72 - 131
5387452	M_G	Method Blank	13C2-Perfluorodecanoic acid	2018/02/08		80	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/08		75	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/08		90	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/08		72	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/08		77	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/08		91	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/08		82	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/08		95	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/08		86	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/08		84	%	50 - 150
			D3-MeFOSAA	2018/02/08		75	%	50 - 150
			D5-EtFOSAA	2018/02/08		78	%	50 - 150
			EtFOSAA	2018/02/08	10 U, LOD=10		ng/L	
			MeFOSAA	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorobutane Sulfonate (PFBS)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/02/08	18 U, LOD=18		ng/L	
			Perfluorotetradecanoic Acid	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorotridecanoic Acid	2018/02/08	10 U, LOD=10		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluorododecanoic Acid (PFDoA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorooctane Sulfonate (PFOS)	2018/02/08	15 U, LOD=15		ng/L	
5387452	M_G	RPD - Sample/Sample Dup	EtFOSAA	2018/02/08	NC (4)		%	30
			MeFOSAA	2018/02/08	NC (4)		%	30
			Perfluorobutane Sulfonate (PFBS)	2018/02/08	NC (4)		%	30

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08	NC (4)		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/08	NC (4)		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08	NC (4)		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/08	NC (4)		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08	NC (4)		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/08	NC (4)		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/02/08	NC (4)		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08	NC (4)		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/08	NC (4)		%	30
5389177	M_G	Spiked Blank	13C2-Perfluorodecanoic acid	2018/02/09		86	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		80	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		87	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		78	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		92	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		87	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		82	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		84	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		86	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		84	%	50 - 150
			D3-MeFOSAA	2018/02/09		81	%	50 - 150
			D5-EtFOSAA	2018/02/09		76	%	50 - 150
			EtFOSAA	2018/02/09		100	%	73 - 128
			MeFOSAA	2018/02/09		92	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/09		101	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09		94	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/09		95	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09		98	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/09		97	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/09		100	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/09		103	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09		98	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/09		100	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/09		98	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09		101	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/09		96	%	72 - 131
5389177	M_G	Spiked Blank DUP	13C2-Perfluorodecanoic acid	2018/02/09		91	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		80	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		98	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		76	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		91	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		94	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		89	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		94	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		90	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		91	%	50 - 150
			D3-MeFOSAA	2018/02/09		82	%	50 - 150
			D5-EtFOSAA	2018/02/09		77	%	50 - 150
			EtFOSAA	2018/02/09		101	%	73 - 128
			MeFOSAA	2018/02/09		91	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/09		102	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09		95	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/09		94	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09		96	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/09		102	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/09		103	%	70 - 134

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorotridecanoic Acid	2018/02/09		102	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09		98	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/09		97	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/09		96	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09		98	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/09		93	%	72 - 131
5389177	M_G	RPD	EtFOSAA	2018/02/09	1.6		%	30
			MeFOSAA	2018/02/09	1.6		%	30
			Perfluorobutane Sulfonate (PFBS)	2018/02/09	0.84		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09	0.67		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/09	1.8		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09	2.1		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/09	5.8		%	30
			Perfluorotetradecanoic Acid	2018/02/09	2.6		%	30
			Perfluorotridecanoic Acid	2018/02/09	0.74		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09	0.62		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/09	3.0		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/02/09	2.0		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09	2.7		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/09	2.8		%	30
5389177	M_G	Method Blank	13C2-Perfluorodecanoic acid	2018/02/09		79	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		76	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		92	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		80	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		78	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		93	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		86	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		96	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		87	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		93	%	50 - 150
			D3-MeFOSAA	2018/02/09		76	%	50 - 150
			D5-EtFOSAA	2018/02/09		72	%	50 - 150
			EtFOSAA	2018/02/09	10 U, LOD=10		ng/L	
			MeFOSAA	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorobutane Sulfonate (PFBS)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/02/09	18 U, LOD=18		ng/L	
			Perfluorotetradecanoic Acid	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorotridecanoic Acid	2018/02/09	10 U, LOD=10		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/02/09	15 U, LOD=15		ng/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorododecanoic Acid (PFDoA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorooctane Sulfonate (PFOS)	2018/02/09	15 U, LOD=15		ng/L	
5390275	M_G	Spiked Blank	13C2-Perfluorodecanoic acid	2018/02/10		112	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/10		110	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/10		115	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/10		101	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/10		105	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/10		116	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/10		111	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/10		114	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/10		113	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/10		114	%	50 - 150
			D3-MeFOSAA	2018/02/10		91	%	50 - 150
			D5-EtFOSAA	2018/02/10		98	%	50 - 150
			EtFOSAA	2018/02/10		99	%	73 - 128
			MeFOSAA	2018/02/10		100	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/10		99	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/10		95	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/10		97	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/10		91	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/10		99	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/10		97	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/10		100	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/10		108	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/10		94	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/10		92	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/10		97	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/10		93	%	72 - 131
5390275	M_G	Spiked Blank DUP	13C2-Perfluorodecanoic acid	2018/02/10		102	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/10		93	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/10		105	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/10		86	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/10		90	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/10		104	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/10		90	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/10		98	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/10		104	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/10		99	%	50 - 150
			D3-MeFOSAA	2018/02/10		87	%	50 - 150
			D5-EtFOSAA	2018/02/10		86	%	50 - 150
			EtFOSAA	2018/02/10		99	%	73 - 128
			MeFOSAA	2018/02/10		95	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/10		100	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/10		90	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/10		91	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/10		92	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/10		93	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/10		102	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/10		100	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/10		110	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/10		89	%	71 - 133

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorododecanoic Acid (PFDoA)	2018/02/10		94	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/10		100	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/10		99	%	72 - 131
5390275	M_G	RPD	EtFOSAA	2018/02/10	0.58		%	30
			MeFOSAA	2018/02/10	4.7		%	30
			Perfluorobutane Sulfonate (PFBS)	2018/02/10	1.1		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/02/10	5.6		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/10	5.8		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/10	1.1		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/10	5.8		%	30
			Perfluorotetradecanoic Acid	2018/02/10	5.5		%	30
			Perfluorotridecanoic Acid	2018/02/10	0.25		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/10	2.5		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/10	5.7		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/02/10	2.7		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/10	3.5		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/10	6.4		%	30
5390275	M_G	Method Blank	13C2-Perfluorodecanoic acid	2018/02/10		95	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/10		87	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/10		96	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/10		83	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/10		85	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/10		96	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/10		91	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/10		91	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/10		100	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/10		94	%	50 - 150
			D3-MeFOSAA	2018/02/10		81	%	50 - 150
			D5-EtFOSAA	2018/02/10		79	%	50 - 150
			EtFOSAA	2018/02/10	10 U, LOD=10		ng/L	
			MeFOSAA	2018/02/10	10 U, LOD=10		ng/L	
			Perfluorobutane Sulfonate (PFBS)	2018/02/10	15 U, LOD=15		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/02/10	15 U, LOD=15		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/02/10	10 U, LOD=10		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/02/10	15 U, LOD=15		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/02/10	18 U, LOD=18		ng/L	
			Perfluorotetradecanoic Acid	2018/02/10	10 U, LOD=10		ng/L	
			Perfluorotridecanoic Acid	2018/02/10	10 U, LOD=10		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/02/10	10 U, LOD=10		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/02/10	15 U, LOD=15		ng/L	
			Perfluorododecanoic Acid (PFDoA)	2018/02/10	10 U, LOD=10		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/10	10 U, LOD=10		ng/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorooctane Sulfonate (PFOS)	2018/02/10	15 U, LOD=15		ng/L	
5391181	M_G	Matrix Spike	13C2-Perfluorodecanoic acid	2018/02/09		88	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		72	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		96	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		46 (1)	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		82	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		95	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		81	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		92	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		94	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		96	%	50 - 150
			D3-MeFOSAA	2018/02/09		73	%	50 - 150
			D5-EtFOSAA	2018/02/09		73	%	50 - 150
			EtFOSAA	2018/02/09		94	%	70 - 130
			MeFOSAA	2018/02/09		91	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2018/02/09		95	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09		99	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/02/09		92	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09		51 (3)	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/02/09		99	%	70 - 130
			Perfluorotetradecanoic Acid	2018/02/09		93	%	70 - 130
			Perfluorotridecanoic Acid	2018/02/09		131	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09		93	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2018/02/09		91	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/02/09		92	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09		103	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/09		111	%	70 - 130
5391181	M_G	Matrix Spike DUP	13C2-Perfluorodecanoic acid	2018/02/09		81	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		65	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		96	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		38 (1)	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		71	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		91	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		89	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		95	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		90	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		101	%	50 - 150
			D3-MeFOSAA	2018/02/09		75	%	50 - 150
			D5-EtFOSAA	2018/02/09		72	%	50 - 150
			EtFOSAA	2018/02/09		97	%	70 - 130
			MeFOSAA	2018/02/09		93	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2018/02/09		94	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09		102	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/02/09		94	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09		41 (3)	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/02/09		102	%	70 - 130
			Perfluorotetradecanoic Acid	2018/02/09		104	%	70 - 130
			Perfluorotridecanoic Acid	2018/02/09		146 (2)	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09		103	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2018/02/09		94	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/02/09		100	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09		100	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/09		86	%	70 - 130
5391181	M_G	MS/MSD RPD	EtFOSAA	2018/02/09	4.0		%	30

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			MeFOSAA	2018/02/09	2.5		%	30
			Perfluorobutane Sulfonate (PFBS)	2018/02/09	1.3		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09	3.0		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/09	1.9		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09	22		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/09	2.6		%	30
			Perfluorotetradecanoic Acid	2018/02/09	11		%	30
			Perfluorotridecanoic Acid	2018/02/09	11 (2)		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09	10		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/09	3.9		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/02/09	7.8		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09	2.8		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/09	25		%	30
5391181	M_G	Spiked Blank	13C2-Perfluorodecanoic acid	2018/02/09		94	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		84	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		96	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		80	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		93	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		90	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		105	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		92	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		93	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		88	%	50 - 150
			D3-MeFOSAA	2018/02/09		81	%	50 - 150
			D5-EtFOSAA	2018/02/09		80	%	50 - 150
			EtFOSAA	2018/02/09		99	%	70 - 130
			MeFOSAA	2018/02/09		95	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2018/02/09		105	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09		103	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/02/09		89	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09		105	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/02/09		101	%	70 - 130
			Perfluorotetradecanoic Acid	2018/02/09		103	%	70 - 130
			Perfluorotridecanoic Acid	2018/02/09		107	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09		97	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2018/02/09		96	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/02/09		97	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09		104	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/09		80	%	70 - 130
5391181	M_G	Method Blank	13C2-Perfluorodecanoic acid	2018/02/09		101	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		86	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		100	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		86	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		93	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		100	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		99	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		107	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		91	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		95	%	50 - 150
			D3-MeFOSAA	2018/02/09		81	%	50 - 150
			D5-EtFOSAA	2018/02/09		88	%	50 - 150
			EtFOSAA	2018/02/09	10 U, LOD=10		ng/L	
			MeFOSAA	2018/02/09	10 U, LOD=10		ng/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorobutane Sulfonate (PFBS)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/02/09	18 U, LOD=18		ng/L	
			Perfluorotetradecanoic Acid	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorotridecanoic Acid	2018/02/09	10 U, LOD=10		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluorododecanoic Acid (PFDoA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorooctane Sulfonate (PFOS)	2018/02/09	15 U, LOD=15		ng/L	
5396699	AD9	Matrix Spike	13C2-Perfluorododecanoic acid	2018/02/15		109	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/15		103	%	50 - 150
			D3-MeFOSAA	2018/02/15		119	%	50 - 150
			D5-EtFOSAA	2018/02/15		118	%	50 - 150
			EtFOSAA	2018/02/15		82	%	73 - 128
			MeFOSAA	2018/02/15		84	%	77 - 127
			Perfluorotetradecanoic Acid	2018/02/15		86	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/15		93	%	67 - 143
			Perfluorododecanoic Acid (PFDoA)	2018/02/15		88	%	71 - 131
5396699	AD9	Matrix Spike DUP	13C2-Perfluorododecanoic acid	2018/02/15		101	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/15		90	%	50 - 150
			D3-MeFOSAA	2018/02/15		115	%	50 - 150
			D5-EtFOSAA	2018/02/15		111	%	50 - 150
			EtFOSAA	2018/02/15		87	%	73 - 128
			MeFOSAA	2018/02/15		86	%	77 - 127
			Perfluorotetradecanoic Acid	2018/02/15		95	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/15		101	%	67 - 143
			Perfluorododecanoic Acid (PFDoA)	2018/02/15		89	%	71 - 131
5396699	AD9	MS/MSD RPD	EtFOSAA	2018/02/15	5.5		%	30
			MeFOSAA	2018/02/15	3.2		%	30
			Perfluorotetradecanoic Acid	2018/02/15	9.7		%	30
			Perfluorotridecanoic Acid	2018/02/15	7.8		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/02/15	1.3		%	30
5396699	AD9	Spiked Blank	13C2-Perfluorododecanoic acid	2018/02/15		95	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/15		100	%	50 - 150
			D3-MeFOSAA	2018/02/15		97	%	50 - 150
			D5-EtFOSAA	2018/02/15		92	%	50 - 150
			EtFOSAA	2018/02/15		81	%	73 - 128
			MeFOSAA	2018/02/15		82	%	77 - 127
			Perfluorotetradecanoic Acid	2018/02/15		75	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/15		86	%	67 - 143

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorododecanoic Acid (PFDoA)	2018/02/15		89	%	71 - 131
5396699	AD9	Method Blank	13C2-Perfluorododecanoic acid	2018/02/15		69	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/15		73	%	50 - 150
			D3-MeFOSAA	2018/02/15		60	%	50 - 150
			D5-EtFOSAA	2018/02/15		58	%	50 - 150
			EtFOSAA	2018/02/15	10 U, LOD=10		ng/L	
			MeFOSAA	2018/02/15	10 U, LOD=10		ng/L	
			Perfluorotetradecanoic Acid	2018/02/15	10 U, LOD=10		ng/L	
			Perfluorotridecanoic Acid	2018/02/15	10 U, LOD=10		ng/L	
			Perfluorododecanoic Acid (PFDoA)	2018/02/15	10 U, LOD=10		ng/L	
5396714	AD9	Matrix Spike(FZH337)	13C2-Perfluorododecanoic acid	2018/02/15		103	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/15		107	%	50 - 150
			D3-MeFOSAA	2018/02/15		114	%	50 - 150
			D5-EtFOSAA	2018/02/15		112	%	50 - 150
			EtFOSAA	2018/02/15		87	%	73 - 128
			MeFOSAA	2018/02/15		87	%	77 - 127
			Perfluorotetradecanoic Acid	2018/02/15		88	%	70 - 134
			Perfluoroundecanoic Acid (PFUnA)	2018/02/15		89	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/15		92	%	71 - 131
5396714	AD9	Matrix Spike DUP(FZH337)	13C2-Perfluorododecanoic acid	2018/02/15		104	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/15		117	%	50 - 150
			D3-MeFOSAA	2018/02/15		122	%	50 - 150
			D5-EtFOSAA	2018/02/15		122	%	50 - 150
			EtFOSAA	2018/02/15		80	%	73 - 128
			MeFOSAA	2018/02/15		80	%	77 - 127
			Perfluorotetradecanoic Acid	2018/02/15		81	%	70 - 134
			Perfluoroundecanoic Acid (PFUnA)	2018/02/15		86	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/15		88	%	71 - 131
5396714	AD9	MS/MSD RPD	EtFOSAA	2018/02/15	8.0		%	30
			MeFOSAA	2018/02/15	7.3		%	30
			Perfluorotetradecanoic Acid	2018/02/15	8.4		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/15	4.3		%	30

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorododecanoic Acid (PFDoA)	2018/02/15	4.1		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Extracted internal standard analyte recovery was below the defined lower control limit (LCL). Laboratory spiked water resulted in satisfactory recovery of the extracted internal standard analyte. When considered together, these QC data suggest that matrix interferences may be biasing the data low. Because quantitation is performed using isotope dilution techniques, any losses of the native compound that may occur during any of the sample preparation, extraction, cleanup or determinative steps will be mirrored by a similar loss of the labeled standard, and as such can be accounted for and corrected. Therefore, the quantification of these target compounds is not affected by the low extracted internal standard analyte recovery.

(2) Recovery of the matrix spike was above the upper control limit. Laboratory spiked water resulted in satisfactory recovery of the compound of interest. When considered together, these QC data suggest that matrix interferences may be biasing the data high. For results that were not detected (ND), this potential bias has no impact.

(3) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(4) Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

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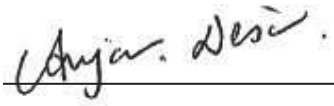
Maxxam Job #: B819794
Report Date: 2018/03/09

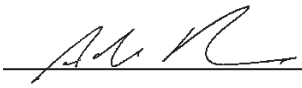
Earth Toxics Inc
Client Project #: JM10 CECIL

VALIDATION SIGNATURE PAGE

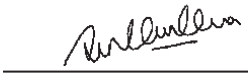
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anjan Desai, Senior Analyst, Liquid Chromatography



Adam Robinson, Supervisor, LC/MS/MS



Sin Chii Chia, Scientific Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Tetra Tech, Inc.

CHAIN OF CUSTODY | NUMBER No. 3184 | PAGE 1 OF 4

Maxxam Analytics

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
JM10	Cell	Meyon Ved		Maxxam / Stephanie
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: David Siefken	PHONE NUMBER: 905.334.7260	ADDRESS: 6740 Campobello, RD
		CARRIER/WAYBILL NUMBER: Fed-Ex		CITY, STATE: Mississauga, Ont. CANADA

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2018	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	TYPE OF ANALYSIS: PFAS	COMMENTS
1/25	1215	CEF-002-065-0118						2	P	—	x	Cool 4°C
1/25	1335	EB-CEF-007-012518-8						2			x	
1/25	1345	EB-CEF-007-012518-9						2			x	
1/25	1355	EB-CEF-007-012518-10						2			x	
1/25	1420	FB-CEF-007-012518-9						2			x	
1/25	1248	CEF-013-125-0118-D						2			x	
1/25	1249	CEF-013-125-0119-C						2			x	
1/25	1246	FB-CEF-013-012518-7						2			x	
1/25	1550	FD-CEF-860-012518-9						2			x	
1/25	1610	EB-CEF-860-012518-11						2			x	
1/25	1615	EB-CEF-860-012518-12						2			x	
1/25	1620	FB-CEF-860-012518-13						2			x	

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	1-25-18	1900	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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Tetra Tech, Inc.

CHAIN OF CUSTODY | NUMBER No. 3182 | PAGE 2 OF 4

Maxxam Analytics

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
JM10	Cecil	Meg Ueli		Maxxam / Stephanie
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
		D. Slefhen	904.334.7260	6740 Campobello Rd
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		Fed-Ex		Mississauga, Ontario, Canada

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P
PRESERVATIVE USED: —
TYPE OF ANALYSIS: PFAS ...

DATE YEAR 2018	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: PFAS ...	COMMENTS
1/24	1030	FB-CEF-008-012418-6				QC		2	x	Cool 4°C
1/24	1035	EB-CEF-PublixDI-012418-3						2	x	
1/24	1040	EB-CEF-LabChem DI-012418-4						2	x	
1/24	1240	EB-CEF-008-Screen-012418-5						2	x	
1/24	1245	EB-CEF-008-Rod-012418-6						2	x	
1/24	1250	EB-CEF-008-Tubing-012418-7						2	x	
1/24	1542	CEF-008-TW02-0117				GW		2	x	
1/24	1613	CEF-008 TW01 0118				GW		2	X	
1/25	1645	CEF-007-TW01-0118				GW		2	x	
1/25	1630	CEF-007-TW02-0118				GW		2	x	

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	1-25-18	1900	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS —

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

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CHAIN OF CUSTODY | NUMBER No. 3179 | PAGE 3 OF 4

Maxxam Analytics

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
JN10	Cell	Megan Ved		Maxxam Analytical Int / Stephanie
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
		Dave Siefken	904. 334. 7260	6740 Campobello RD
		CARRIER/WAYBILL NUMBER		CITY, STATE
		Fed Ex		Mississauga, Ontario, Canada

STANDARD TAT ☑
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2018	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	TYPE OF ANALYSIS PFOS	COMMENTS
1/23	1210	CEF-003-38s-0118						2			X	Cool 4°C
	1400	CEF-002-04s-0118						2			X	
	1345	FB-CEF-002-012318	-5					2			X	
	1035	CEF-342-06s-0118						2			X	
	1035	CEF-342-06s-0118	-D					2			X	
	1137	CEF-342-12s-0118						2			X	
	1310	CEF-013-03s-0118						6			X	
			-4								X	
5												

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	1-25-18	1700	1. RECEIVED BY		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

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Tetra Tech, Inc.

CHAIN OF CUSTODY | NUMBER No. 3178 | PAGE 4 OF 4

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
Jm10	Cecil	Megan Ved		Maxxam Analytical Int / Stephanie

SAMPLERS (SIGNATURE)	FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
	Dave Siefken	904.334.7260	6740 Campobello RD

	CARRIER/WAYBILL NUMBER	CITY, STATE
Maxxam Analytics	FED-EX	Mississauga, Ontario Canada

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2018	TIME	FB SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	PRESERVATIVE USED	TYPE OF ANALYSIS PFOS								COMMENTS
									P	—									
1/22	1145	CEF-NFF-FB-012218-1						2	X										Cool 4°C
	1200	CEF-076-1095-0118						6	X										
	1300	CEF-372-08-0118						24	X										
	1300	CEF-372-08-0118-D						2	X										
	1435	CEF-003-285-0118						2	X										
	1543	FB CEF-016-FB-012218-2						2	X										
	1548	CEF-016-075-0118						2	X										
	1615	CEF-016-175-0118						2	X										
1/23	1080	FB-CEF-003-012318-3						2	X										
1/23	0950	EB-CEF-003-012318-2						2	X										
1/22	1640	EB-CEF-007-012218-1						2	X										
1/23	1050	CEF-003-045-0118						6	X										
1/23	1050	CEF-003-045-0118-D						2	X										

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
	1-25-18	1900			
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

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METHOD 537 Modified

DETERMINATION OF SELECTED PERFLUORINATED ALKYL ACIDS IN DRINKING WATER BY SOLID PHASE EXTRACTION AND LIQUID CHROMATOGRAPHY/TANDEM MASS SPECTROMETRY (LC/MS/MS)

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com



3.2 Sample Chromatograms

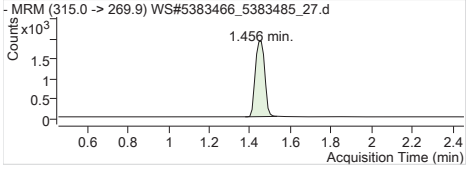
Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

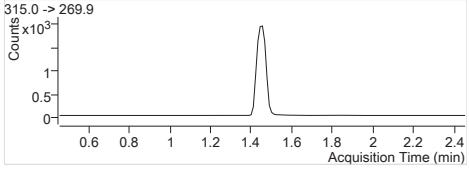
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**5383466:FZH338-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_27.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-C6
Acq. Date	2018/02/06 8:15:16 PM	**Injection Volume**	Per Method
Sample Annotation	-		

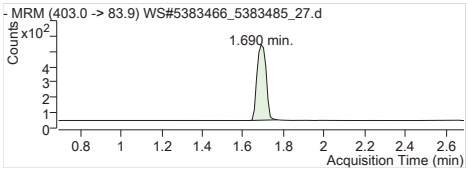
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6117	1.46	1 µg/L		
MPFHxS	1543	1.69	1 µg/L		
MPFHpA	7746	1.71	1 µg/L		
MPFOA	8289	1.89	1 µg/L		
MPFOS	1683	1.99	1 µg/L		
MPFNA	8566	2.04	1 µg/L		
MPFDA	6318	2.15	1 µg/L		
MPFUnA	7268	2.25	1 µg/L		
MPFDoA	9663	2.33	1 µg/L		
MPFTeDA	9234	2.48	1 µg/L		
13C6-PFHxA IS	26448	1.46	1 µg/L		
13C9-PFDA IS	34863	2.15	1 µg/L		

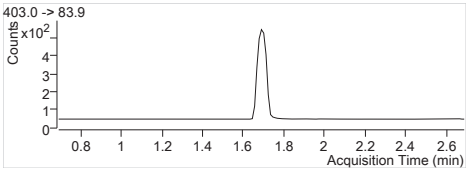
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	64	1.12	-	0.01 µg/L	-
PFHxA 1	323	1.45	-	0.01 µg/L	-
PFHxS 1	363	1.69	-	0.02 µg/L	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6117	1.46	-	97.62 µg/L	-
18O2-PFHxS	1543	1.69	-	100.40 µg/L	-
13C4-PFHpA	7746	1.71	-	100.25 µg/L	-
13C4-PFOA	8289	1.89	-	99.84 µg/L	-
13C4-PFOS	1683	1.99	-	92.19 µg/L	-
13C5-PFNA	8472	2.04	-	103.57 µg/L	-
13C2-PFDA	6299	2.15	-	90.04 µg/L	-
13C2-PFUnA	7268	2.25	-	86.19 µg/L	-
13C2-PFDoA	9663	2.33	-	86.10 µg/L	-
13C2-PFTeDA	9457	2.48	-	73.96 µg/L	-
13C6-PFHxA	26448	1.46	-	2.23 µg/L	-
13C9-PFDA	34863	2.15	-	2.34 µg/L	-



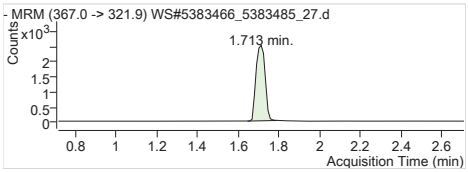


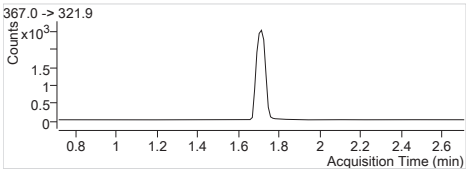
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Sample



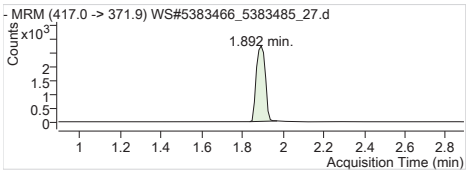


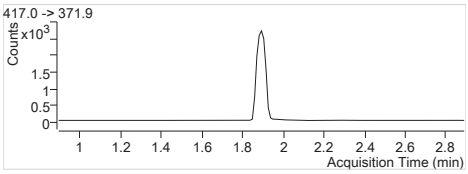
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



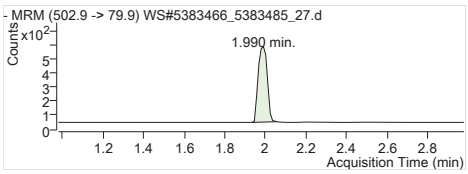


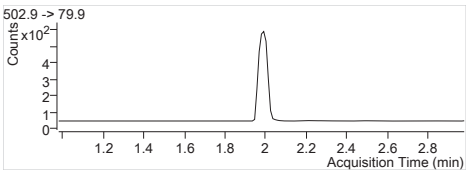
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



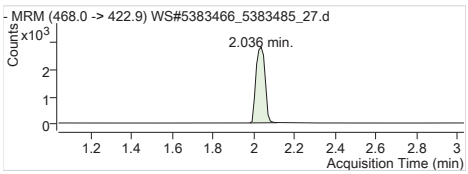


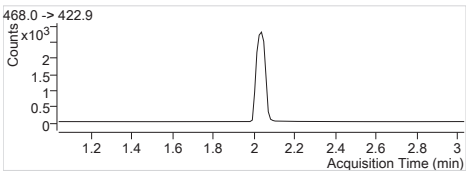
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



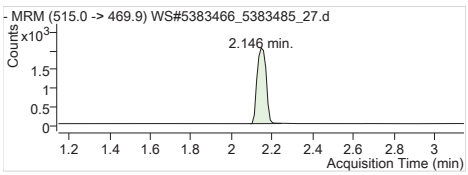


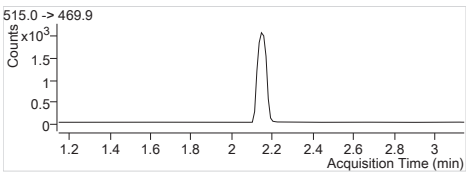
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Sample



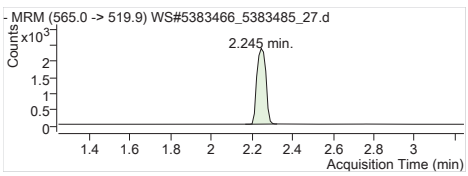


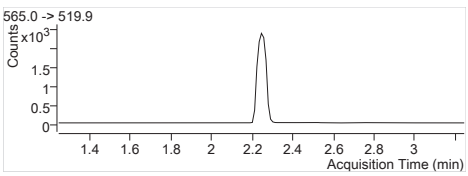
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



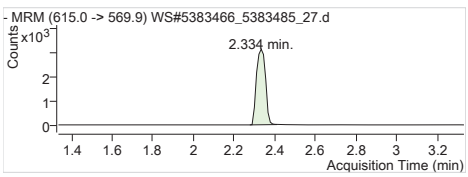


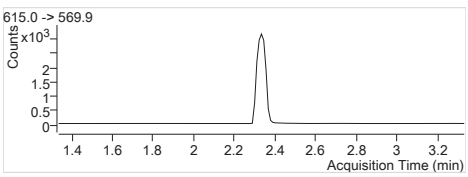
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



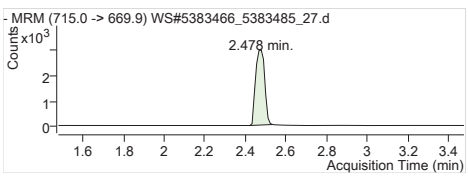


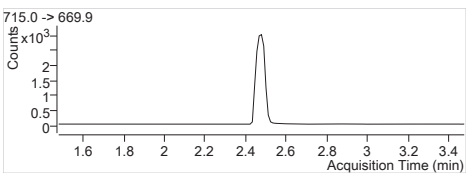
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



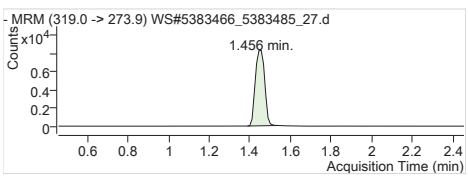


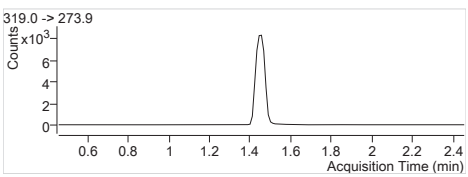
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Sample



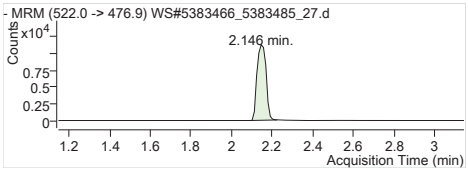


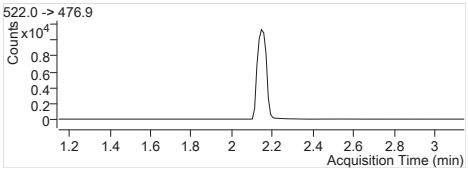
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Sample



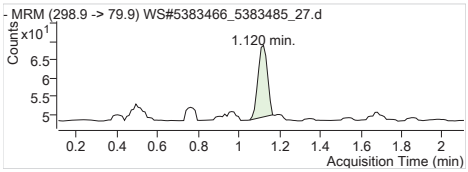


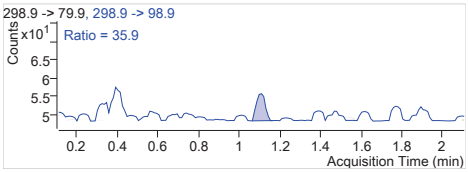
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



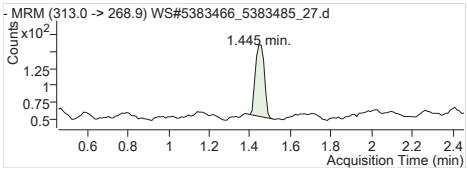


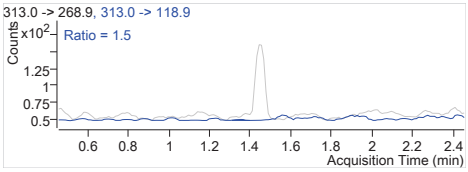
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



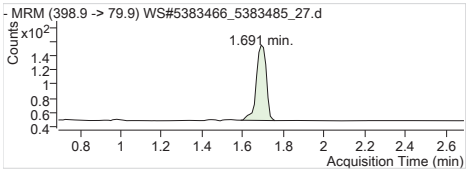


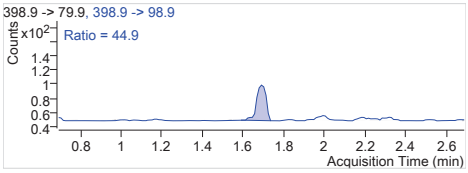
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.120 (1.109)
Calc. conc. 0.01 µg/L
Area ratio: 0.04148
Sample type: Sample



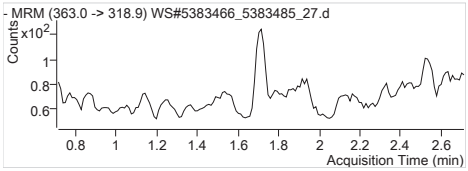


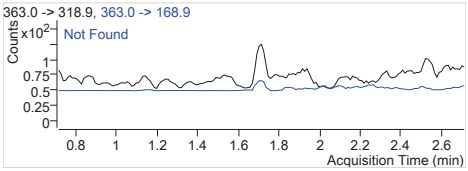
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 0.01 µg/L
Area ratio: 0.05280
Sample type: Sample



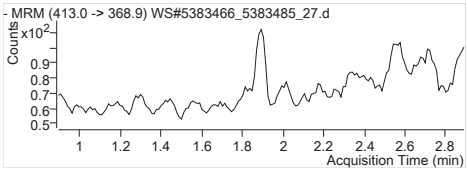


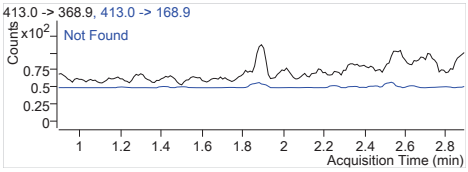
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.02 µg/L
Area ratio: 0.23526
Sample type: Sample



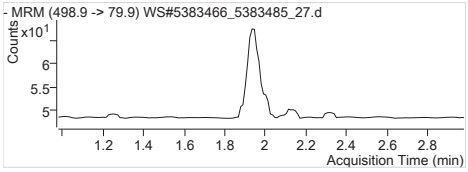


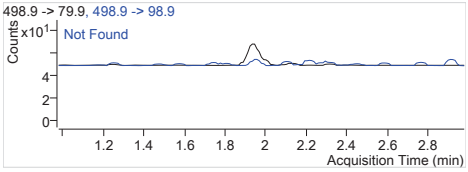
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.713)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



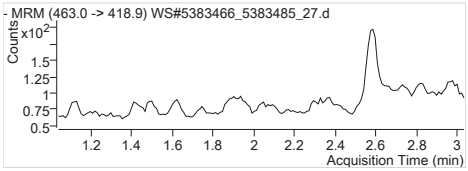


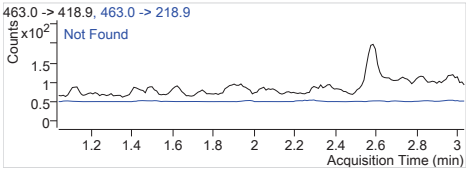
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.892)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



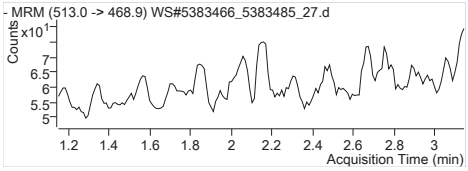


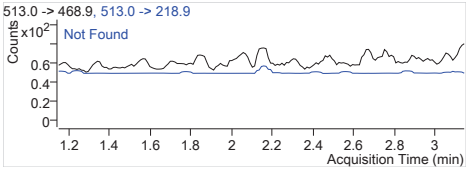
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



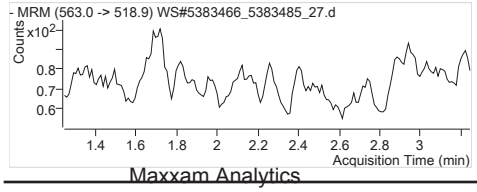


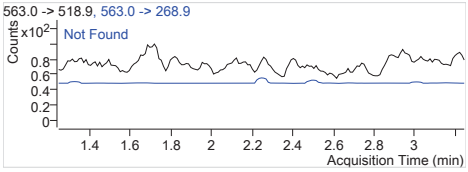
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.036)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



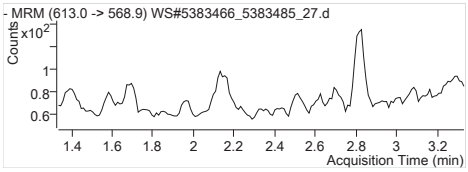


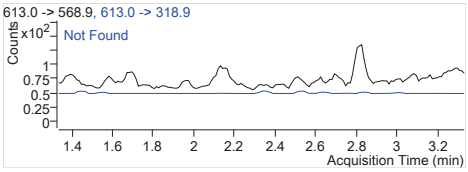
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



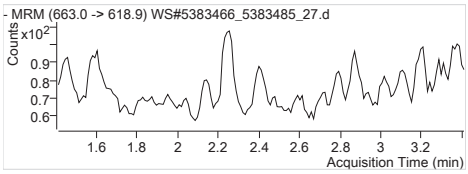


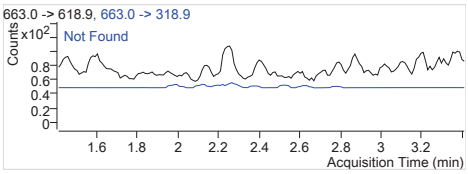
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



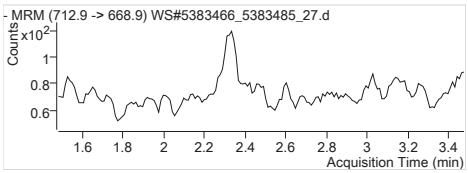


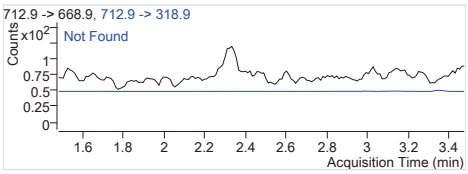
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.334)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



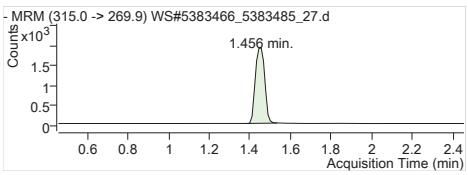


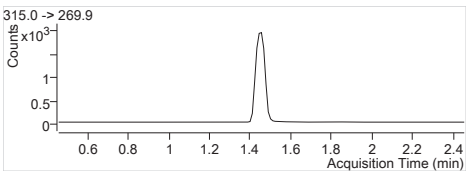
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.411)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



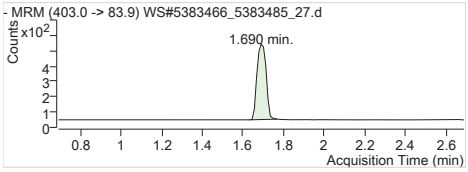


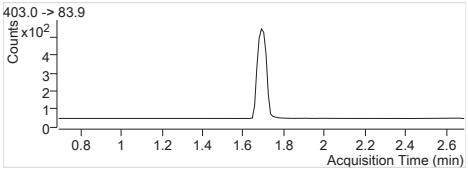
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.478)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



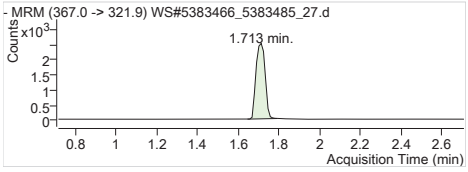


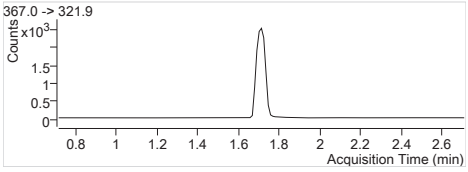
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	97.62 µg/L
Area ratio:	0.23128
Sample type:	Sample



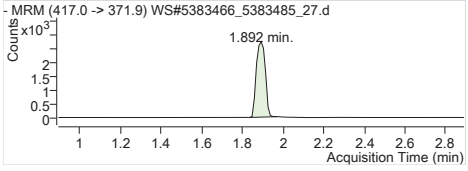


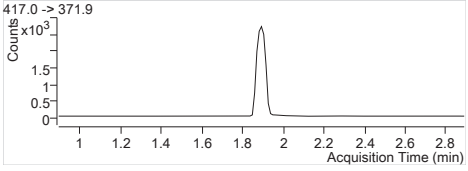
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	100.40 µg/L
Area ratio:	0.05834
Sample type:	Sample



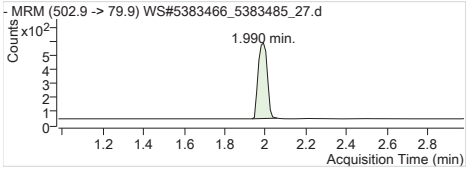


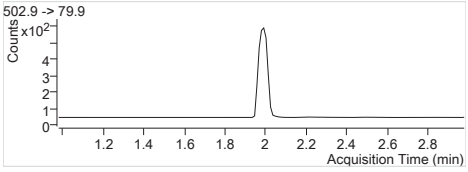
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	100.25 µg/L
Area ratio:	0.29288
Sample type:	Sample



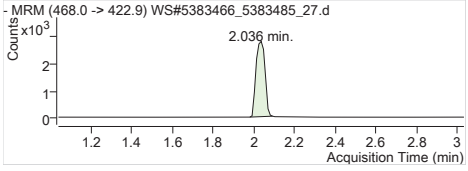


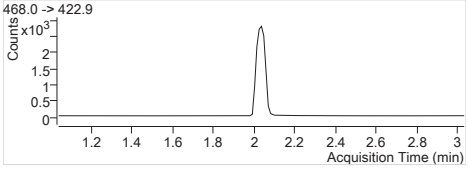
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	99.84 µg/L
Area ratio:	0.31341
Sample type:	Sample



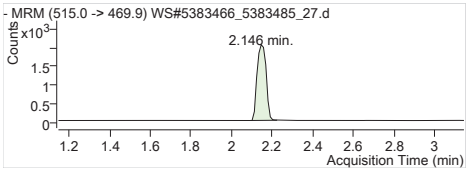


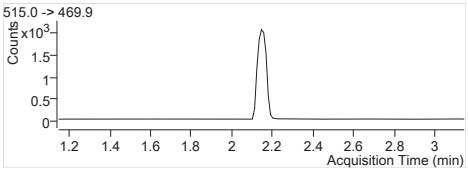
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	92.19 µg/L
Area ratio:	0.06363
Sample type:	Sample



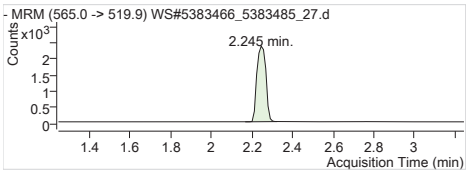


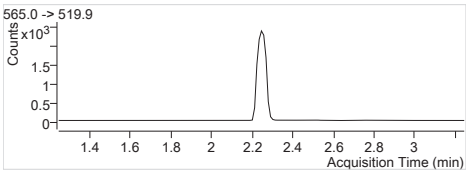
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	103.57 µg/L
Area ratio:	0.32033
Sample type:	Sample



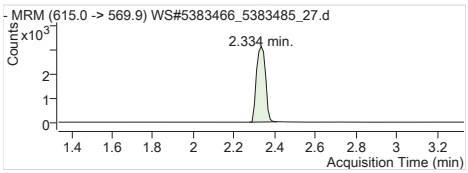


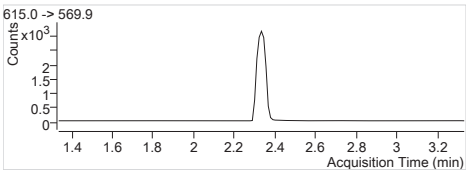
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 90.04 µg/L
Area ratio: 0.18068
Sample type: Sample



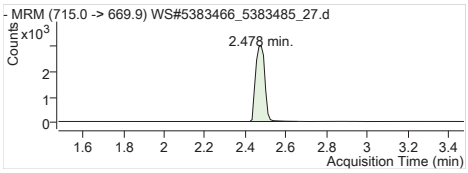


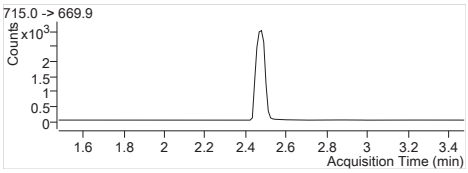
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 86.19 µg/L
Area ratio: 0.20847
Sample type: Sample



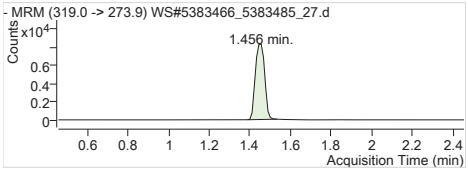


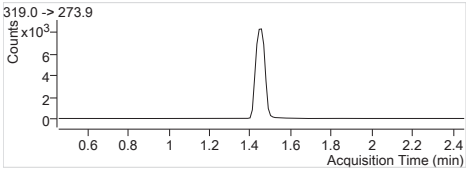
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 86.10 µg/L
Area ratio: 0.27717
Sample type: Sample



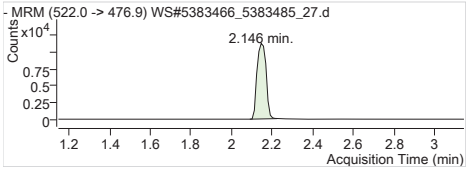


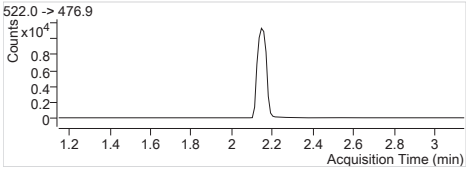
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 73.96 µg/L
Area ratio: 0.27126
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.23 µg/L
Area ratio: 0
Sample type: Sample





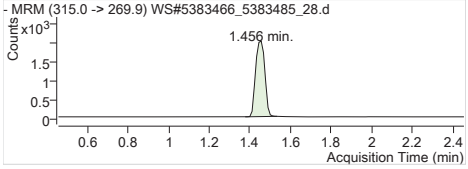
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.34 µg/L
Area ratio: 0
Sample type: Sample

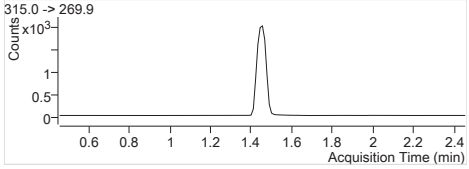
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**5383466:FZH339-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_28.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-C7
Acq. Date	2018/02/06 8:20:12 PM	**Injection Volume**	Per Method
Sample Annotation	-		

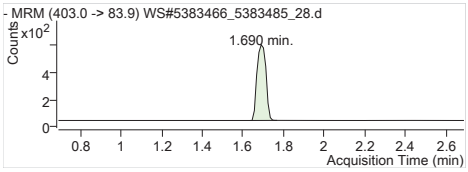
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6269	1.46	1 µg/L		
MPFHxS	1695	1.69	1 µg/L		
MPFHpA	8352	1.71	1 µg/L		
MPFOA	8903	1.89	1 µg/L		
MPFOS	1967	1.99	1 µg/L		
MPFNA	8328	2.04	1 µg/L		
MPFDA	7078	2.15	1 µg/L		
MPFUnA	8045	2.25	1 µg/L		
MPFDoA	10118	2.33	1 µg/L		
MPFTeDA	8722	2.48	1 µg/L		
13C6-PFHxA IS	25164	1.46	1 µg/L		
13C9-PFDA IS	30767	2.15	1 µg/L		

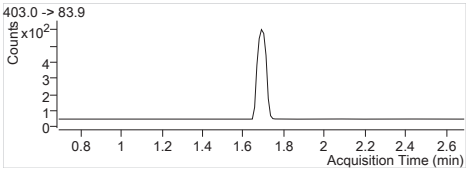
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	71	1.12	-	0.01 µg/L	-
PFHxA 1	304	1.45	-	0.01 µg/L	-
PFHxS 1	445	1.69	-	0.02 µg/L	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1	166	1.95	-	0.01 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6269	1.46	-	105.15 µg/L	-
18O2-PFHxS	1695	1.69	-	115.92 µg/L	-
13C4-PFHpA	8352	1.71	-	113.61 µg/L	-
13C4-PFOA	8903	1.89	-	112.71 µg/L	-
13C4-PFOS	1967	1.99	-	113.25 µg/L	-
13C5-PFNA	8283	2.04	-	106.42 µg/L	-
13C2-PFDA	6939	2.15	-	112.39 µg/L	-
13C2-PFUnA	8045	2.25	-	108.10 µg/L	-
13C2-PFDoA	10118	2.33	-	102.16 µg/L	-
13C2-PFTeDA	8961	2.48	-	79.41 µg/L	-
13C6-PFHxA	25164	1.46	-	2.12 µg/L	-
13C9-PFDA	30767	2.15	-	2.06 µg/L	-



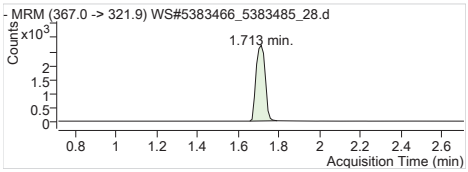


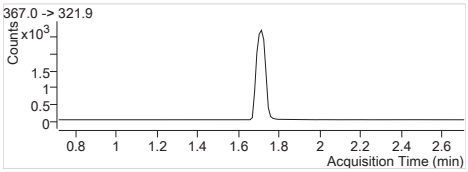
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Sample



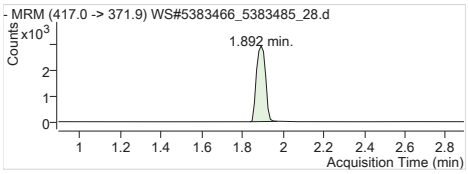


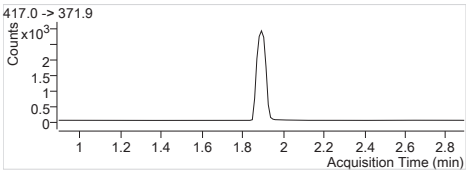
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



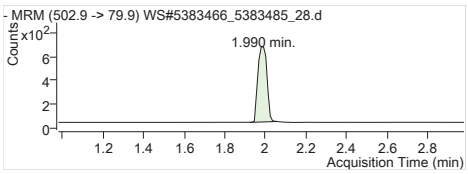


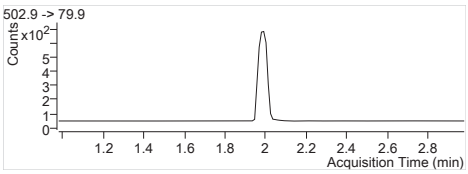
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



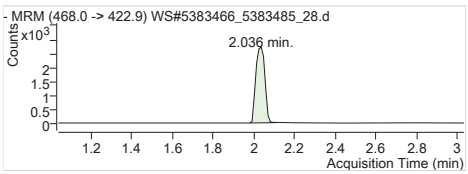


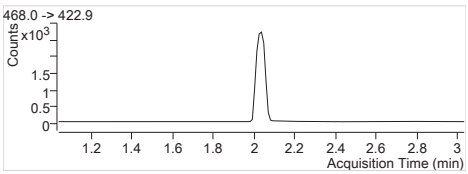
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



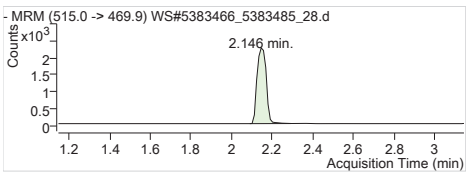


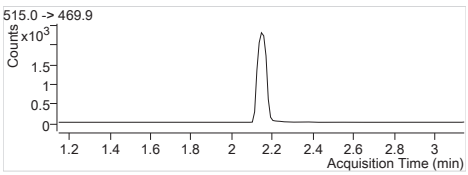
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Sample



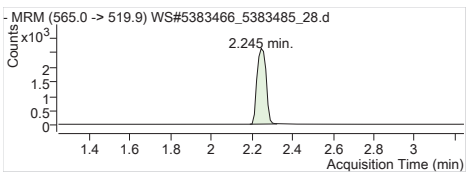


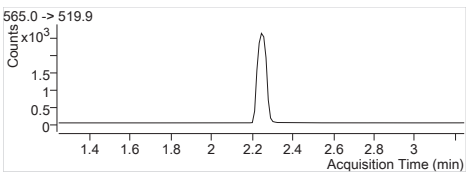
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



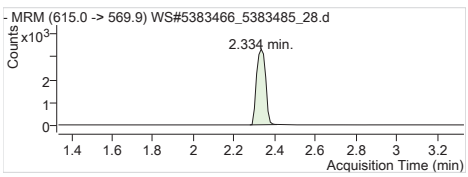


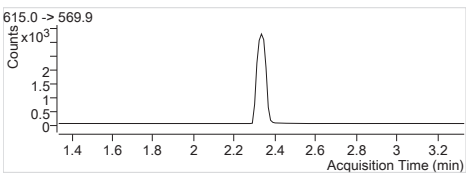
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



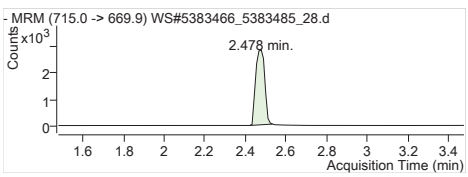


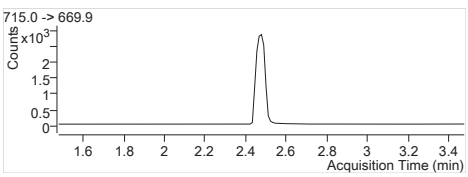
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



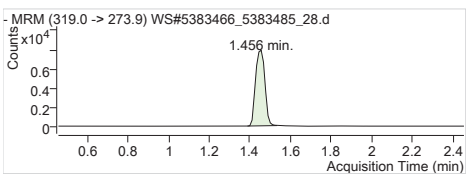


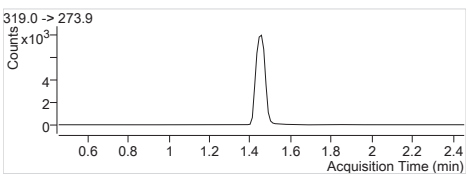
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Sample



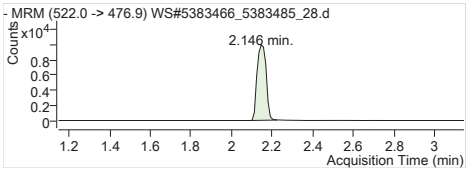


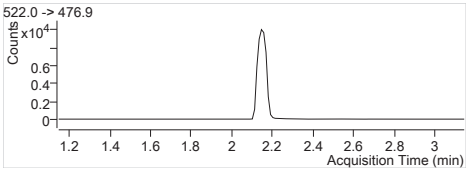
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Sample



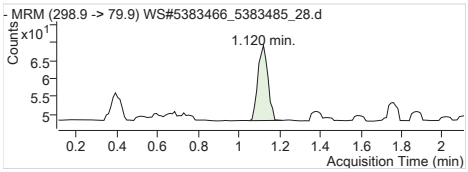


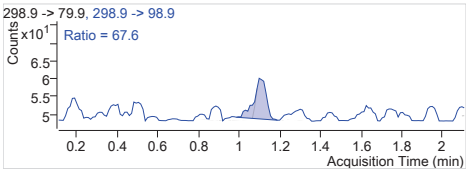
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



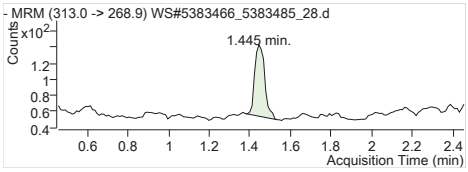


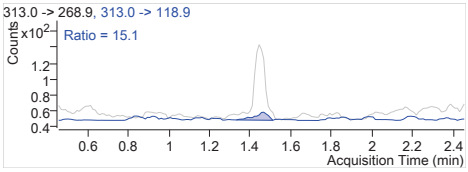
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



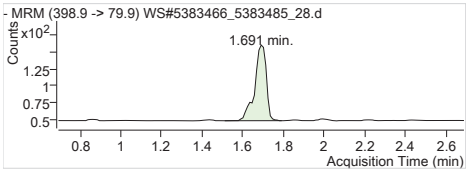


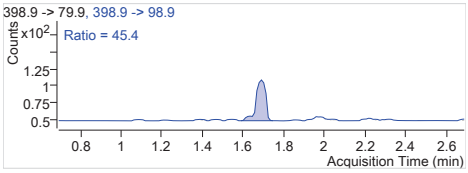
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.120 (1.109)
Calc. conc. 0.01 µg/L
Area ratio: 0.04189
Sample type: Sample



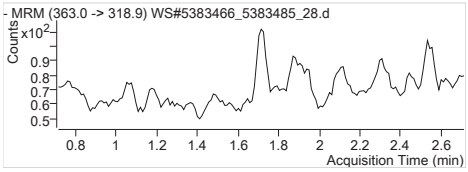


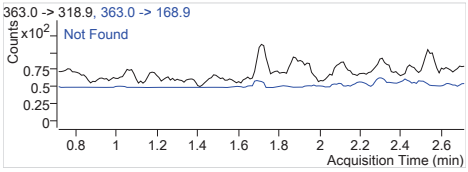
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 0.01 µg/L
Area ratio: 0.04849
Sample type: Sample



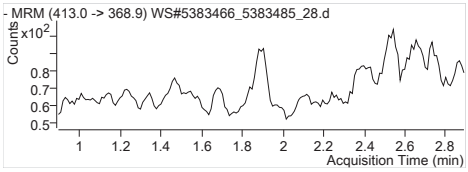


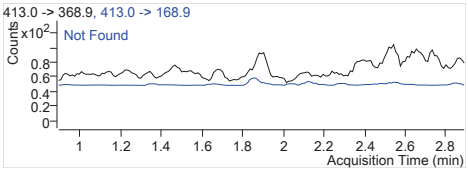
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.02 µg/L
Area ratio: 0.26254
Sample type: Sample



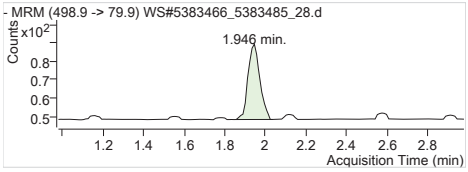


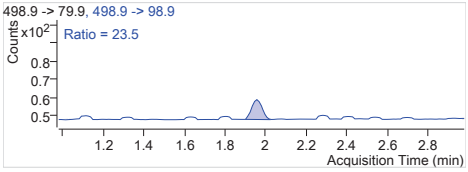
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.713)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



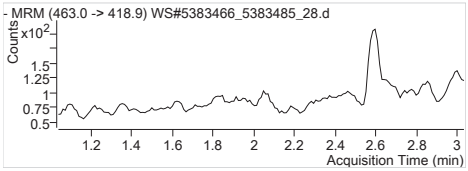


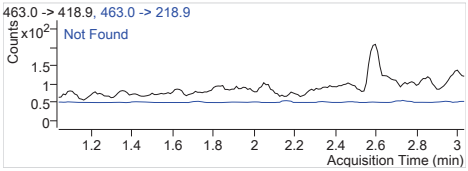
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.892)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



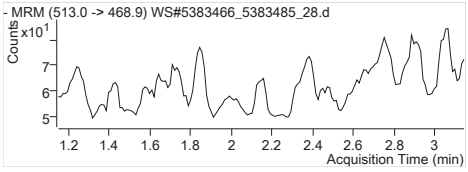


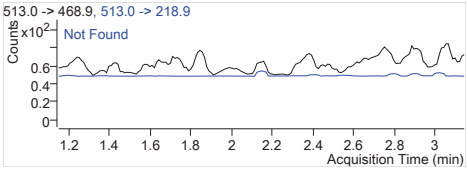
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.946 (1.979)
Calc. conc. 0.01 µg/L
Area ratio: 0.08439
Sample type: Sample



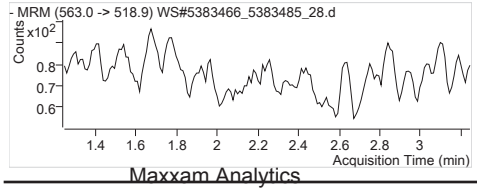


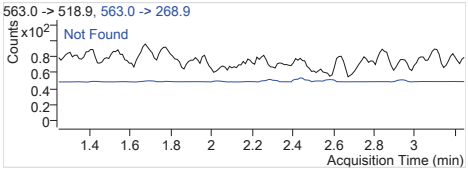
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.036)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



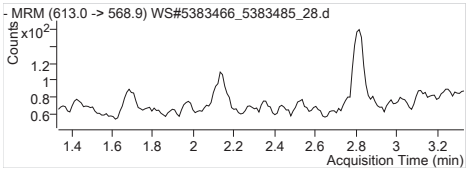


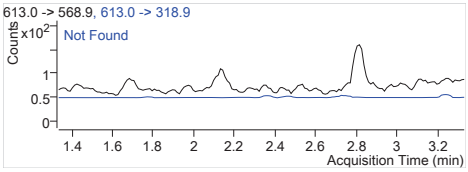
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



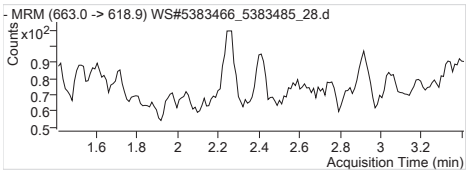


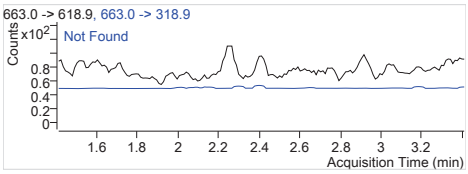
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



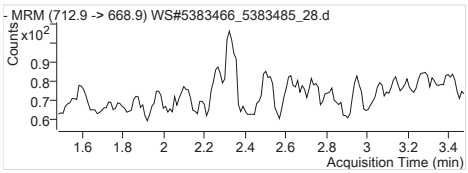


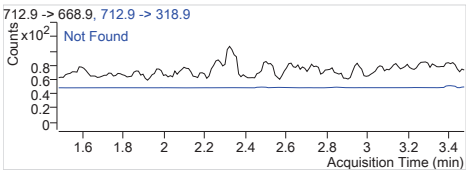
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.334)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



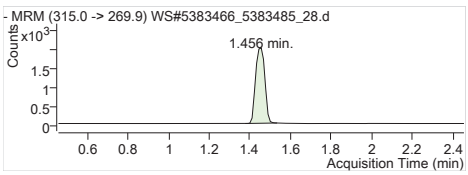


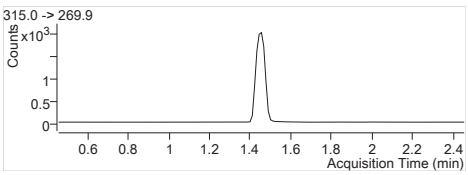
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.411)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



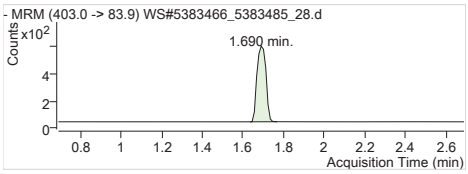


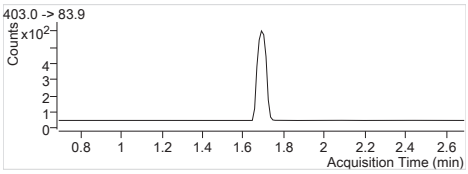
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.478)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



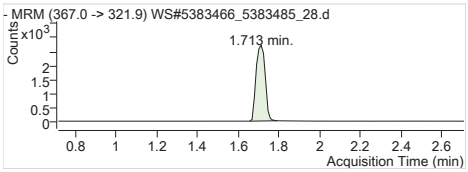


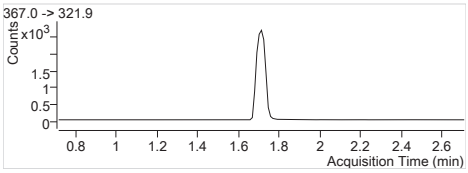
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	105.15 µg/L
Area ratio:	0.24913
Sample type:	Sample



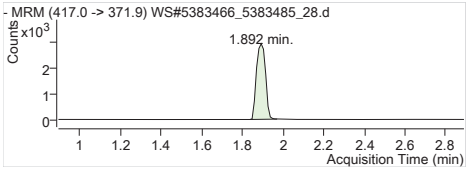


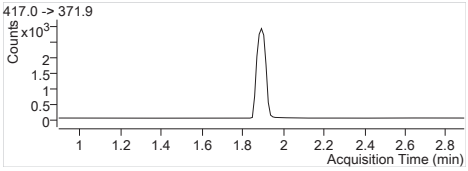
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	115.92 µg/L
Area ratio:	0.06736
Sample type:	Sample



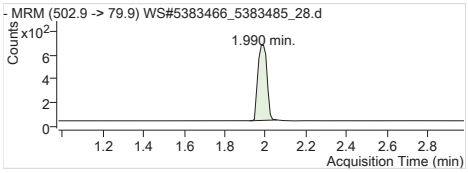


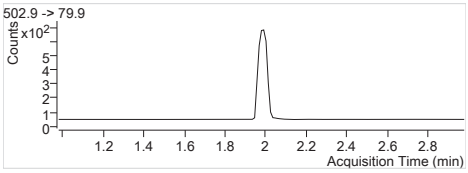
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	113.61 µg/L
Area ratio:	0.33190
Sample type:	Sample



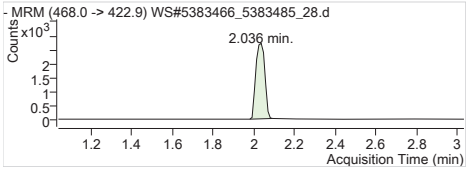


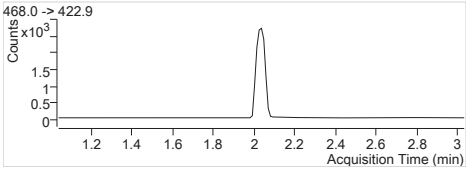
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	112.71 µg/L
Area ratio:	0.35380
Sample type:	Sample



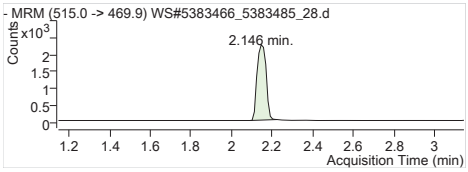


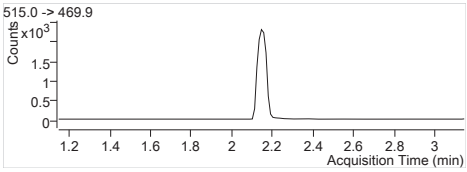
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	113.25 µg/L
Area ratio:	0.07817
Sample type:	Sample



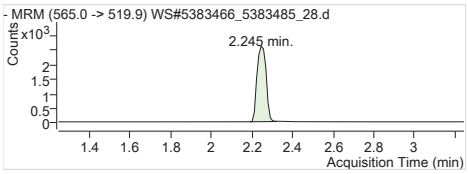


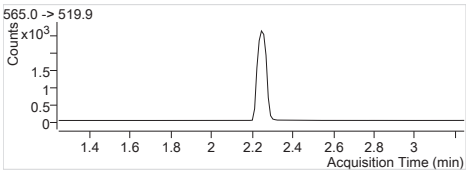
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	106.42 µg/L
Area ratio:	0.32916
Sample type:	Sample



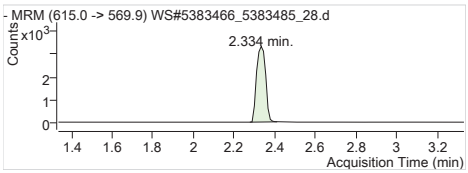


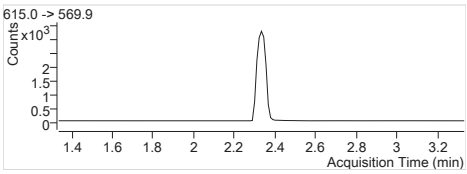
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 112.39 µg/L
Area ratio: 0.22553
Sample type: Sample



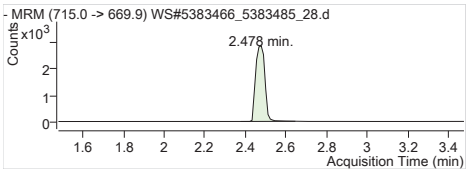


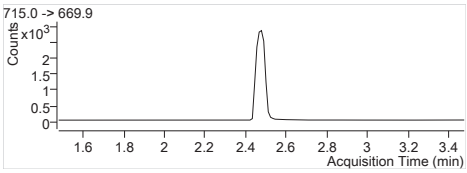
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 108.10 µg/L
Area ratio: 0.26148
Sample type: Sample



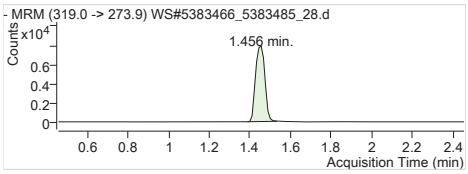


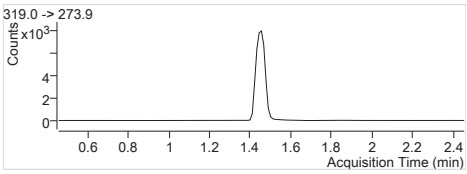
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 102.16 µg/L
Area ratio: 0.32886
Sample type: Sample



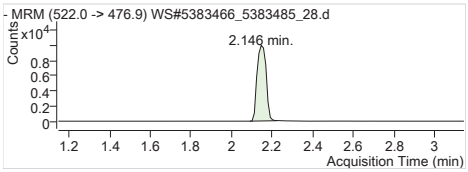


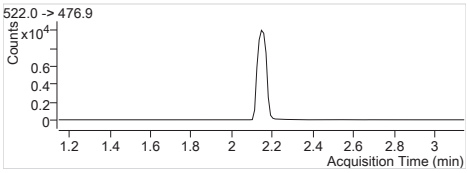
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 79.41 µg/L
Area ratio: 0.29125
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.12 µg/L
Area ratio: 0
Sample type: Sample





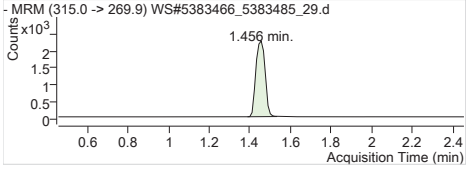
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.06 µg/L
Area ratio: 0
Sample type: Sample

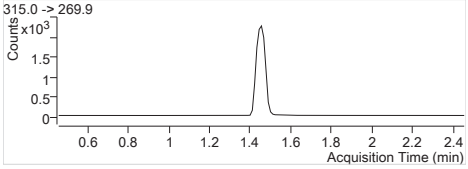
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**5383466:FZH340-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_29.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-C8
Acq. Date	2018/02/06 8:25:08 PM	**Injection Volume**	Per Method
Sample Annotation	-		

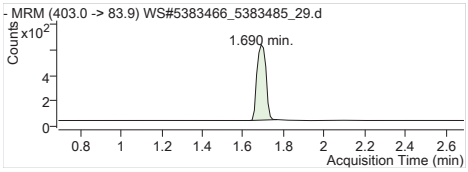
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7079	1.46	1 µg/L		
MPFHxS	1820	1.69	1 µg/L		
MPFHpA	8934	1.71	1 µg/L		
MPFOA	9132	1.89	1 µg/L		
MPFOS	1902	1.99	1 µg/L		
MPFNA	9759	2.04	1 µg/L		
MPFDA	7109	2.15	1 µg/L		
MPFUnA	7430	2.25	1 µg/L		
MPFDoA	10629	2.33	1 µg/L		
MPFTeDA	10992	2.48	1 µg/L		
13C6-PFHxA IS	28111	1.46	1 µg/L		
13C9-PFDA IS	36130	2.15	1 µg/L		

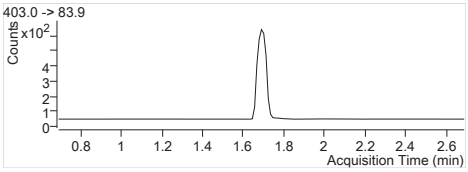
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	160	1.12	-	0.01 µg/L	-
PFHxA 1	3052	1.46	-	0.03 µg/L	-
PFHxS 1	999	1.69	-	0.04 µg/L	-
PFHpA 1	5183	1.71	-	0.04 µg/L	-
PFOA 1	18399	1.89	-	0.12 µg/L	-
PFOS 1	4542	1.97	-	0.17 µg/L	-
PFNA 1	2842	2.04	-	0.02 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	7079	1.46	-	106.29 µg/L	-
18O2-PFHxS	1820	1.69	-	111.42 µg/L	-
13C4-PFHpA	8934	1.71	-	108.78 µg/L	-
13C4-PFOA	9132	1.89	-	103.49 µg/L	-
13C4-PFOS	1902	1.99	-	98.02 µg/L	-
13C5-PFNA	9760	2.04	-	112.26 µg/L	-
13C2-PFDA	7014	2.15	-	96.74 µg/L	-
13C2-PFUnA	7430	2.25	-	85.02 µg/L	-
13C2-PFDoA	10629	2.33	-	91.39 µg/L	-
13C2-PFTeDA	11308	2.48	-	85.33 µg/L	-
13C6-PFHxA	28111	1.46	-	2.37 µg/L	-
13C9-PFDA	36130	2.15	-	2.42 µg/L	-



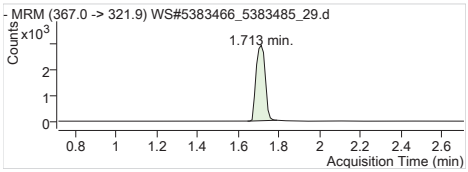


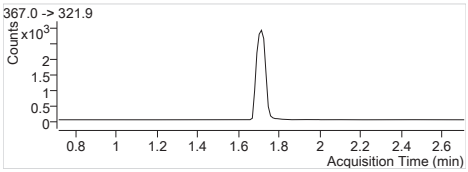
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Sample



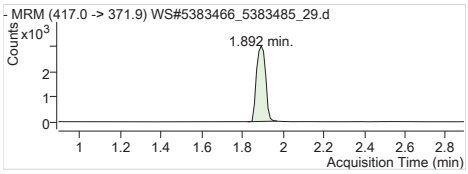


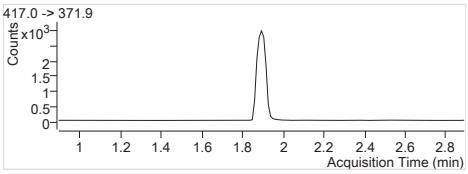
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



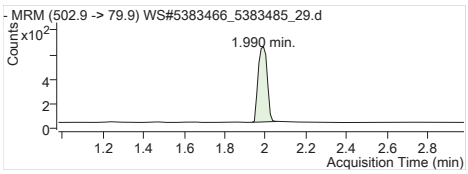


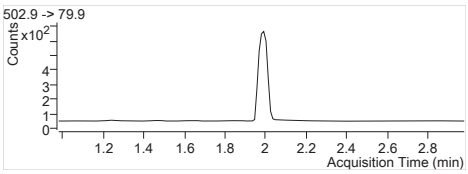
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



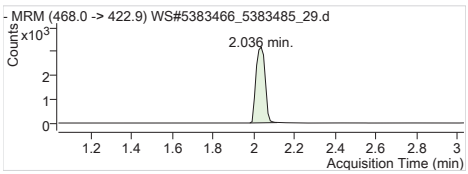


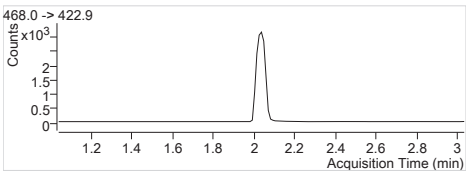
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



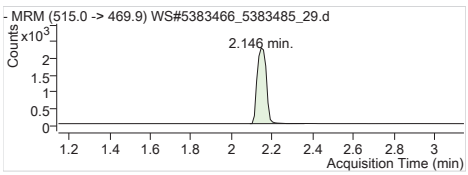


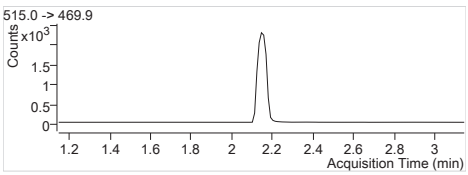
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Sample



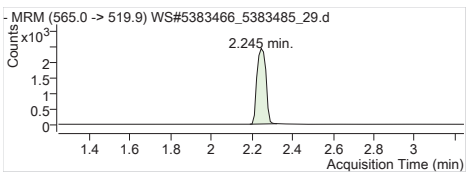


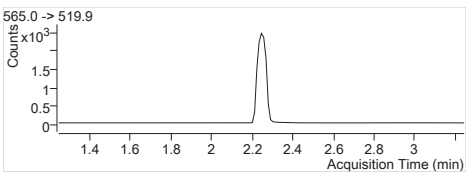
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



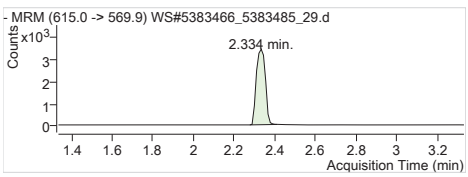


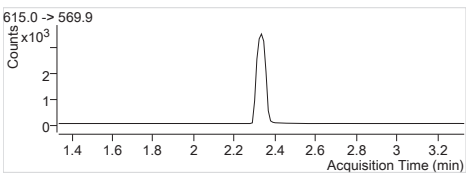
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



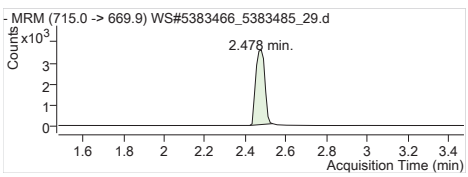


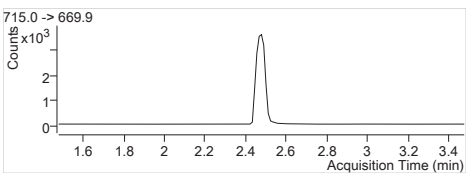
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



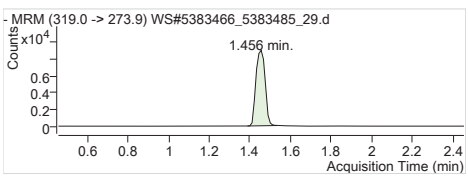


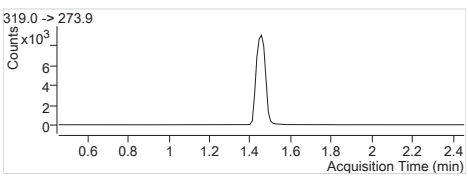
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Sample



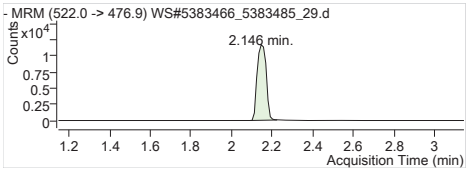


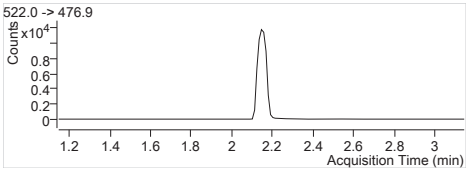
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Sample



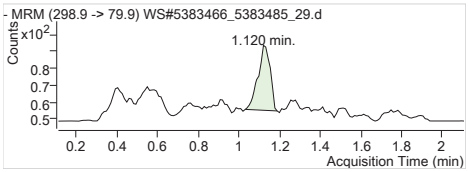


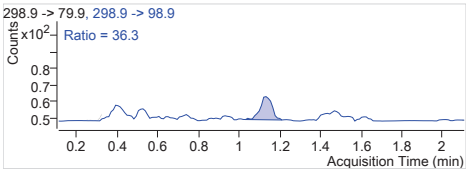
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



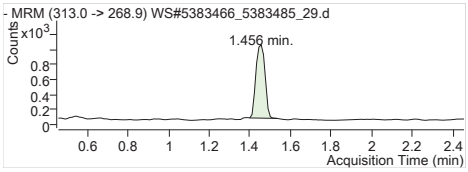


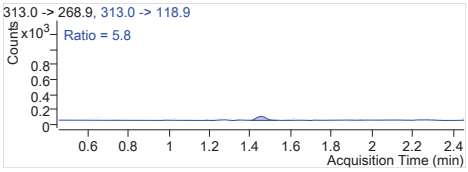
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



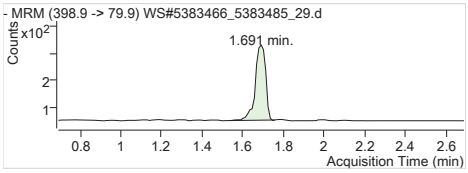


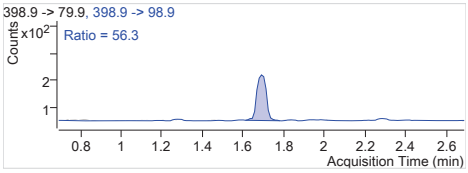
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.120 (1.109)
Calc. conc. 0.01 µg/L
Area ratio: 0.08791
Sample type: Sample



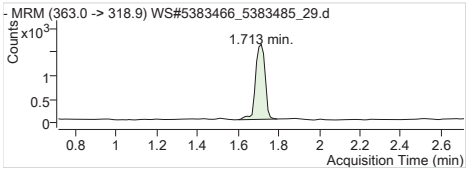


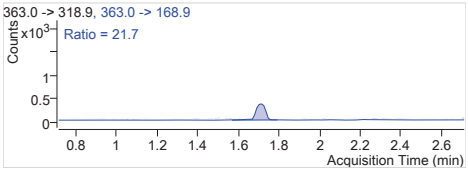
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 0.03 µg/L
Area ratio: 0.43113
Sample type: Sample



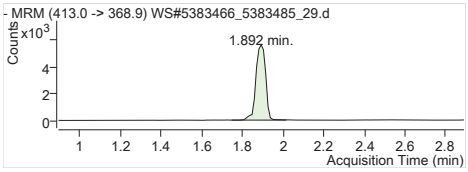


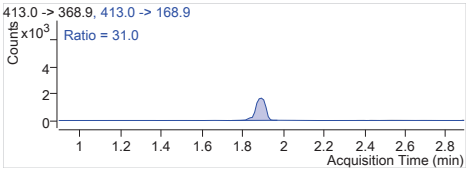
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.04 µg/L
Area ratio: 0.54890
Sample type: Sample



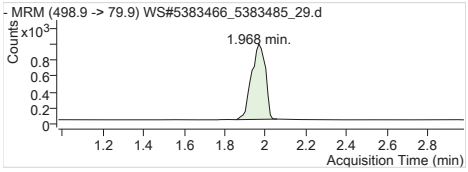


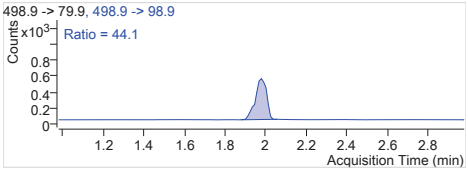
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 0.04 µg/L
Area ratio: 0.58014
Sample type: Sample



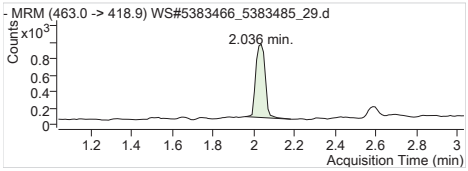


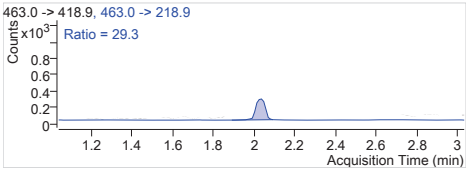
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 0.12 µg/L
Area ratio: 2.01478
Sample type: Sample



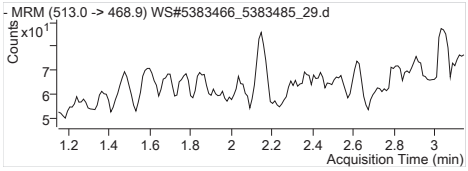


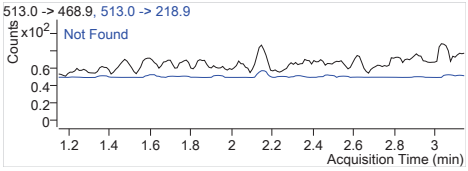
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.979)
Calc. conc. 0.17 µg/L
Area ratio: 2.38801
Sample type: Sample



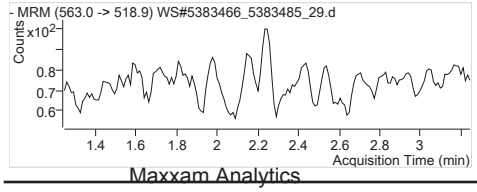


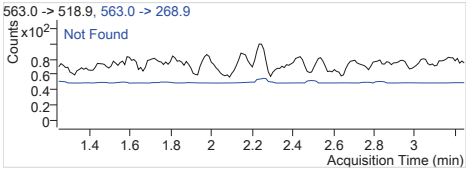
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.02 µg/L
Area ratio: 0.29122
Sample type: Sample



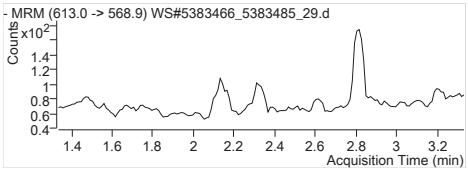


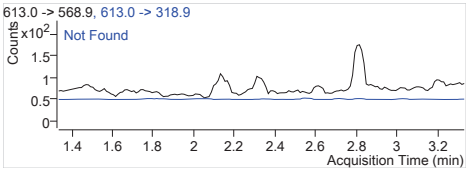
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



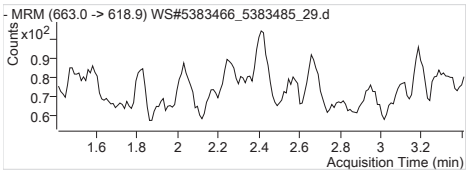


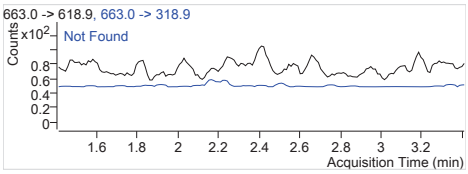
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



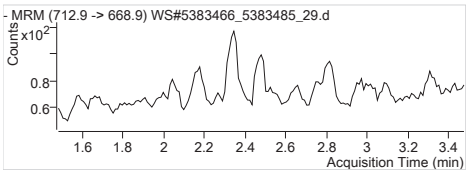


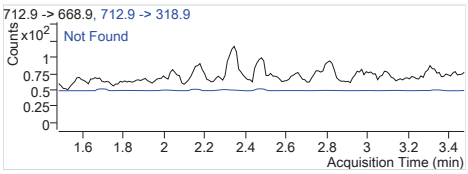
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.334)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



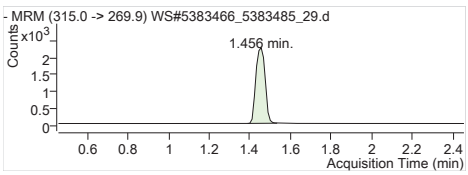


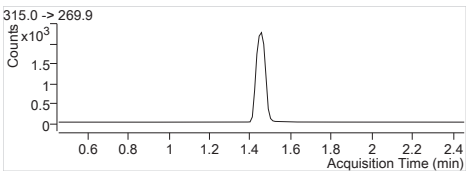
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.411)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



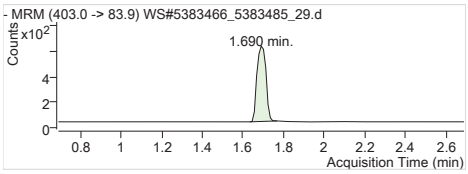


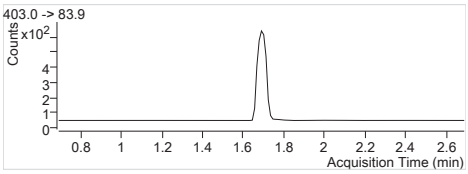
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.478)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



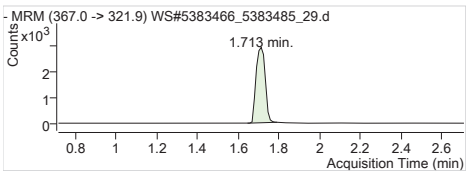


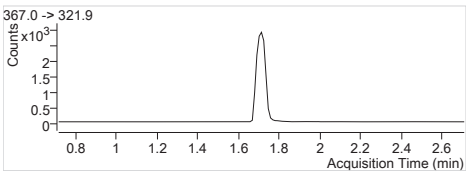
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	106.29 µg/L
Area ratio:	0.25182
Sample type:	Sample



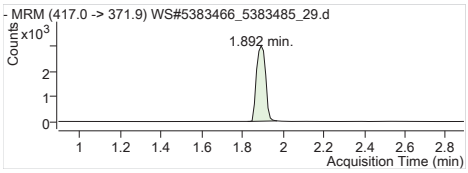


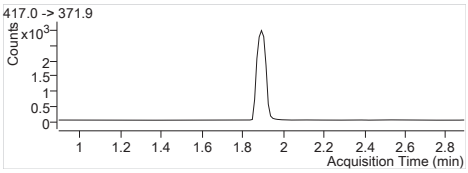
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	111.42 µg/L
Area ratio:	0.06474
Sample type:	Sample



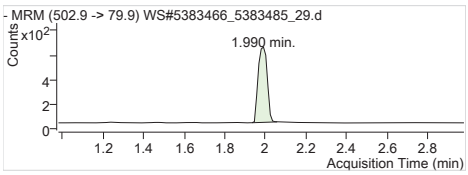


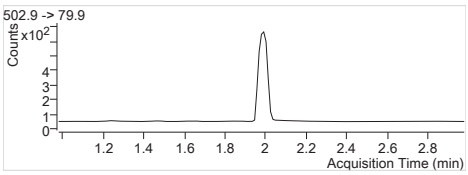
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	108.78 µg/L
Area ratio:	0.31781
Sample type:	Sample



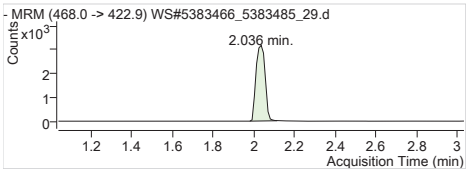


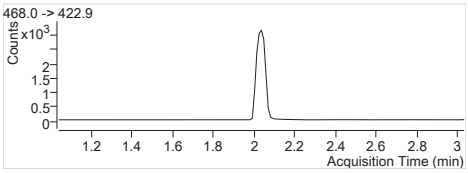
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	103.49 µg/L
Area ratio:	0.32486
Sample type:	Sample



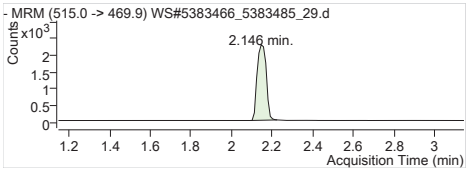


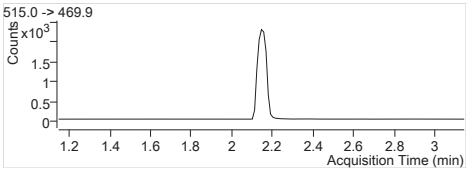
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	98.02 µg/L
Area ratio:	0.06766
Sample type:	Sample



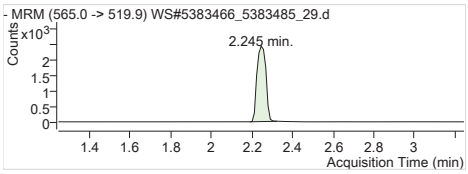


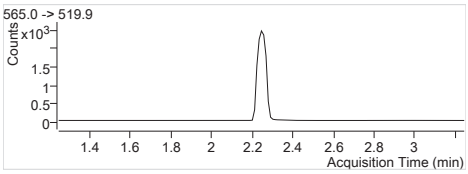
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	112.26 µg/L
Area ratio:	0.34720
Sample type:	Sample



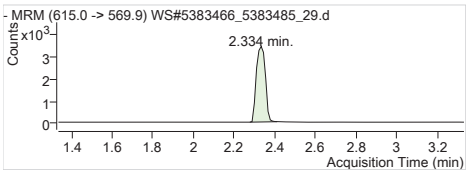


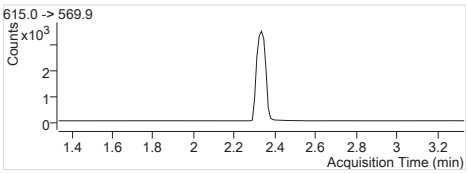
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 96.74 µg/L
Area ratio: 0.19413
Sample type: Sample



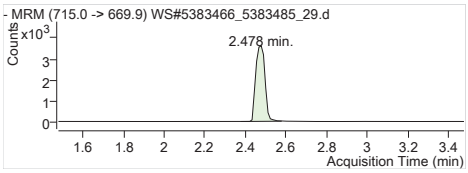


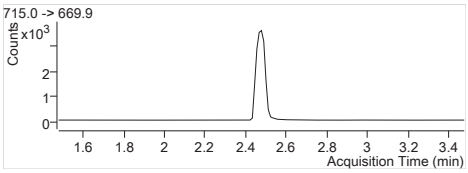
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 85.02 µg/L
Area ratio: 0.20565
Sample type: Sample



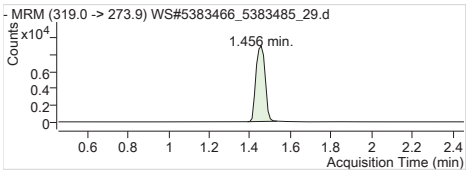


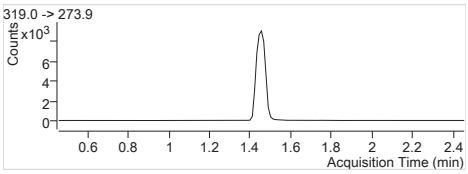
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 91.39 µg/L
Area ratio: 0.29419
Sample type: Sample



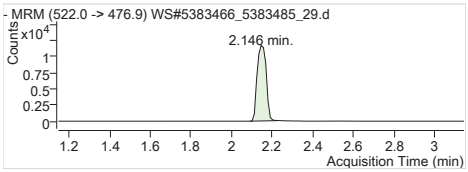


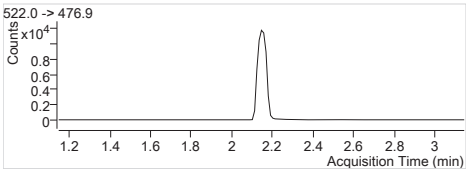
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 85.33 µg/L
Area ratio: 0.31298
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.37 µg/L
Area ratio: 0
Sample type: Sample





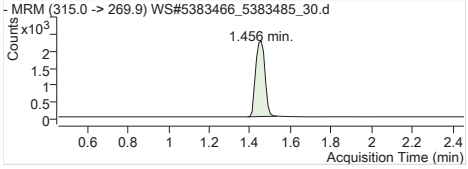
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.42 µg/L
Area ratio: 0
Sample type: Sample

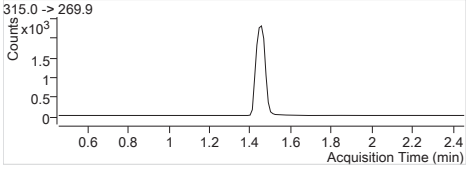
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**5383466:FZH341-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_30.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-C9
Acq. Date	2018/02/06 8:30:04 PM	**Injection Volume**	Per Method
Sample Annotation	-		

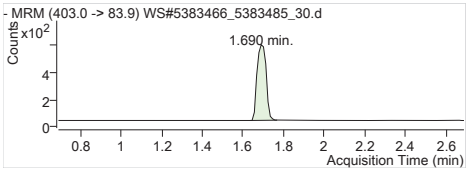
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7198	1.46	1 µg/L		
MPFHxS	1741	1.69	1 µg/L		
MPFHpA	9577	1.71	1 µg/L		
MPFOA	9507	1.89	1 µg/L		
MPFOS	2026	1.99	1 µg/L		
MPFNA	9429	2.04	1 µg/L		
MPFDA	8168	2.15	1 µg/L		
MPFUnA	8962	2.25	1 µg/L		
MPFDoA	11258	2.33	1 µg/L		
MPFTeDA	12051	2.48	1 µg/L		
13C6-PFHxA IS	27813	1.46	1 µg/L		
13C9-PFDA IS	36173	2.15	1 µg/L		

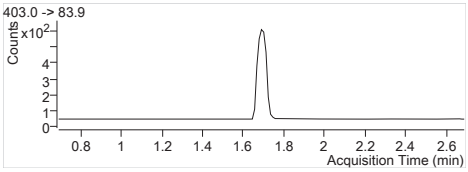
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	7198	1.46	-	109.23 µg/L	-
18O2-PFHxS	1741	1.69	-	107.72 µg/L	-
13C4-PFHpA	9577	1.71	-	117.86 µg/L	-
13C4-PFOA	9507	1.89	-	108.90 µg/L	-
13C4-PFOS	2026	1.99	-	105.53 µg/L	-
13C5-PFNA	9429	2.04	-	109.61 µg/L	-
13C2-PFDA	8077	2.15	-	111.27 µg/L	-
13C2-PFUnA	8962	2.25	-	102.43 µg/L	-
13C2-PFDoA	11258	2.33	-	96.68 µg/L	-
13C2-PFTeDA	12318	2.48	-	92.84 µg/L	-
13C6-PFHxA	27813	1.46	-	2.35 µg/L	-
13C9-PFDA	36173	2.15	-	2.43 µg/L	-



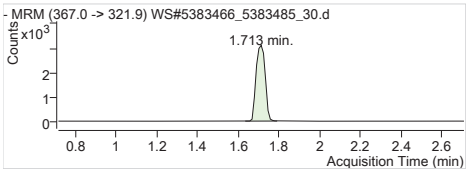


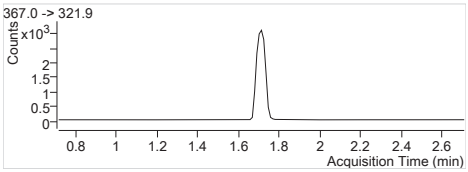
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Sample



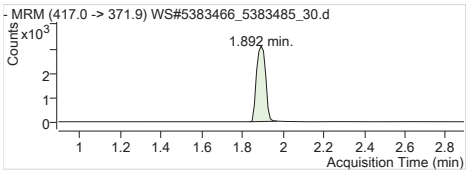


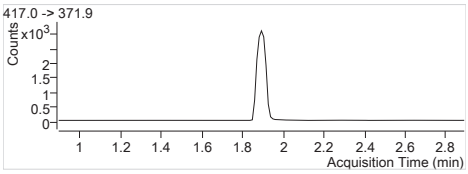
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



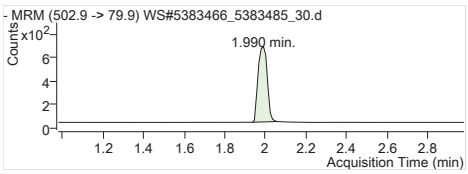


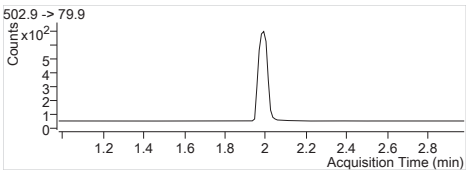
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



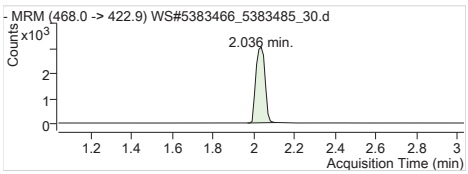


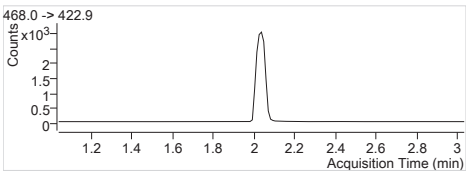
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



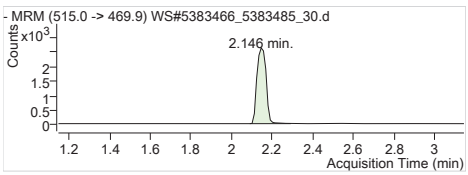


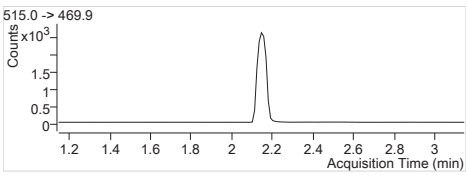
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Sample



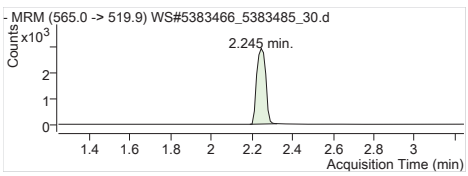


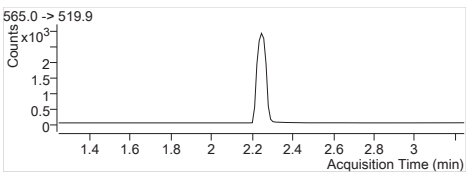
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



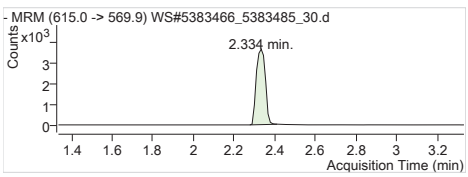


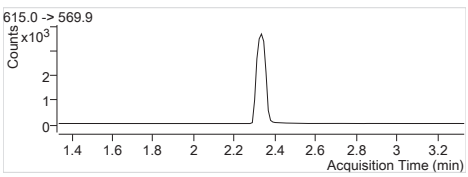
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



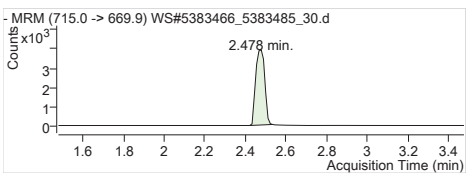


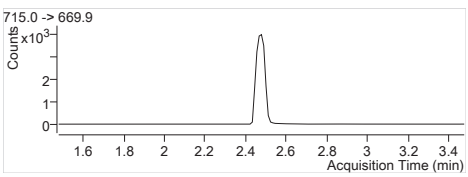
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



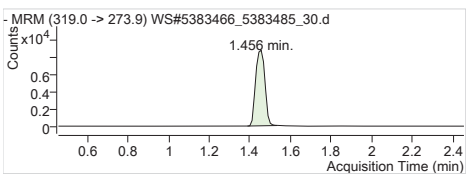


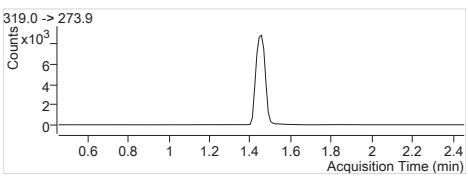
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Sample



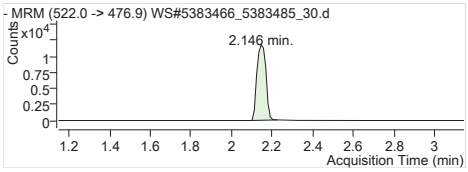


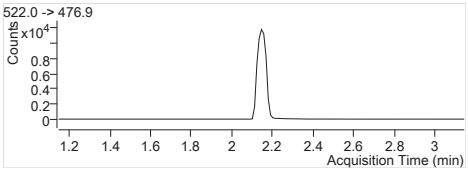
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Sample



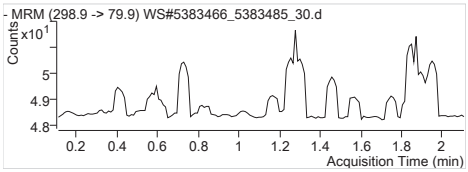


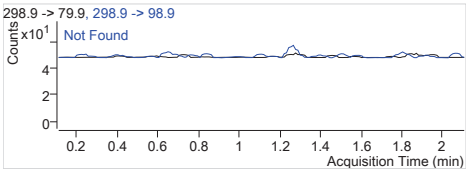
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



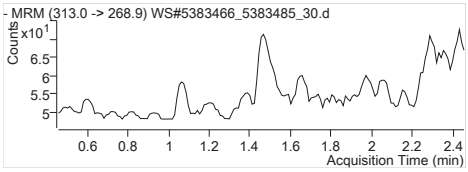


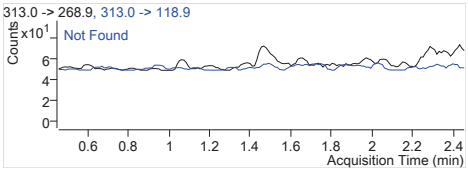
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



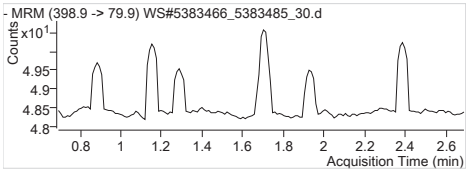


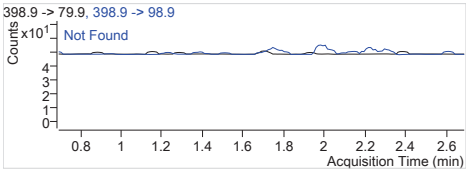
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.109)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



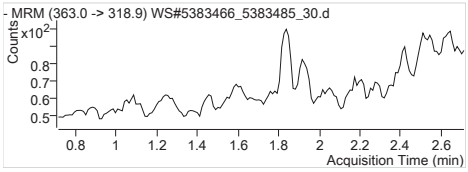


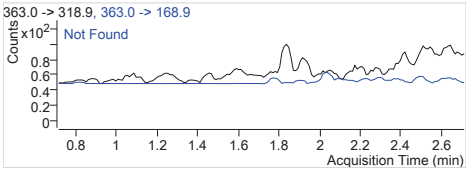
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.456)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



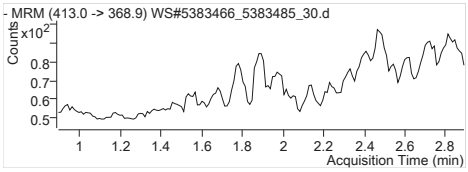


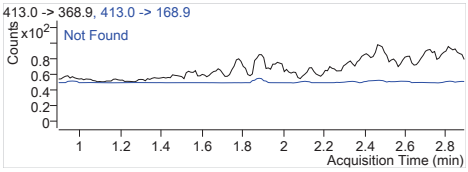
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



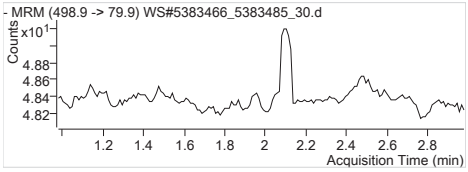


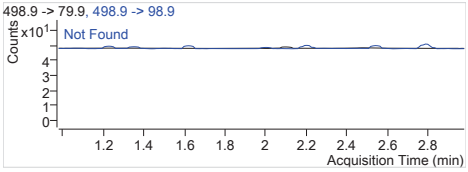
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.713)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



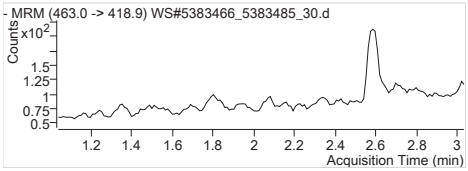


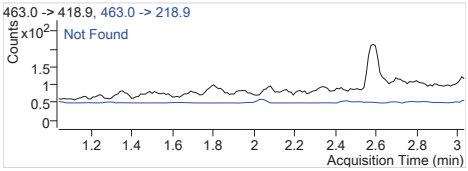
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.892)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



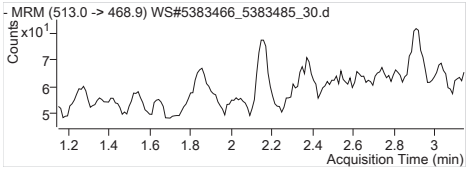


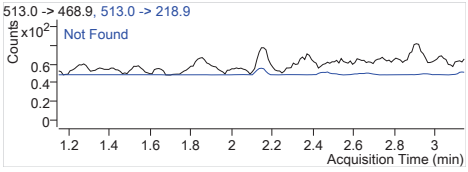
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



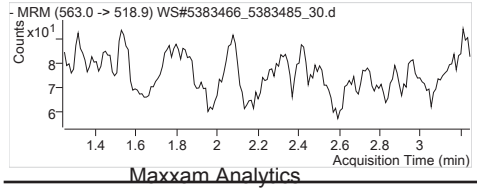


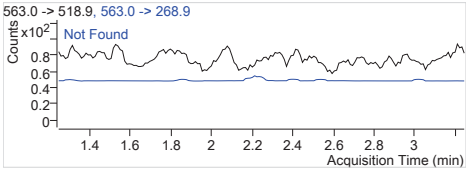
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.036)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



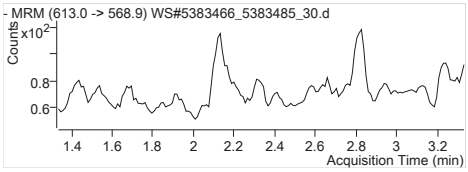


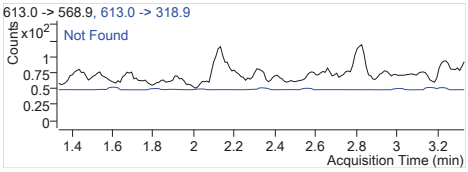
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



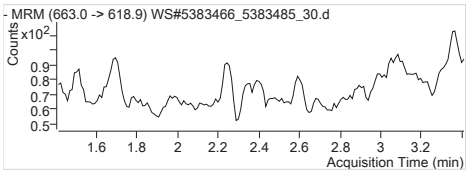


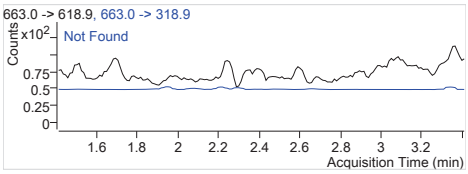
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



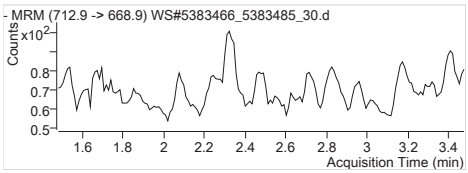


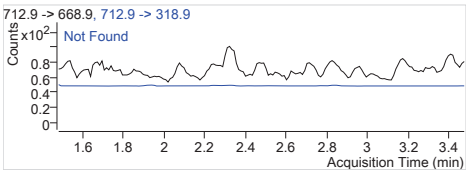
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.334)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



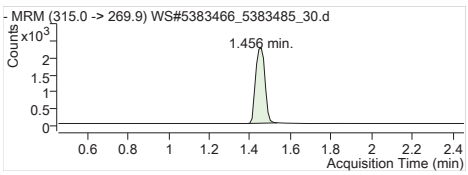


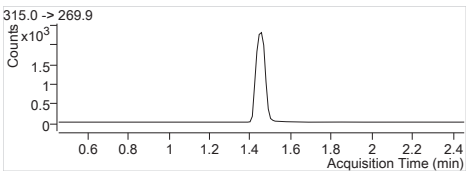
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.411)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



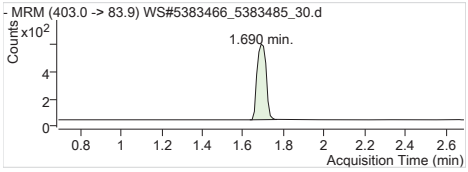


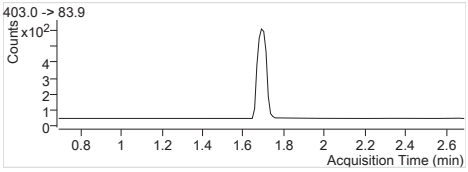
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.478)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



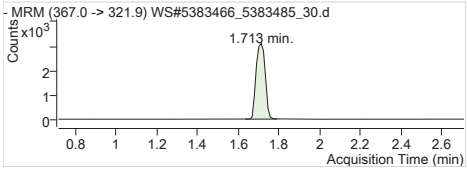


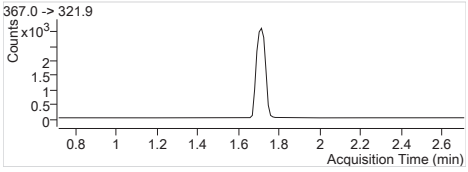
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	109.23 µg/L
Area ratio:	0.25880
Sample type:	Sample



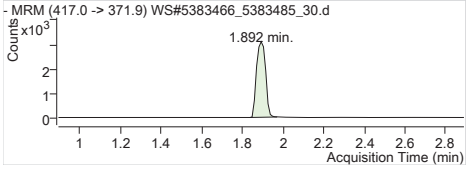


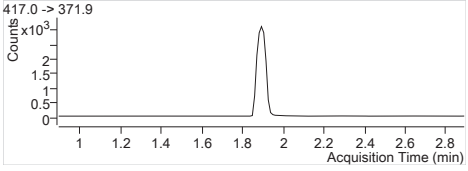
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	107.72 µg/L
Area ratio:	0.06260
Sample type:	Sample



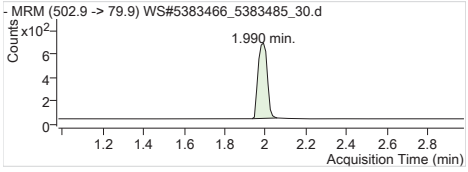


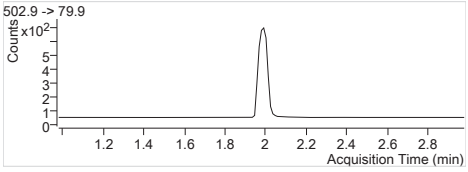
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	117.86 µg/L
Area ratio:	0.34434
Sample type:	Sample



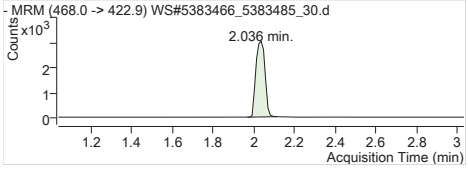


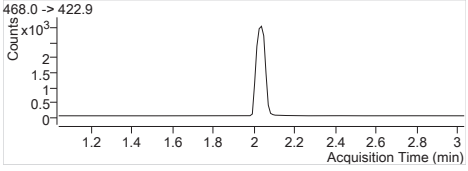
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	108.90 µg/L
Area ratio:	0.34182
Sample type:	Sample



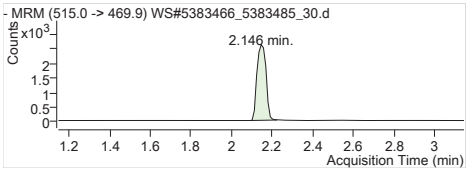


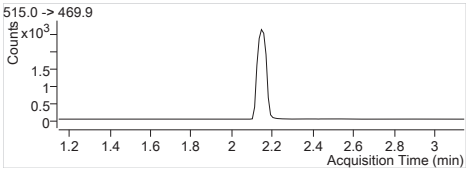
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	105.53 µg/L
Area ratio:	0.07284
Sample type:	Sample



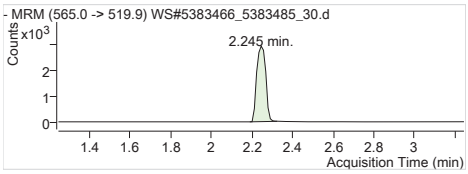


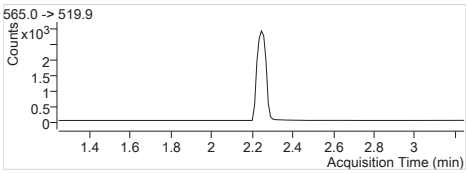
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	109.61 µg/L
Area ratio:	0.33901
Sample type:	Sample



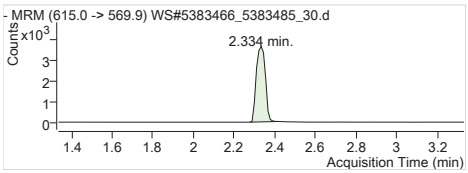


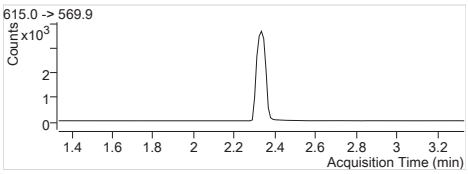
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 111.27 µg/L
Area ratio: 0.22329
Sample type: Sample



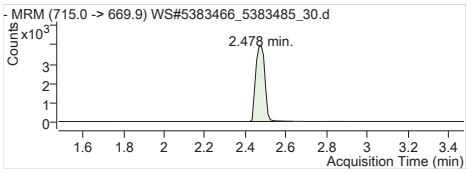


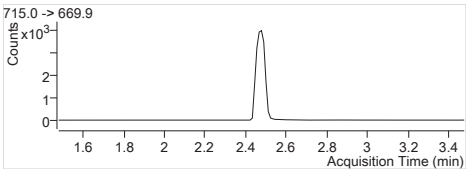
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 102.43 µg/L
Area ratio: 0.24775
Sample type: Sample



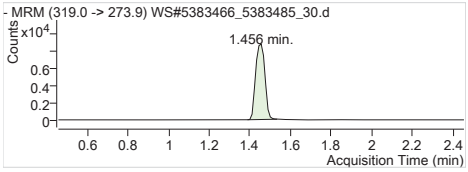


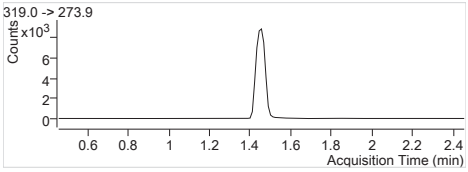
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 96.68 µg/L
Area ratio: 0.31123
Sample type: Sample



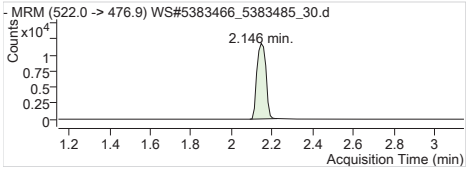


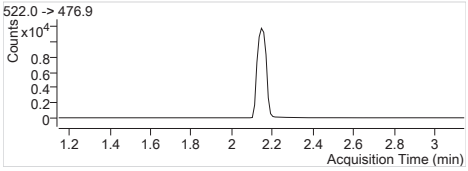
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 92.84 µg/L
Area ratio: 0.34053
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.35 µg/L
Area ratio: 0
Sample type: Sample





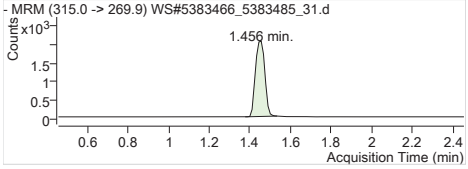
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.43 µg/L
Area ratio: 0
Sample type: Sample

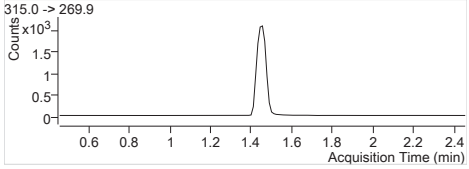
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**5383466:FZH342-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_31.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D1
Acq. Date	2018/02/06 8:34:59 PM	**Injection Volume**	Per Method
Sample Annotation	-		

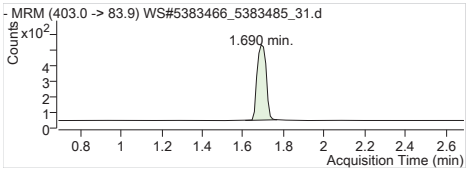
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6582	1.46	1 µg/L		
MPFHxS	1519	1.69	1 µg/L		
MPFHpA	8662	1.71	1 µg/L		
MPFOA	8793	1.89	1 µg/L		
MPFOS	2075	1.99	1 µg/L		
MPFNA	8892	2.04	1 µg/L		
MPFDA	7401	2.15	1 µg/L		
MPFUnA	8016	2.25	1 µg/L		
MPFDoA	10327	2.33	1 µg/L		
MPFTeDA	10625	2.48	1 µg/L		
13C6-PFHxA IS	27752	1.46	1 µg/L		
13C9-PFDA IS	36036	2.15	1 µg/L		

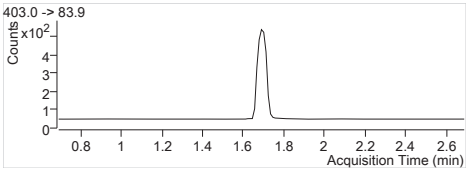
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	54	1.11	-	0.01 µg/L	-
PFHxA 1	1445	1.46	-	0.02 µg/L	-
PFHxS 1	208	1.69	-	0.01 µg/L	-
PFHpA 1	1402	1.71	-	0.01 µg/L	-
PFOA 1	888	1.89	-	0.01 µg/L	-
PFOS 1	292	1.97	-	0.01 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6582	1.46	-	100.10 µg/L	-
18O2-PFHxS	1519	1.69	-	94.19 µg/L	-
13C4-PFHpA	8662	1.71	-	106.84 µg/L	-
13C4-PFOA	8793	1.89	-	100.94 µg/L	-
13C4-PFOS	2075	1.99	-	108.32 µg/L	-
13C5-PFNA	8891	2.04	-	103.58 µg/L	-
13C2-PFDA	7271	2.15	-	100.55 µg/L	-
13C2-PFUnA	8016	2.25	-	91.97 µg/L	-
13C2-PFDoA	10327	2.33	-	89.02 µg/L	-
13C2-PFTeDA	10980	2.48	-	83.07 µg/L	-
13C6-PFHxA	27752	1.46	-	2.34 µg/L	-
13C9-PFDA	36036	2.15	-	2.42 µg/L	-



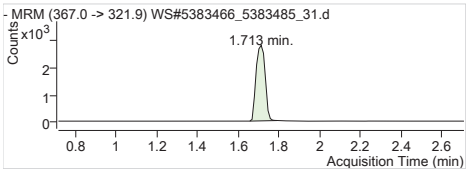


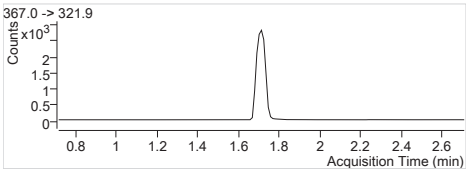
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Sample



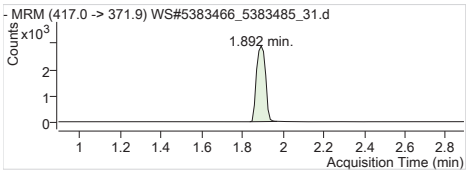


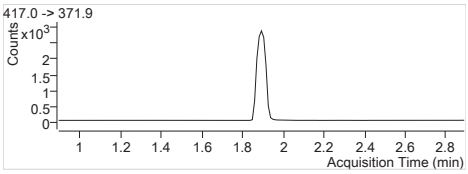
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



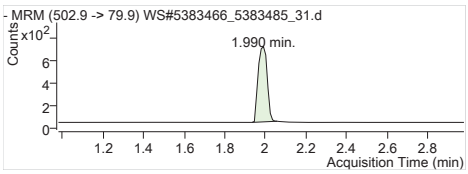


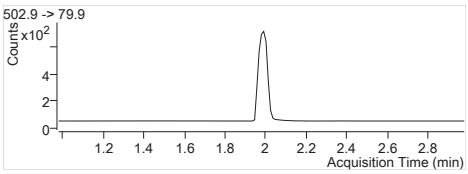
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



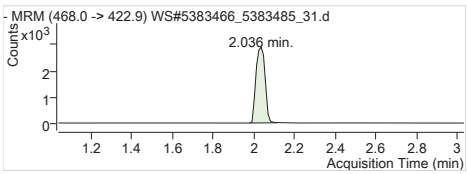


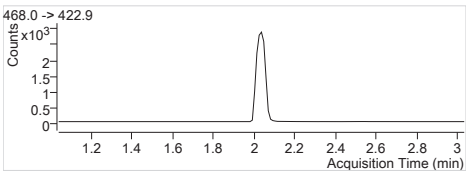
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



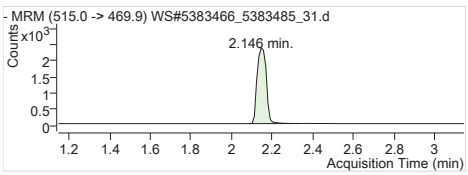


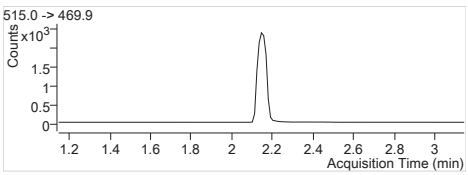
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Sample



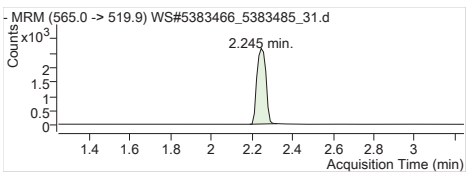


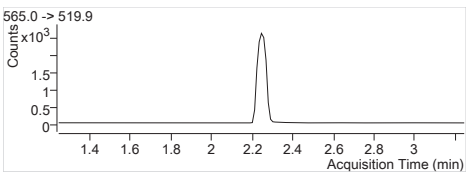
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



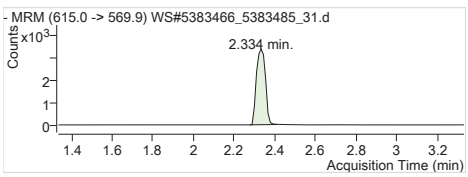


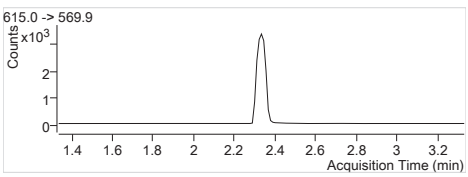
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



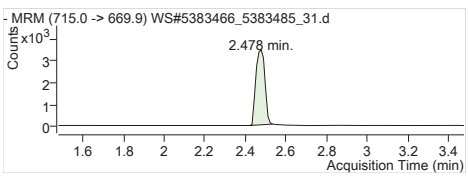


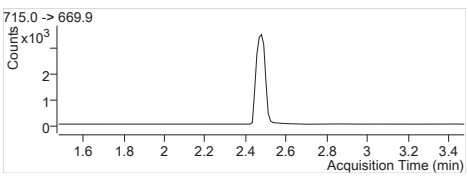
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



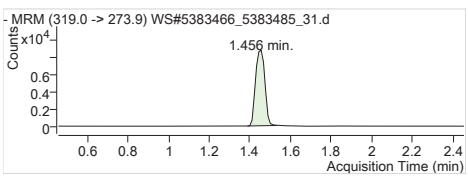


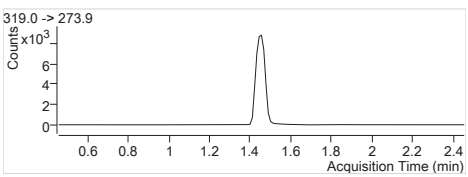
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Sample



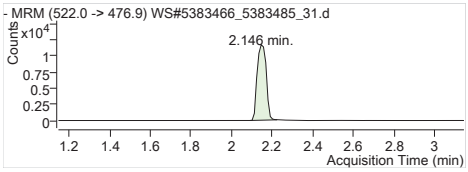


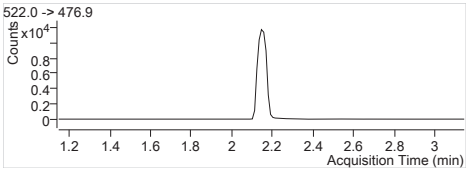
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Sample



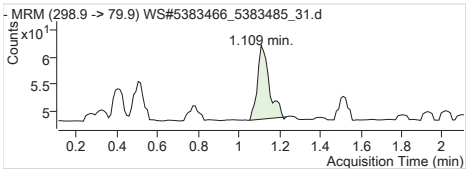


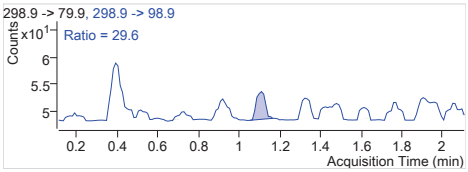
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



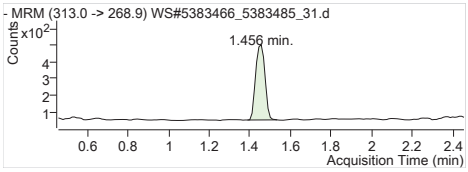


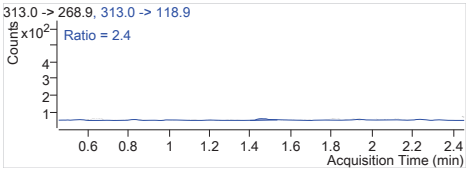
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



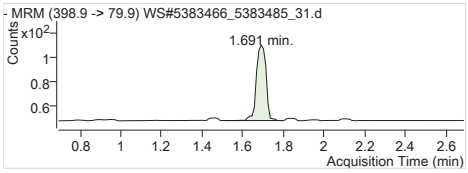


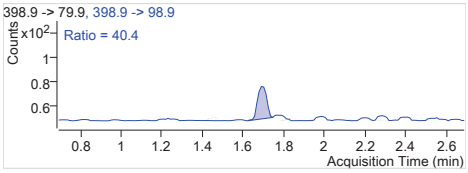
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 0.01 µg/L
Area ratio: 0.03555
Sample type: Sample



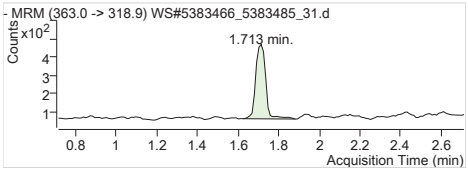


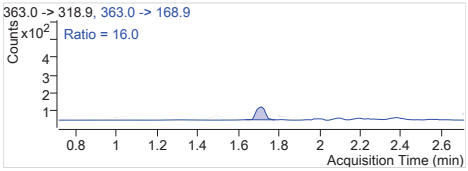
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 0.02 µg/L
Area ratio: 0.21954
Sample type: Sample



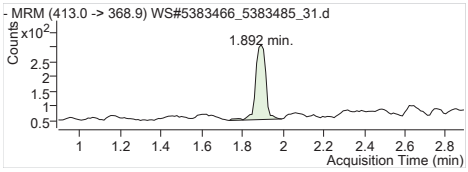


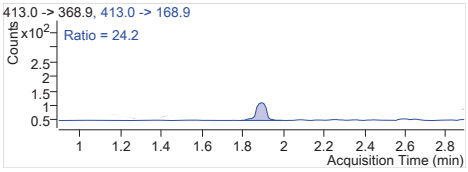
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.01 µg/L
Area ratio: 0.13693
Sample type: Sample



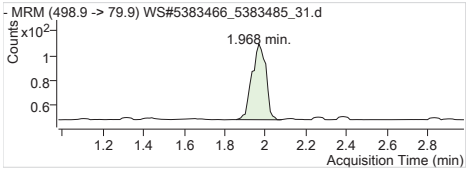


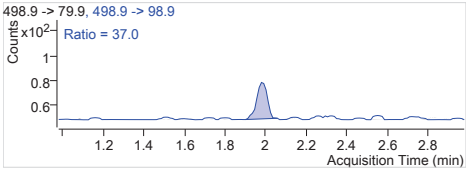
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 0.01 µg/L
Area ratio: 0.16186
Sample type: Sample



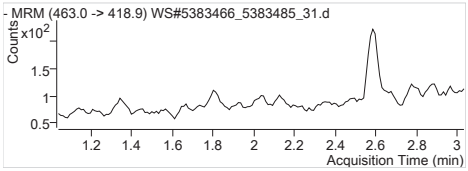


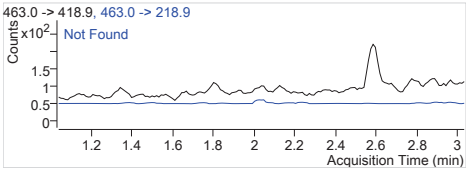
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 0.01 µg/L
Area ratio: 0.10099
Sample type: Sample



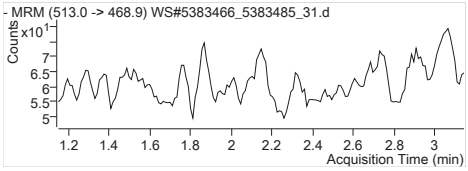


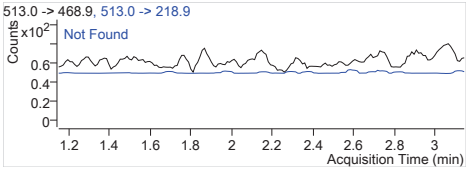
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.979)
Calc. conc. 0.01 µg/L
Area ratio: 0.14072
Sample type: Sample



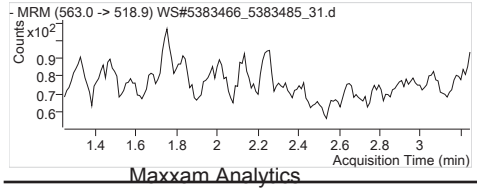


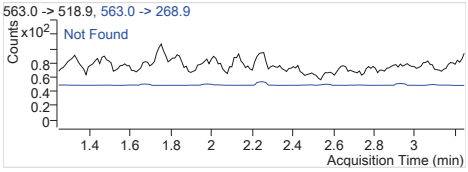
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.036)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



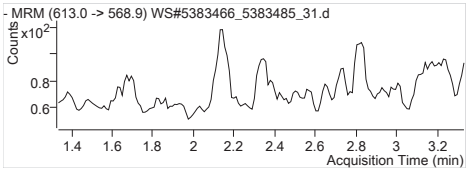


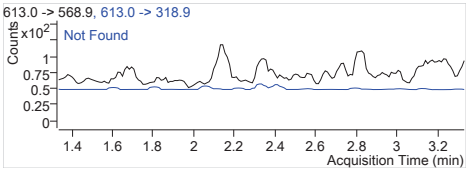
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



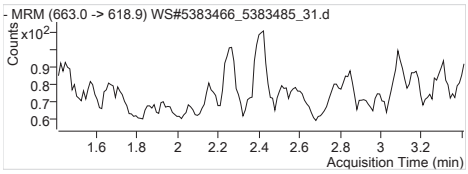


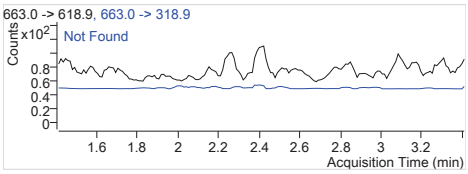
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



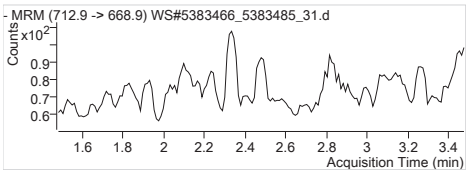


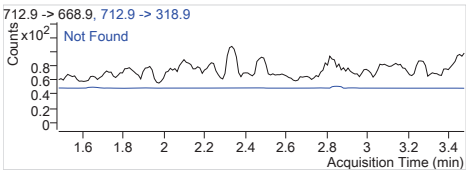
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



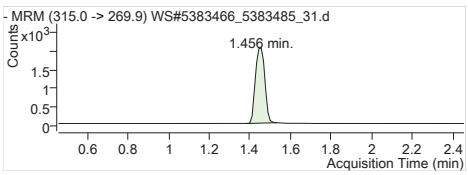


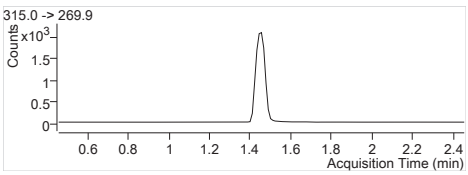
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.411)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



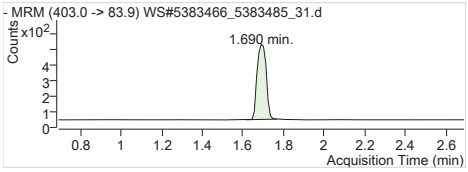


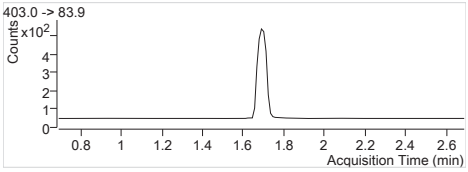
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.478)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



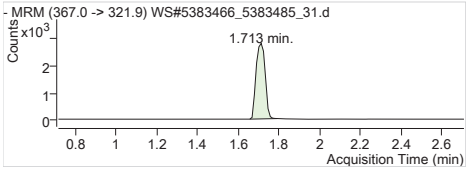


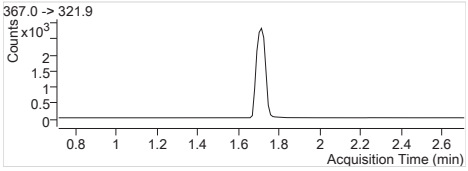
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 100.10 µg/L
Area ratio: 0.23717
Sample type: Sample



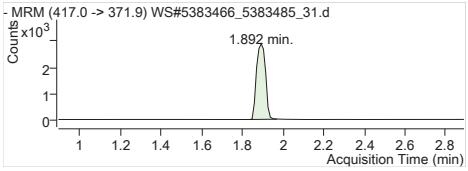


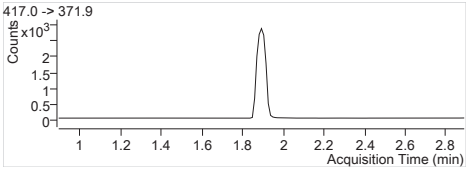
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 94.19 µg/L
Area ratio: 0.05473
Sample type: Sample



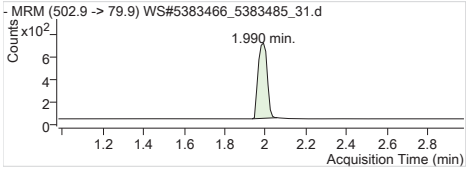


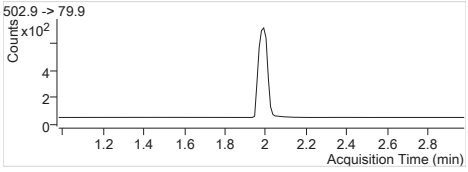
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 106.84 µg/L
Area ratio: 0.31212
Sample type: Sample



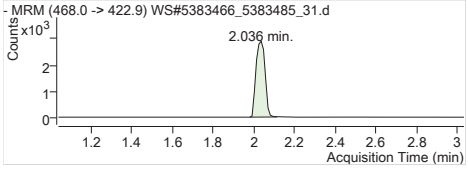


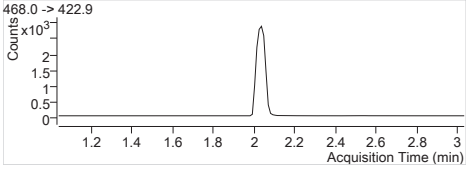
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 100.94 µg/L
Area ratio: 0.31684
Sample type: Sample



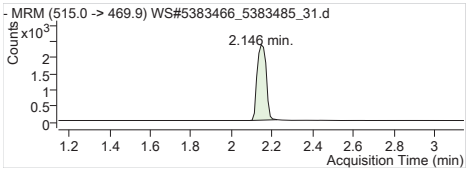


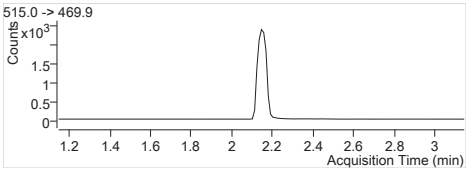
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 108.32 µg/L
Area ratio: 0.07477
Sample type: Sample



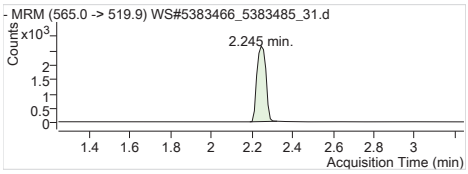


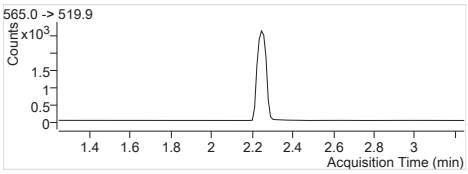
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 103.58 µg/L
Area ratio: 0.32037
Sample type: Sample



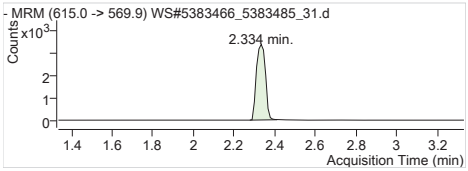


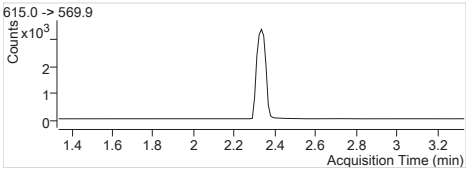
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 100.55 µg/L
Area ratio: 0.20177
Sample type: Sample



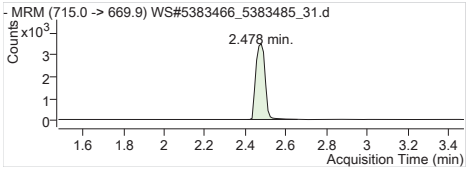


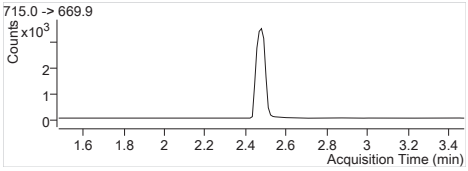
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 91.97 µg/L
Area ratio: 0.22244
Sample type: Sample



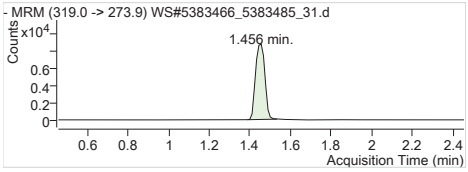


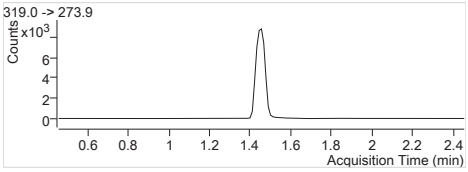
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 89.02 µg/L
Area ratio: 0.28657
Sample type: Sample



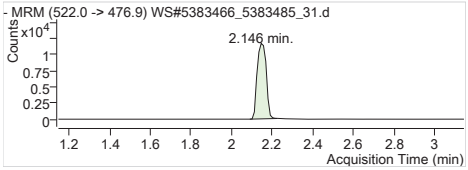


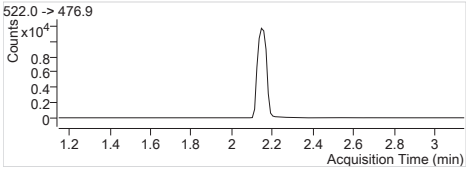
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 83.07 µg/L
Area ratio: 0.30470
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.34 µg/L
Area ratio: 0
Sample type: Sample





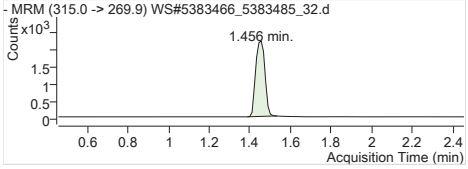
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.42 µg/L
Area ratio: 0
Sample type: Sample

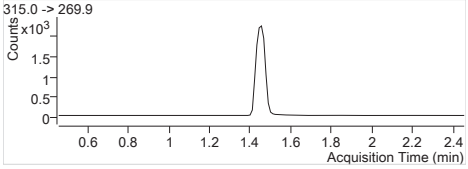
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**5383466:FZH343-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_32.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D2
Acq. Date	2018/02/06 8:39:56 PM	**Injection Volume**	Per Method
Sample Annotation	-		

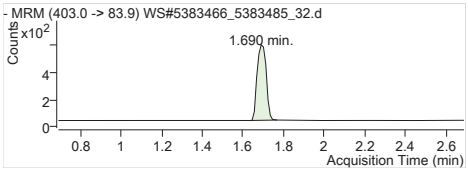
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7001	1.46	1 µg/L		
MPFHxS	1724	1.69	1 µg/L		
MPFHpA	8939	1.71	1 µg/L		
MPFOA	9938	1.89	1 µg/L		
MPFOS	1892	1.99	1 µg/L		
MPFNA	9877	2.04	1 µg/L		
MPFDA	7396	2.15	1 µg/L		
MPFUnA	8656	2.25	1 µg/L		
MPFDoA	11169	2.33	1 µg/L		
MPFTeDA	12172	2.48	1 µg/L		
13C6-PFHxA IS	27164	1.46	1 µg/L		
13C9-PFDA IS	36234	2.15	1 µg/L		

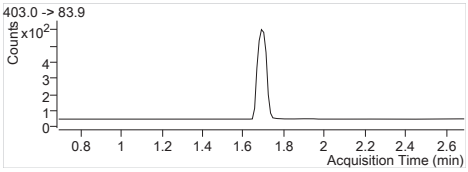
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	2538	1.46	-	0.03 µg/L	-
PFHxS 1	148	1.69	-	0.01 µg/L	-
PFHpA 1	5217	1.71	-	0.04 µg/L	-
PFOA 1	5107	1.89	-	0.03 µg/L	-
PFOS 1	1554	1.98	-	0.06 µg/L	-
PFNA 1	1729	2.04	-	0.01 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	7001	1.46	-	108.78 µg/L	-
18O2-PFHxS	1724	1.69	-	109.22 µg/L	-
13C4-PFHpA	8939	1.71	-	112.64 µg/L	-
13C4-PFOA	9938	1.89	-	116.55 µg/L	-
13C4-PFOS	1892	1.99	-	100.91 µg/L	-
13C5-PFNA	9877	2.04	-	117.56 µg/L	-
13C2-PFDA	7342	2.15	-	100.98 µg/L	-
13C2-PFUnA	8656	2.25	-	98.77 µg/L	-
13C2-PFDoA	11169	2.33	-	95.75 µg/L	-
13C2-PFTeDA	12337	2.48	-	92.83 µg/L	-
13C6-PFHxA	27164	1.46	-	2.29 µg/L	-
13C9-PFDA	36234	2.15	-	2.43 µg/L	-



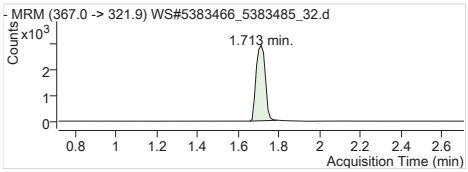


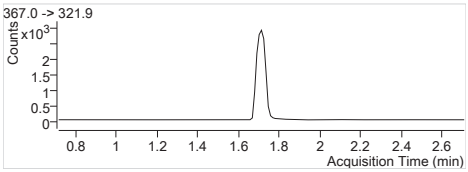
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Sample



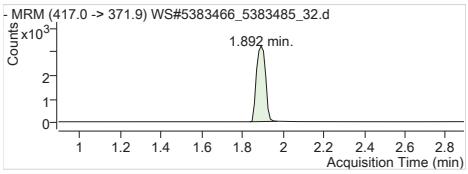


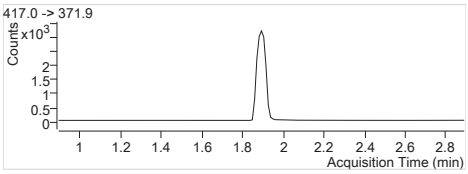
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



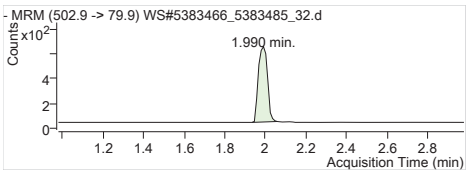


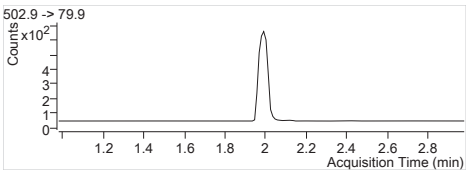
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



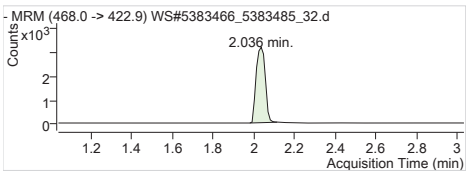


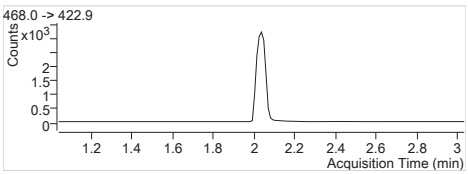
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



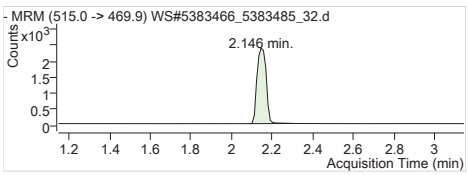


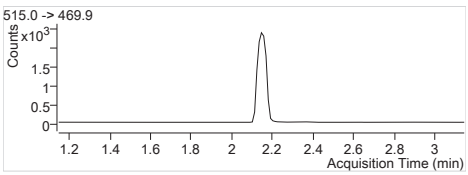
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Sample



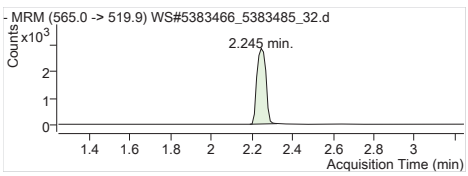


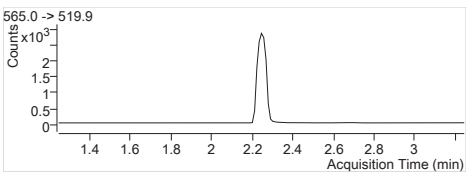
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



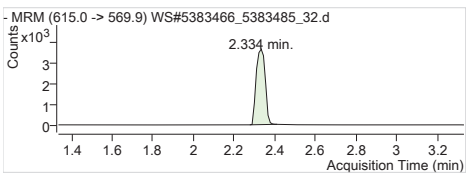


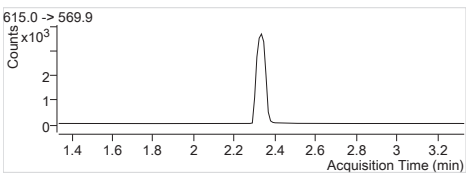
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



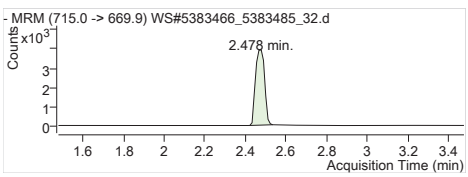


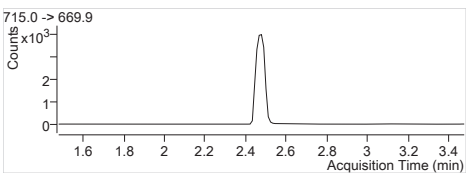
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



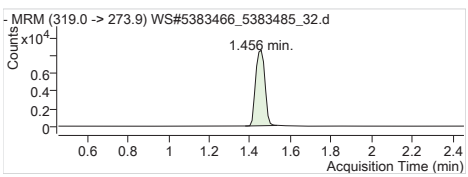


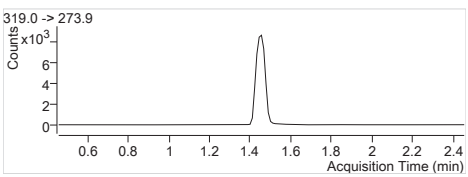
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Sample



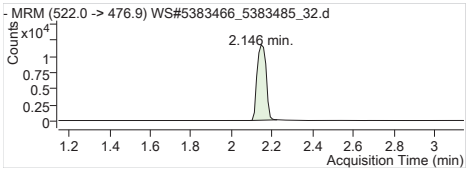


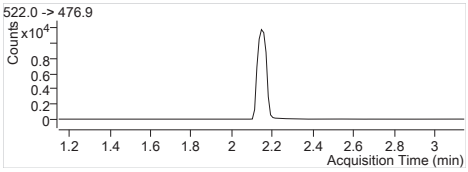
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Sample



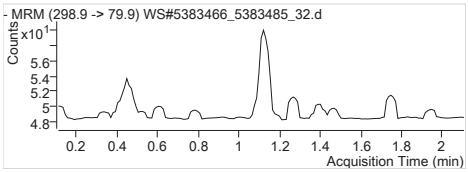


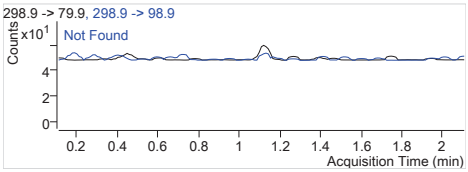
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



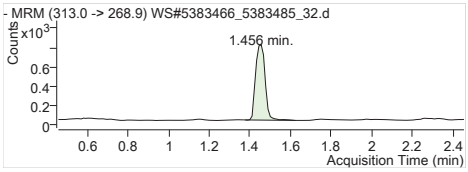


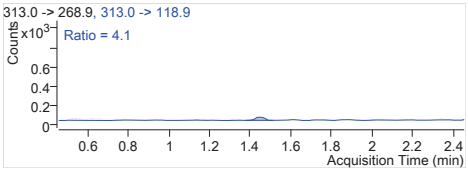
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



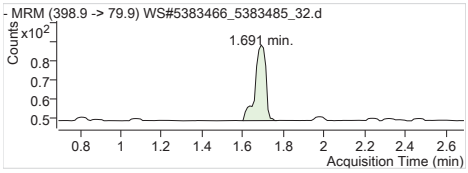


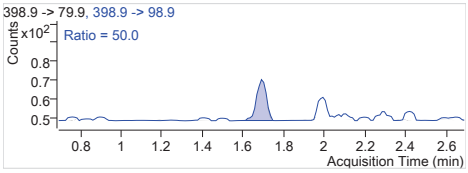
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.109)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



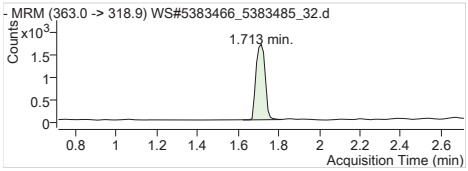


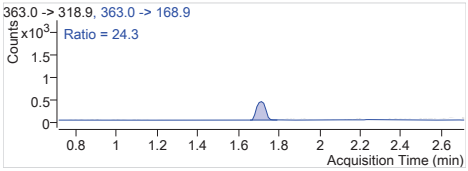
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 0.03 µg/L
Area ratio: 0.36252
Sample type: Sample



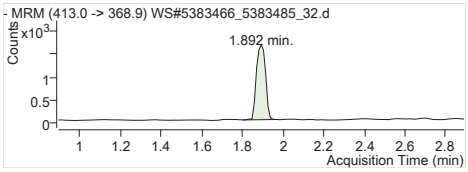


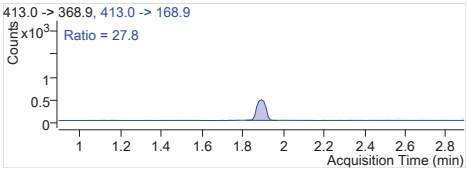
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.01 µg/L
Area ratio: 0.08585
Sample type: Sample



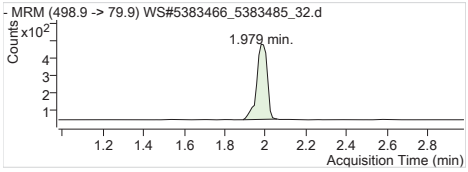


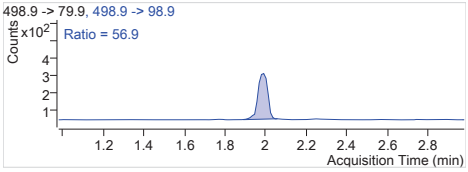
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 0.04 µg/L
Area ratio: 0.58362
Sample type: Sample



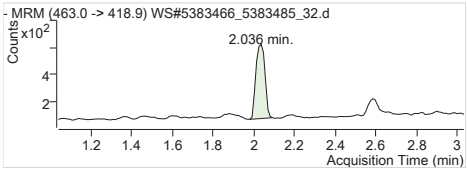


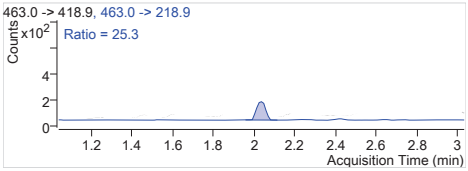
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 0.03 µg/L
Area ratio: 0.51389
Sample type: Sample



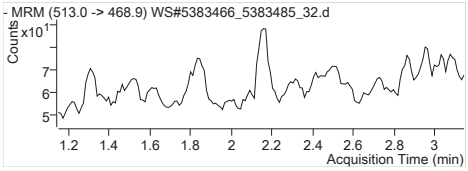


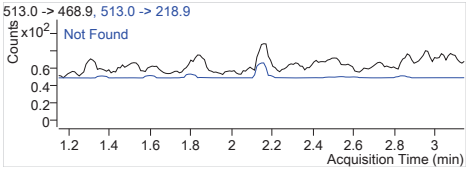
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.06 µg/L
Area ratio: 0.82135
Sample type: Sample



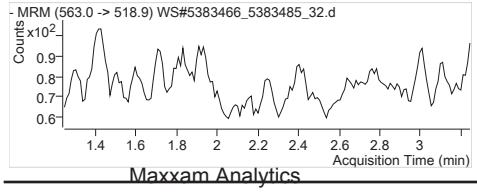


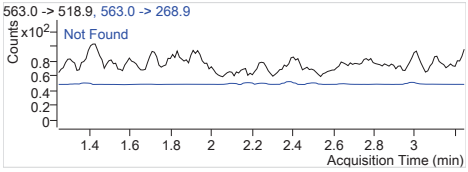
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.01 µg/L
Area ratio: 0.17505
Sample type: Sample



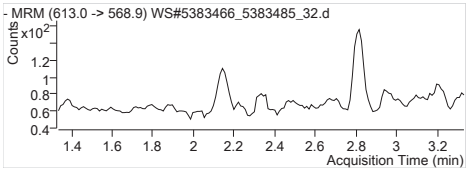


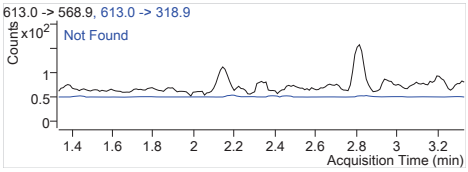
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



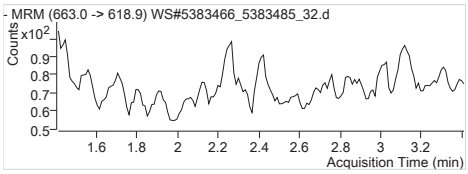


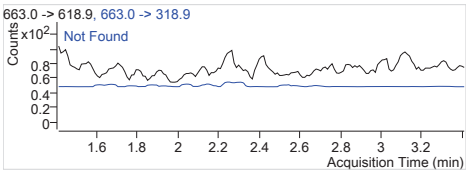
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



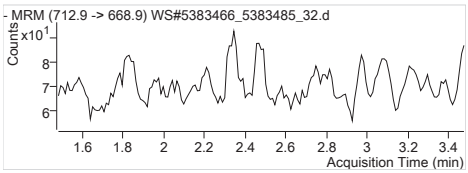


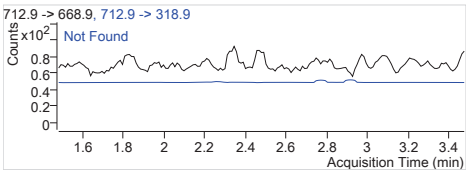
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.334)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



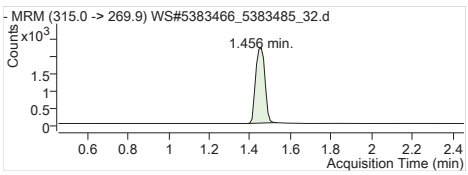


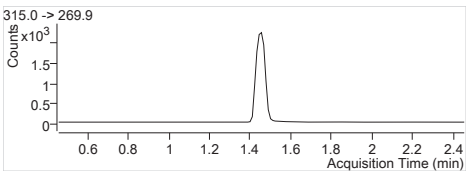
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.411)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



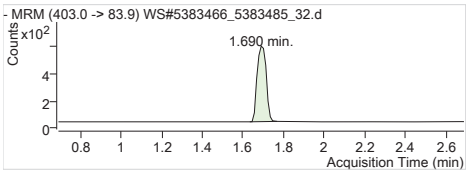


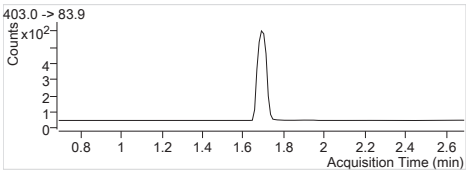
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.478)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



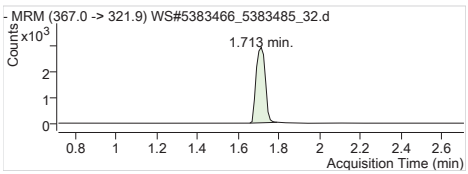


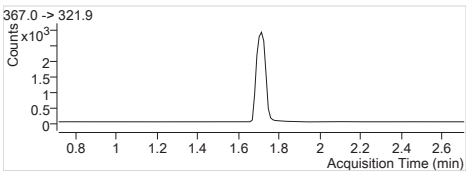
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	108.78 µg/L
Area ratio:	0.25773
Sample type:	Sample



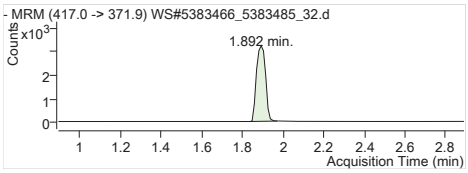


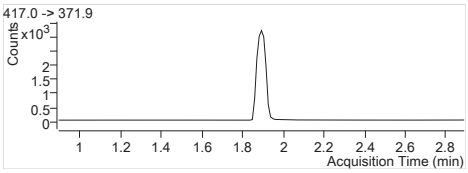
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	109.22 µg/L
Area ratio:	0.06347
Sample type:	Sample



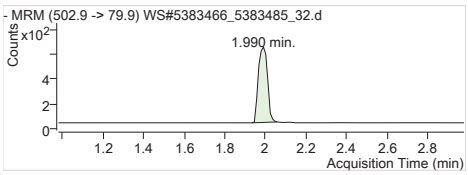


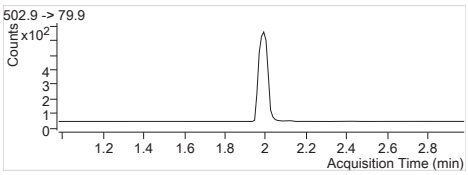
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	112.64 µg/L
Area ratio:	0.32908
Sample type:	Sample



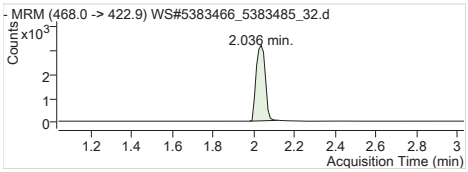


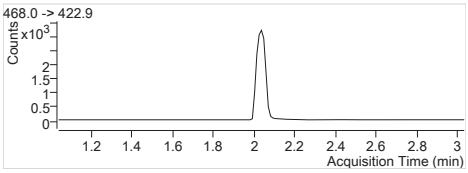
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	116.55 µg/L
Area ratio:	0.36585
Sample type:	Sample



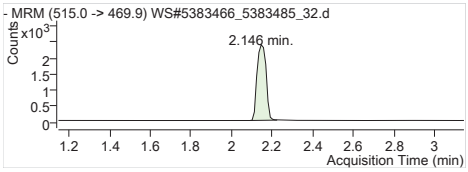


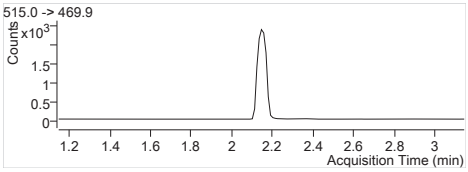
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	100.91 µg/L
Area ratio:	0.06965
Sample type:	Sample



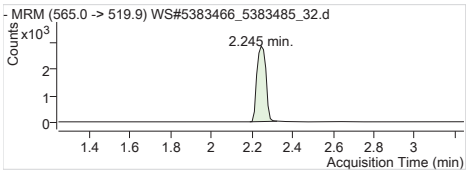


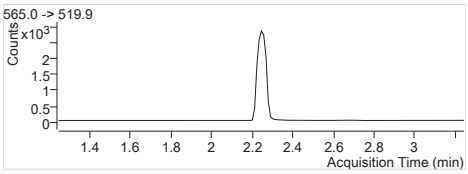
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	117.56 µg/L
Area ratio:	0.36361
Sample type:	Sample



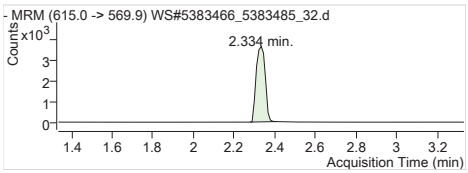


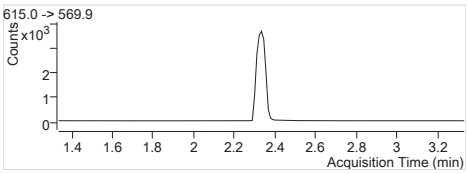
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 100.98 µg/L
Area ratio: 0.20263
Sample type: Sample



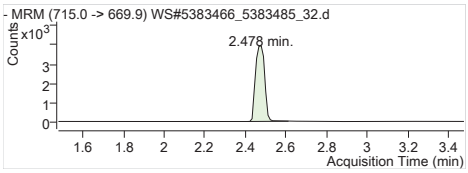


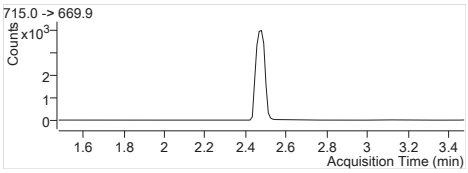
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 98.77 µg/L
Area ratio: 0.23889
Sample type: Sample



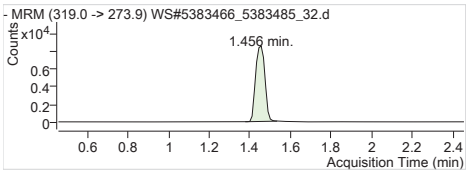


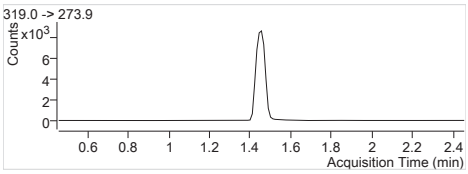
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 95.75 µg/L
Area ratio: 0.30825
Sample type: Sample



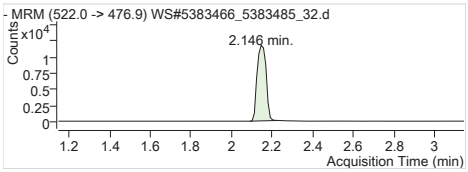


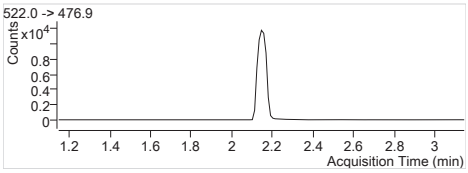
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 92.83 µg/L
Area ratio: 0.34048
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.29 µg/L
Area ratio: 0
Sample type: Sample





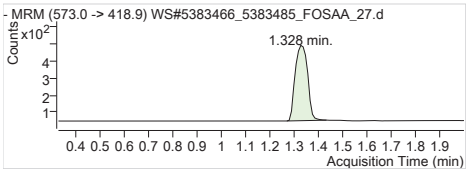
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.43 µg/L
Area ratio: 0
Sample type: Sample

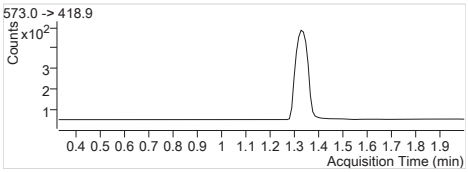
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics

Sample Name	**5383466:FZH338-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_27.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-C6
Acq. Date	2018/02/06 1:28:23 PM	**Injection Volume**	Per Method
Sample Annotation	-		

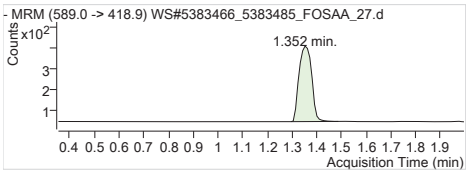
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1549	1.33	1 µg/L		
D5-EtFOSAA IS	1283	1.35	1 µg/L		
13C9-PFDA IS	27634	0.94	1 µg/L		

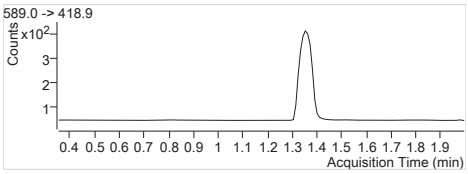
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1549	1.33	-	85.33 µg/L	-
D5-EtFOSAA	1283	1.35	-	82.03 µg/L	-
13C9-PFDA	27615	0.94	-	2.35 µg/L	-



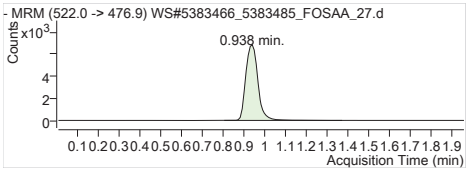


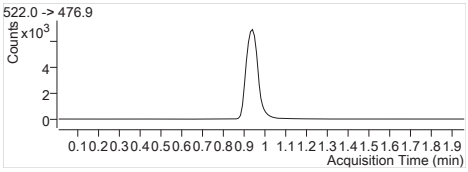
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Sample



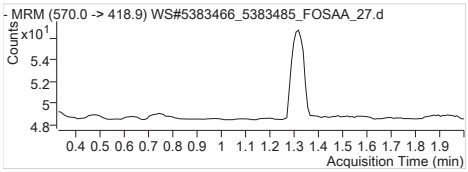


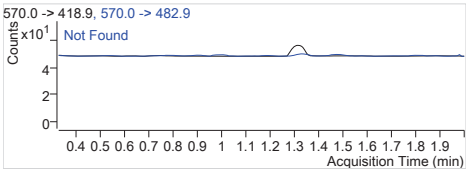
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Sample



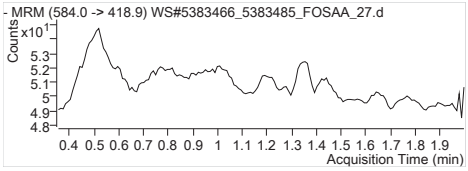


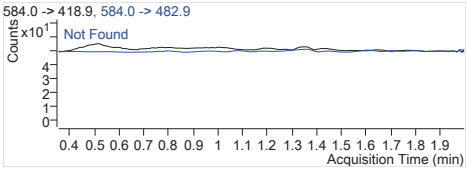
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.938 (0.958)
Concentration: 1 µg/L
Sample type: Sample



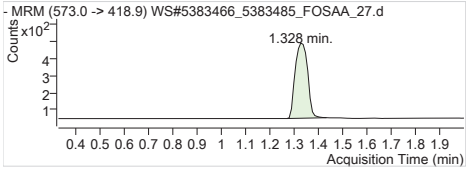


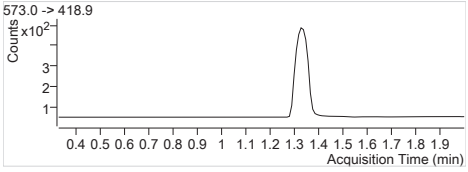
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.329)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



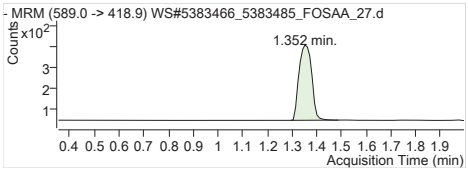


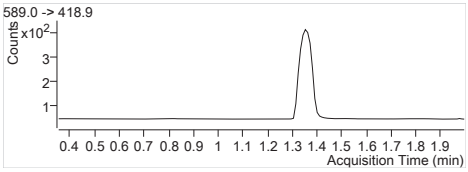
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.354)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



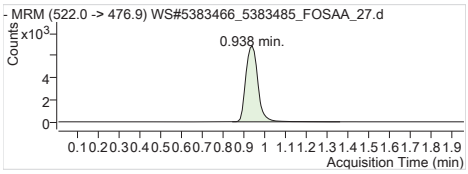


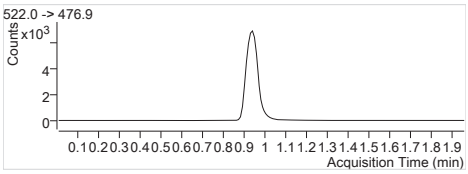
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 85.33 µg/L
Area ratio: 0.05605
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	82.03 µg/L
Area ratio:	0.04643
Sample type:	Sample





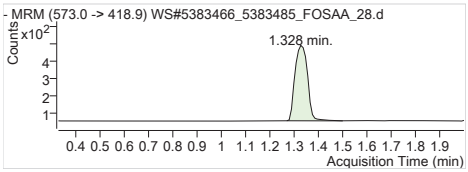
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.938 (0.958)
Calc. conc.	2.35 µg/L
Area ratio:	0
Sample type:	Sample

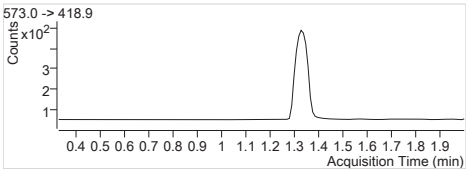
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics

Sample Name	**5383466:FZH339-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_28.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-C7
Acq. Date	2018/02/06 1:30:48 PM	**Injection Volume**	Per Method
Sample Annotation	-		

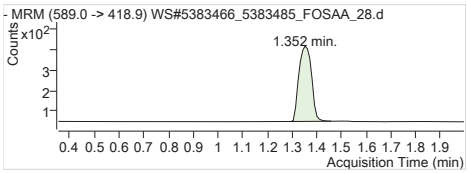
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1575	1.33	1 µg/L		
D5-EtFOSAA IS	1288	1.35	1 µg/L		
13C9-PFDA IS	25199	0.94	1 µg/L		

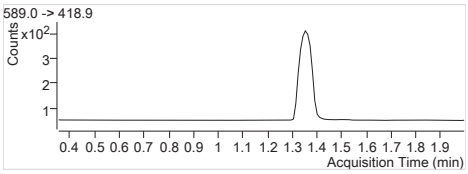
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1575	1.33	-	95.15 µg/L	-
D5-EtFOSAA	1288	1.35	-	90.31 µg/L	-
13C9-PFDA	25195	0.94	-	2.15 µg/L	-



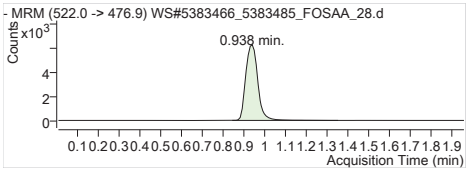


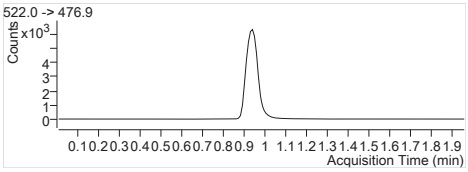
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Sample



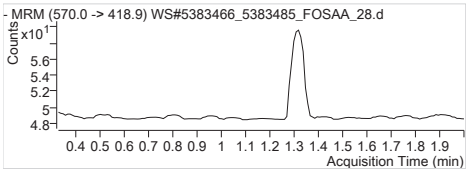


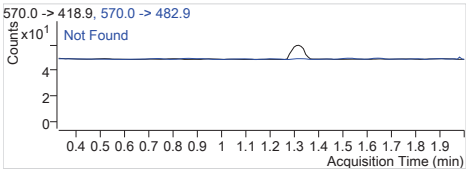
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Sample



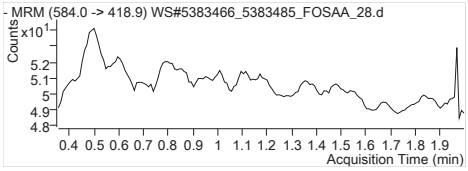


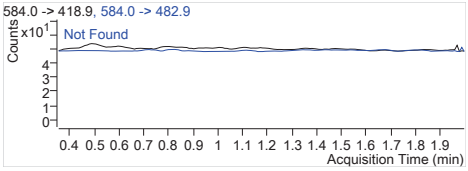
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.938 (0.958)
Concentration: 1 µg/L
Sample type: Sample



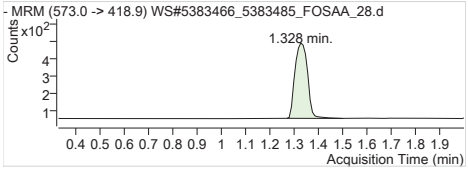


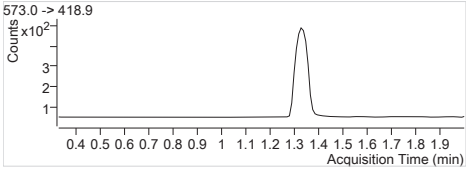
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.329)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



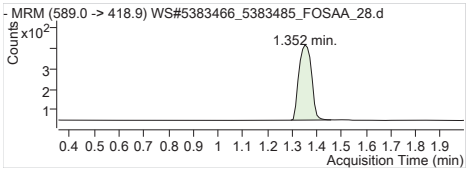


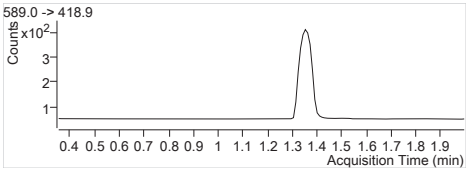
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.354)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



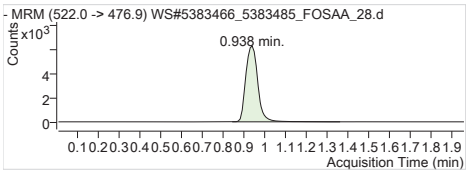


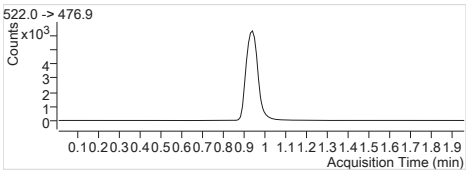
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 95.15 µg/L
Area ratio: 0.06250
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	90.31 µg/L
Area ratio:	0.05111
Sample type:	Sample





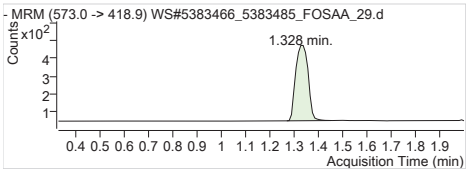
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.938 (0.958)
Calc. conc.	2.15 µg/L
Area ratio:	0
Sample type:	Sample

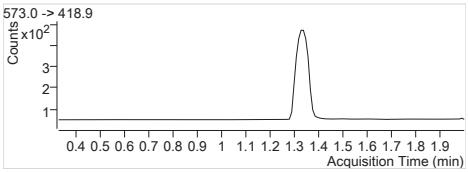
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**5383466:FZH340-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_29.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-C8
Acq. Date	2018/02/06 1:33:13 PM	**Injection Volume**	Per Method
Sample Annotation	-		

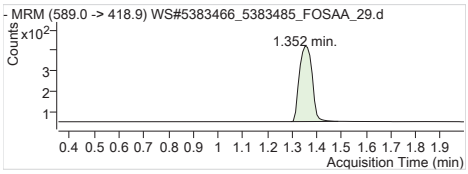
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1506	1.33	1 µg/L		
D5-EtFOSAA IS	1327	1.35	1 µg/L		
13C9-PFDA IS	28528	0.99	1 µg/L		

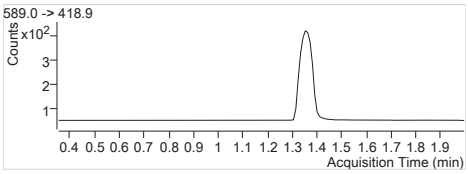
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1506	1.33	-	80.36 µg/L	-
D5-EtFOSAA	1327	1.35	-	82.19 µg/L	-
13C9-PFDA	27688	0.99	-	2.36 µg/L	-



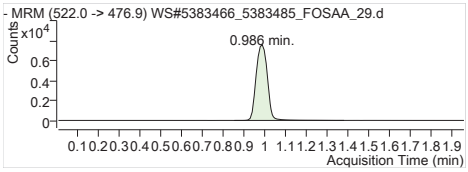


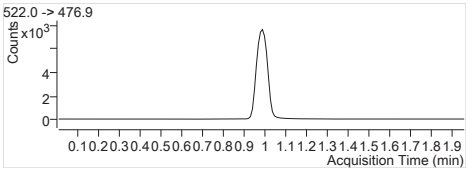
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Sample



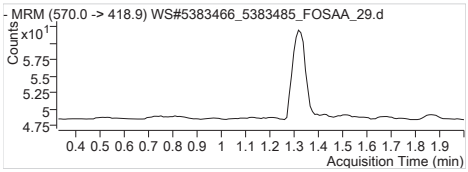


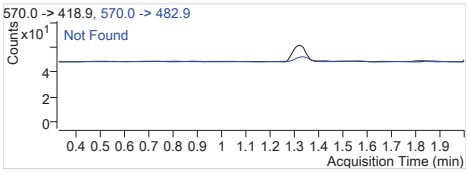
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Sample



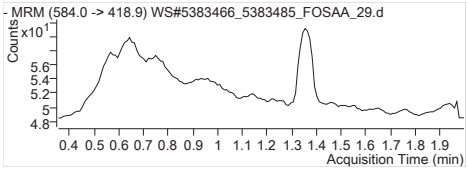


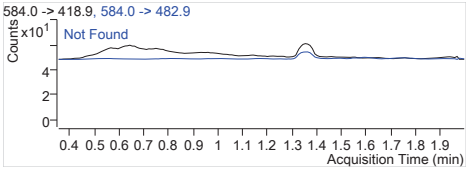
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.986 (0.958)
Concentration: 1 µg/L
Sample type: Sample



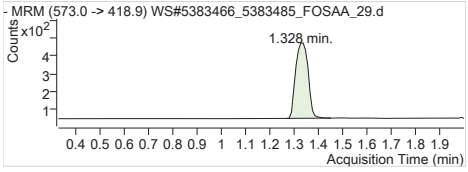


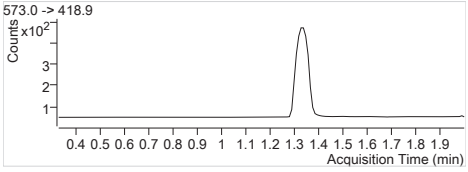
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.329)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



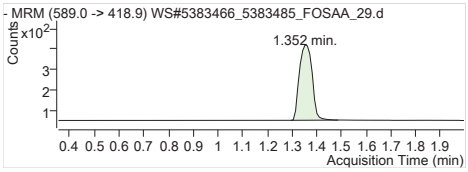


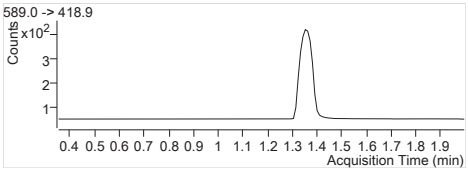
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.354)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



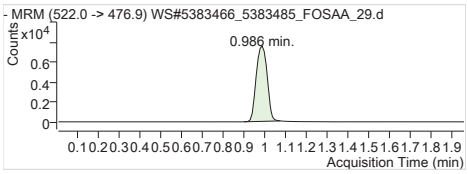


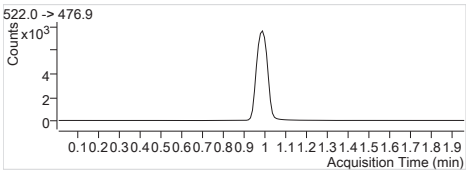
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 80.36 µg/L
Area ratio: 0.05279
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	82.19 µg/L
Area ratio:	0.04652
Sample type:	Sample





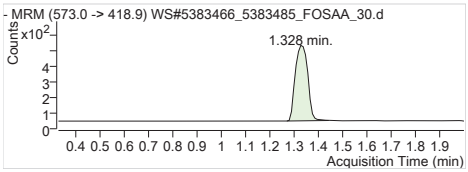
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.986 (0.958)
Calc. conc.	2.36 µg/L
Area ratio:	0
Sample type:	Sample

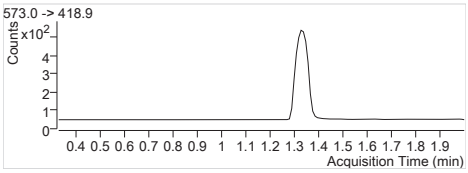
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**5383466:FZH341-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_30.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-C9
Acq. Date	2018/02/06 1:35:38 PM	**Injection Volume**	Per Method
Sample Annotation	-		

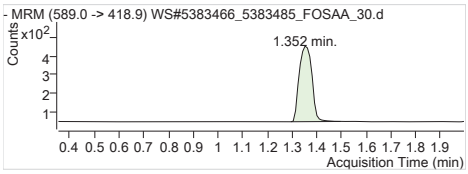
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1739	1.33	1 µg/L		
D5-EtFOSAA IS	1441	1.35	1 µg/L		
13C9-PFDA IS	29160	0.95	1 µg/L		

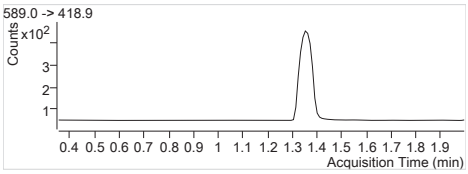
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1739	1.33	-	90.79 µg/L	-
D5-EtFOSAA	1441	1.35	-	87.32 µg/L	-
13C9-PFDA	29013	0.95	-	2.47 µg/L	-



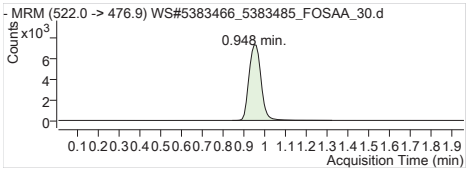


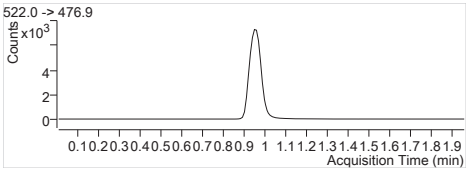
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Sample



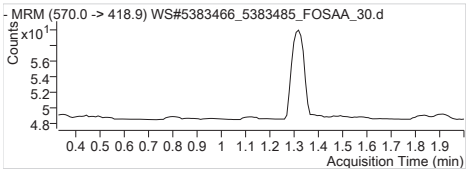


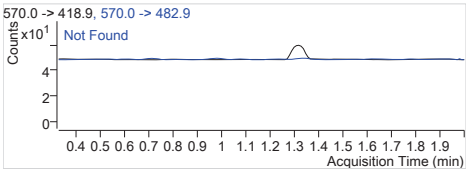
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Sample



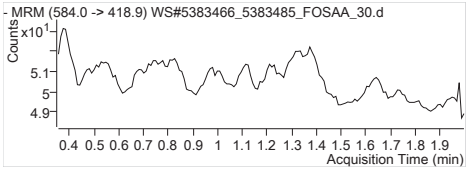


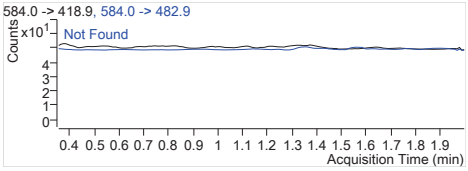
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: Sample



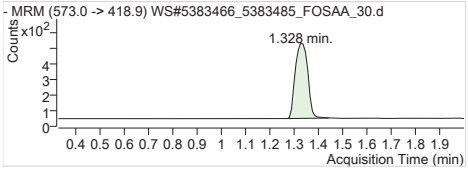


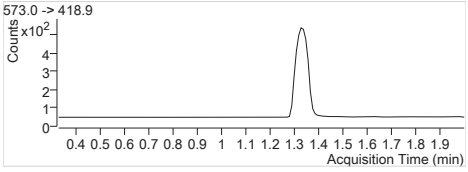
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.329)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



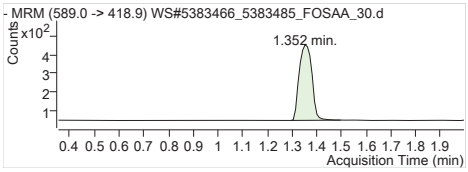


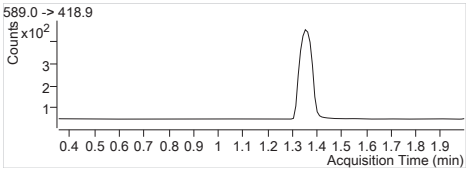
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.354)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



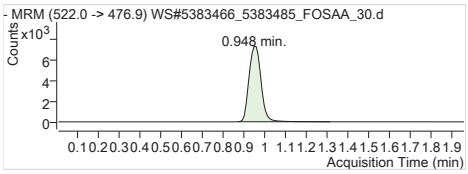


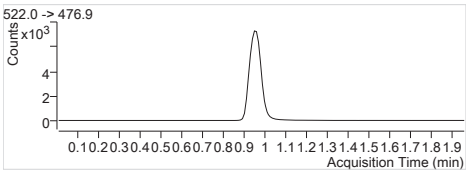
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 90.79 µg/L
Area ratio: 0.05964
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	87.32 µg/L
Area ratio:	0.04942
Sample type:	Sample





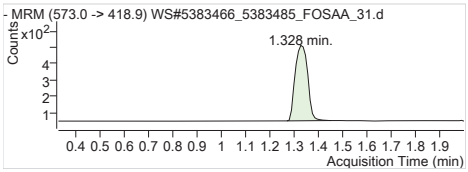
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	2.47 µg/L
Area ratio:	0
Sample type:	Sample

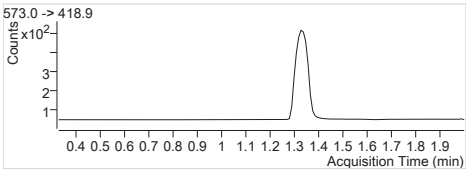
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**5383466:FZH342-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_31.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D1
Acq. Date	2018/02/06 1:38:04 PM	**Injection Volume**	Per Method
Sample Annotation	-		

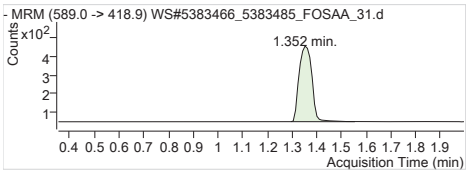
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1653	1.33	1 µg/L		
D5-EtFOSAA IS	1460	1.35	1 µg/L		
13C9-PFDA IS	28525	0.93	1 µg/L		

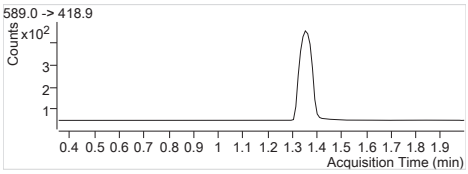
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	74	1.32	-	0.00 µg/L	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1653	1.33	-	88.22 µg/L	-
D5-EtFOSAA	1460	1.35	-	90.44 µg/L	-
13C9-PFDA	28807	0.93	-	2.45 µg/L	-



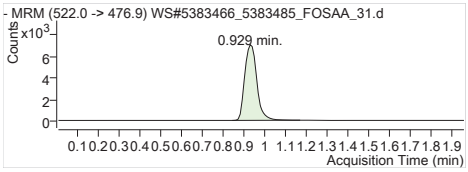


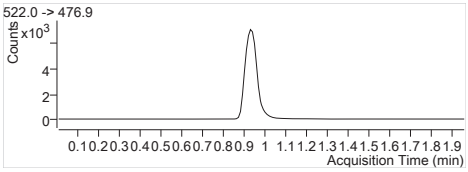
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Sample



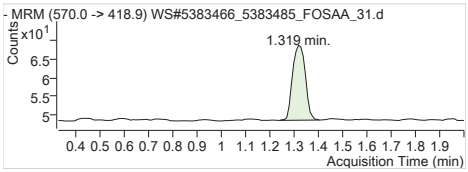


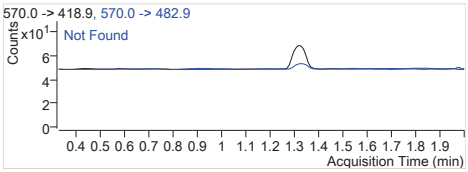
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Sample



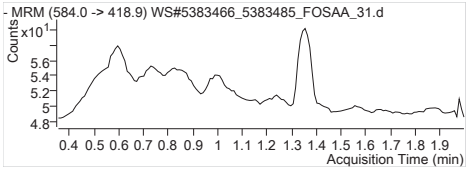


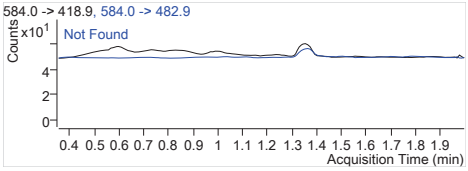
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.929 (0.958)
Concentration: 1 µg/L
Sample type: Sample



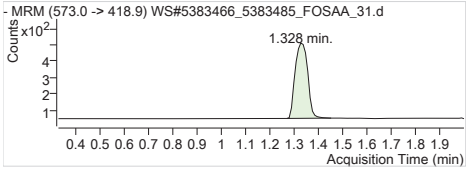


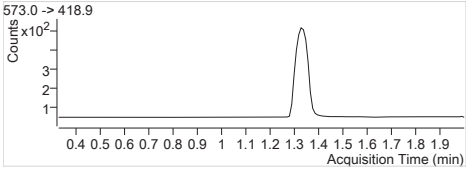
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.329)
Calc. conc. 0.00 µg/L
Area ratio: 0.04477
Sample type: Sample



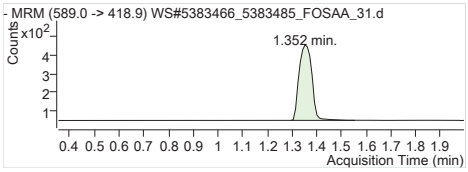


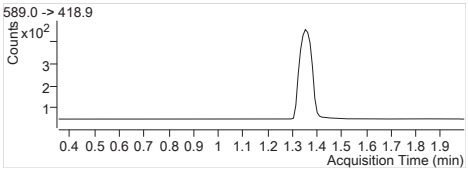
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.354)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



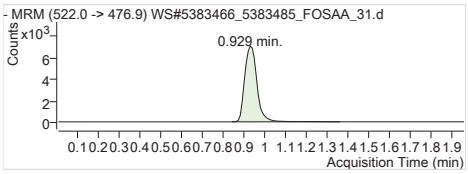


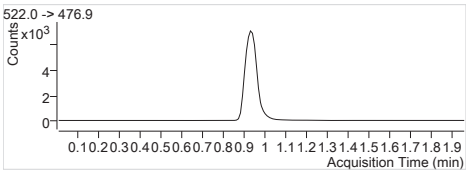
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 88.22 µg/L
Area ratio: 0.05795
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	90.44 µg/L
Area ratio:	0.05118
Sample type:	Sample





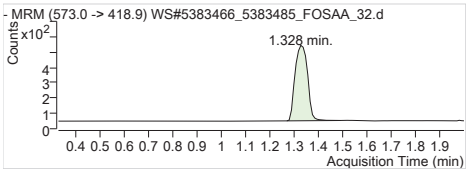
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.929 (0.958)
Calc. conc.	2.45 µg/L
Area ratio:	0
Sample type:	Sample

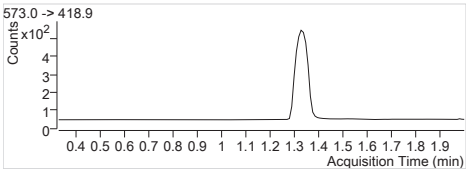
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**5383466:FZH343-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_32.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D2
Acq. Date	2018/02/06 1:40:27 PM	**Injection Volume**	Per Method
Sample Annotation	-		

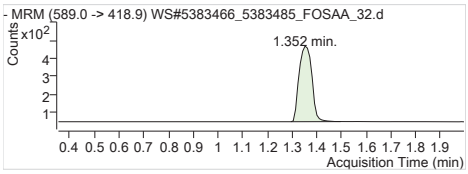
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1756	1.33	1 µg/L		
D5-EtFOSAA IS	1502	1.35	1 µg/L		
13C9-PFDA IS	28505	0.95	1 µg/L		

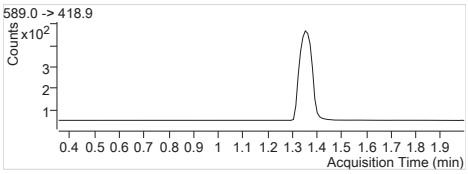
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1756	1.33	-	93.78 µg/L	-
D5-EtFOSAA	1502	1.35	-	93.10 µg/L	-
13C9-PFDA	28498	0.95	-	2.43 µg/L	-



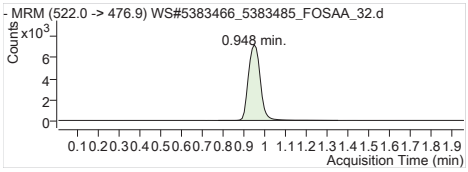


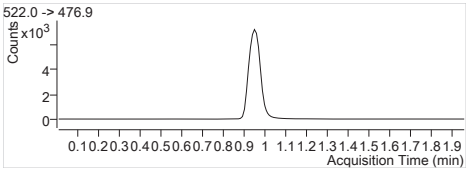
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Sample



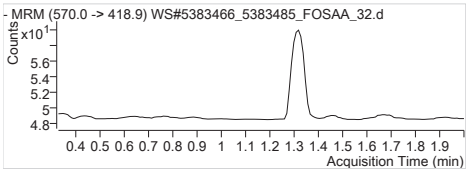


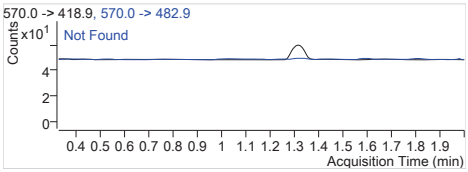
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Sample



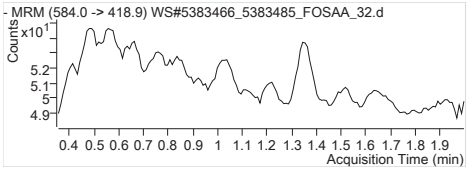


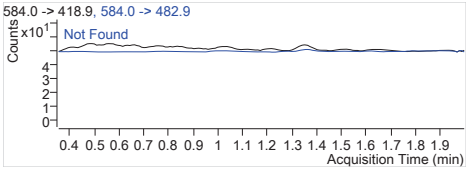
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: Sample



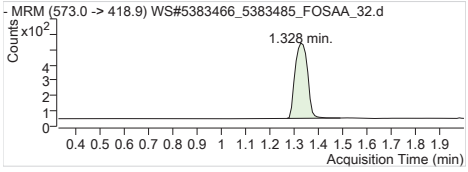


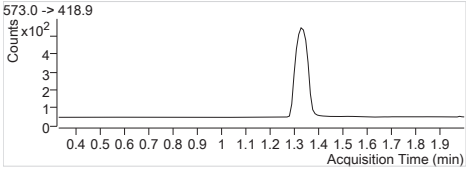
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.329)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



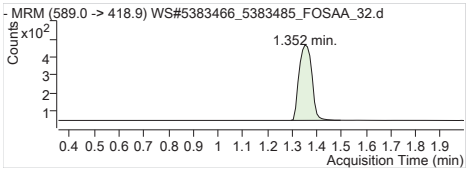


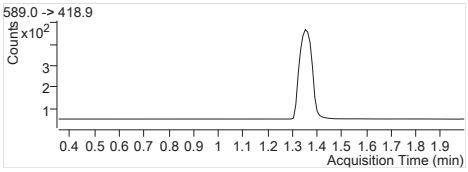
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.354)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



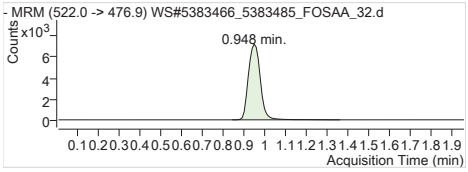


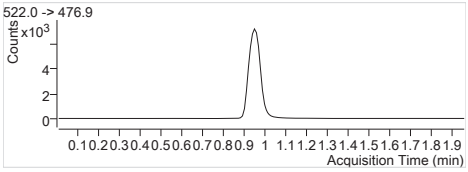
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 93.78 µg/L
Area ratio: 0.06160
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	93.10 µg/L
Area ratio:	0.05269
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	2.43 µg/L
Area ratio:	0
Sample type:	Sample

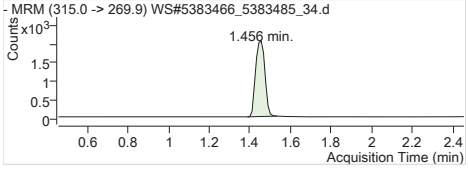
Quantitation Results

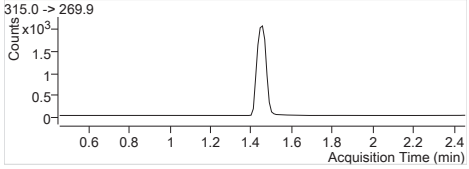
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics		
Sample Name	**5383485:FZH337-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_34.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D3
Acq. Date	2018/02/06 8:49:47 PM	**Injection Volume**	Per Method
Sample Annotation	-		

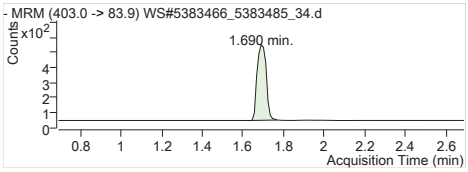
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6452	1.46	1 µg/L		
MPFHxS	1568	1.69	1 µg/L		
MPFHpA	8310	1.71	1 µg/L		
MPFOA	9076	1.89	1 µg/L		
MPFOS	2006	1.99	1 µg/L		
MPFNA	9187	2.04	1 µg/L		
MPFDA	7399	2.15	1 µg/L		
MPFUnA	8608	2.25	1 µg/L		
MPFDoA	11491	2.33	1 µg/L		
MPFTeDA	10599	2.48	1 µg/L		
13C6-PFHxA IS	27267	1.46	1 µg/L		
13C9-PFDA IS	36713	2.15	1 µg/L		

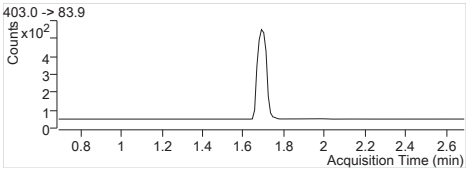
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1	34	1.69	-	0.01 µg/L	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6452	1.46	-	99.87 µg/L	-
18O2-PFHxS	1568	1.69	-	98.96 µg/L	-
13C4-PFHpA	8310	1.71	-	104.32 µg/L	-
13C4-PFOA	9076	1.89	-	106.04 µg/L	-
13C4-PFOS	2006	1.99	-	106.58 µg/L	-
13C5-PFNA	9098	2.04	-	107.88 µg/L	-
13C2-PFDA	7317	2.15	-	99.32 µg/L	-
13C2-PFUnA	8608	2.25	-	96.94 µg/L	-
13C2-PFDoA	11491	2.33	-	97.23 µg/L	-
13C2-PFTeDA	10771	2.48	-	79.99 µg/L	-
13C6-PFHxA	27267	1.46	-	2.30 µg/L	-
13C9-PFDA	36713	2.15	-	2.46 µg/L	-



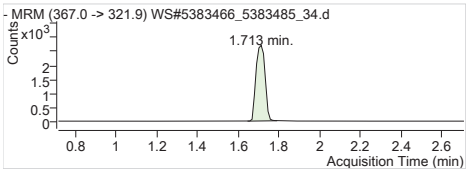


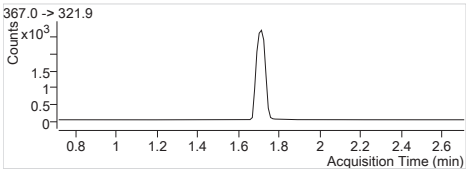
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Sample



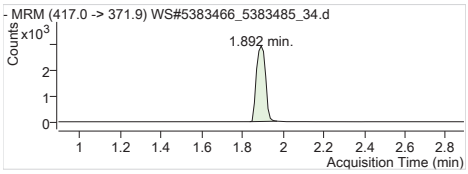


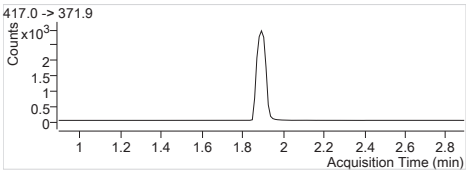
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



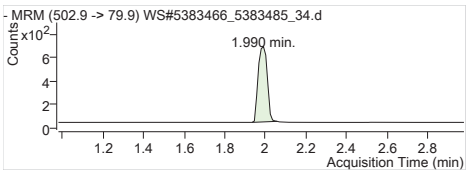


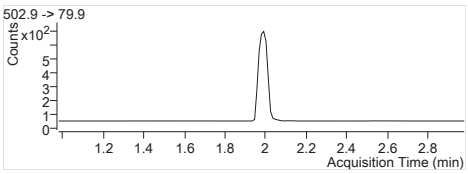
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



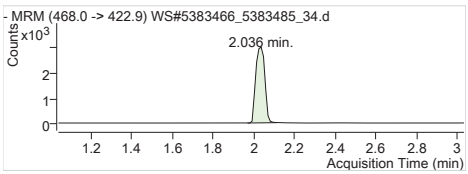


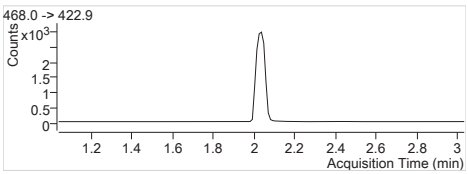
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



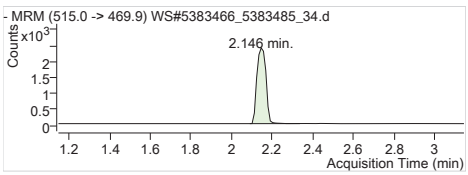


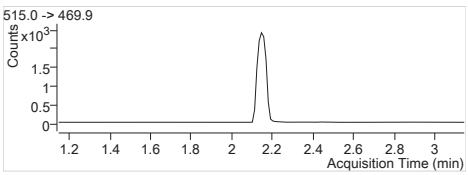
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Sample



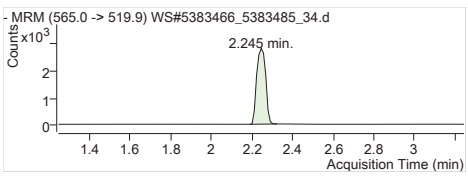


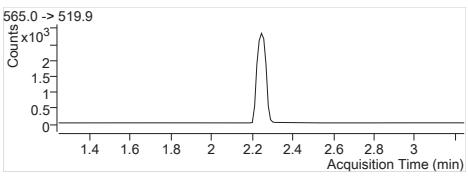
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



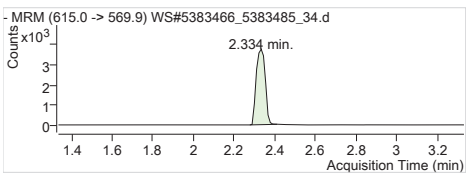


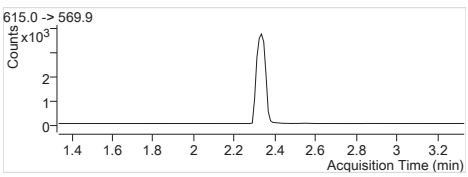
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



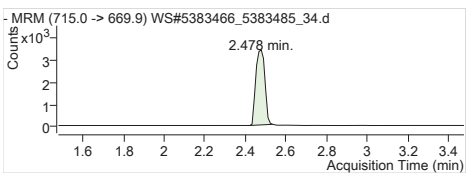


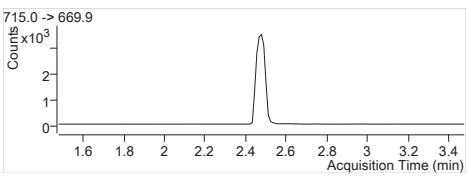
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



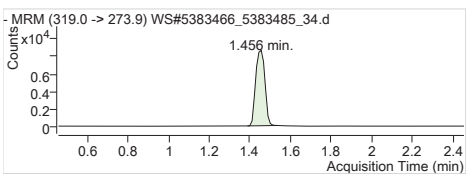


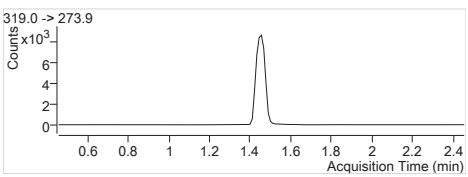
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Sample



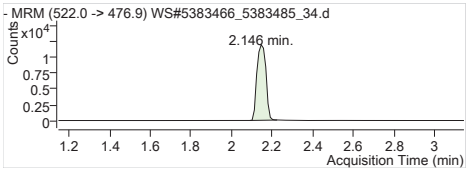


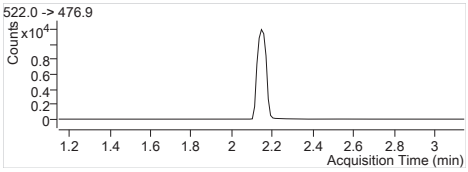
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Sample



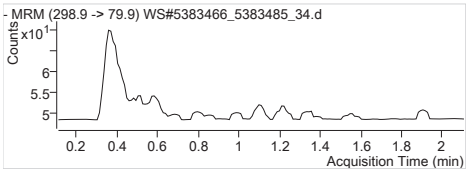


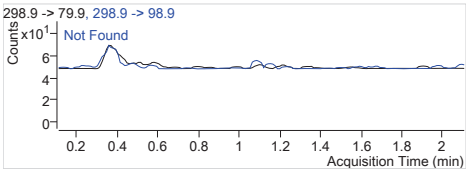
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



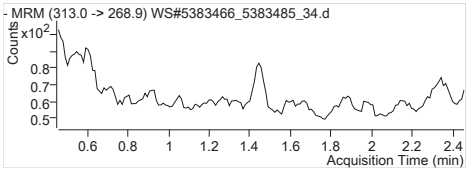


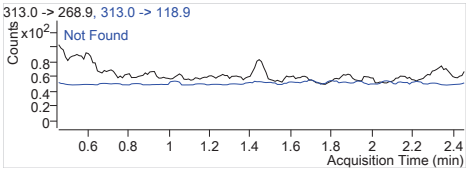
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



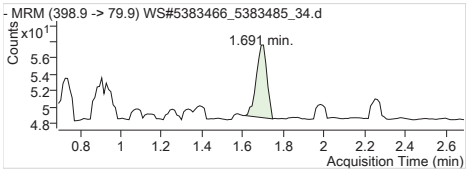


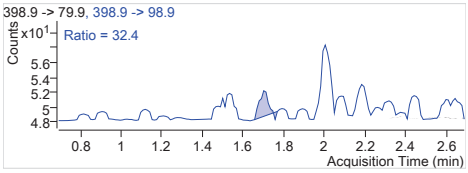
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.109)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



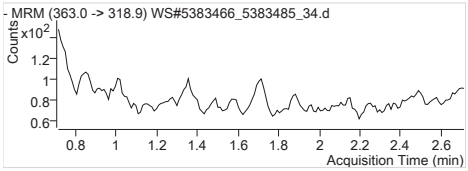


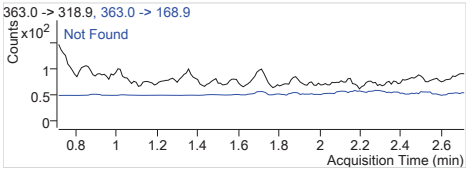
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.456)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



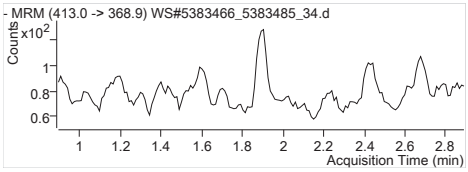


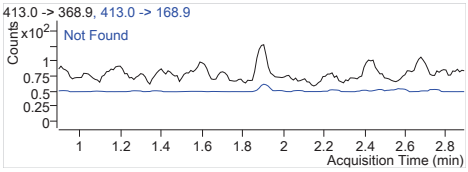
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.01 µg/L
Area ratio: 0.02168
Sample type: Sample



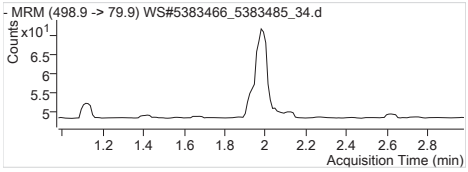


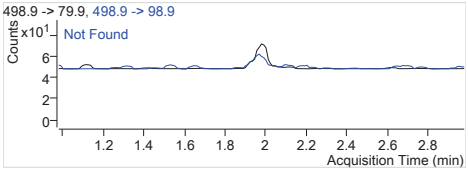
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.713)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



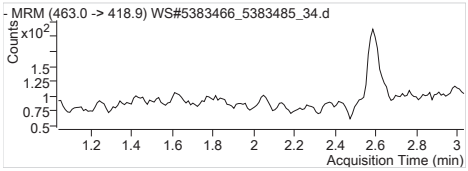


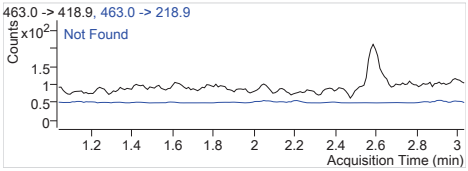
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.892)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



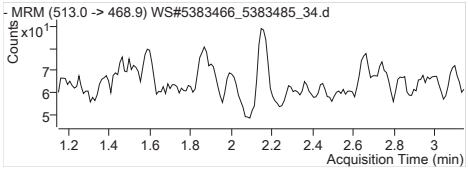


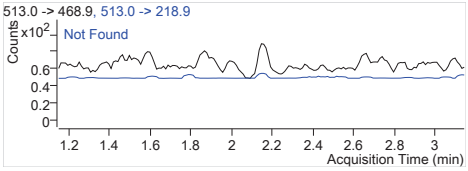
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



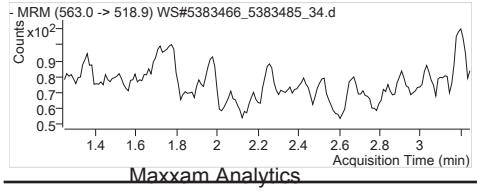


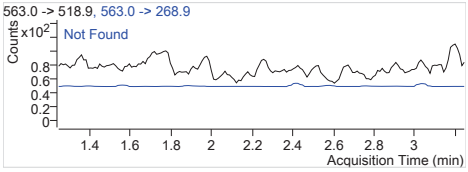
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.036)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



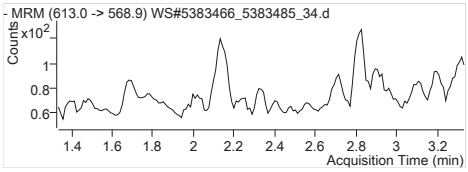


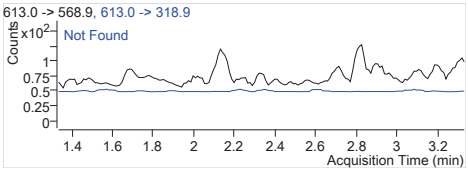
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



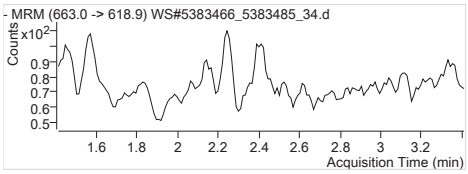


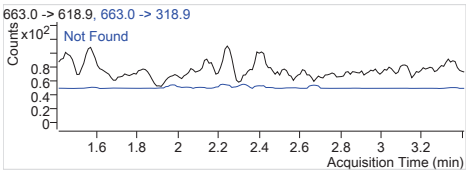
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



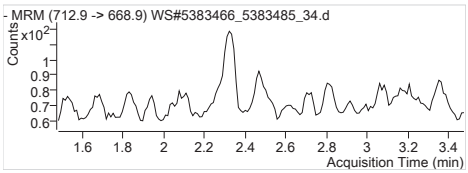


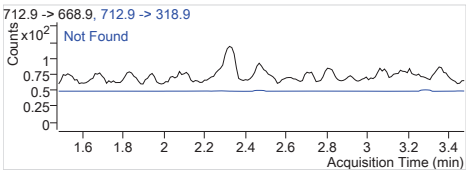
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.334)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



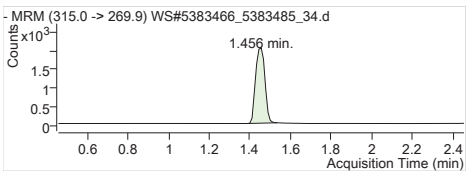


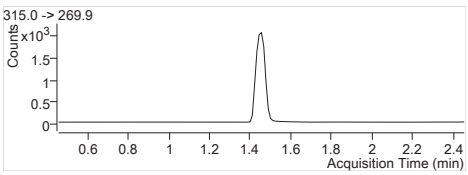
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.411)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



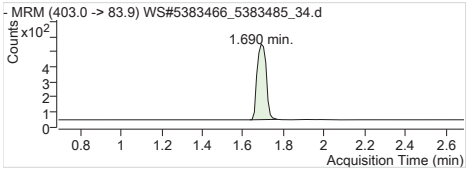


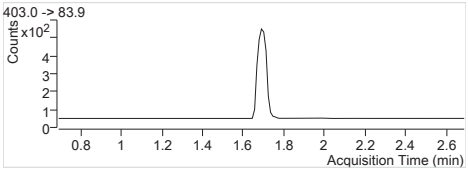
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.478)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



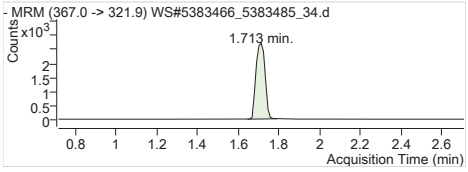


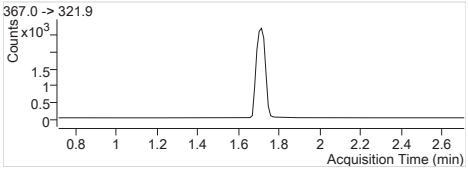
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	99.87 µg/L
Area ratio:	0.23662
Sample type:	Sample



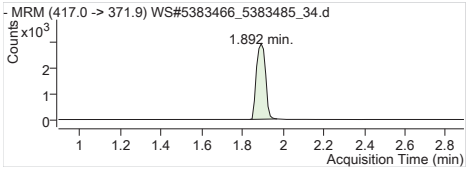


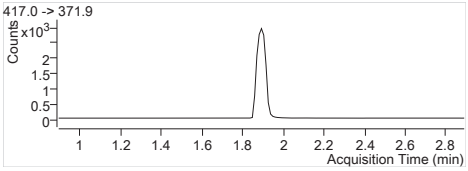
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	98.96 µg/L
Area ratio:	0.05751
Sample type:	Sample



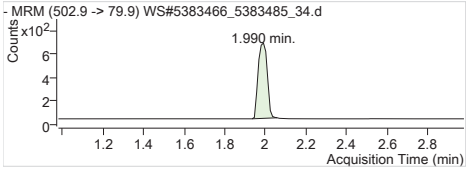


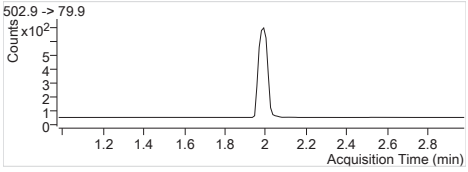
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	104.32 µg/L
Area ratio:	0.30476
Sample type:	Sample



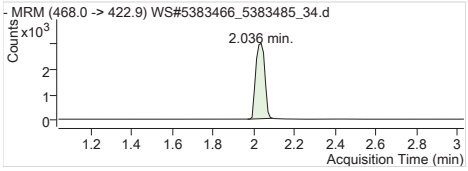


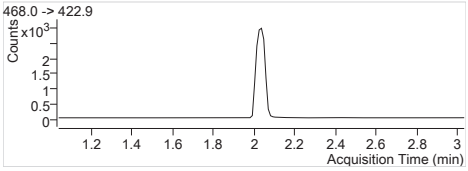
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	106.04 µg/L
Area ratio:	0.33286
Sample type:	Sample



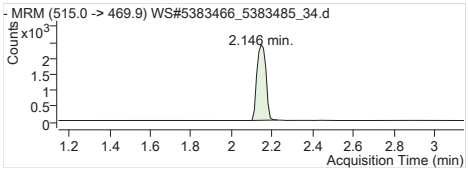


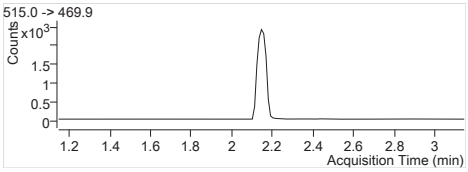
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	106.58 µg/L
Area ratio:	0.07357
Sample type:	Sample



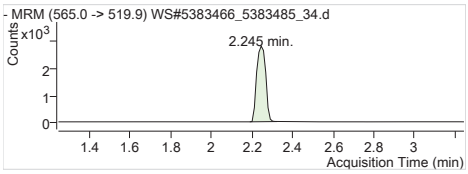


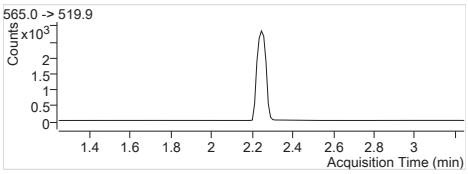
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	107.88 µg/L
Area ratio:	0.33366
Sample type:	Sample



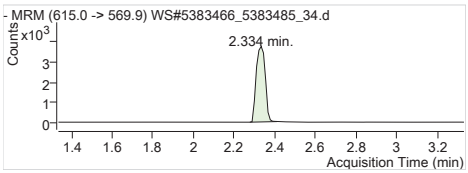


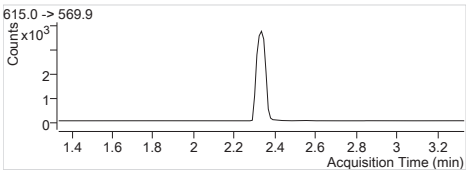
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 99.32 µg/L
Area ratio: 0.19930
Sample type: Sample



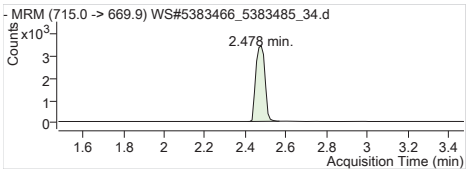


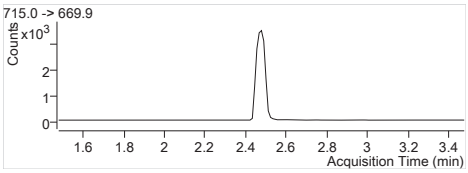
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 96.94 µg/L
Area ratio: 0.23447
Sample type: Sample



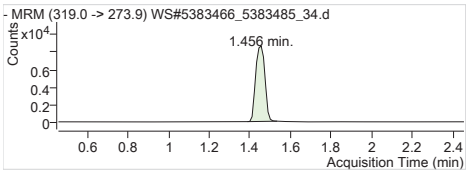


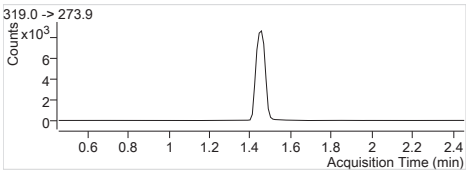
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 97.23 µg/L
Area ratio: 0.31300
Sample type: Sample



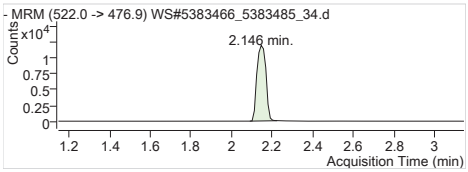


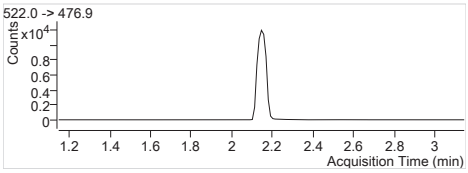
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 79.99 µg/L
Area ratio: 0.29338
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.30 µg/L
Area ratio: 0
Sample type: Sample





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.46 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

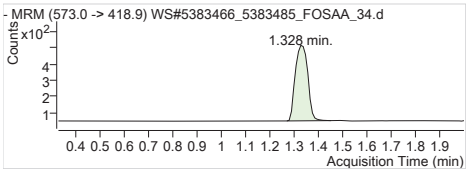
Agilent Technologies

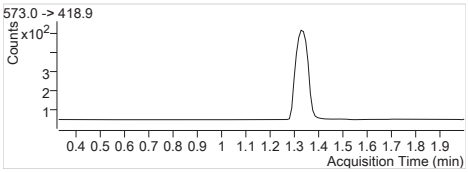
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**5383485:FZH337-01**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_34.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D3
Acq. Date	2018/02/06 1:45:15 PM	**Injection Volume**	Per Method
Sample Annotation	-		

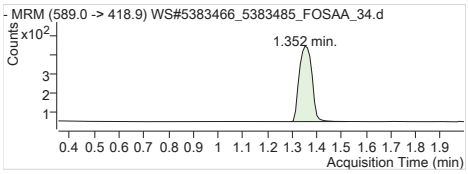
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1654	1.33	1 µg/L		
D5-EtFOSAA IS	1420	1.35	1 µg/L		
13C9-PFDA IS	27491	0.95	1 µg/L		

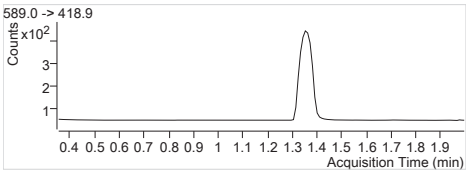
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1654	1.33	-	91.59 µg/L	-
D5-EtFOSAA	1420	1.35	-	91.27 µg/L	-
13C9-PFDA	27490	0.95	-	2.34 µg/L	-



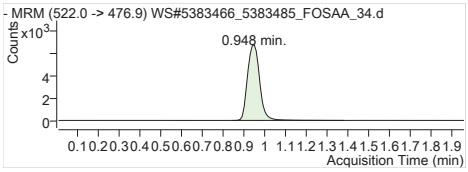


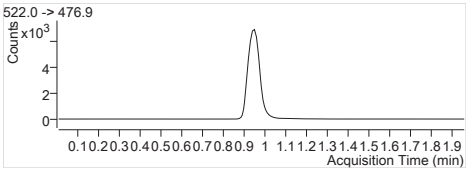
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Sample



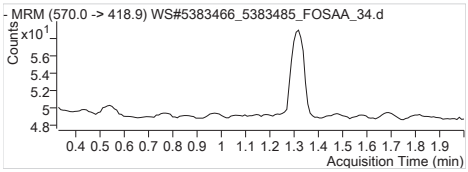


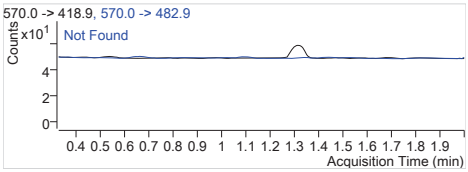
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Sample



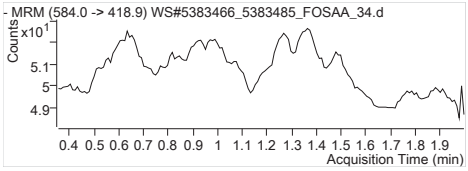


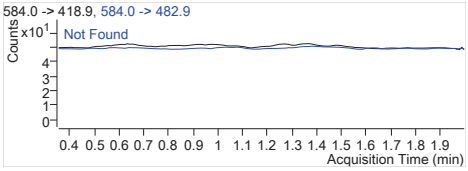
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: Sample



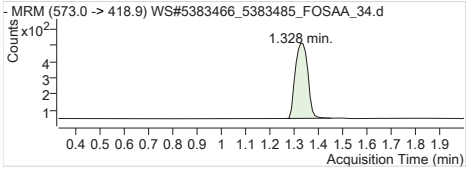


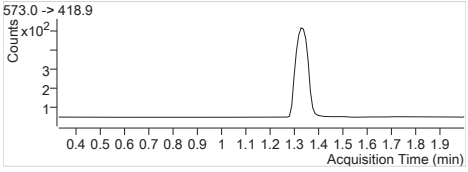
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.329)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



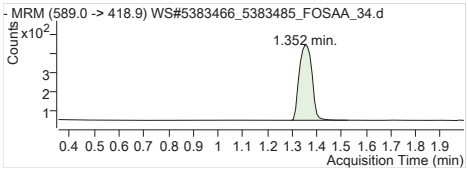


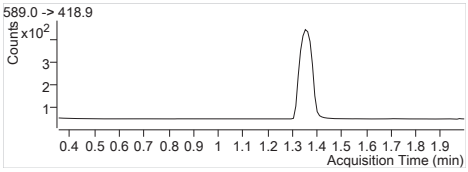
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.354)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



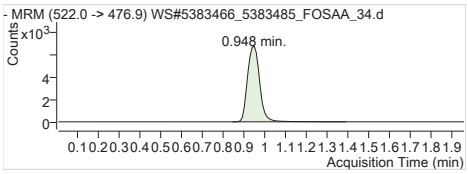


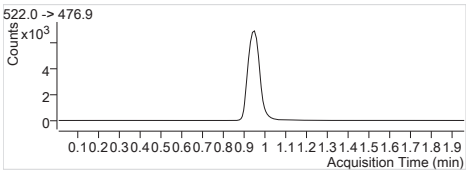
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 91.59 µg/L
Area ratio: 0.06017
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	91.27 µg/L
Area ratio:	0.05165
Sample type:	Sample





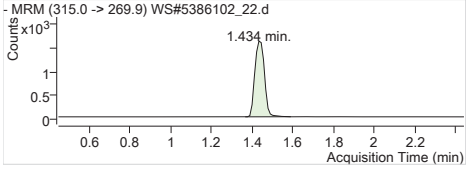
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	2.34 µg/L
Area ratio:	0
Sample type:	Sample

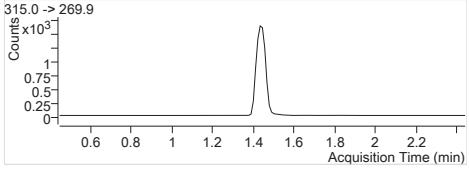
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**5386102:FZH328-01**	**Instrument**	LCMS04
Data File	WS#5386102_22.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-E8
Acq. Date	2018/02/08 4:50:29 AM	**Injection Volume**	Per Method
Sample Annotation	-		

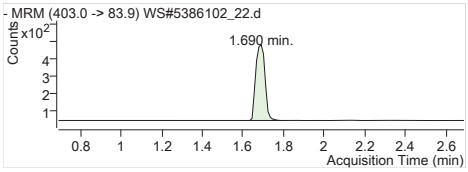
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5235	1.43	1 µg/L		
MPFHxS	1373	1.69	1 µg/L		
MPFHpA	7026	1.70	1 µg/L		
MPFOA	7229	1.88	1 µg/L		
MPFOS	1677	1.98	1 µg/L		
MPFNA	6783	2.02	1 µg/L		
MPFDA	5733	2.15	1 µg/L		
MPFUnA	6180	2.25	1 µg/L		
MPFDoA	8217	2.32	1 µg/L		
MPFTeDA	8552	2.47	1 µg/L		
13C6-PFHxA IS	30996	1.43	1 µg/L		
13C9-PFDA IS	38972	2.15	1 µg/L		

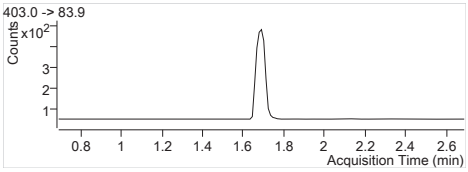
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	1293	1.43	-	0.02 µg/L	-
PFHxS 1	291	1.69	-	0.01 µg/L	-
PFHpA 1	1577	1.70	-	0.02 µg/L	-
PFOA 1	3482	1.88	-	0.03 µg/L	-
PFOS 1	2832	1.98	-	0.11 µg/L	-
PFNA 1	1173	2.03	-	0.01 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5235	1.43	-	86.91 µg/L	-
18O2-PFHxS	1373	1.69	-	89.09 µg/L	-
13C4-PFHpA	7026	1.70	-	89.07 µg/L	-
13C4-PFOA	7229	1.88	-	86.87 µg/L	-
13C4-PFOS	1677	1.98	-	89.36 µg/L	-
13C5-PFNA	6782	2.02	-	81.66 µg/L	-
13C2-PFDA	5656	2.15	-	85.27 µg/L	-
13C2-PFUnA	6180	2.25	-	78.56 µg/L	-
13C2-PFDoA	8217	2.32	-	75.24 µg/L	-
13C2-PFTeDA	8636	2.47	-	69.32 µg/L	-
13C6-PFHxA	30996	1.43	-	2.35 µg/L	-
13C9-PFDA	38972	2.15	-	2.31 µg/L	-



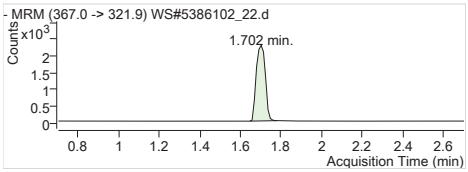


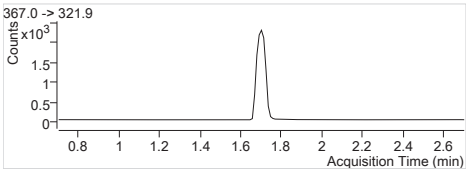
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.445)
Concentration: 1 µg/L
Sample type: Sample



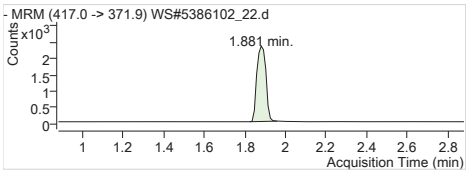


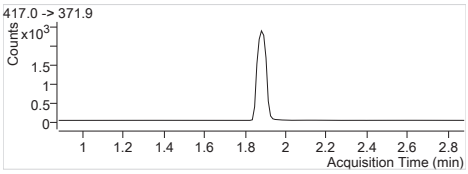
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



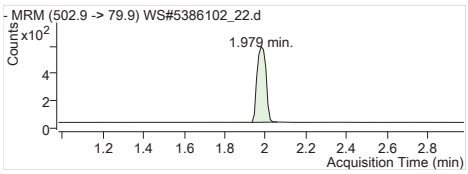


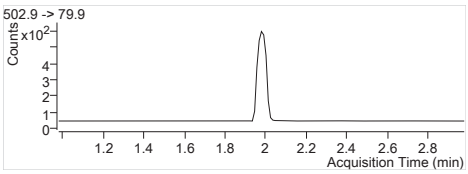
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



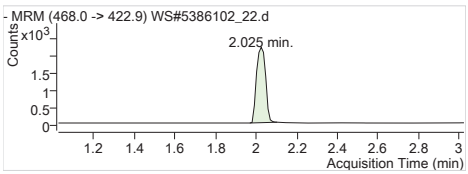


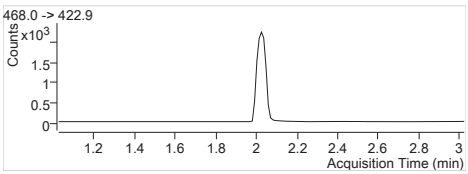
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



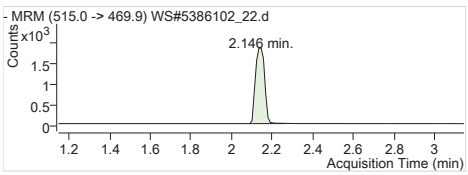


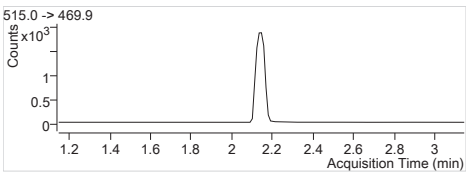
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



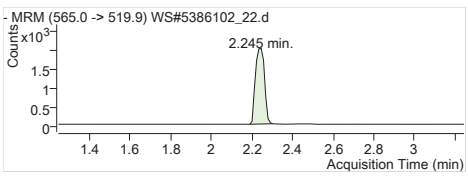


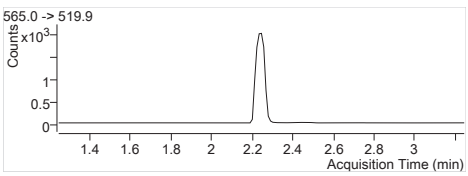
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



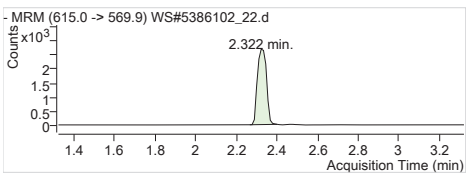


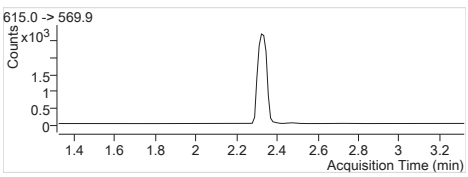
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



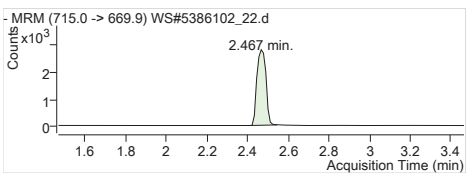


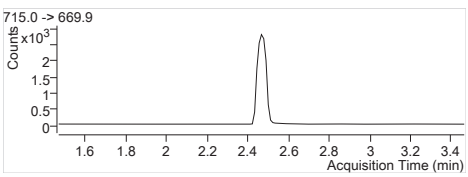
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



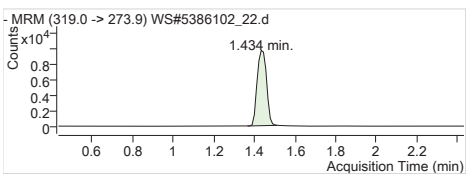


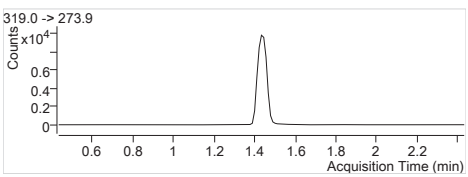
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



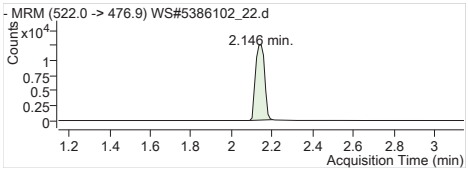


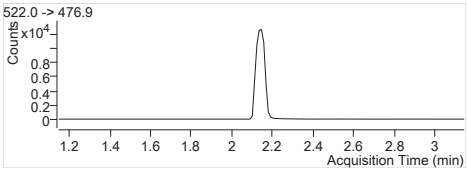
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



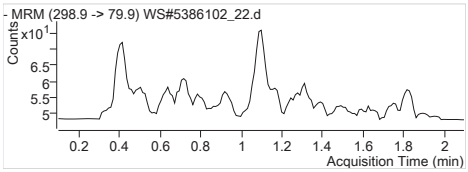


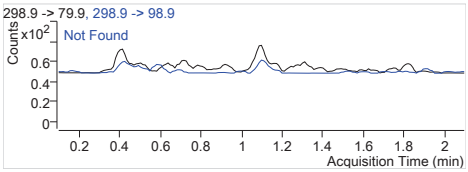
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



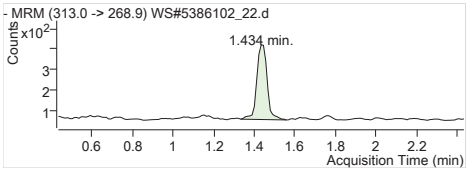


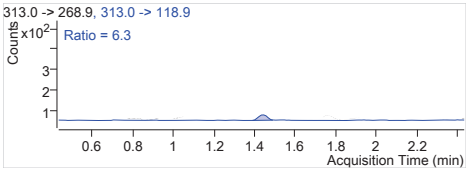
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



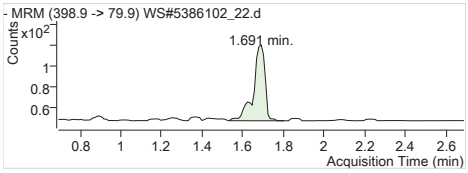


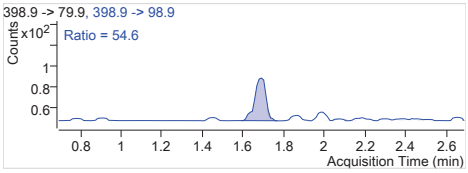
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



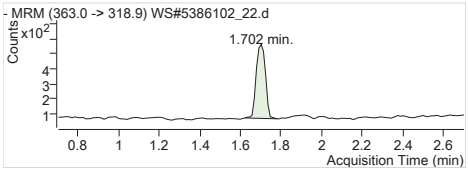


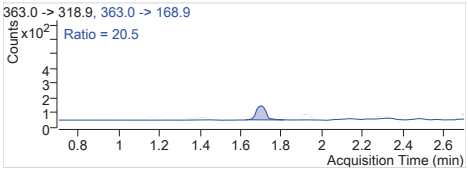
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.02 µg/L
Area ratio: 0.24699
Sample type: Sample



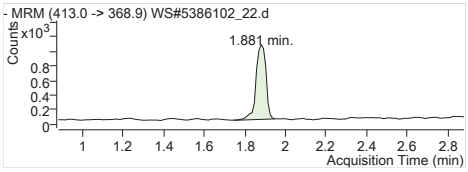


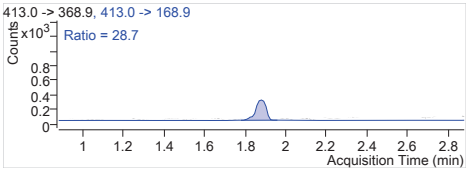
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.01 µg/L
Area ratio: 0.21194
Sample type: Sample



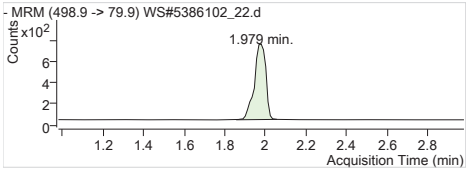


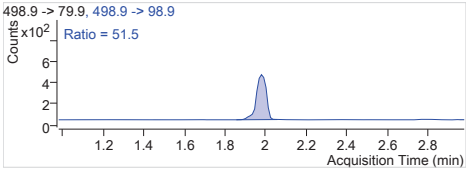
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.02 µg/L
Area ratio: 0.22445
Sample type: Sample



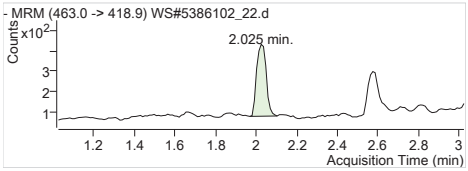


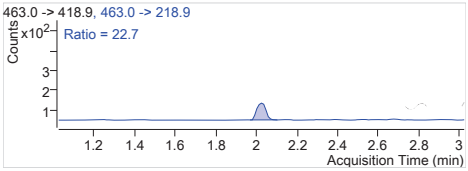
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.03 µg/L
Area ratio: 0.48167
Sample type: Sample



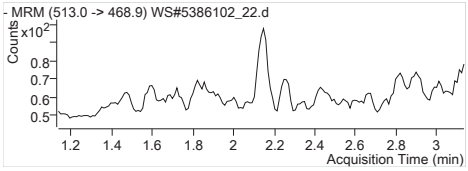


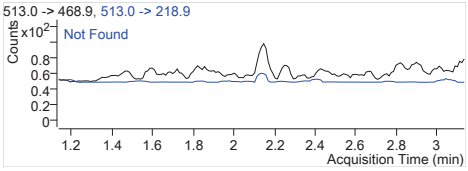
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.11 µg/L
Area ratio: 1.68873
Sample type: Sample



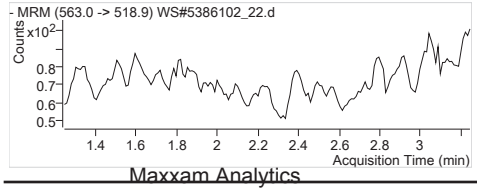


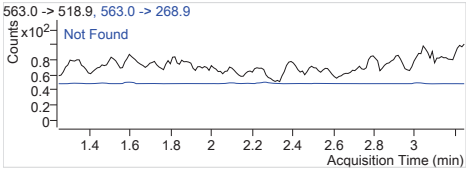
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 0.01 µg/L
Area ratio: 0.17293
Sample type: Sample



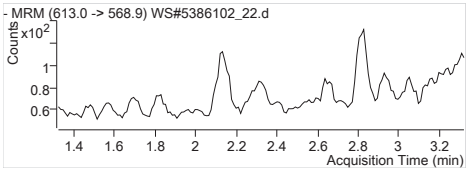


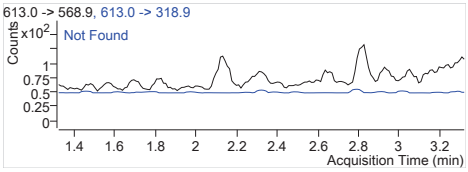
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



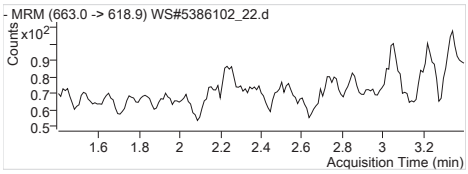


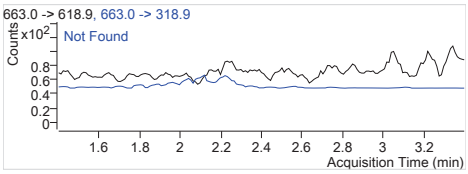
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



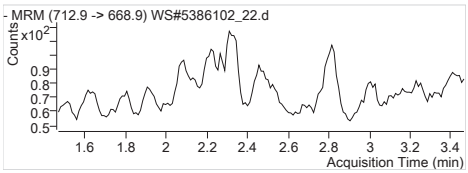


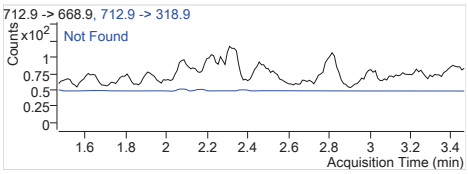
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



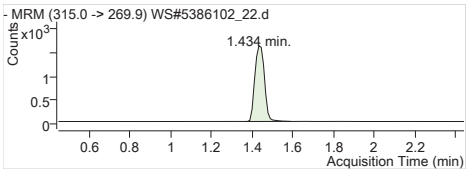


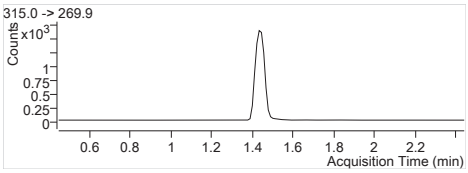
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



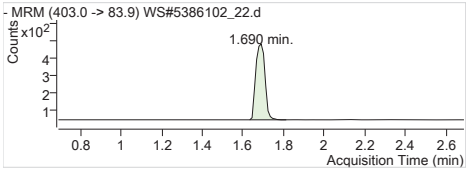


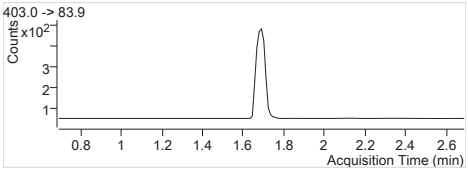
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



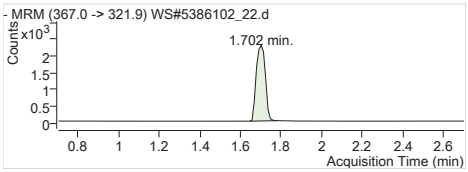


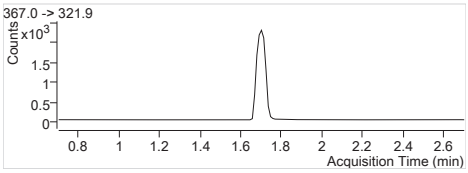
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.434 (1.445)
Calc. conc.	86.91 µg/L
Area ratio:	0.16889
Sample type:	Sample



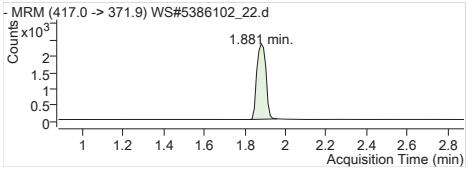


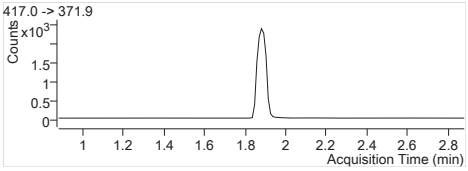
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	89.09 µg/L
Area ratio:	0.04430
Sample type:	Sample



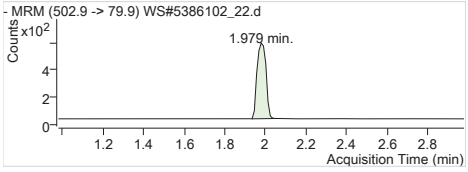


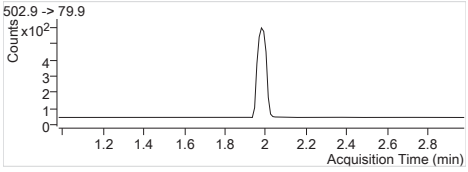
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.702 (1.702)
Calc. conc.	89.07 µg/L
Area ratio:	0.22667
Sample type:	Sample



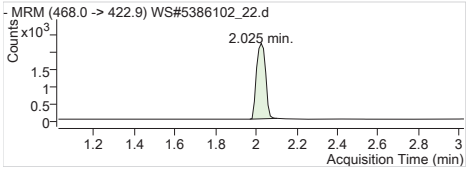


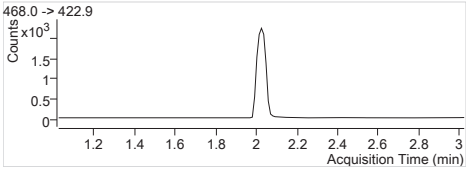
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	86.87 µg/L
Area ratio:	0.23322
Sample type:	Sample



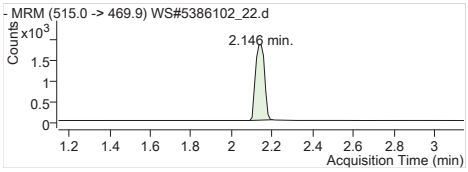


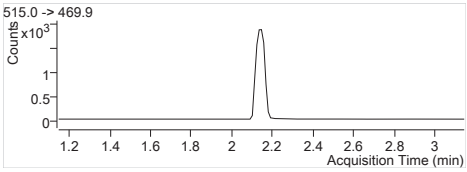
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	89.36 µg/L
Area ratio:	0.05410
Sample type:	Sample



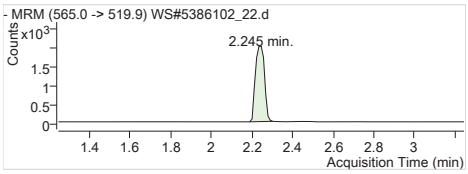


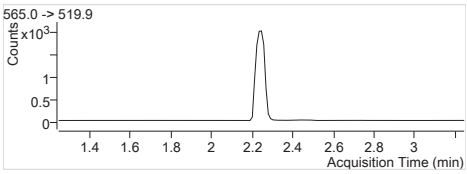
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.025 (2.025)
Calc. conc.	81.66 µg/L
Area ratio:	0.21880
Sample type:	Sample



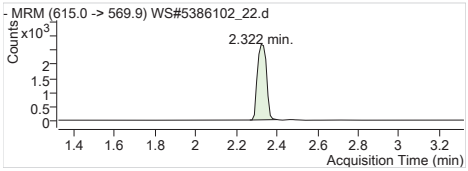


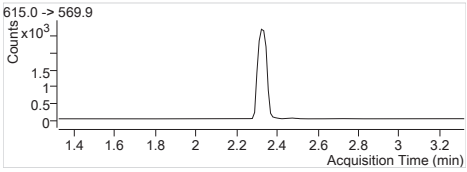
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 85.27 µg/L
Area ratio: 0.14513
Sample type: Sample



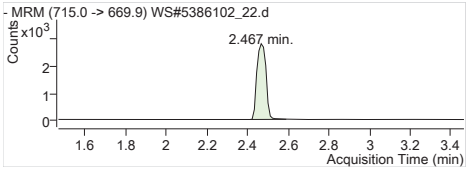


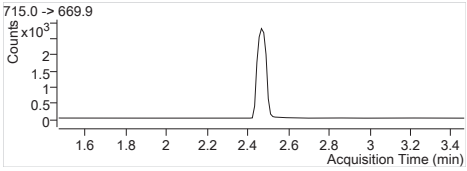
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 78.56 µg/L
Area ratio: 0.15858
Sample type: Sample



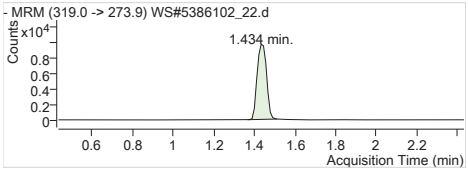


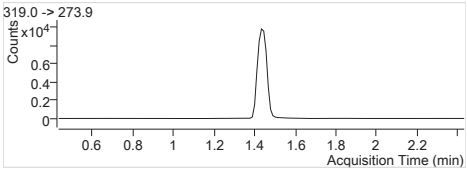
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 75.24 µg/L
Area ratio: 0.21084
Sample type: Sample



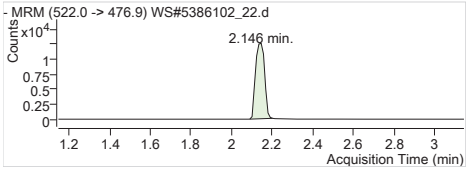


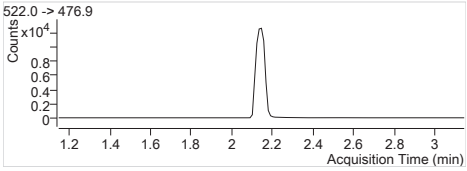
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 69.32 µg/L
Area ratio: 0.22159
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.35 µg/L
Area ratio: 0
Sample type: Sample





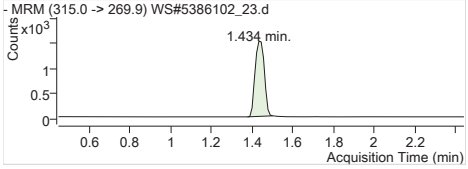
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.31 µg/L
Area ratio: 0
Sample type: Sample

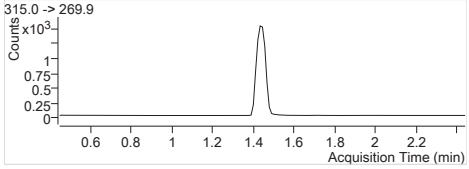
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**5386102:FZH329-01**	**Instrument**	LCMS04
Data File	WS#5386102_23.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-E9
Acq. Date	2018/02/08 4:55:25 AM	**Injection Volume**	Per Method
Sample Annotation	-		

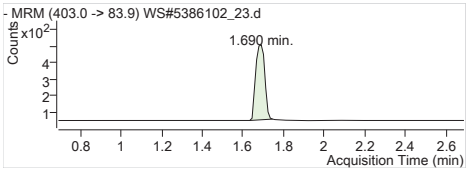
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4704	1.43	1 µg/L		
MPFHxS	1419	1.69	1 µg/L		
MPFHpA	6157	1.70	1 µg/L		
MPFOA	6605	1.88	1 µg/L		
MPFOS	1617	1.98	1 µg/L		
MPFNA	6776	2.02	1 µg/L		
MPFDA	5445	2.15	1 µg/L		
MPFUnA	6282	2.23	1 µg/L		
MPFDoA	8420	2.32	1 µg/L		
MPFTeDA	8927	2.47	1 µg/L		
13C6-PFHxA IS	28126	1.43	1 µg/L		
13C9-PFDA IS	38227	2.13	1 µg/L		

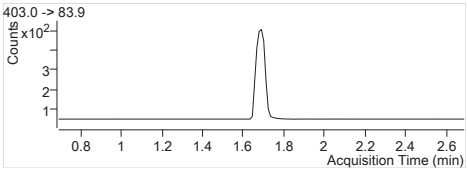
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1	2454	1.88	-	0.02 µg/L	-
PFOS 1	428	1.93	-	0.02 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	4704	1.43	-	86.06 µg/L	-
18O2-PFHxS	1419	1.69	-	101.47 µg/L	-
13C4-PFHpA	6157	1.70	-	86.02 µg/L	-
13C4-PFOA	6605	1.88	-	87.47 µg/L	-
13C4-PFOS	1617	1.98	-	94.95 µg/L	-
13C5-PFNA	6776	2.02	-	89.91 µg/L	-
13C2-PFDA	5327	2.15	-	81.87 µg/L	-
13C2-PFUnA	6282	2.23	-	81.42 µg/L	-
13C2-PFDoA	8420	2.32	-	78.61 µg/L	-
13C2-PFTeDA	8942	2.47	-	73.18 µg/L	-
13C6-PFHxA	28126	1.43	-	2.13 µg/L	-
13C9-PFDA	38227	2.13	-	2.26 µg/L	-



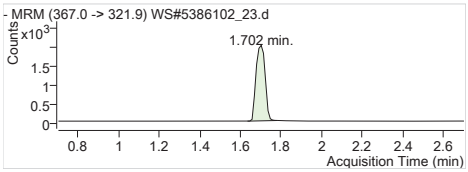


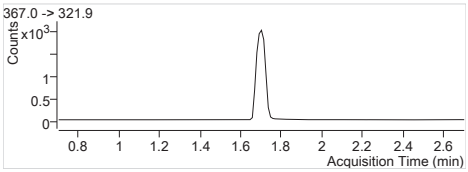
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.445)
Concentration: 1 µg/L
Sample type: Sample



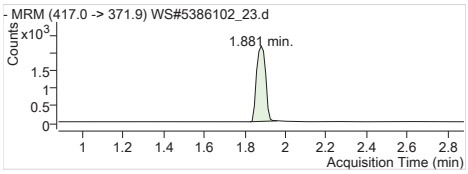


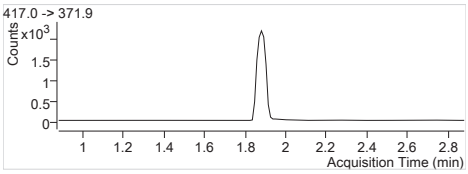
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



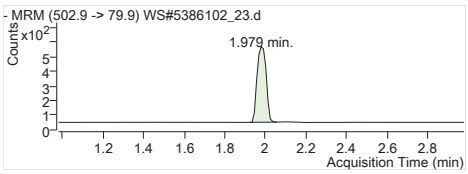


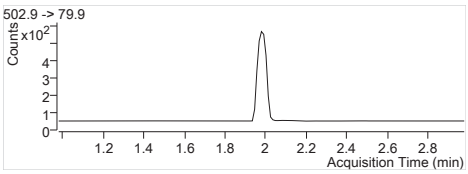
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



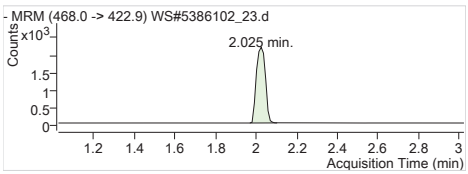


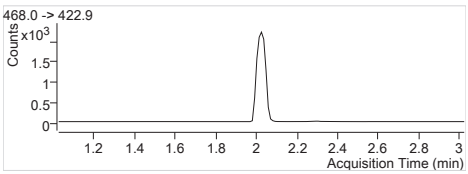
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



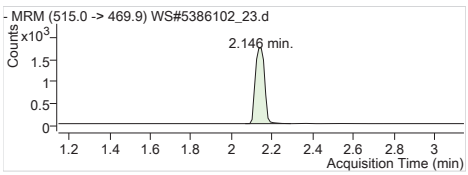


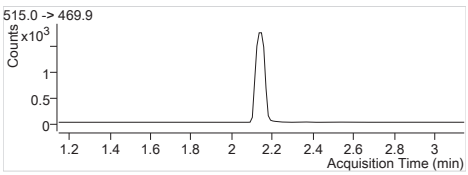
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



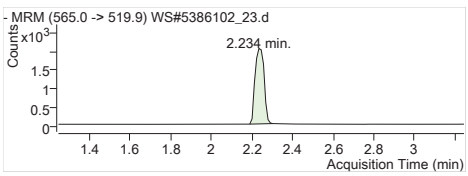


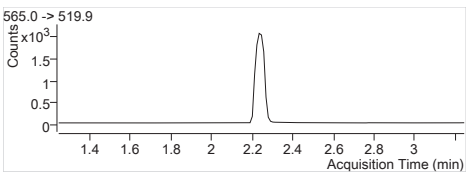
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



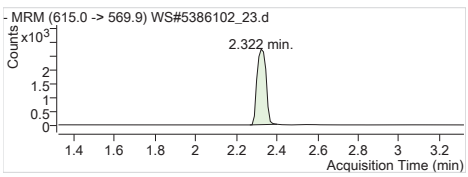


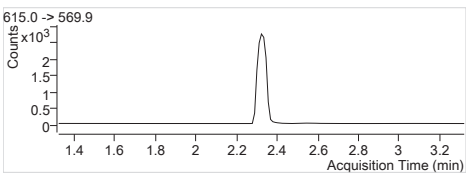
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



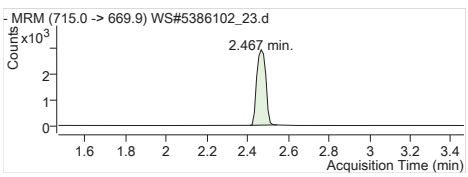


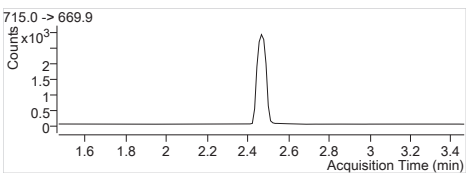
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.245)
Concentration: 1 µg/L
Sample type: Sample



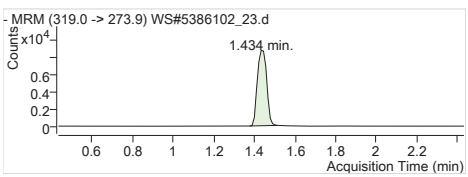


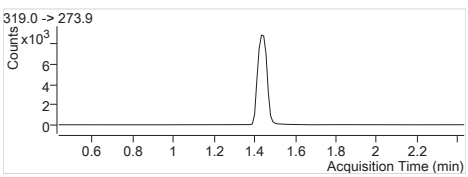
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



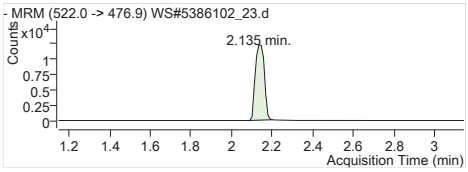


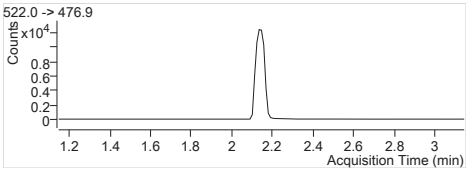
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



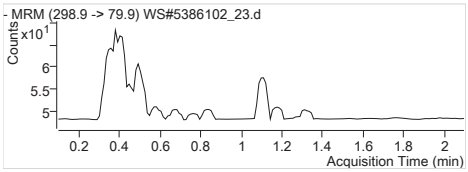


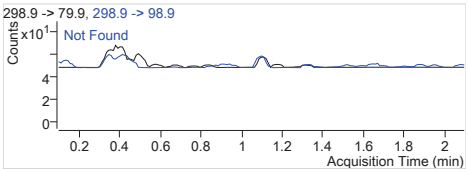
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



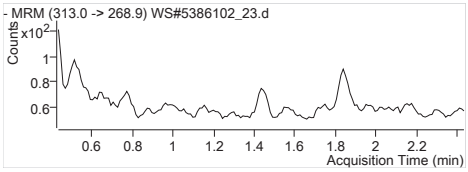


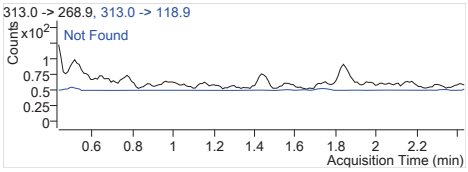
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: Sample



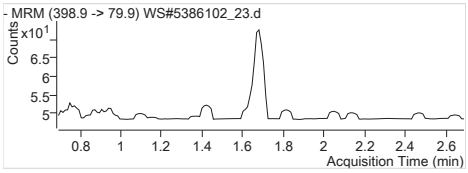


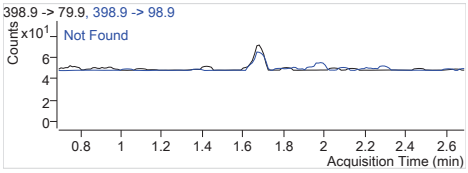
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



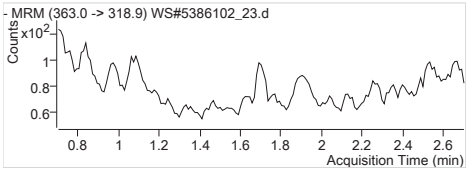


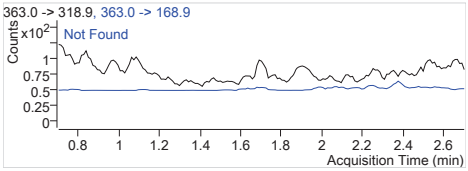
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



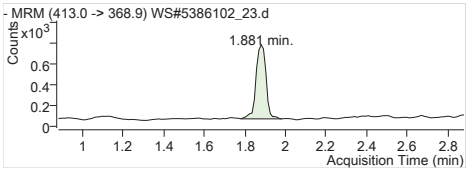


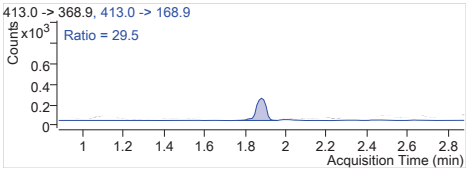
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



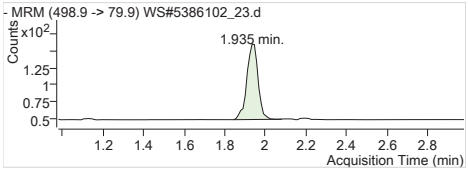


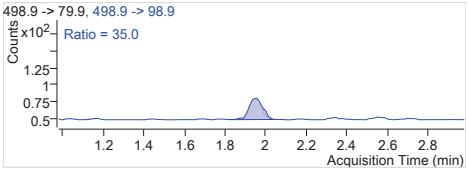
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



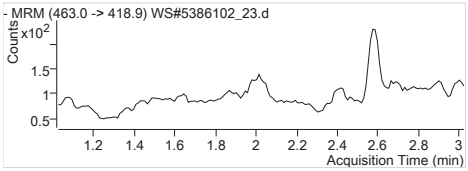


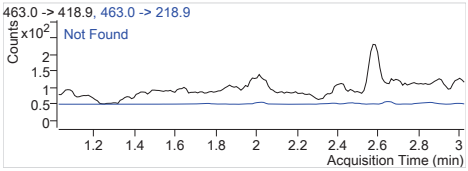
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.02 µg/L
Area ratio: 0.37154
Sample type: Sample



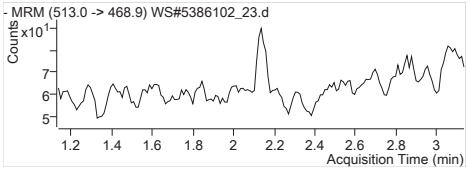


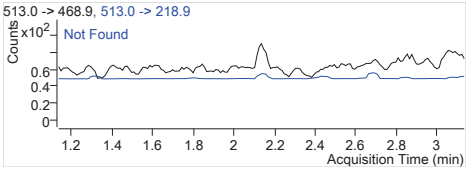
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.935 (1.979)
Calc. conc. 0.02 µg/L
Area ratio: 0.26469
Sample type: Sample



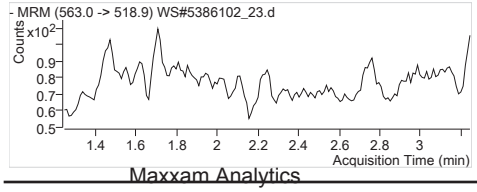


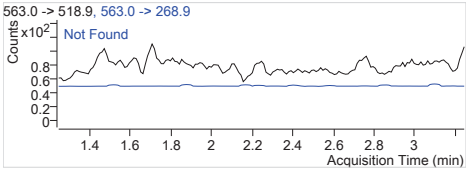
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



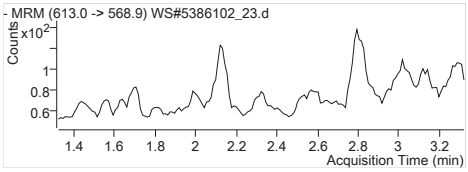


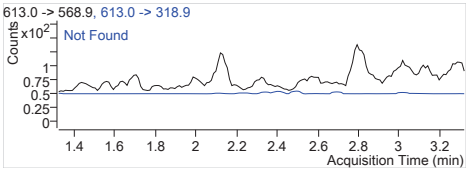
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



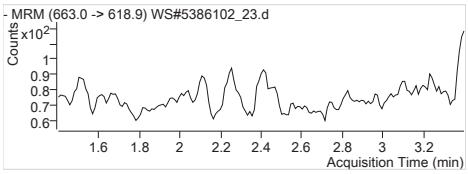


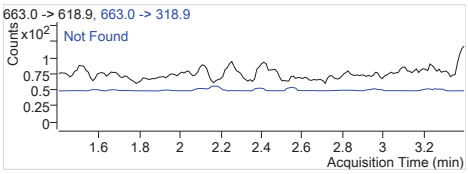
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



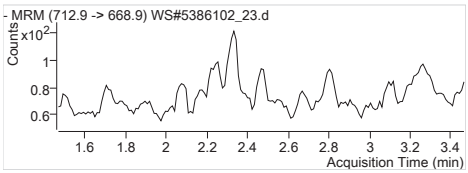


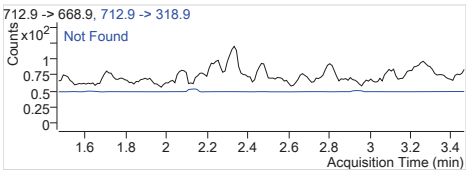
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



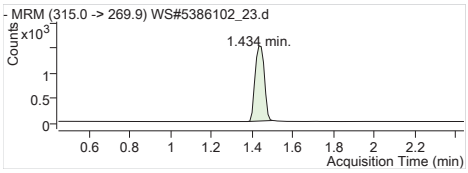


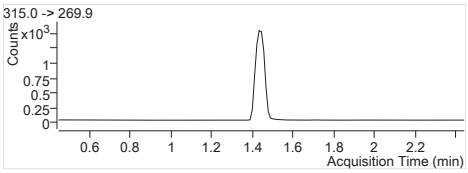
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



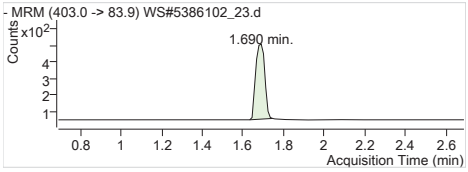


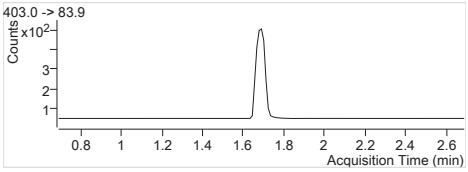
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



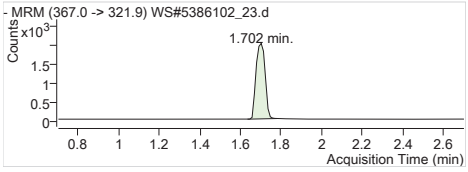


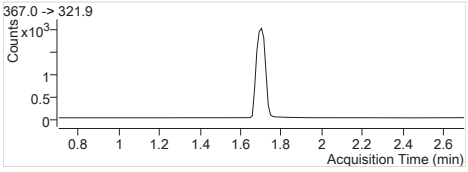
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 86.06 µg/L
Area ratio: 0.16725
Sample type: Sample



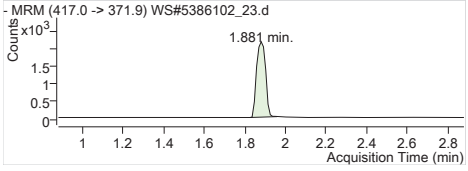


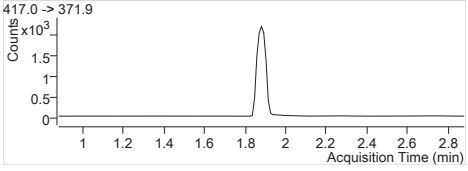
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 101.47 µg/L
Area ratio: 0.05045
Sample type: Sample



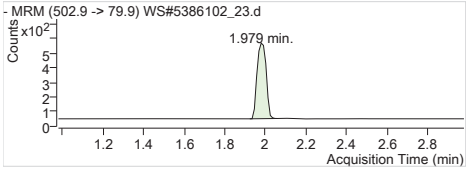


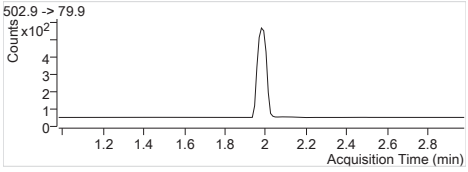
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 86.02 µg/L
Area ratio: 0.21891
Sample type: Sample



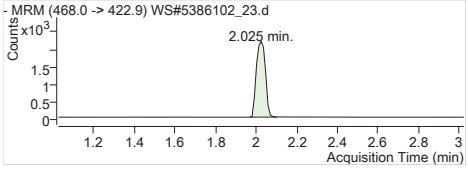


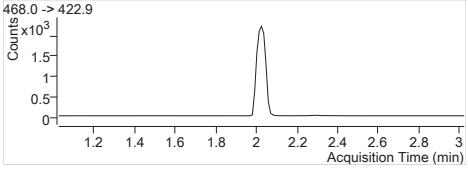
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 87.47 µg/L
Area ratio: 0.23484
Sample type: Sample



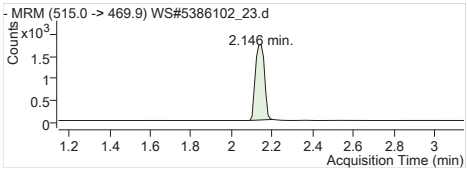


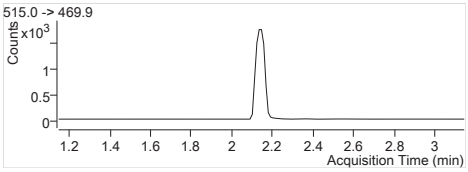
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 94.95 µg/L
Area ratio: 0.05749
Sample type: Sample



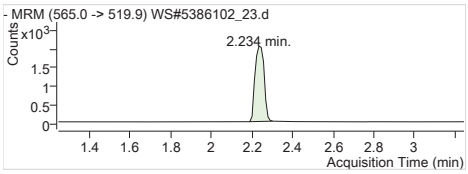


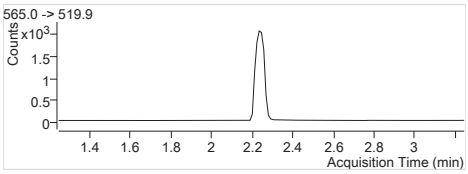
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 89.91 µg/L
Area ratio: 0.24092
Sample type: Sample



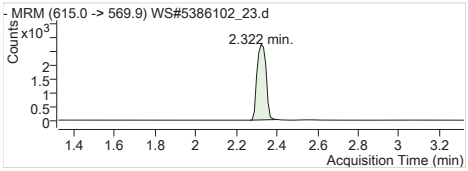


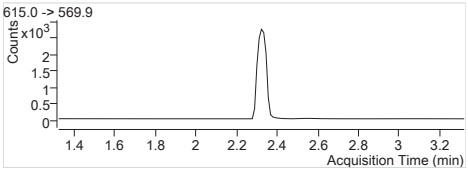
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 81.87 µg/L
Area ratio: 0.13935
Sample type: Sample



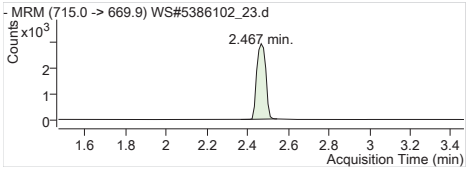


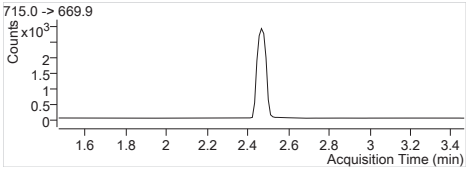
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.245)
Calc. conc. 81.42 µg/L
Area ratio: 0.16433
Sample type: Sample



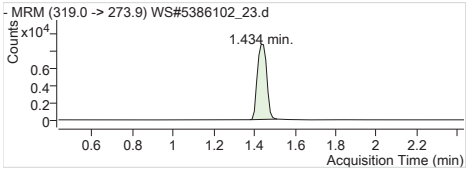


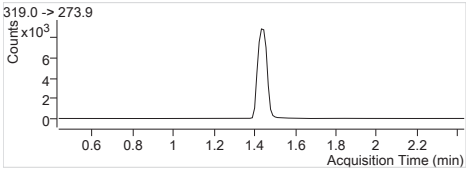
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 78.61 µg/L
Area ratio: 0.22026
Sample type: Sample



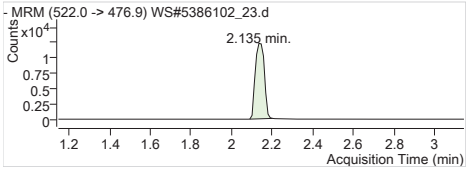


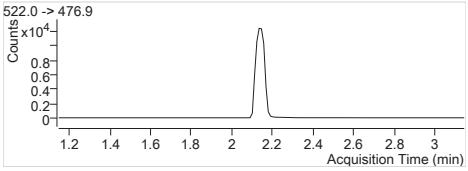
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 73.18 µg/L
Area ratio: 0.23392
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.13 µg/L
Area ratio: 0
Sample type: Sample





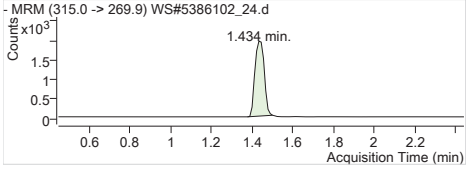
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 2.26 µg/L
Area ratio: 0
Sample type: Sample

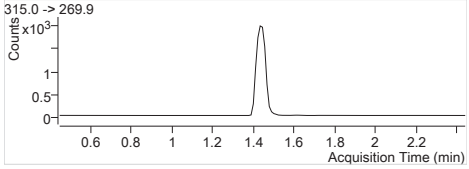
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**5386102:FZH330-01**	**Instrument**	LCMS04
Data File	WS#5386102_24.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-F1
Acq. Date	2018/02/08 5:00:21 AM	**Injection Volume**	Per Method
Sample Annotation	-		

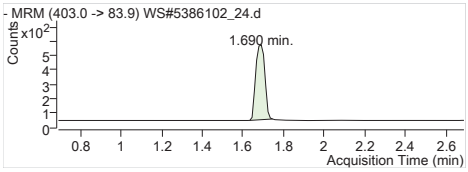
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6129	1.43	1 µg/L		
MPFHxS	1633	1.69	1 µg/L		
MPFHpA	7816	1.70	1 µg/L		
MPFOA	7671	1.88	1 µg/L		
MPFOS	1846	1.98	1 µg/L		
MPFNA	8620	2.02	1 µg/L		
MPFDA	6405	2.15	1 µg/L		
MPFUnA	7404	2.25	1 µg/L		
MPFDoA	8775	2.32	1 µg/L		
MPFTeDA	9412	2.47	1 µg/L		
13C6-PFHxA IS	32627	1.43	1 µg/L		
13C9-PFDA IS	40871	2.15	1 µg/L		

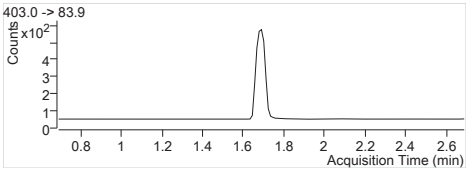
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6129	1.43	-	96.67 µg/L	-
18O2-PFHxS	1633	1.69	-	100.67 µg/L	-
13C4-PFHpA	7816	1.70	-	94.14 µg/L	-
13C4-PFOA	7671	1.88	-	87.58 µg/L	-
13C4-PFOS	1846	1.98	-	93.44 µg/L	-
13C5-PFNA	8620	2.02	-	98.60 µg/L	-
13C2-PFDA	6205	2.15	-	89.20 µg/L	-
13C2-PFUnA	7404	2.25	-	89.75 µg/L	-
13C2-PFDoA	8775	2.32	-	76.62 µg/L	-
13C2-PFTeDA	9435	2.47	-	72.22 µg/L	-
13C6-PFHxA	32627	1.43	-	2.47 µg/L	-
13C9-PFDA	40871	2.15	-	2.42 µg/L	-



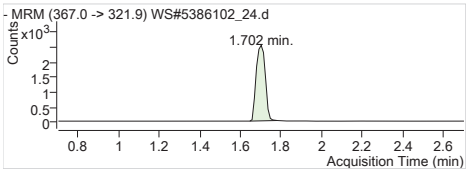


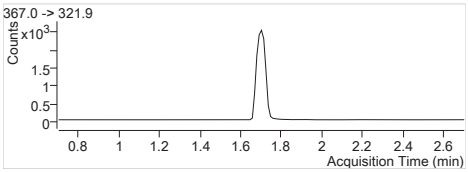
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.445)
Concentration: 1 µg/L
Sample type: Sample



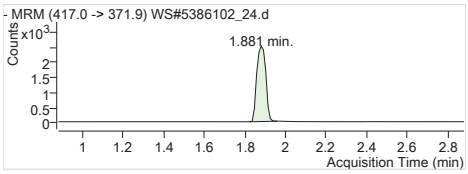


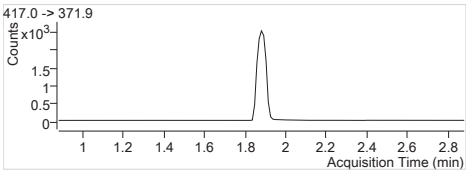
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



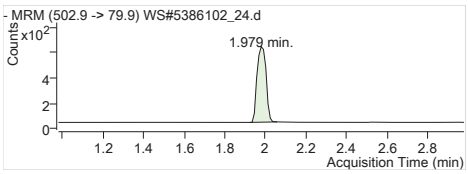


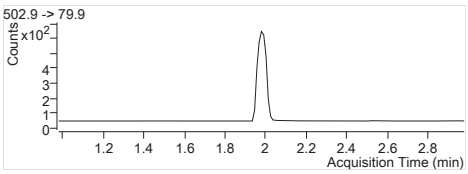
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



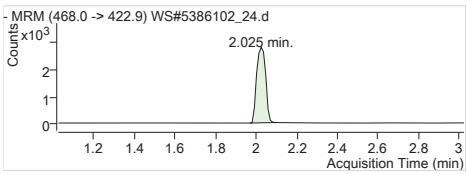


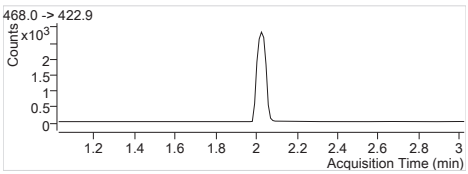
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



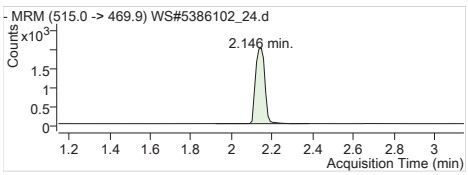


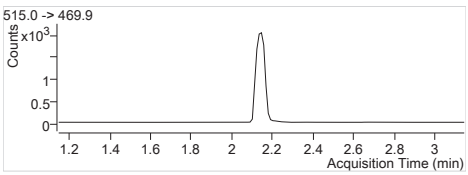
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



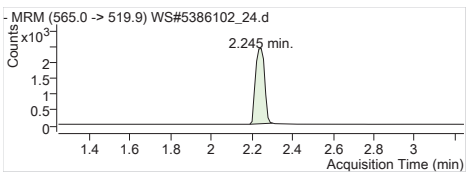


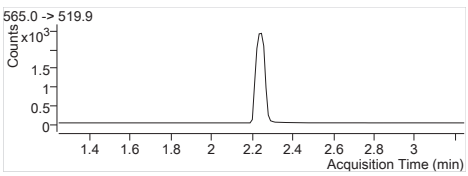
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



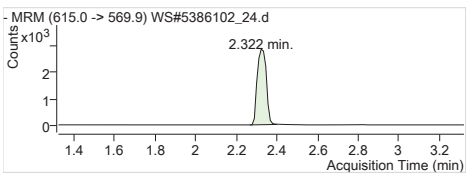


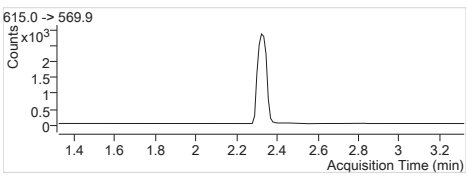
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



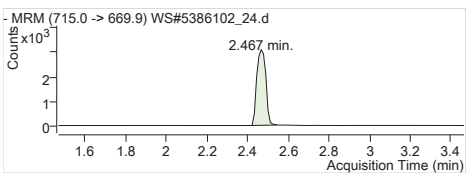


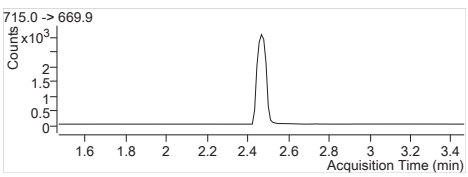
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



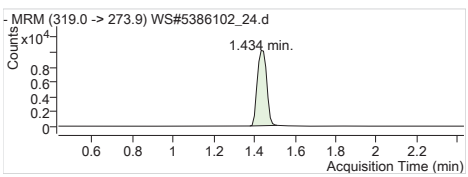


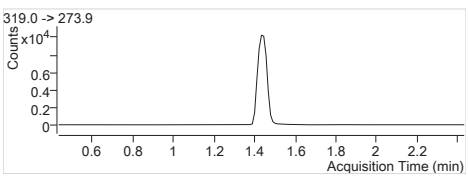
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



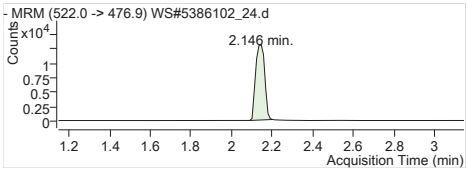


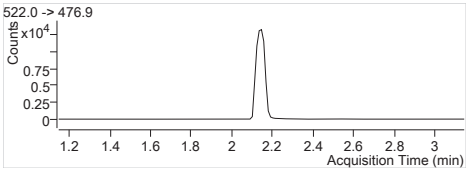
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



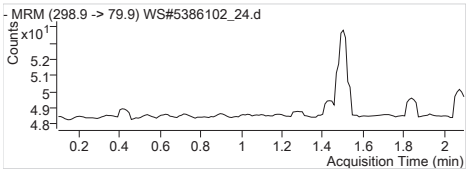


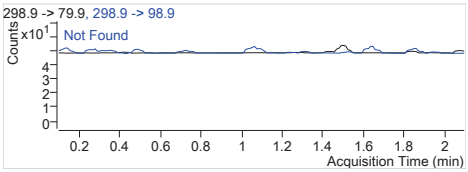
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



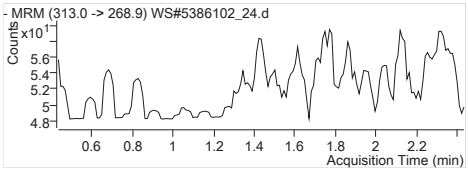


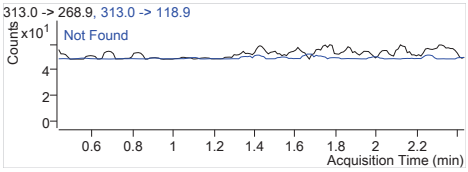
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



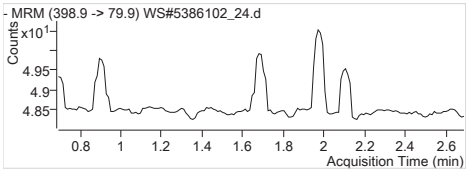


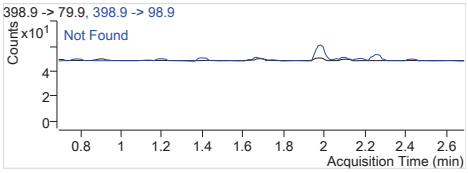
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



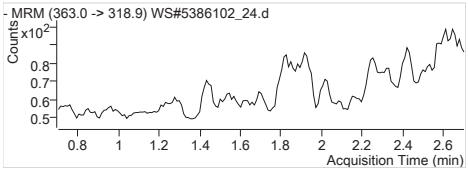


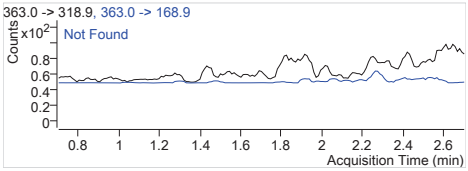
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



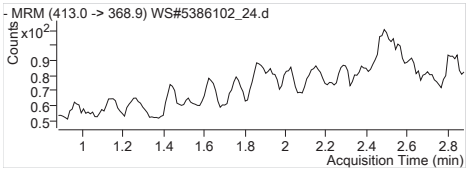


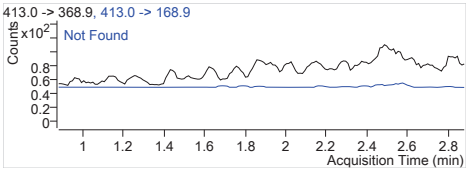
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



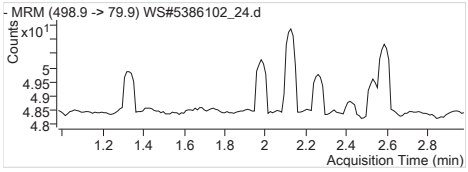


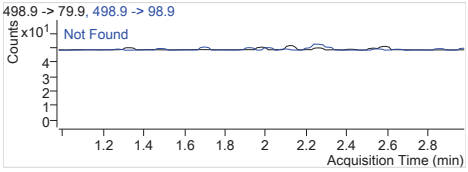
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



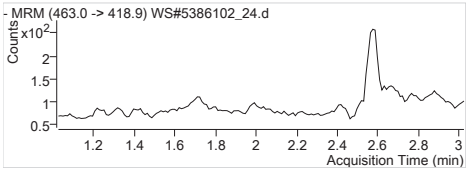


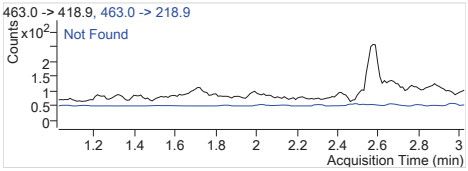
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



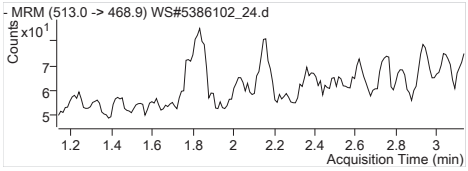


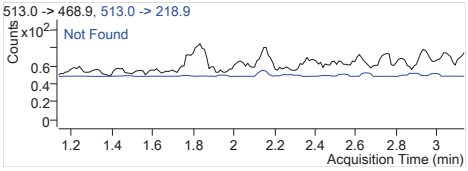
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



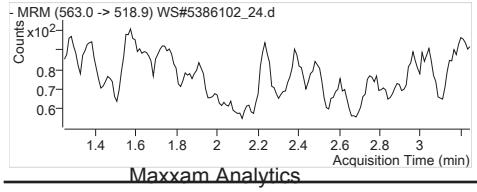


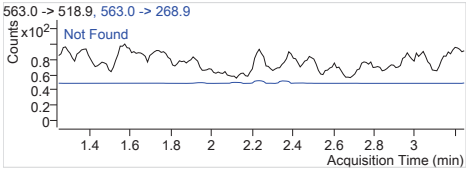
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



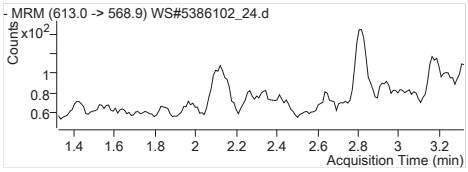


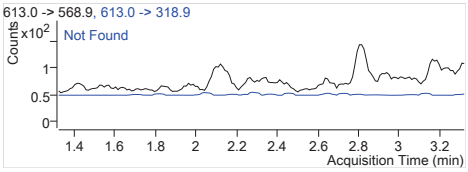
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



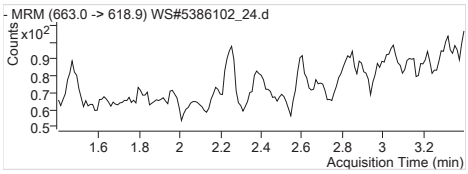


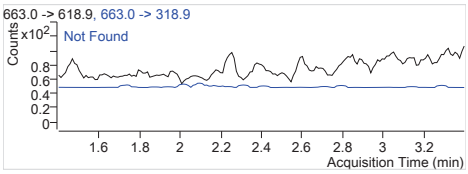
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



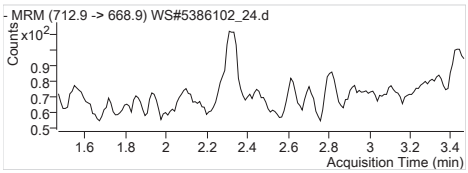


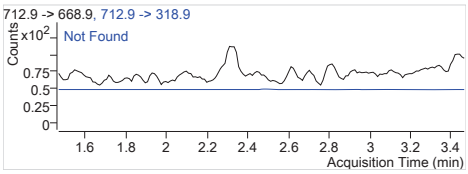
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



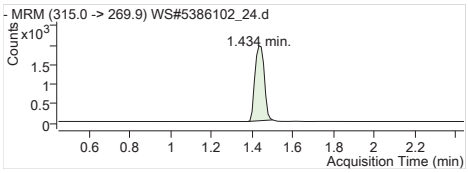


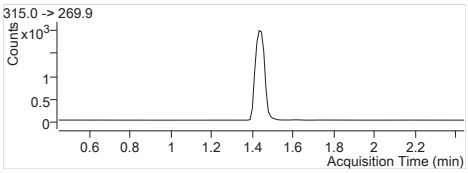
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



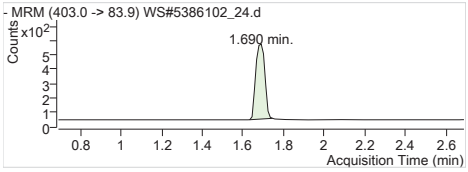


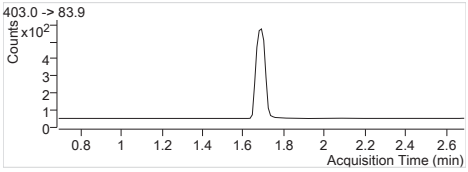
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



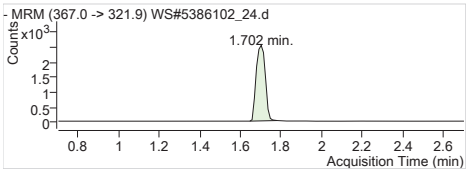


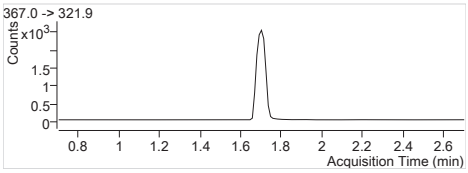
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 96.67 µg/L
Area ratio: 0.18785
Sample type: Sample



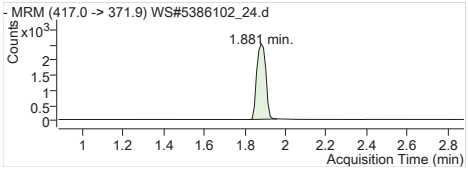


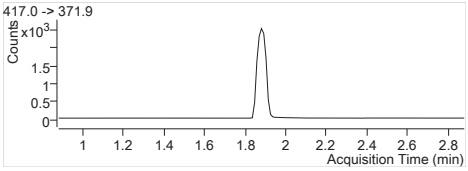
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 100.67 µg/L
Area ratio: 0.05005
Sample type: Sample



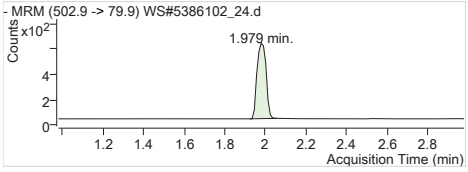


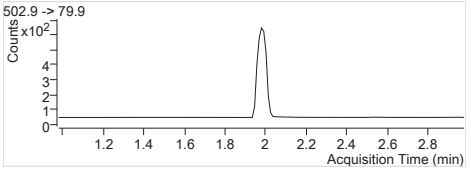
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 94.14 µg/L
Area ratio: 0.23956
Sample type: Sample



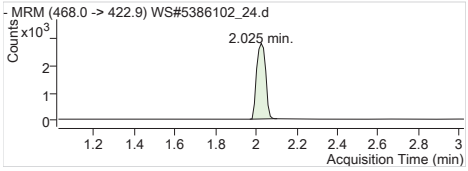


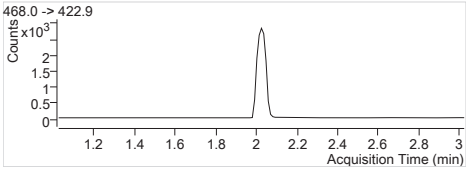
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 87.58 µg/L
Area ratio: 0.23511
Sample type: Sample



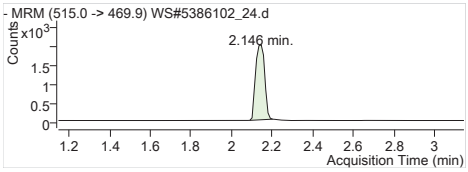


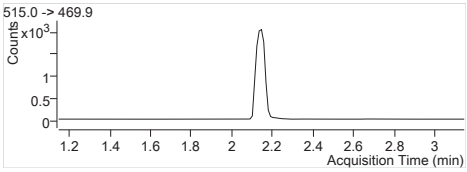
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 93.44 µg/L
Area ratio: 0.05658
Sample type: Sample



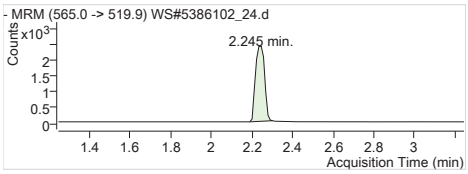


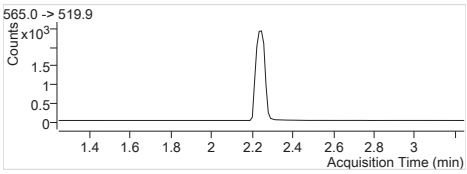
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 98.60 µg/L
Area ratio: 0.26420
Sample type: Sample



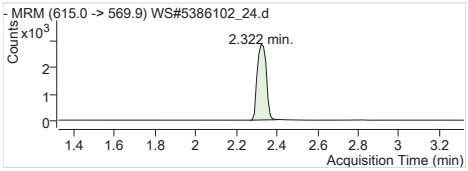


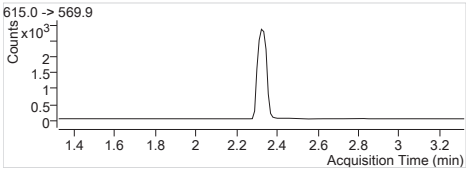
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 89.20 µg/L
Area ratio: 0.15182
Sample type: Sample



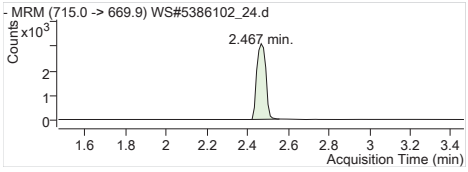


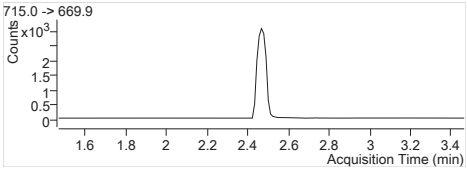
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 89.75 µg/L
Area ratio: 0.18116
Sample type: Sample



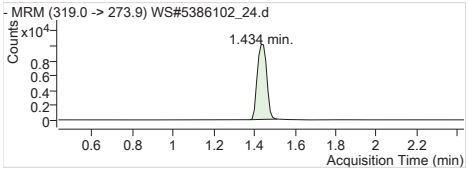


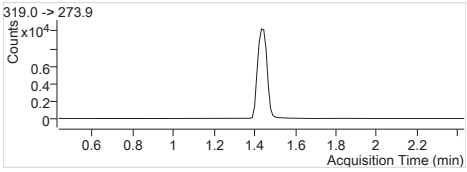
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 76.62 µg/L
Area ratio: 0.21470
Sample type: Sample



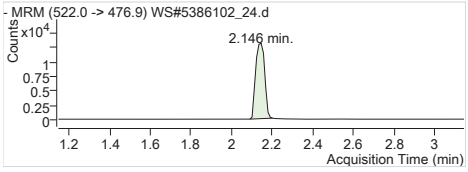


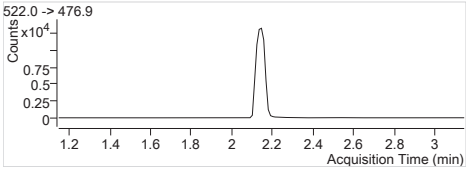
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 72.22 µg/L
Area ratio: 0.23085
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.47 µg/L
Area ratio: 0
Sample type: Sample





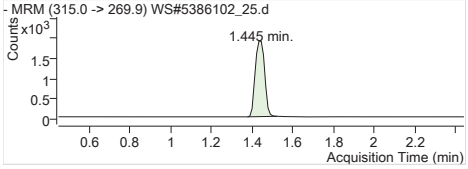
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.42 µg/L
Area ratio: 0
Sample type: Sample

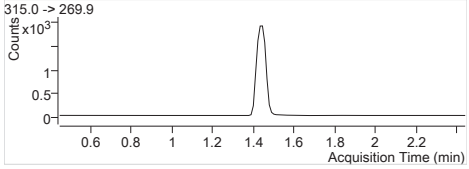
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**5386102:FZH335-01**	**Instrument**	LCMS04
Data File	WS#5386102_25.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-F2
Acq. Date	2018/02/08 5:05:17 AM	**Injection Volume**	Per Method
Sample Annotation	-		

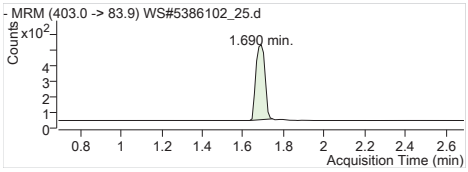
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6062	1.44	1 µg/L		
MPFHxS	1509	1.69	1 µg/L		
MPFHpA	7526	1.70	1 µg/L		
MPFOA	8334	1.88	1 µg/L		
MPFOS	1891	1.98	1 µg/L		
MPFNA	7716	2.02	1 µg/L		
MPFDA	6542	2.14	1 µg/L		
MPFUnA	7895	2.23	1 µg/L		
MPFDoA	9291	2.32	1 µg/L		
MPFTeDA	9737	2.47	1 µg/L		
13C6-PFHxA IS	30264	1.44	1 µg/L		
13C9-PFDA IS	38485	2.15	1 µg/L		

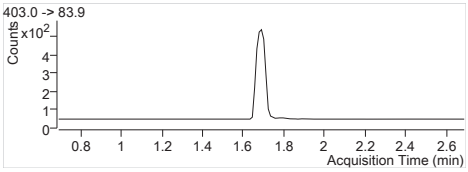
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6062	1.44	-	103.07 µg/L	-
18O2-PFHxS	1509	1.69	-	100.29 µg/L	-
13C4-PFHpA	7526	1.70	-	97.72 µg/L	-
13C4-PFOA	8334	1.88	-	102.57 µg/L	-
13C4-PFOS	1891	1.98	-	103.20 µg/L	-
13C5-PFNA	7716	2.02	-	95.15 µg/L	-
13C2-PFDA	6377	2.14	-	97.35 µg/L	-
13C2-PFUnA	7895	2.23	-	101.64 µg/L	-
13C2-PFDoA	9291	2.32	-	86.16 µg/L	-
13C2-PFTeDA	9907	2.47	-	80.53 µg/L	-
13C6-PFHxA	30264	1.44	-	2.29 µg/L	-
13C9-PFDA	38485	2.15	-	2.28 µg/L	-



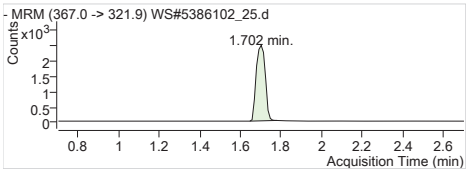


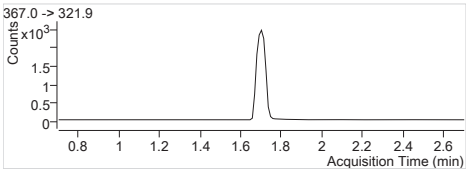
MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Sample



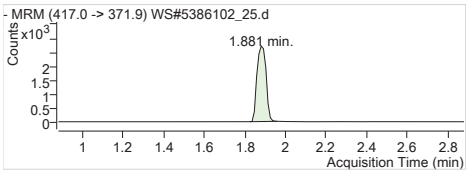


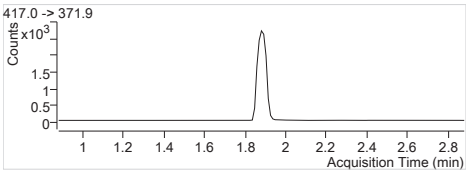
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



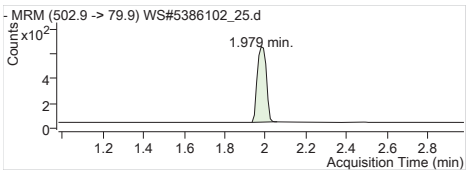


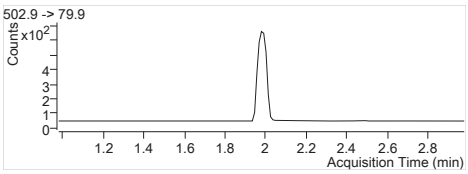
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



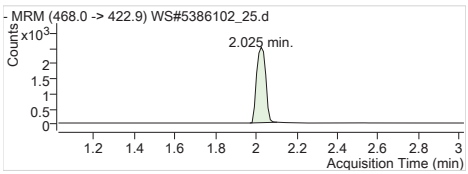


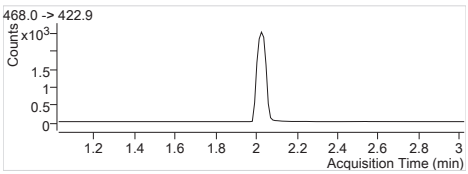
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



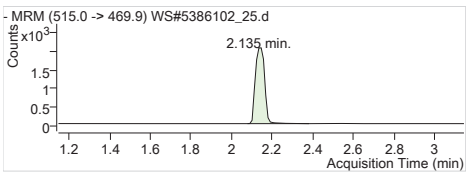


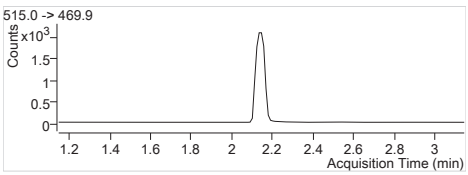
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



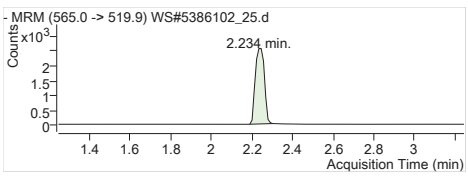


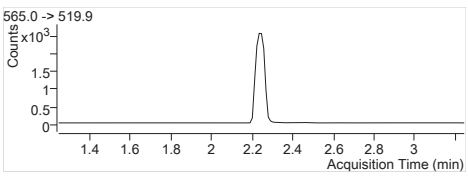
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



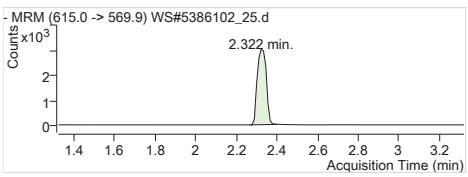


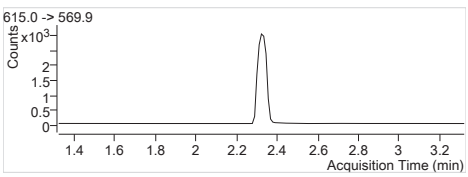
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: Sample



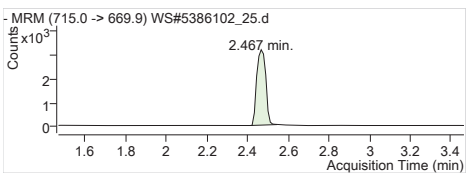


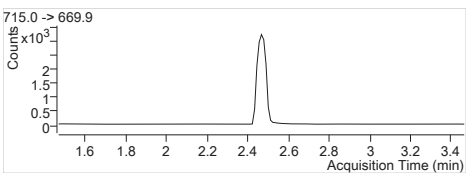
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.245)
Concentration: 1 µg/L
Sample type: Sample



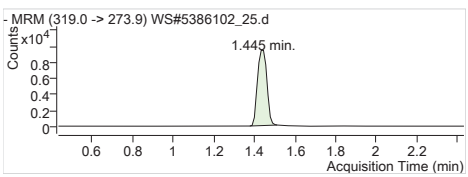


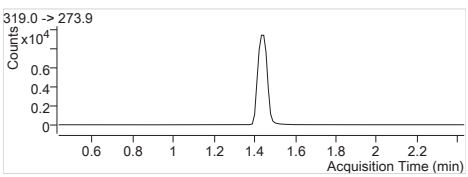
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



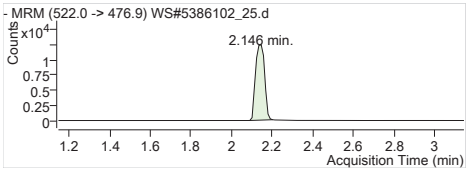


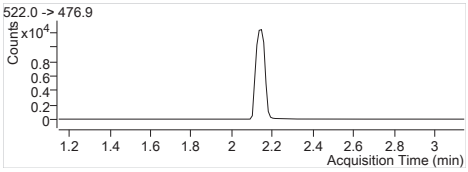
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



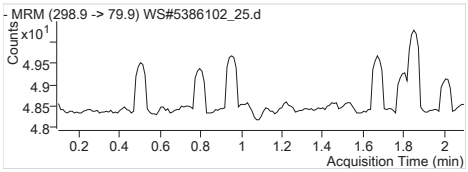


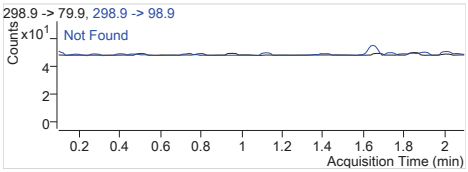
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.434)
Concentration: 1 µg/L
Sample type: Sample



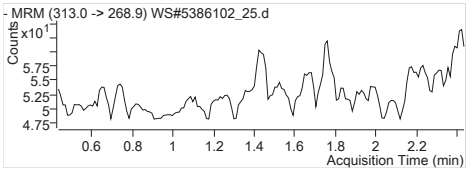


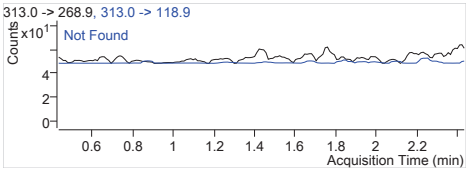
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



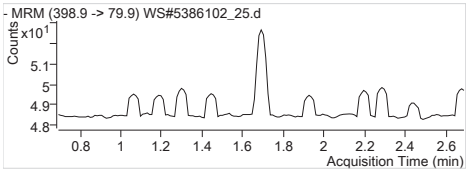


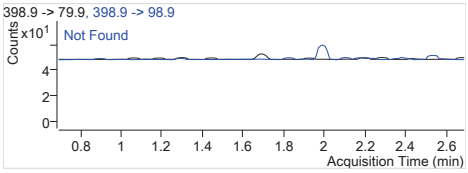
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



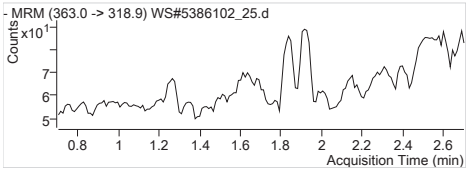


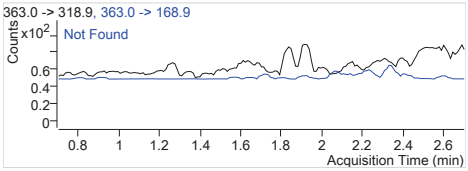
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



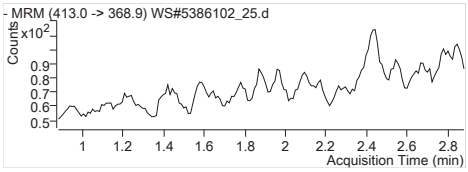


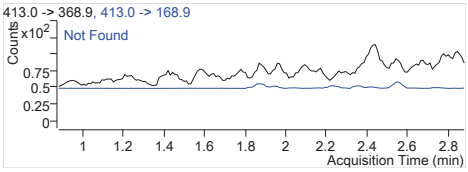
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



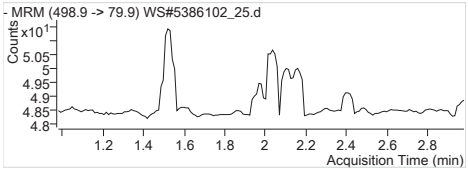


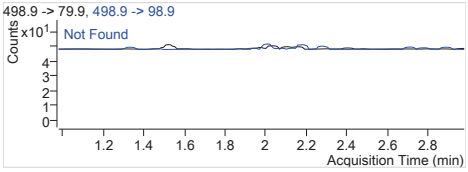
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



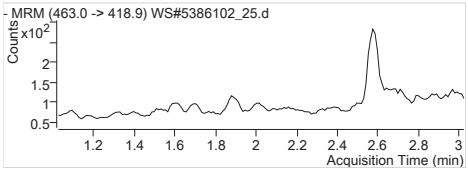


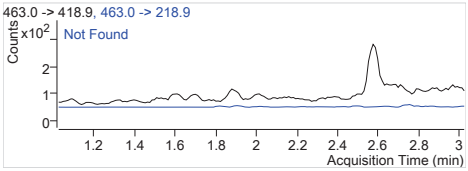
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



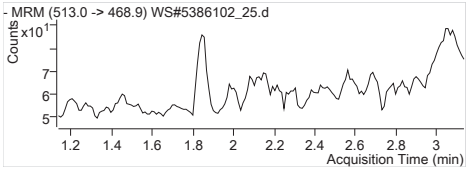


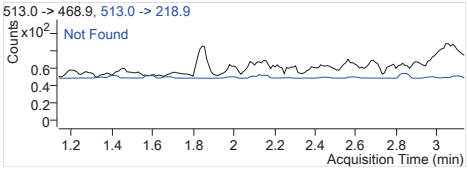
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



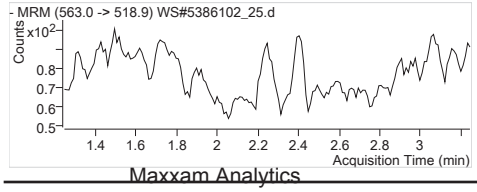


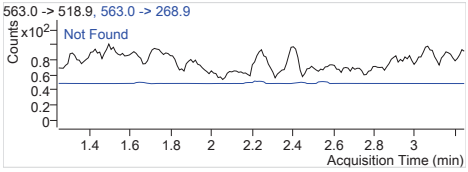
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



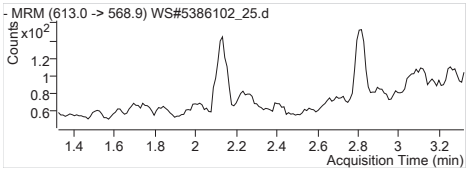


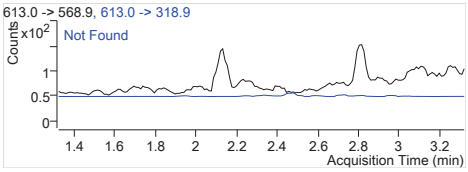
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



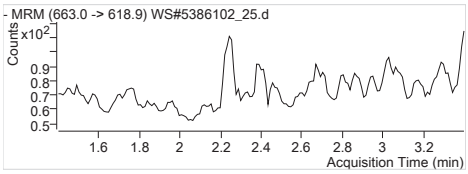


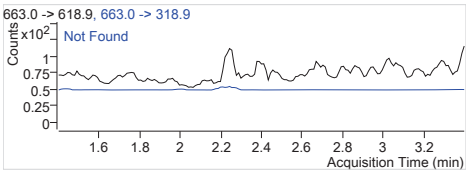
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



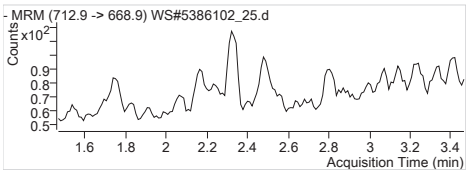


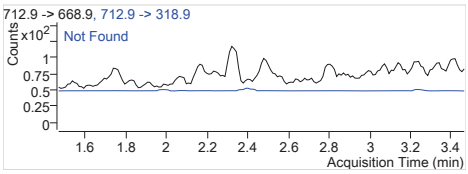
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



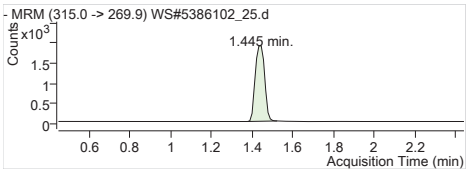


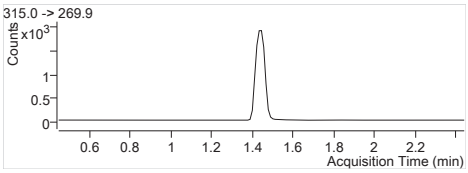
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



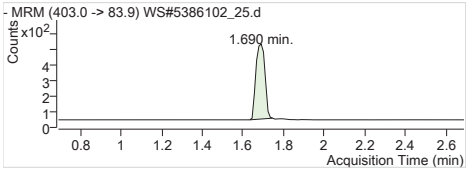


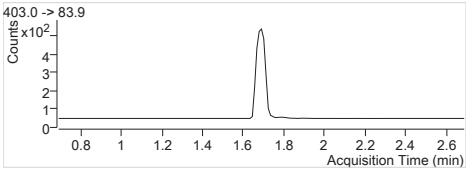
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



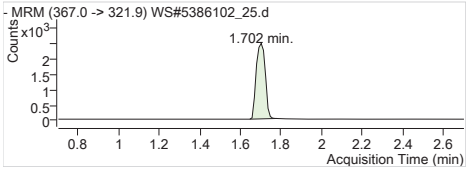


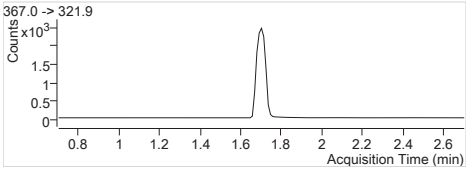
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.445)
Calc. conc. 103.07 µg/L
Area ratio: 0.20030
Sample type: Sample



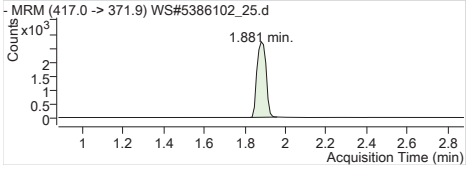


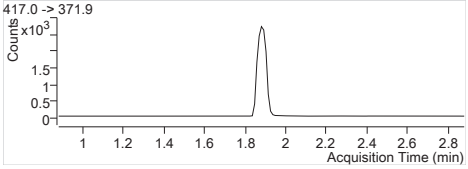
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 100.29 µg/L
Area ratio: 0.04986
Sample type: Sample



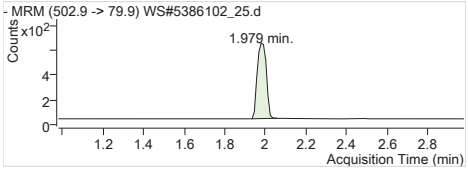


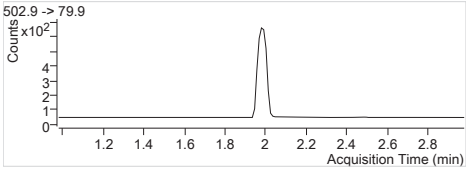
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 97.72 µg/L
Area ratio: 0.24868
Sample type: Sample



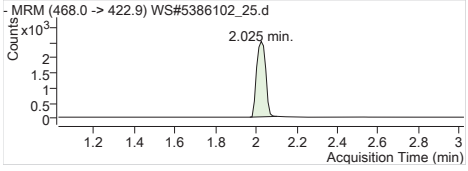


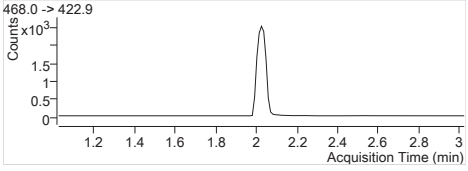
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 102.57 µg/L
Area ratio: 0.27538
Sample type: Sample



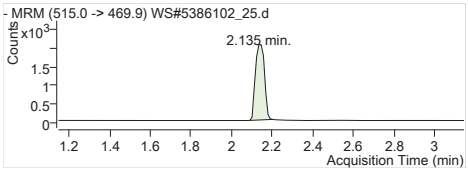


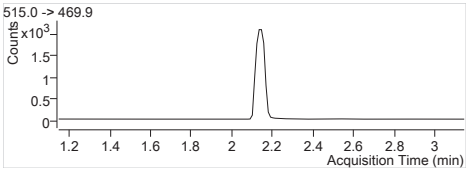
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 103.20 µg/L
Area ratio: 0.06248
Sample type: Sample



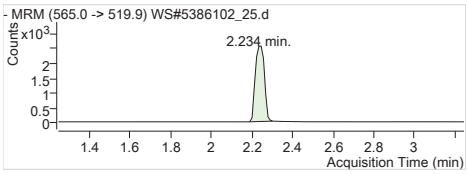


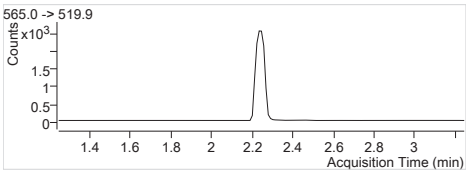
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 95.15 µg/L
Area ratio: 0.25496
Sample type: Sample



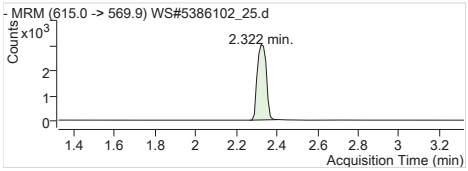


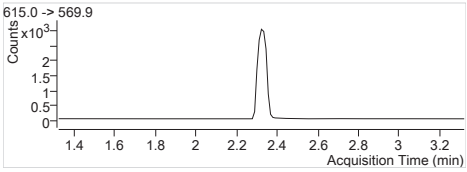
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 97.35 µg/L
Area ratio: 0.16570
Sample type: Sample



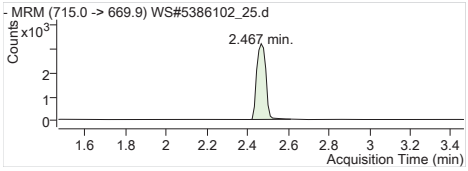


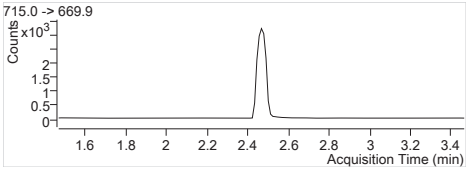
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.245)
Calc. conc. 101.64 µg/L
Area ratio: 0.20514
Sample type: Sample



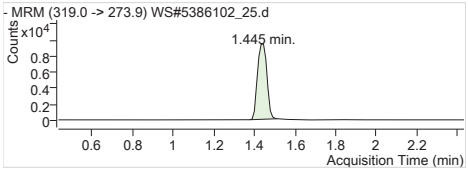


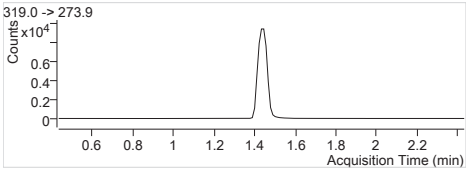
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 86.16 µg/L
Area ratio: 0.24142
Sample type: Sample



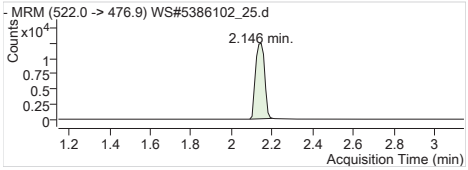


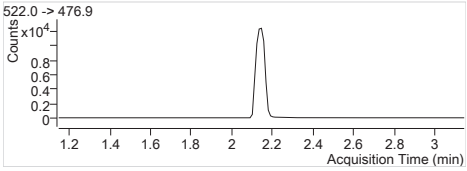
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 80.53 µg/L
Area ratio: 0.25742
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.445 (1.434)
Calc. conc. 2.29 µg/L
Area ratio: 0
Sample type: Sample





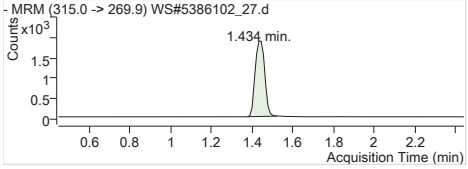
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.28 µg/L
Area ratio: 0
Sample type: Sample

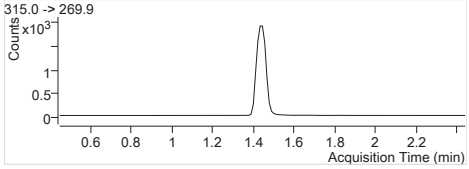
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**5386102:FZH344-01**	**Instrument**	LCMS04
Data File	WS#5386102_27.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-F3
Acq. Date	2018/02/08 5:15:09 AM	**Injection Volume**	Per Method
Sample Annotation	-		

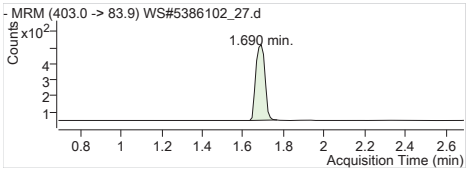
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6103	1.43	1 µg/L		
MPFHxS	1468	1.69	1 µg/L		
MPFHpA	7627	1.70	1 µg/L		
MPFOA	7989	1.88	1 µg/L		
MPFOS	1835	1.98	1 µg/L		
MPFNA	7797	2.02	1 µg/L		
MPFDA	6677	2.14	1 µg/L		
MPFUnA	7100	2.23	1 µg/L		
MPFDoA	9176	2.32	1 µg/L		
MPFTeDA	9520	2.47	1 µg/L		
13C6-PFHxA IS	30203	1.43	1 µg/L		
13C9-PFDA IS	38903	2.15	1 µg/L		

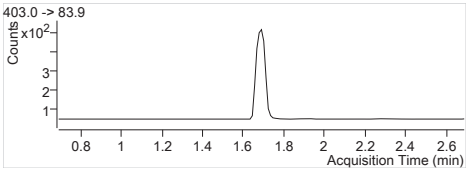
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6103	1.43	-	103.98 µg/L	-
18O2-PFHxS	1468	1.69	-	97.76 µg/L	-
13C4-PFHpA	7627	1.70	-	99.23 µg/L	-
13C4-PFOA	7989	1.88	-	98.53 µg/L	-
13C4-PFOS	1835	1.98	-	100.34 µg/L	-
13C5-PFNA	7797	2.02	-	96.35 µg/L	-
13C2-PFDA	6559	2.14	-	99.05 µg/L	-
13C2-PFUnA	7100	2.23	-	90.42 µg/L	-
13C2-PFDoA	9176	2.32	-	84.18 µg/L	-
13C2-PFTeDA	9599	2.47	-	77.19 µg/L	-
13C6-PFHxA	30203	1.43	-	2.29 µg/L	-
13C9-PFDA	38903	2.15	-	2.30 µg/L	-



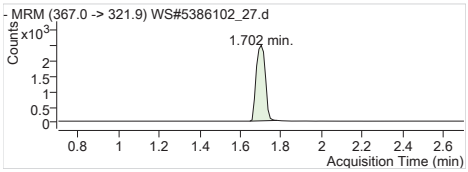


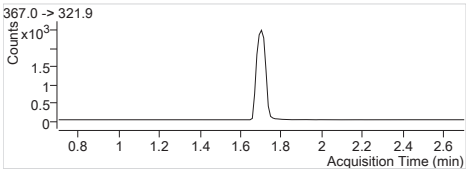
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	Sample



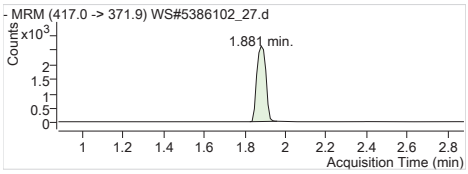


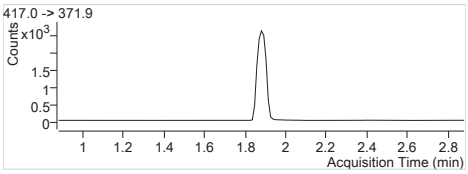
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



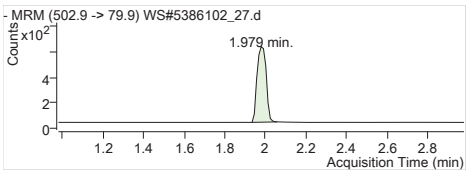


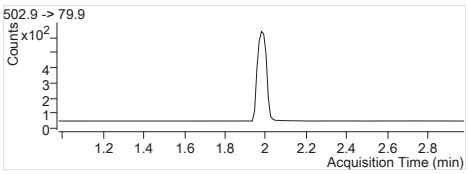
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



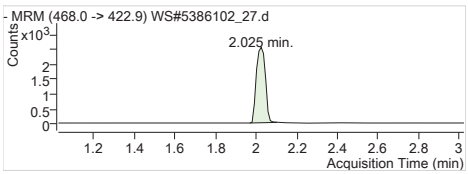


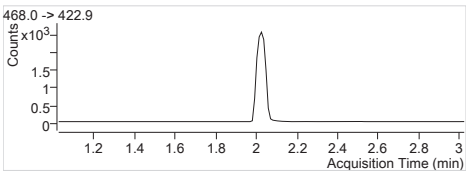
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



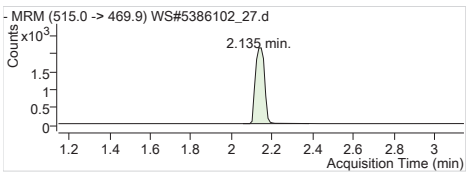


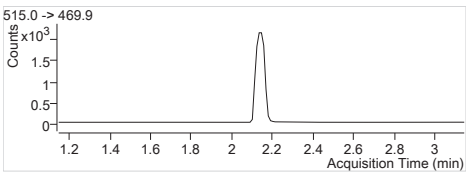
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



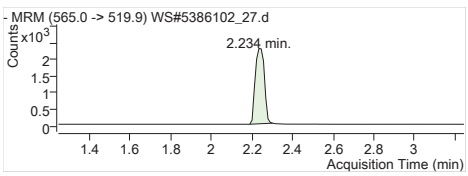


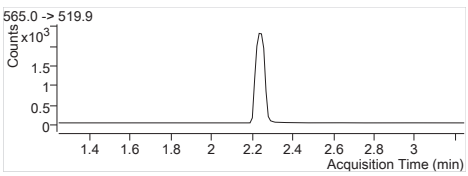
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



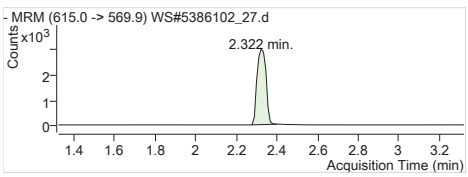


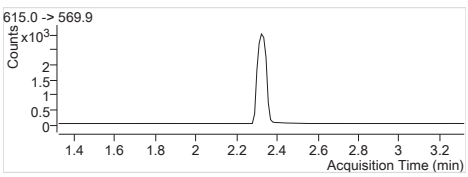
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: Sample



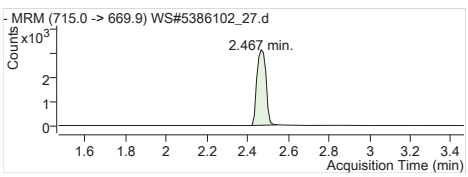


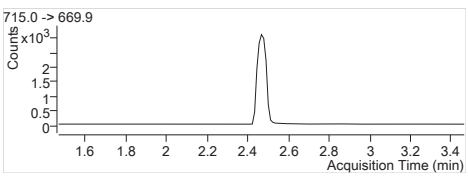
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.245)
Concentration: 1 µg/L
Sample type: Sample



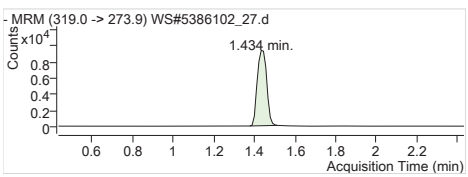


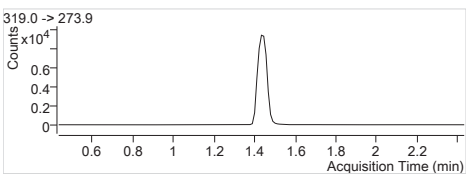
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



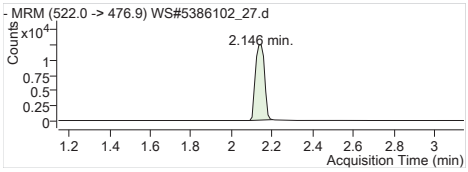


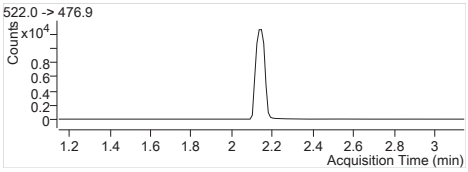
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



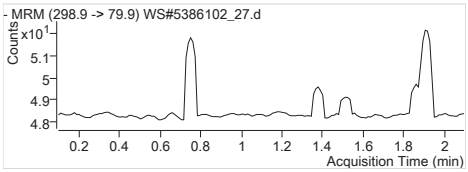


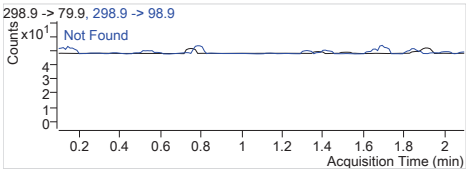
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



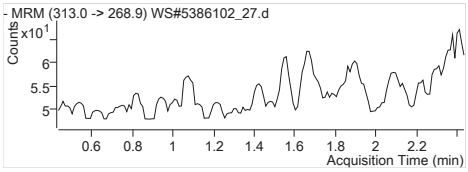


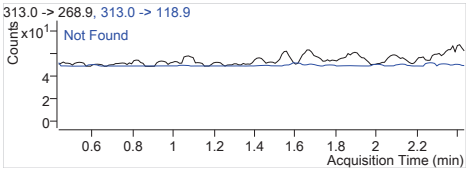
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



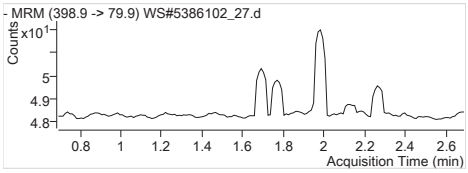


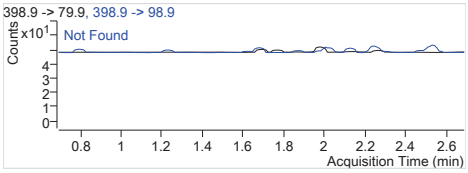
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



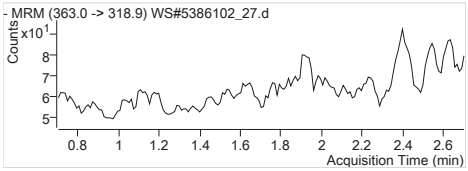


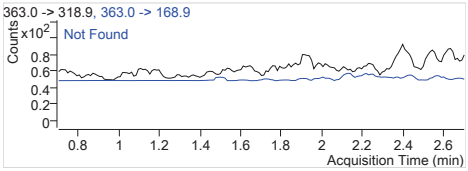
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



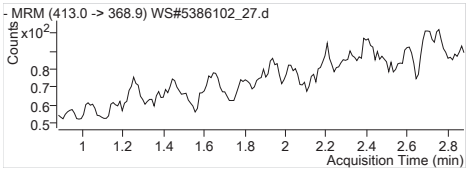


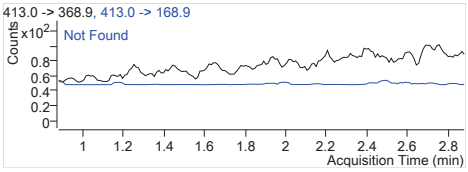
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



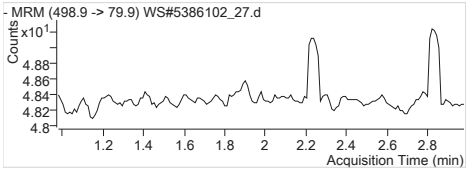


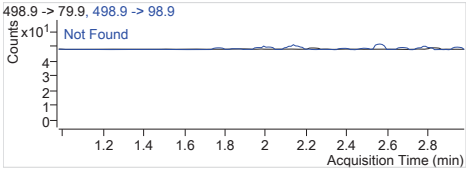
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



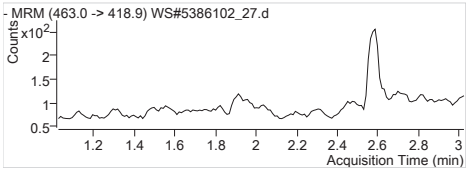


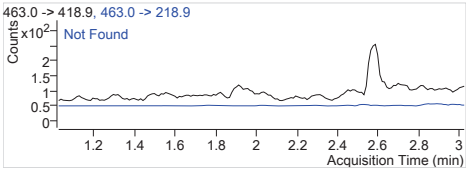
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



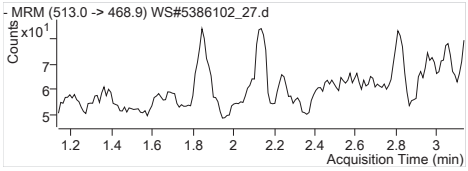


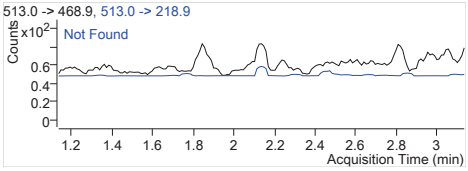
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



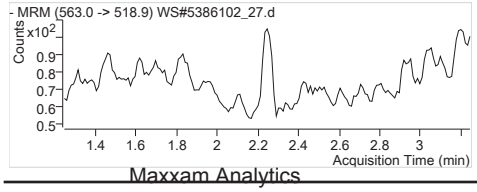


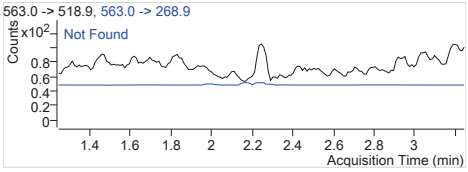
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



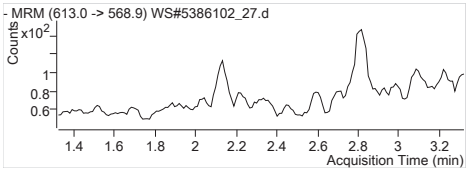


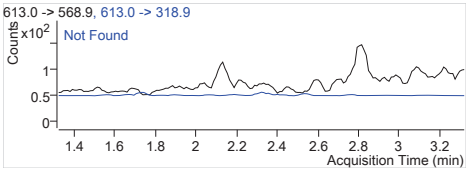
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



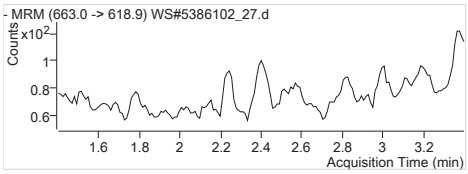


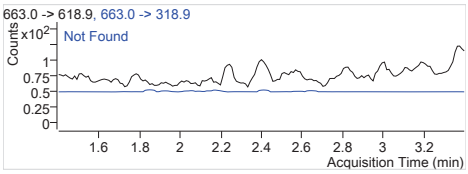
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



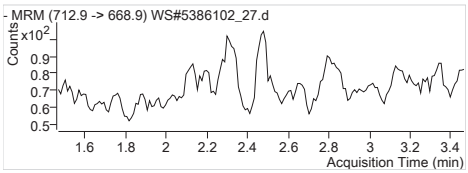


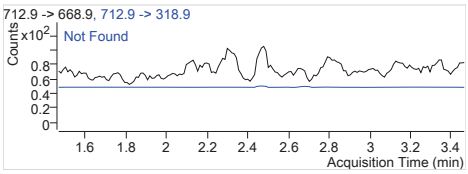
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



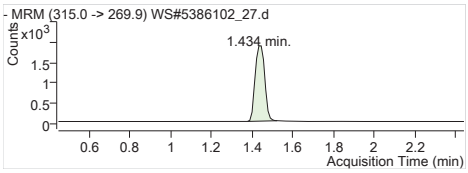


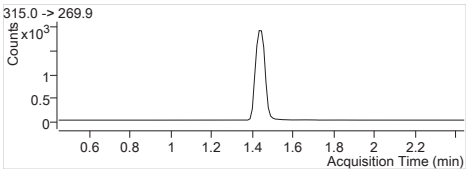
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



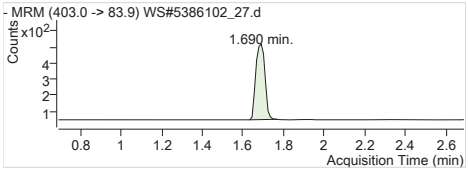


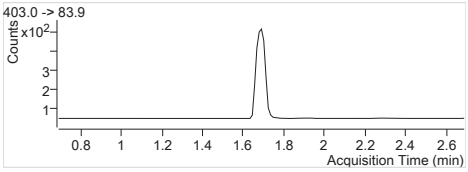
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



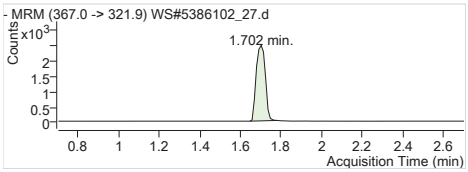


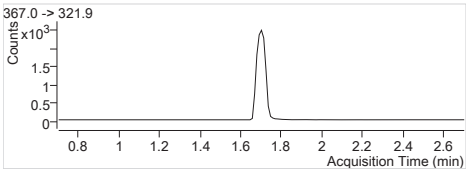
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 103.98 µg/L
Area ratio: 0.20207
Sample type: Sample



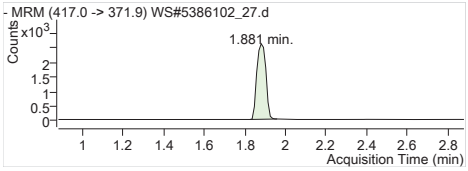


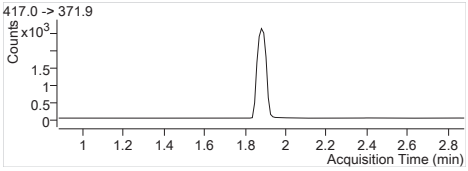
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 97.76 µg/L
Area ratio: 0.04860
Sample type: Sample



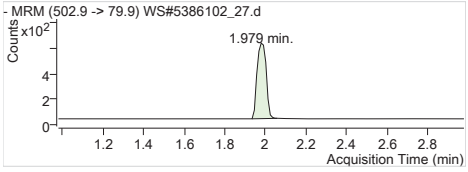


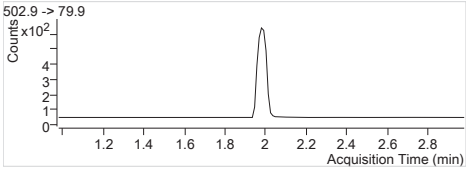
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 99.23 µg/L
Area ratio: 0.25252
Sample type: Sample



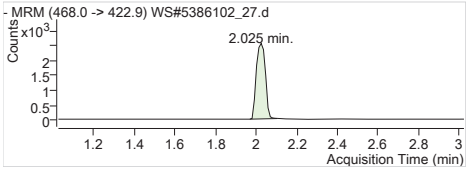


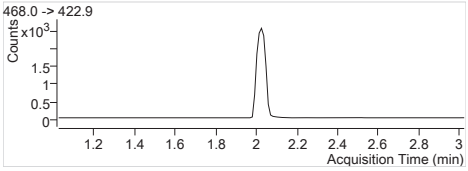
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 98.53 µg/L
Area ratio: 0.26451
Sample type: Sample



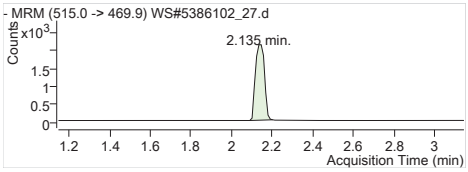


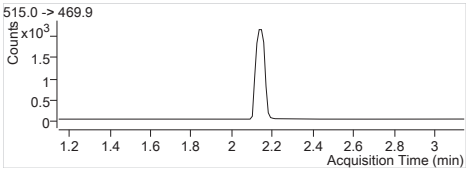
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 100.34 µg/L
Area ratio: 0.06076
Sample type: Sample



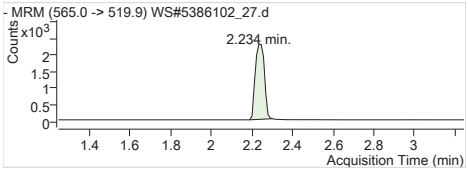


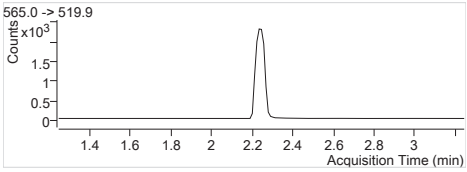
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 96.35 µg/L
Area ratio: 0.25815
Sample type: Sample



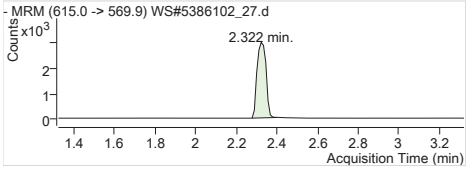


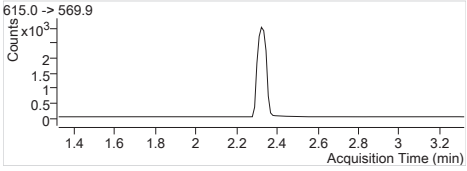
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 99.05 µg/L
Area ratio: 0.16860
Sample type: Sample



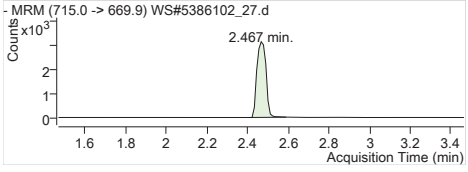


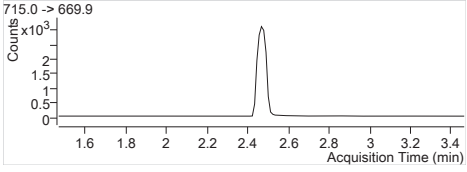
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.245)
Calc. conc. 90.42 µg/L
Area ratio: 0.18251
Sample type: Sample



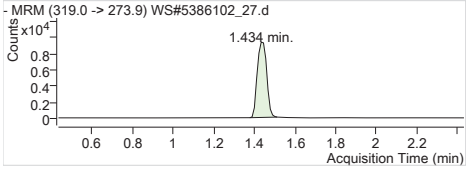


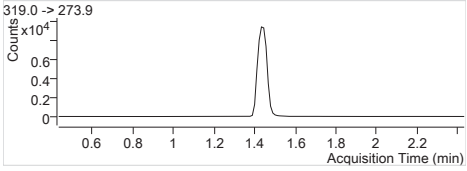
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 84.18 µg/L
Area ratio: 0.23587
Sample type: Sample



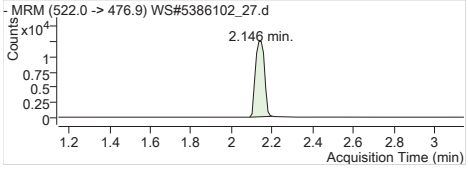


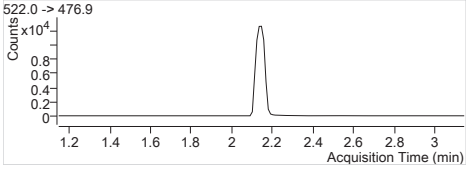
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 77.19 µg/L
Area ratio: 0.24674
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.29 µg/L
Area ratio: 0
Sample type: Sample





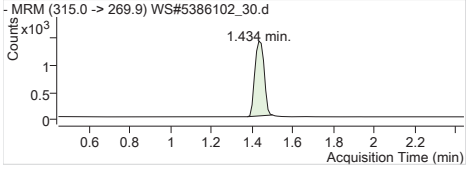
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.30 µg/L
Area ratio: 0
Sample type: Sample

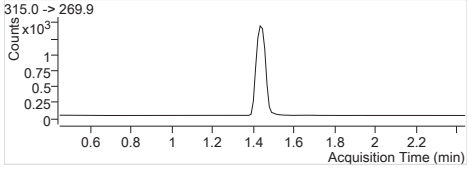
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**5386102:FZH347-01**	**Instrument**	LCMS04
Data File	WS#5386102_30.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-F6
Acq. Date	2018/02/08 5:29:57 AM	**Injection Volume**	Per Method
Sample Annotation	-		

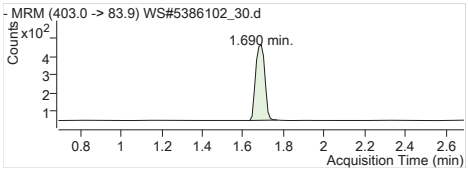
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4385	1.43	1 µg/L		
MPFHxS	1311	1.69	1 µg/L		
MPFHpA	5304	1.70	1 µg/L		
MPFOA	5734	1.88	1 µg/L		
MPFOS	1419	1.98	1 µg/L		
MPFNA	5864	2.02	1 µg/L		
MPFDA	4572	2.15	1 µg/L		
MPFUnA	5538	2.25	1 µg/L		
MPFDoA	7447	2.32	1 µg/L		
MPFTeDA	8137	2.47	1 µg/L		
13C6-PFHxA IS	30143	1.43	1 µg/L		
13C9-PFDA IS	39310	2.15	1 µg/L		

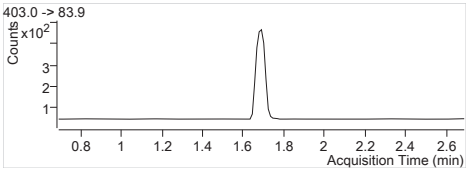
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	883	1.43	-	0.01 µg/L	-
PFHxS 1	249	1.69	-	0.01 µg/L	-
PFHpA 1	960	1.70	-	0.01 µg/L	-
PFOA 1	2787	1.88	-	0.03 µg/L	-
PFOS 1	399	1.97	-	0.02 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	4385	1.43	-	74.86 µg/L	-
18O2-PFHxS	1311	1.69	-	87.48 µg/L	-
13C4-PFHpA	5304	1.70	-	69.15 µg/L	-
13C4-PFOA	5734	1.88	-	70.86 µg/L	-
13C4-PFOS	1419	1.98	-	77.75 µg/L	-
13C5-PFNA	5863	2.02	-	72.59 µg/L	-
13C2-PFDA	4552	2.15	-	68.03 µg/L	-
13C2-PFUnA	5538	2.25	-	69.80 µg/L	-
13C2-PFDoA	7447	2.32	-	67.61 µg/L	-
13C2-PFTeDA	8196	2.47	-	65.23 µg/L	-
13C6-PFHxA	30143	1.43	-	2.28 µg/L	-
13C9-PFDA	39310	2.15	-	2.33 µg/L	-



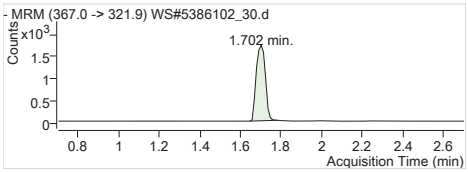


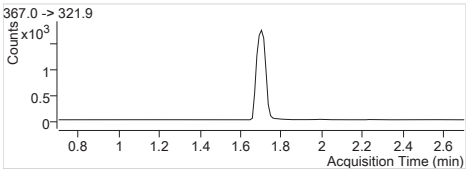
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.445)
Concentration: 1 µg/L
Sample type: Sample



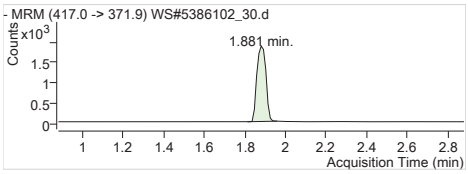


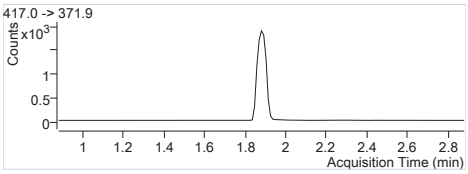
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



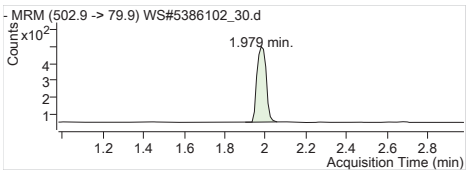


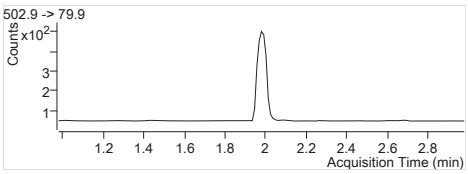
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



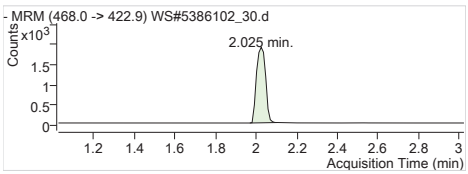


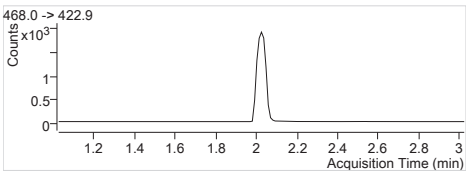
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



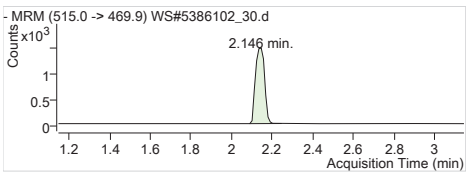


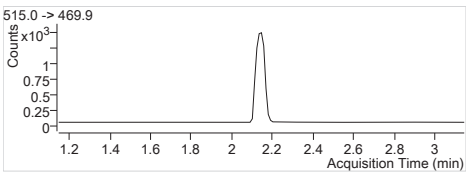
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



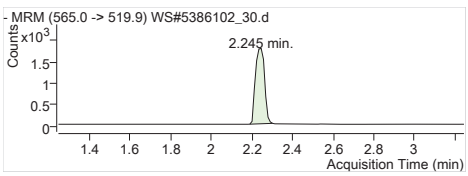


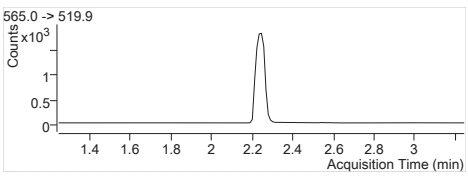
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



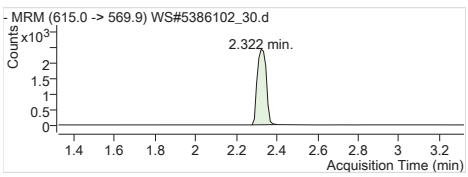


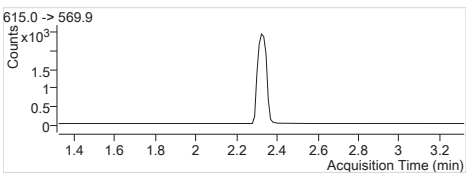
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



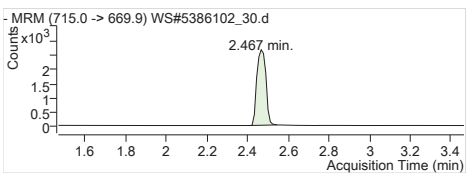


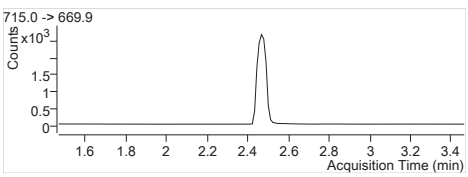
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



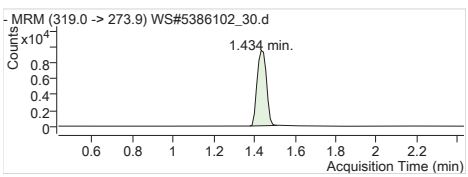


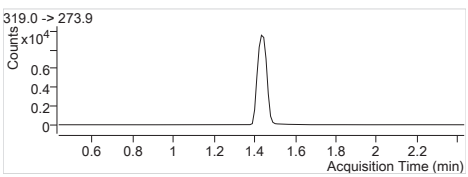
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



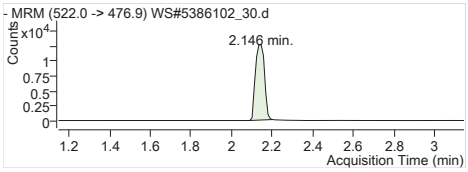


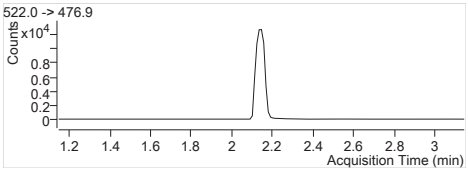
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



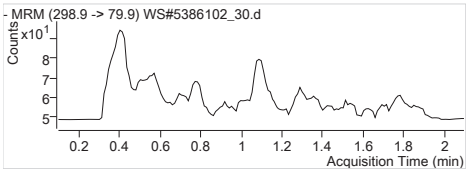


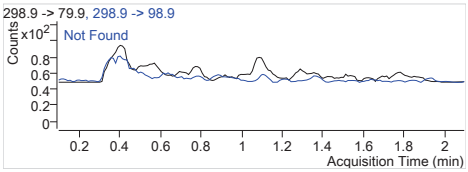
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



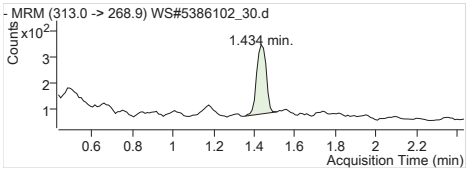


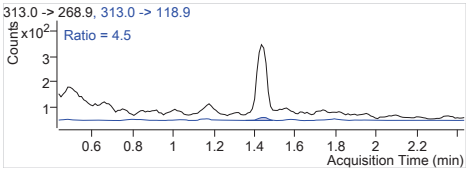
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



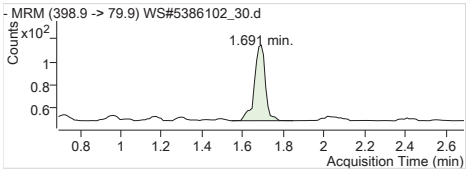


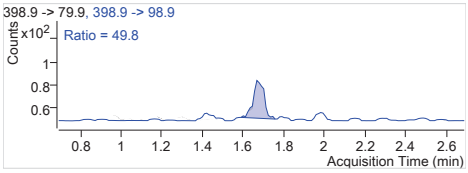
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



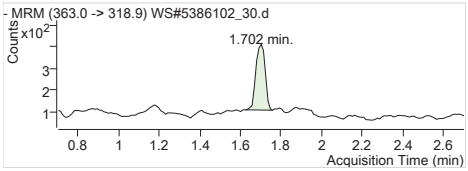


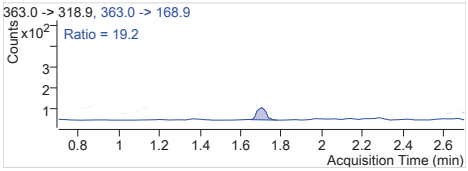
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.01 µg/L
Area ratio: 0.20137
Sample type: Sample



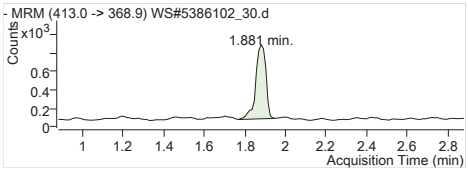


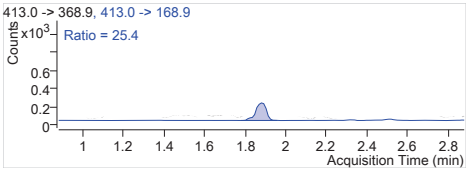
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.01 µg/L
Area ratio: 0.18993
Sample type: Sample



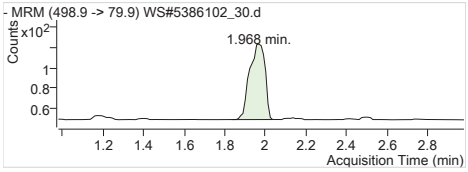


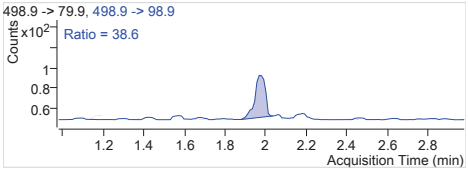
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.01 µg/L
Area ratio: 0.18100
Sample type: Sample



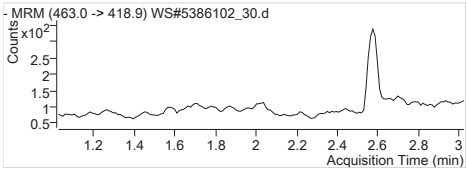


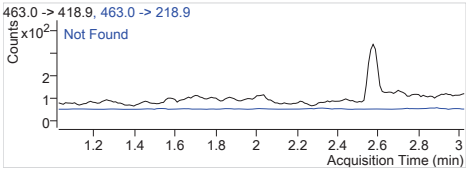
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.03 µg/L
Area ratio: 0.48605
Sample type: Sample



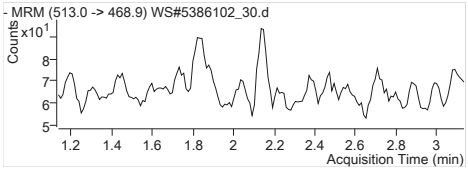


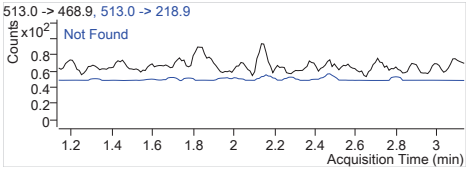
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.979)
Calc. conc. 0.02 µg/L
Area ratio: 0.28118
Sample type: Sample



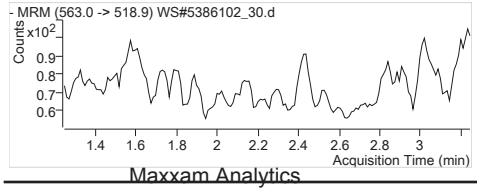


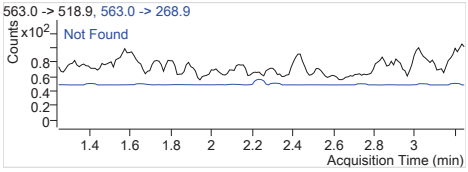
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



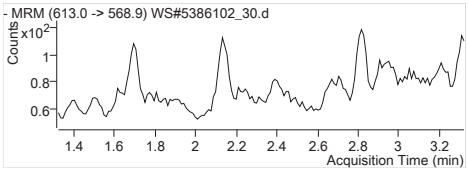


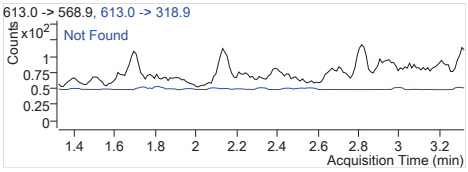
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



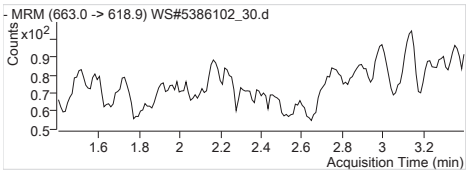


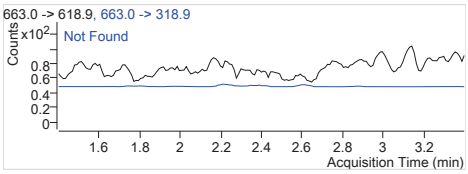
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



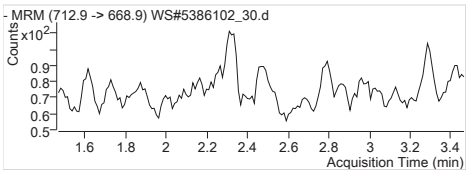


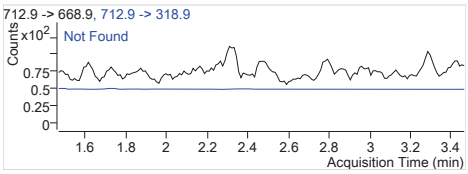
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



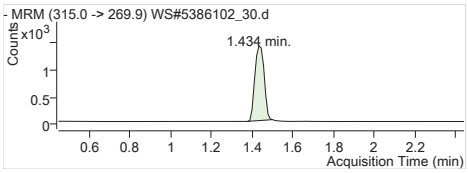


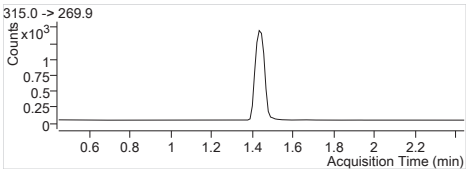
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



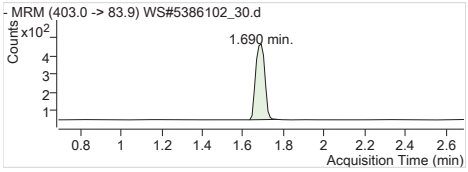


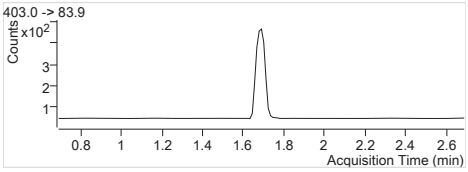
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



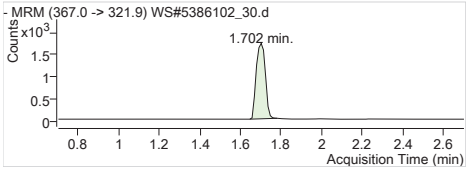


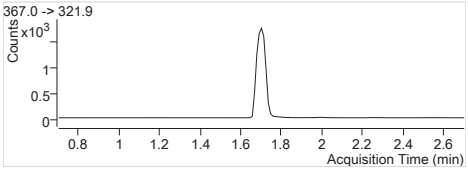
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 74.86 µg/L
Area ratio: 0.14547
Sample type: Sample



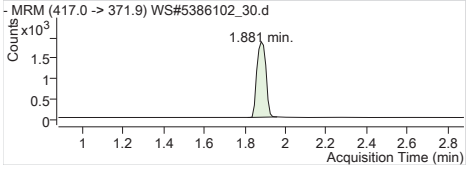


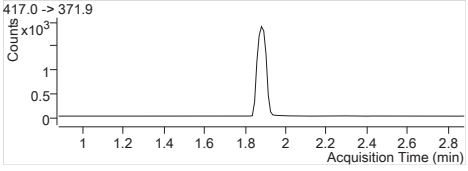
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 87.48 µg/L
Area ratio: 0.04349
Sample type: Sample



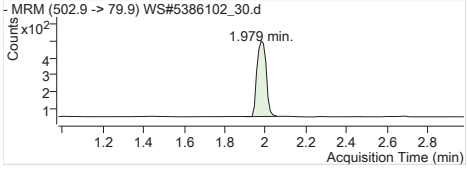


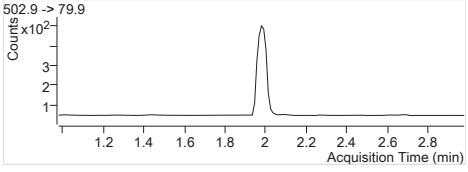
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 69.15 µg/L
Area ratio: 0.17596
Sample type: Sample



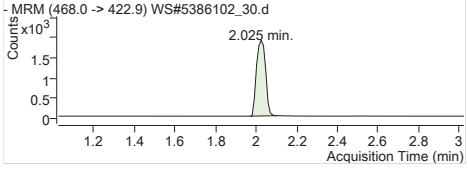


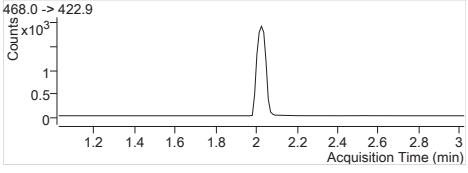
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 70.86 µg/L
Area ratio: 0.19023
Sample type: Sample



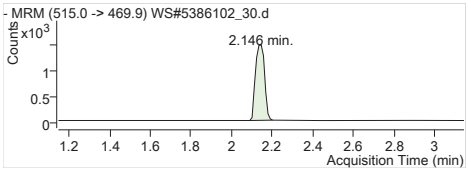


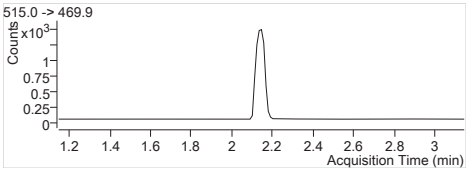
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 77.75 µg/L
Area ratio: 0.04708
Sample type: Sample



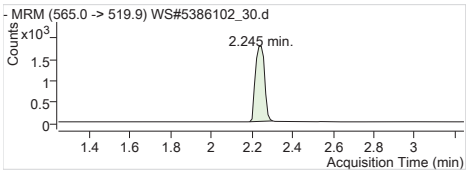


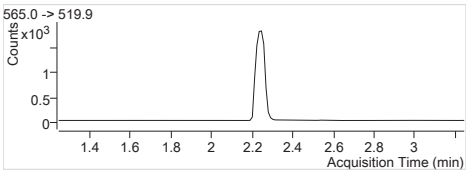
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 72.59 µg/L
Area ratio: 0.19451
Sample type: Sample



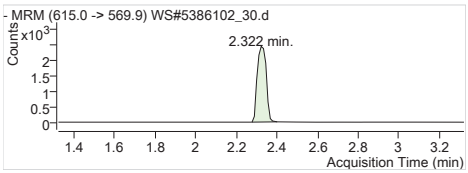


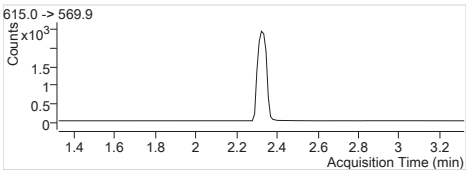
13C2-PFDA	515.0 -> 469.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	68.03 µg/L
Area ratio:	0.11580
Sample type:	Sample



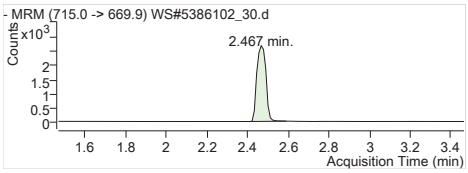


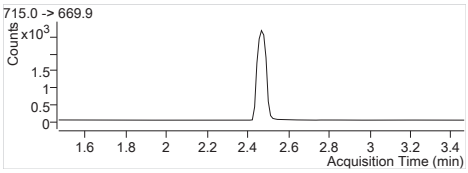
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.245 (2.245)
Calc. conc.	69.80 µg/L
Area ratio:	0.14088
Sample type:	Sample



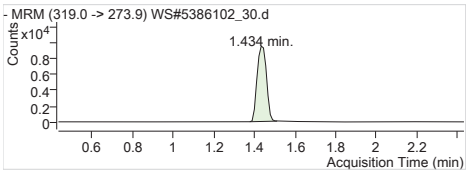


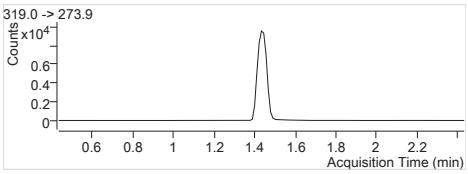
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.322 (2.322)
Calc. conc.	67.61 µg/L
Area ratio:	0.18944
Sample type:	Sample



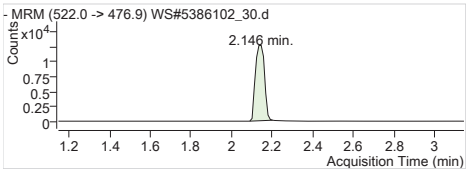


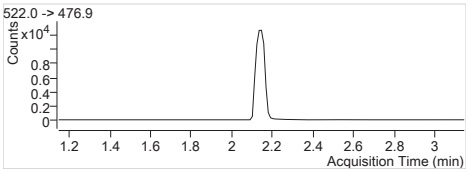
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	65.23 µg/L
Area ratio:	0.20850
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	2.28 µg/L
Area ratio:	0
Sample type:	Sample





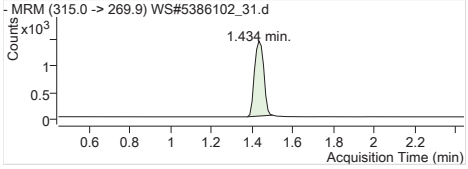
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.33 µg/L
Area ratio:	0
Sample type:	Sample

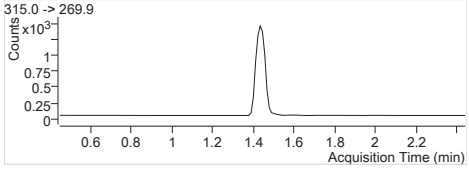
Batch Path	T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**5386102:FZH348-01**	**Instrument**	LCMS04
Data File	WS#5386102_31.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-F7
Acq. Date	2018/02/08 5:34:53 AM	**Injection Volume**	Per Method
Sample Annotation	-		

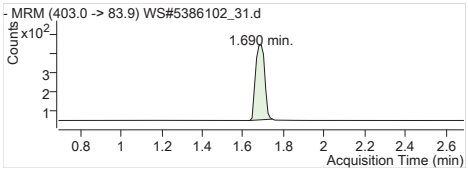
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4455	1.43	1 µg/L		
MPFHxS	1227	1.69	1 µg/L		
MPFHpA	6637	1.70	1 µg/L		
MPFOA	6622	1.88	1 µg/L		
MPFOS	1585	1.98	1 µg/L		
MPFNA	6652	2.02	1 µg/L		
MPFDA	5459	2.15	1 µg/L		
MPFUnA	5950	2.25	1 µg/L		
MPFDoA	7829	2.32	1 µg/L		
MPFTeDA	8289	2.47	1 µg/L		
13C6-PFHxA IS	29953	1.43	1 µg/L		
13C9-PFDA IS	38951	2.15	1 µg/L		

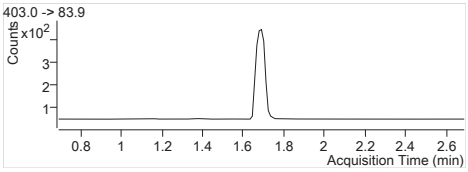
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	831	1.43	-	0.01 µg/L	-
PFHxS 1	191	1.69	-	0.01 µg/L	-
PFHpA 1	1045	1.70	-	0.01 µg/L	-
PFOA 1	2351	1.88	-	0.02 µg/L	-
PFOS 1	353	1.97	-	0.02 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	4455	1.43	-	76.54 µg/L	-
18O2-PFHxS	1227	1.69	-	82.39 µg/L	-
13C4-PFHpA	6637	1.70	-	87.07 µg/L	-
13C4-PFOA	6622	1.88	-	82.35 µg/L	-
13C4-PFOS	1585	1.98	-	87.39 µg/L	-
13C5-PFNA	6652	2.02	-	82.88 µg/L	-
13C2-PFDA	5291	2.15	-	79.81 µg/L	-
13C2-PFUnA	5950	2.25	-	75.68 µg/L	-
13C2-PFDoA	7829	2.32	-	71.73 µg/L	-
13C2-PFTeDA	8302	2.47	-	66.68 µg/L	-
13C6-PFHxA	29953	1.43	-	2.27 µg/L	-
13C9-PFDA	38951	2.15	-	2.31 µg/L	-



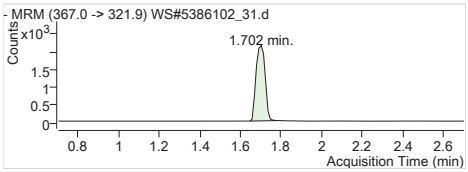


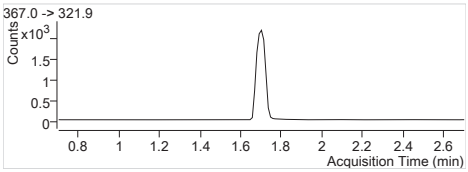
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	Sample



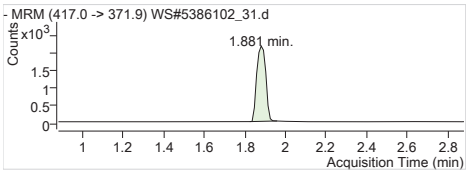


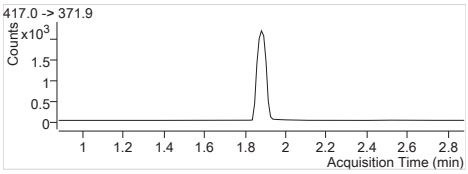
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



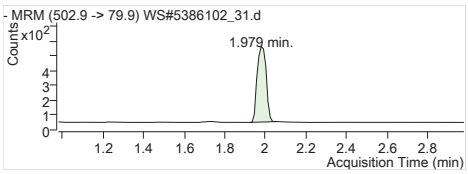


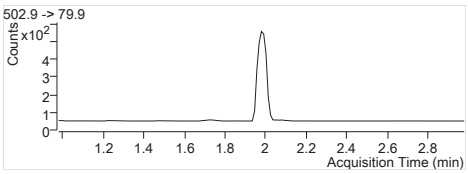
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



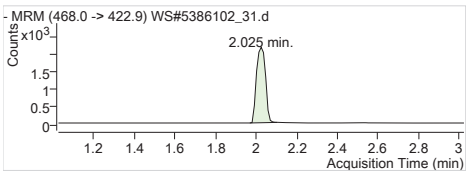


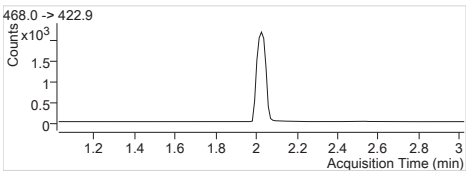
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



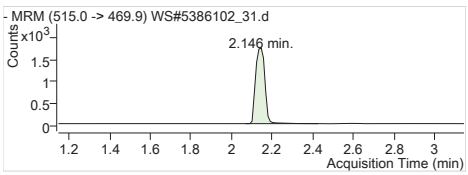


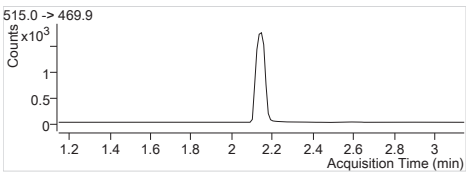
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



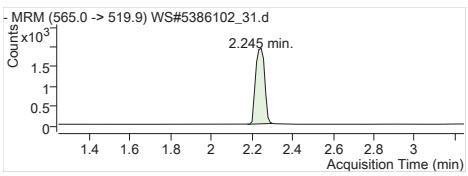


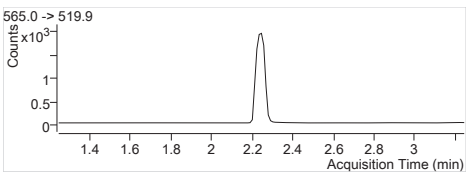
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



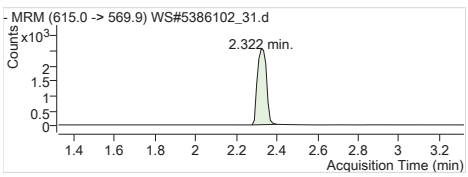


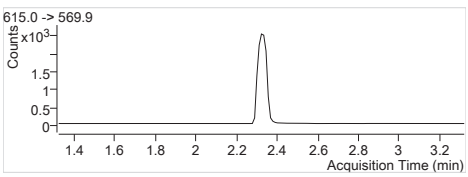
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



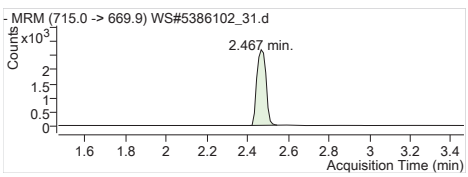


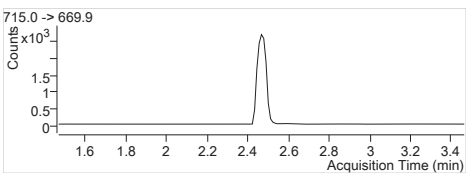
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



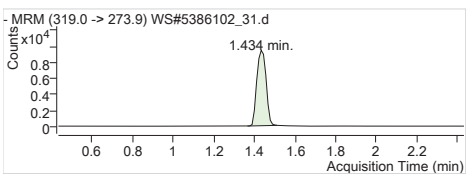


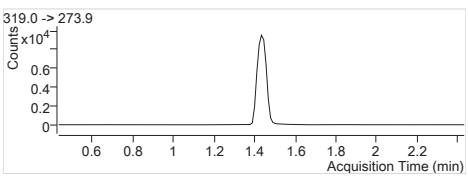
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



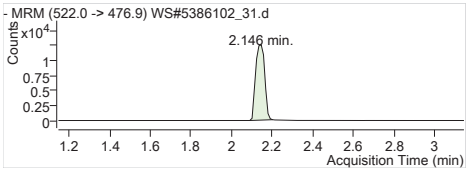


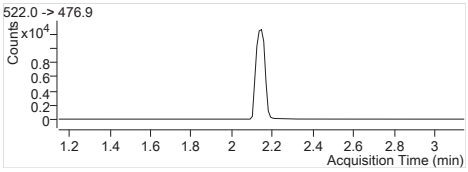
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



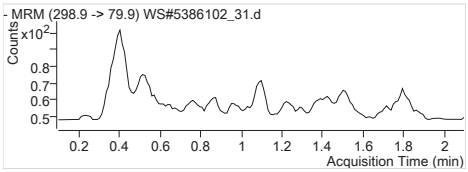


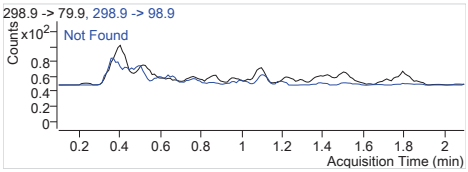
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



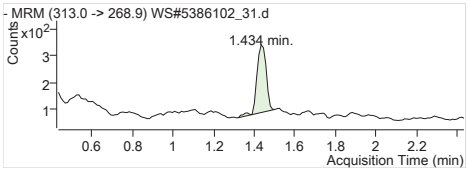


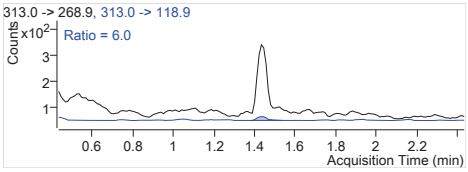
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



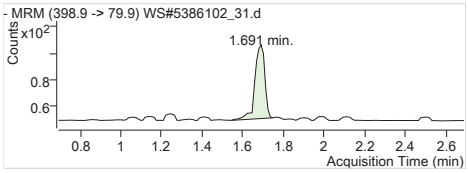


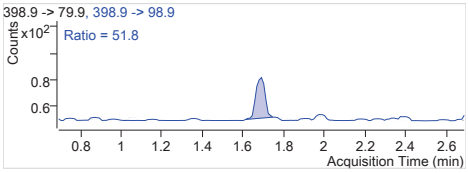
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



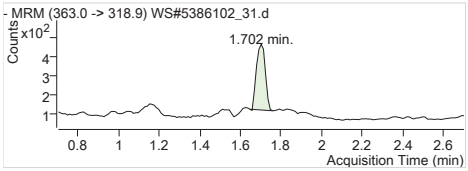


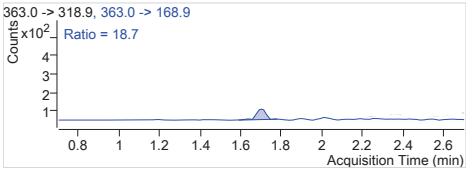
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.01 µg/L
Area ratio: 0.18653
Sample type: Sample



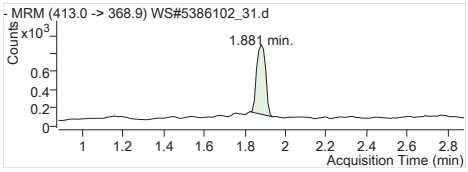


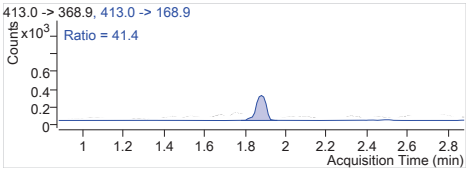
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.01 µg/L
Area ratio: 0.15566
Sample type: Sample



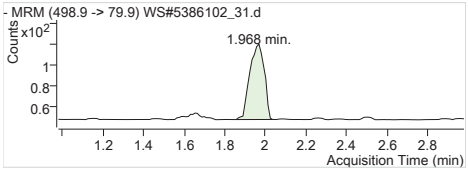


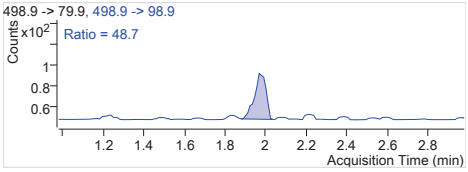
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.01 µg/L
Area ratio: 0.15745
Sample type: Sample



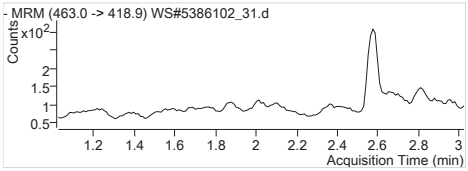


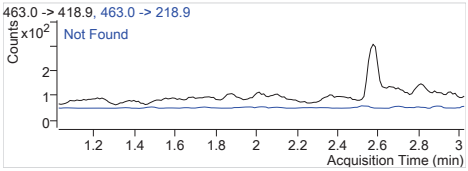
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.02 µg/L
Area ratio: 0.35503
Sample type: Sample



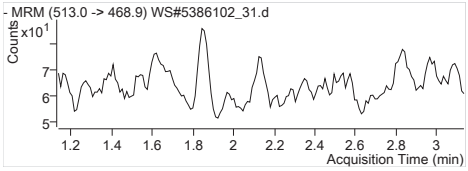


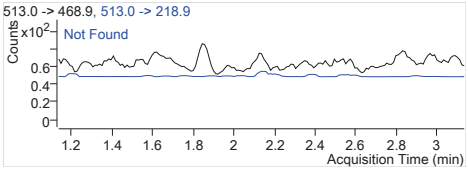
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.979)
Calc. conc. 0.02 µg/L
Area ratio: 0.22271
Sample type: Sample



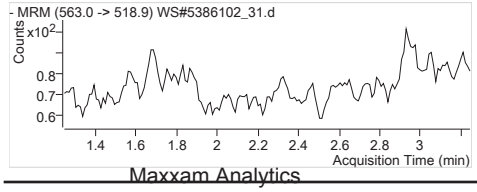


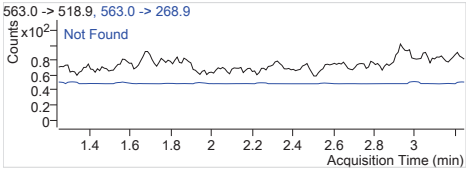
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



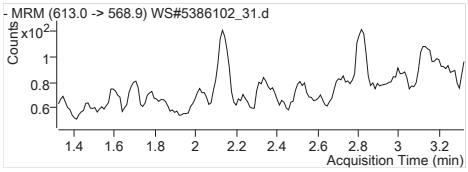


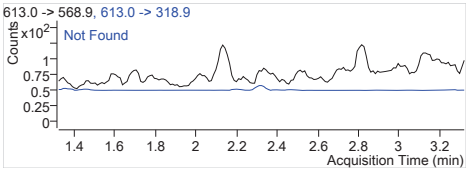
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



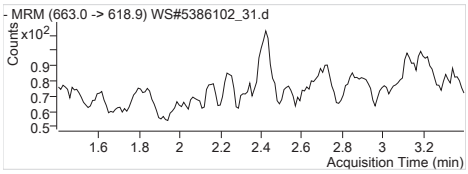


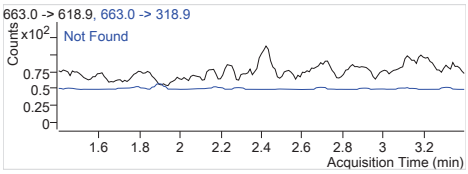
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



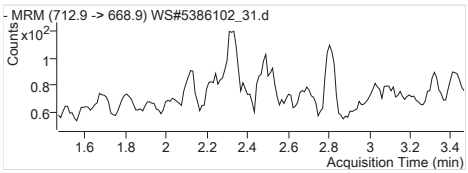


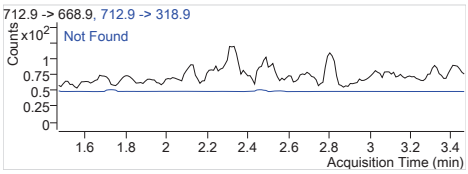
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



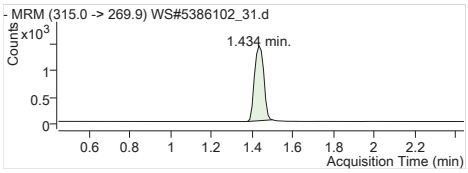


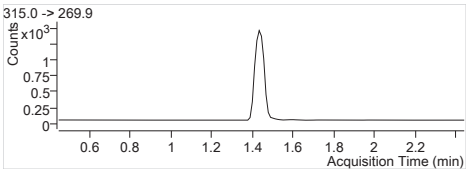
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



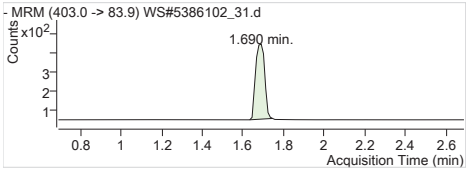


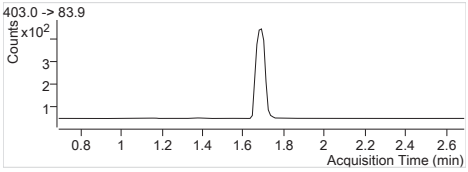
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



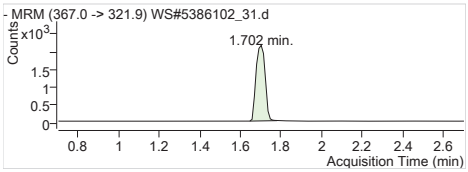


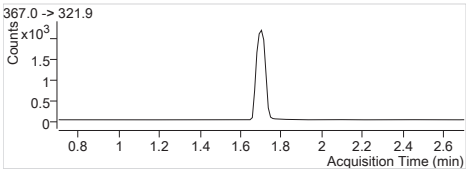
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 76.54 µg/L
Area ratio: 0.14873
Sample type: Sample



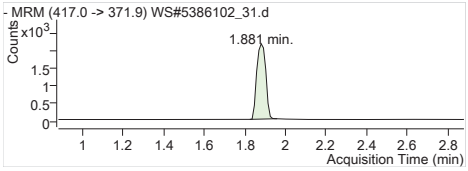


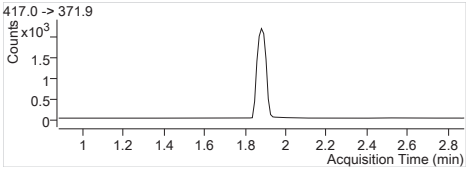
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 82.39 µg/L
Area ratio: 0.04096
Sample type: Sample



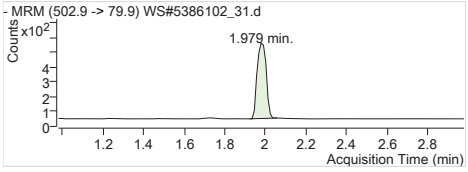


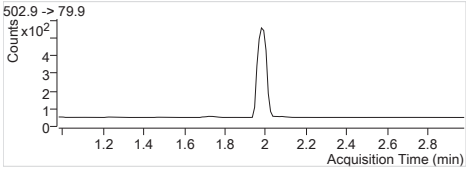
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 87.07 µg/L
Area ratio: 0.22158
Sample type: Sample



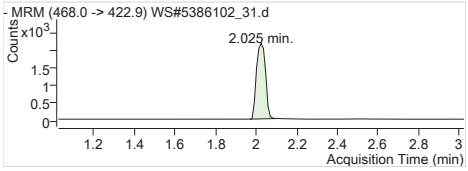


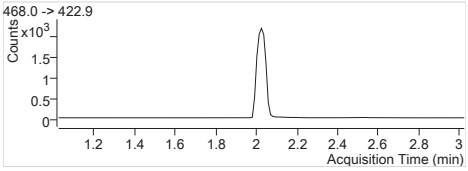
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 82.35 µg/L
Area ratio: 0.22108
Sample type: Sample



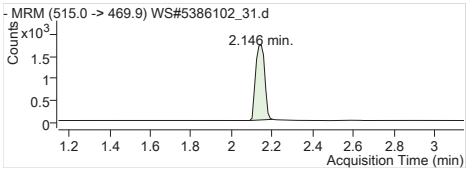


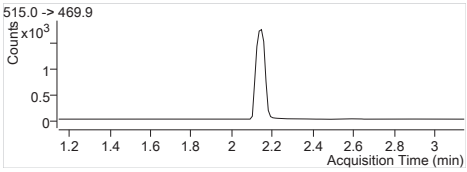
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 87.39 µg/L
Area ratio: 0.05292
Sample type: Sample



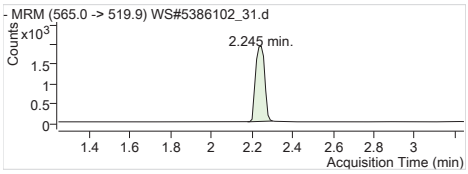


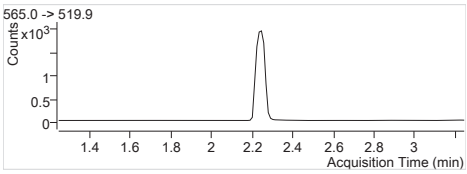
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 82.88 µg/L
Area ratio: 0.22208
Sample type: Sample



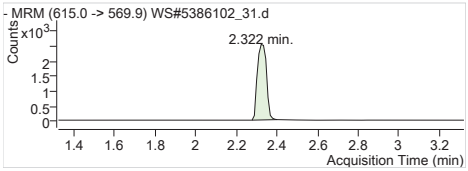


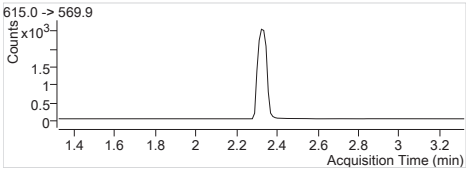
13C2-PFDA	515.0 -> 469.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	79.81 µg/L
Area ratio:	0.13584
Sample type:	Sample



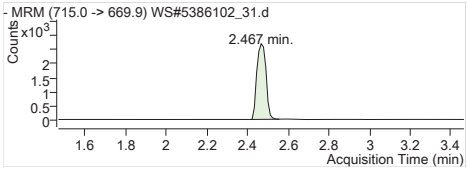


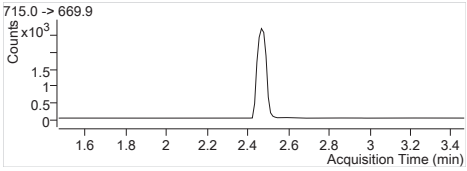
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.245 (2.245)
Calc. conc.	75.68 µg/L
Area ratio:	0.15276
Sample type:	Sample



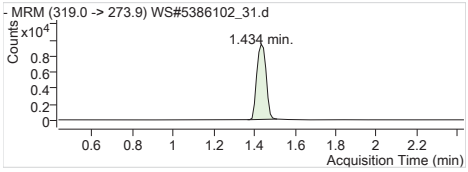


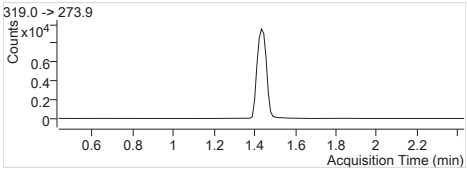
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.322 (2.322)
Calc. conc.	71.73 µg/L
Area ratio:	0.20100
Sample type:	Sample



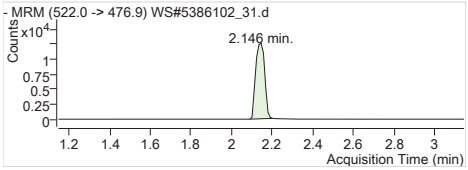


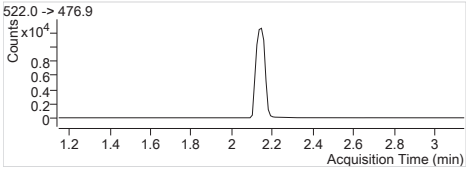
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	66.68 µg/L
Area ratio:	0.21314
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	2.27 µg/L
Area ratio:	0
Sample type:	Sample





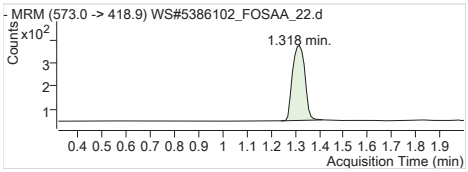
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.31 µg/L
Area ratio:	0
Sample type:	Sample

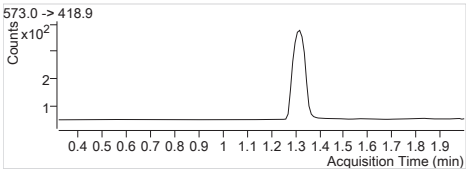
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**5386102:FZH328-01**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_22.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-E8
Acq. Date	2018/02/08 10:24:36 AM	**Injection Volume**	Per Method
Sample Annotation	-		

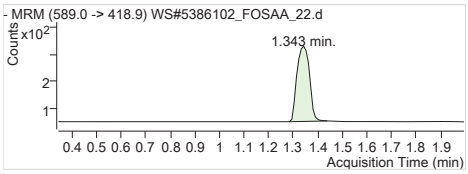
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1158	1.32	1 µg/L		
D5-EtFOSAA IS	993	1.34	1 µg/L		
13C9-PFDA IS	32140	0.89	1 µg/L		

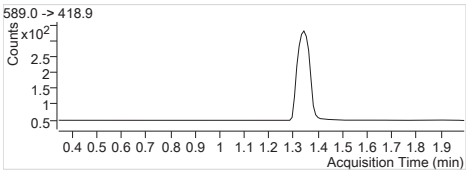
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1166	1.32	-	68.18 µg/L	-
D5-EtFOSAA	1011	1.34	-	68.13 µg/L	-
13C9-PFDA	31315	0.89	-	2.25 µg/L	-



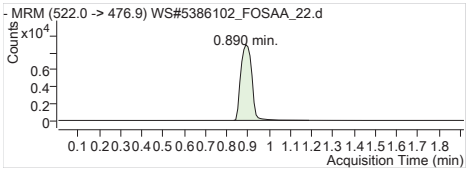


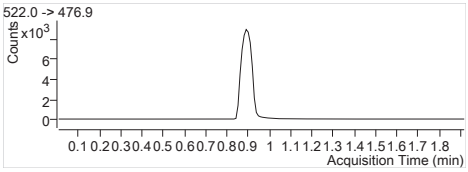
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



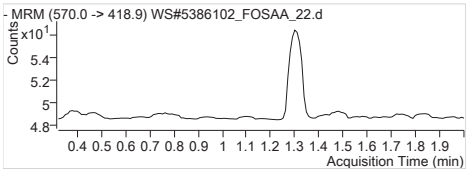


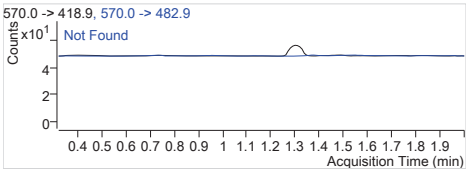
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



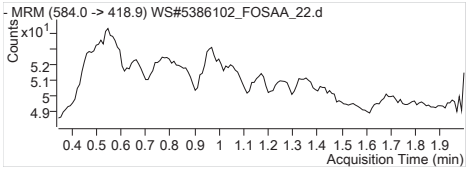


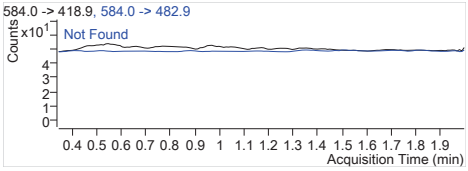
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.919)
Concentration: 1 µg/L
Sample type: Sample



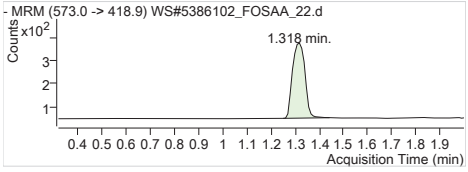


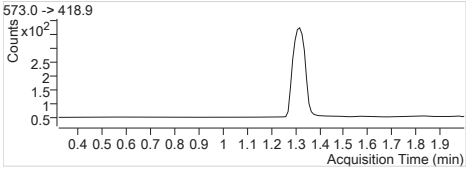
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



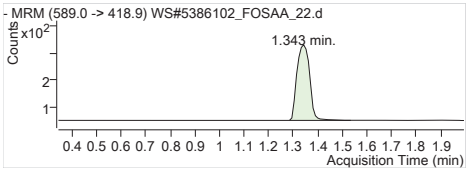


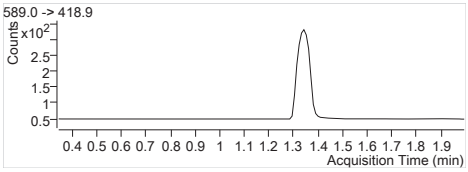
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



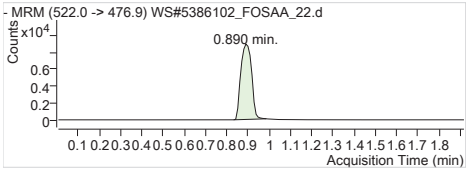


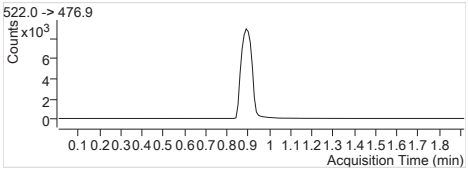
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 68.18 µg/L
Area ratio: 0.03628
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	68.13 µg/L
Area ratio:	0.03146
Sample type:	Sample





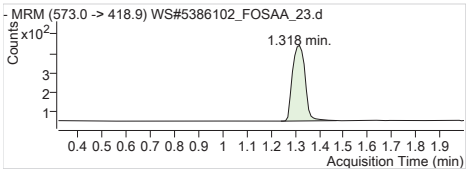
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.919)
Calc. conc.	2.25 µg/L
Area ratio:	0
Sample type:	Sample

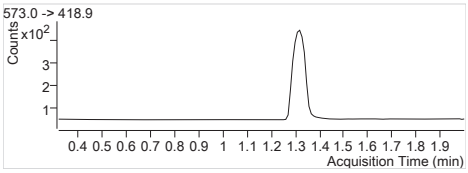
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**5386102:FZH329-01**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_23.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-E9
Acq. Date	2018/02/08 10:27:02 AM	**Injection Volume**	Per Method
Sample Annotation	-		

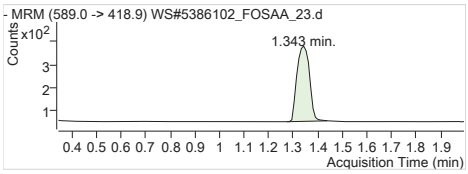
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1427	1.32	1 µg/L		
D5-EtFOSAA IS	1169	1.34	1 µg/L		
13C9-PFDA IS	31549	0.89	1 µg/L		

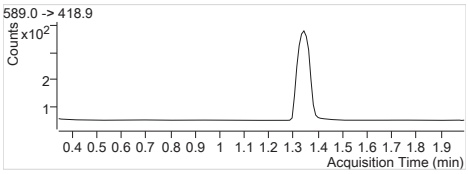
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1425	1.32	-	84.88 µg/L	-
D5-EtFOSAA	1194	1.34	-	81.97 µg/L	-
13C9-PFDA	30665	0.89	-	2.20 µg/L	-



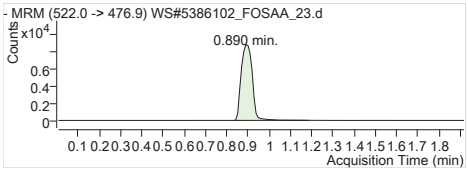


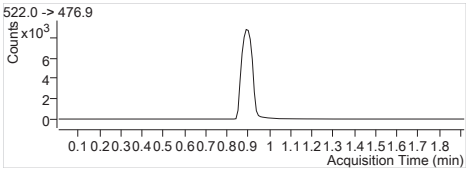
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



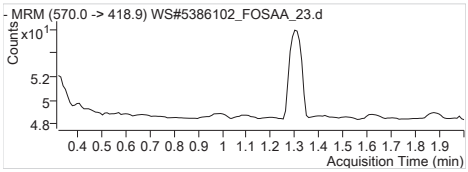


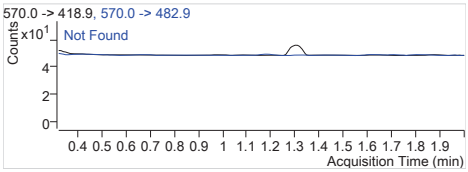
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



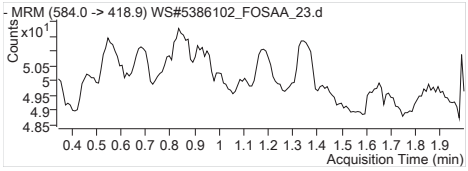


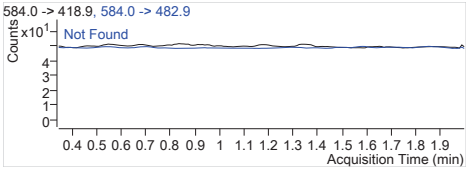
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.919)
Concentration: 1 µg/L
Sample type: Sample



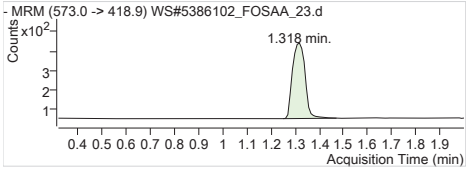


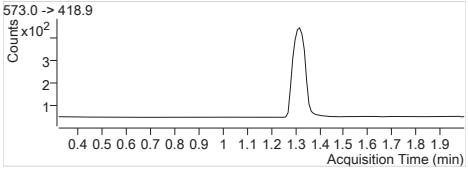
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



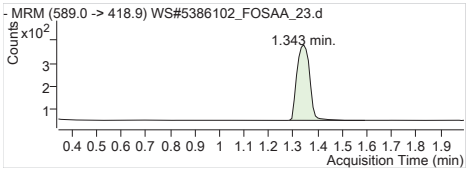


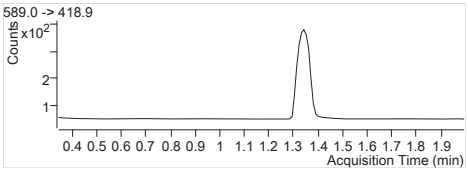
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



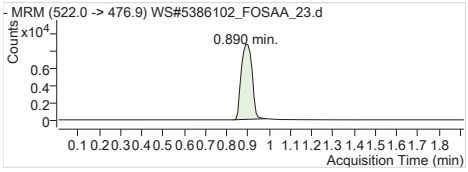


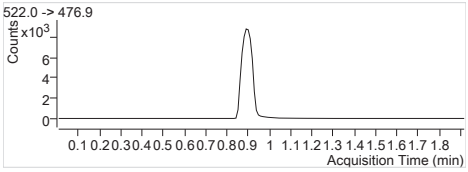
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 84.88 µg/L
Area ratio: 0.04517
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	81.97 µg/L
Area ratio:	0.03785
Sample type:	Sample





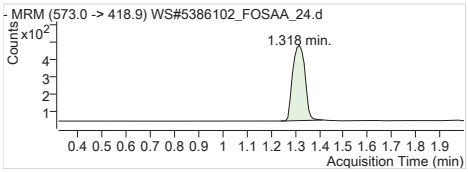
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.919)
Calc. conc.	2.20 µg/L
Area ratio:	0
Sample type:	Sample

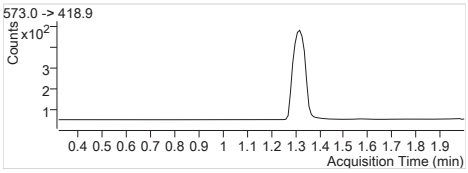
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**5386102:FZH330-01**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_24.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-F1
Acq. Date	2018/02/08 10:29:26 AM	**Injection Volume**	Per Method
Sample Annotation	-		

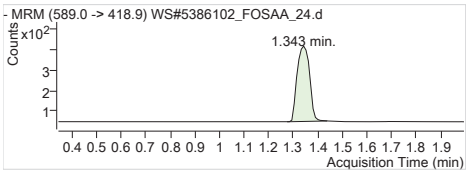
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1527	1.32	1 µg/L		
D5-EtFOSAA IS	1282	1.34	1 µg/L		
13C9-PFDA IS	32729	0.90	1 µg/L		

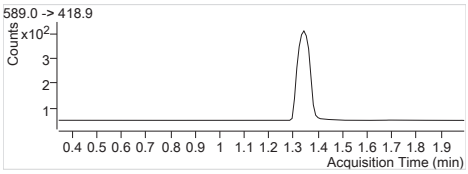
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1559	1.32	-	89.52 µg/L	-
D5-EtFOSAA	1307	1.34	-	86.49 µg/L	-
13C9-PFDA	31697	0.90	-	2.28 µg/L	-



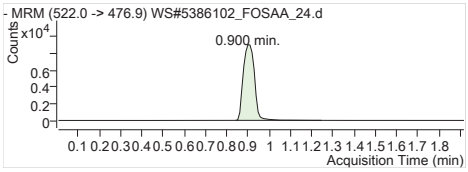


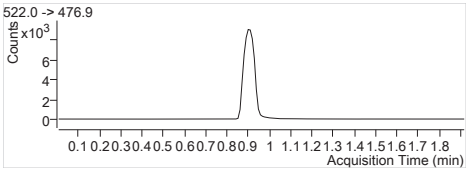
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



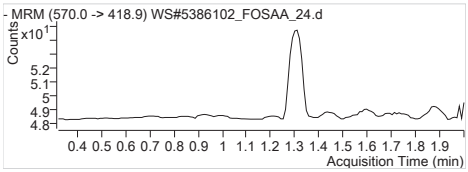


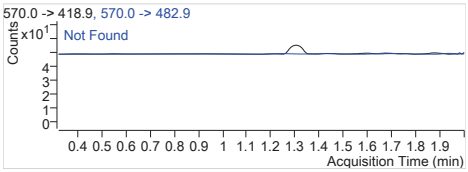
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



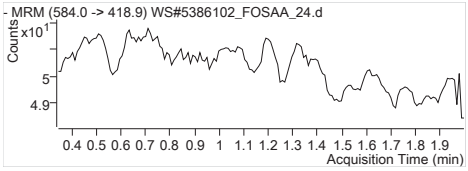


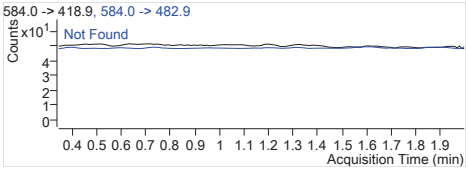
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.919)
Concentration: 1 µg/L
Sample type: Sample



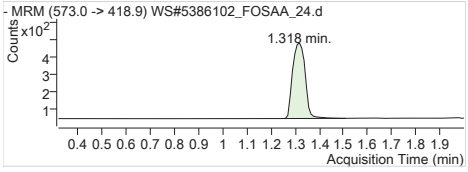


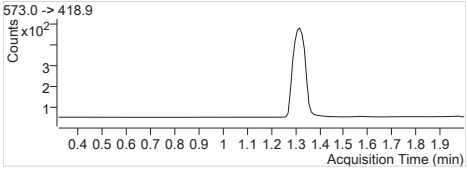
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



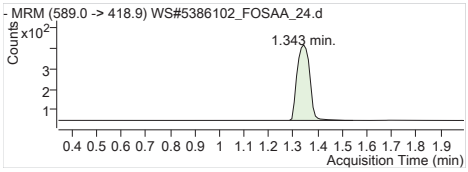


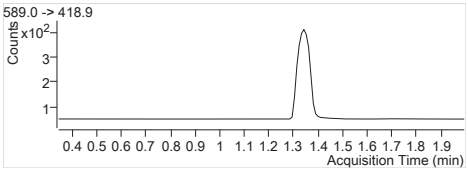
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



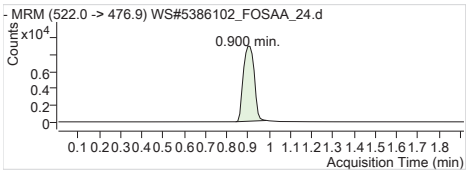


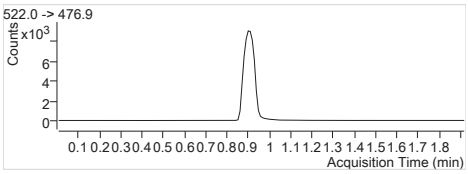
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 89.52 µg/L
Area ratio: 0.04763
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	86.49 µg/L
Area ratio:	0.03993
Sample type:	Sample





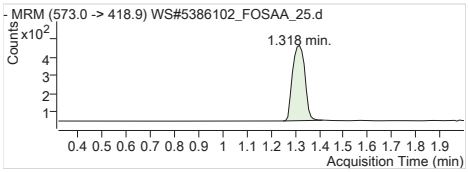
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.919)
Calc. conc.	2.28 µg/L
Area ratio:	0
Sample type:	Sample

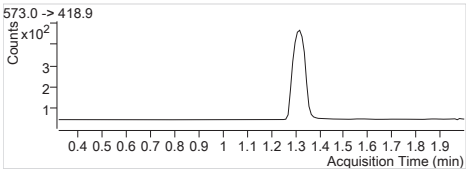
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**5386102:FZH335-01**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_25.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-F2
Acq. Date	2018/02/08 10:31:49 AM	**Injection Volume**	Per Method
Sample Annotation	-		

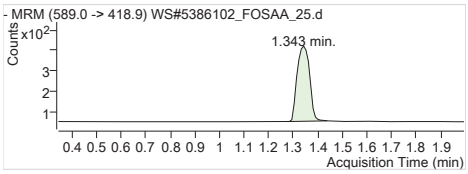
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1476	1.32	1 µg/L		
D5-EtFOSAA IS	1303	1.34	1 µg/L		
13C9-PFDA IS	31905	0.90	1 µg/L		

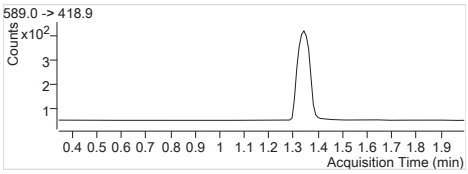
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1503	1.32	-	88.53 µg/L	-
D5-EtFOSAA	1320	1.34	-	89.61 µg/L	-
13C9-PFDA	30947	0.90	-	2.22 µg/L	-



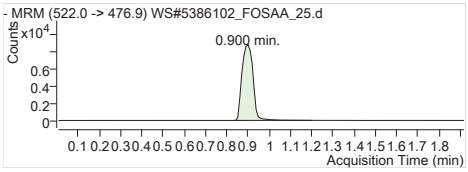


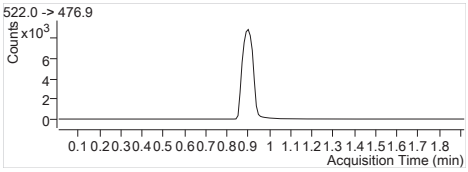
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



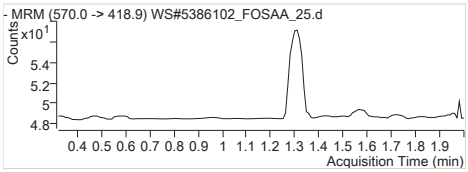


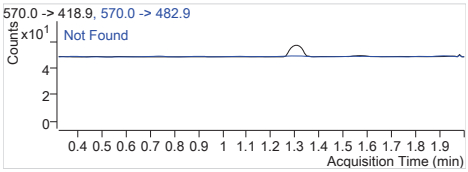
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



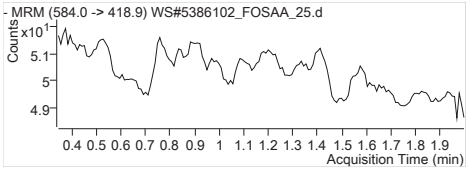


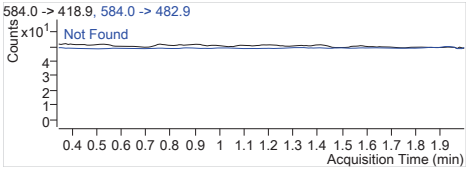
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.919)
Concentration: 1 µg/L
Sample type: Sample



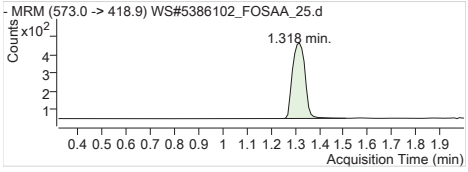


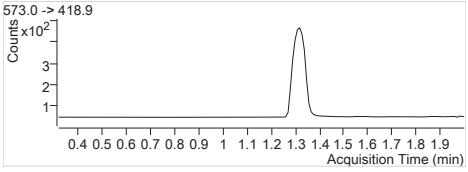
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



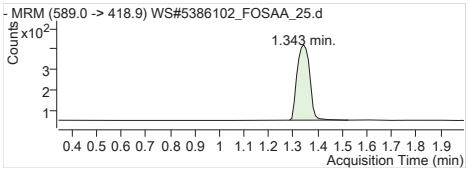


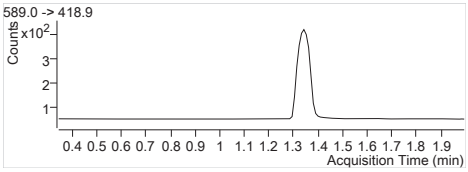
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



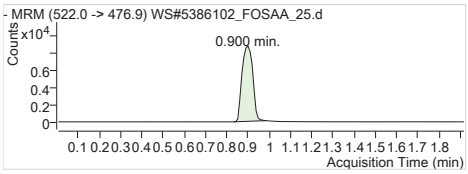


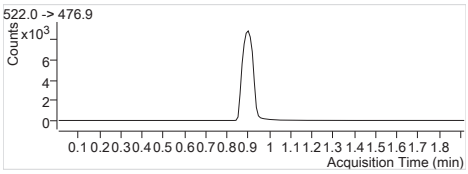
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 88.53 µg/L
Area ratio: 0.04711
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	89.61 µg/L
Area ratio:	0.04137
Sample type:	Sample





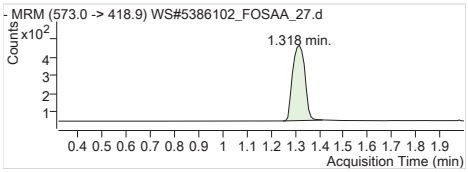
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.919)
Calc. conc.	2.22 µg/L
Area ratio:	0
Sample type:	Sample

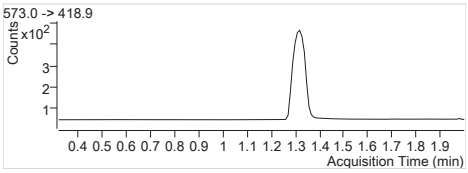
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**5386102:FZH344-01**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_27.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-F3
Acq. Date	2018/02/08 10:36:37 AM	**Injection Volume**	Per Method
Sample Annotation	-		

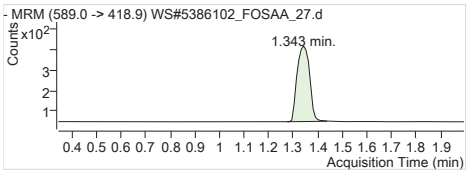
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1471	1.32	1 µg/L		
D5-EtFOSAA IS	1289	1.34	1 µg/L		
13C9-PFDA IS	32623	0.89	1 µg/L		

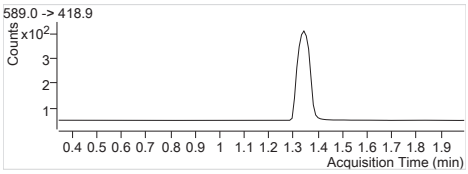
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1471	1.32	-	84.74 µg/L	-
D5-EtFOSAA	1297	1.34	-	86.11 µg/L	-
13C9-PFDA	31668	0.89	-	2.28 µg/L	-



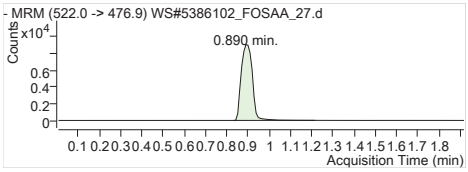


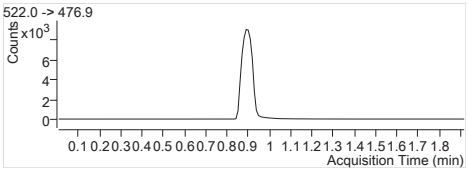
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



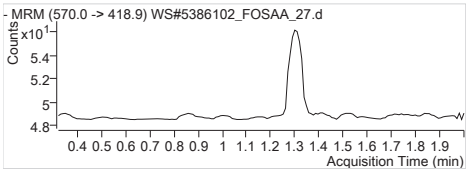


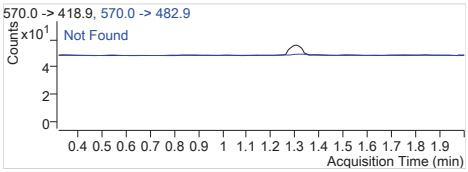
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



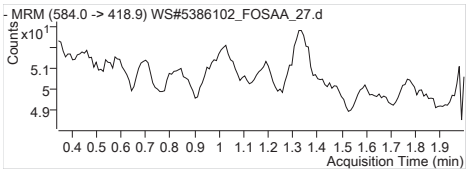


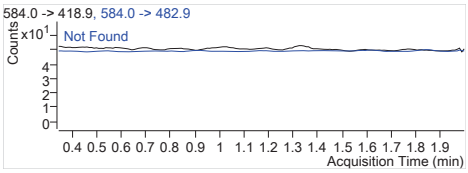
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.919)
Concentration: 1 µg/L
Sample type: Sample



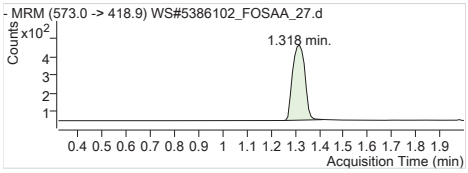


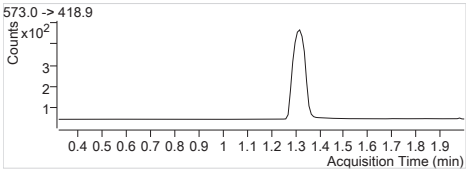
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



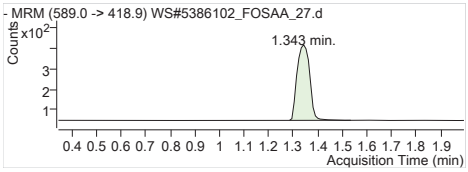


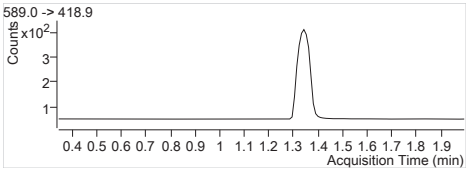
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



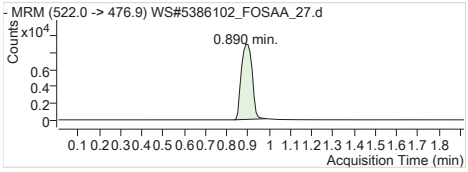


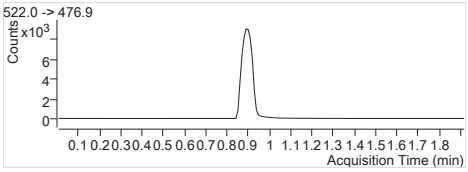
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 84.74 µg/L
Area ratio: 0.04509
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	86.11 µg/L
Area ratio:	0.03976
Sample type:	Sample





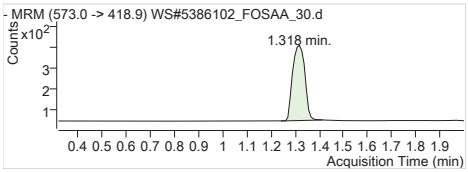
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.919)
Calc. conc.	2.28 µg/L
Area ratio:	0
Sample type:	Sample

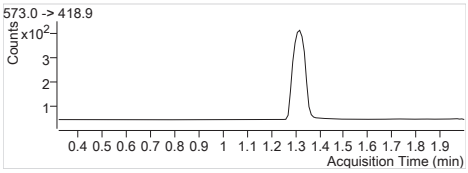
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**5386102:FZH347-01**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_30.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-F6
Acq. Date	2018/02/08 10:43:50 AM	**Injection Volume**	Per Method
Sample Annotation	-		

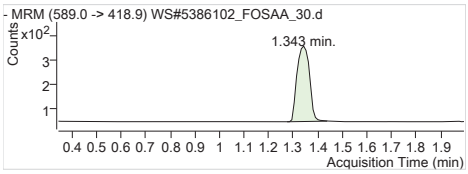
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1268	1.32	1 µg/L		
D5-EtFOSAA IS	1096	1.34	1 µg/L		
13C9-PFDA IS	33287	0.90	1 µg/L		

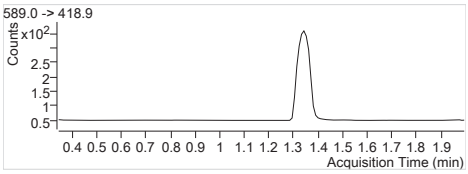
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1306	1.32	-	73.73 µg/L	-
D5-EtFOSAA	1106	1.34	-	71.96 µg/L	-
13C9-PFDA	32447	0.90	-	2.33 µg/L	-



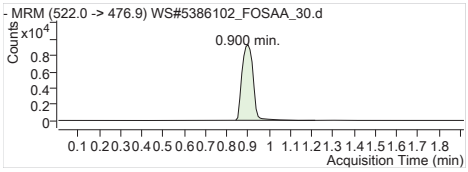


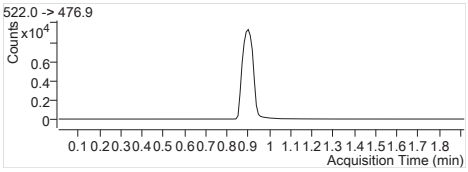
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



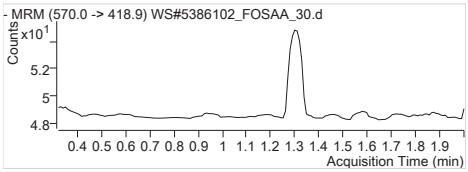


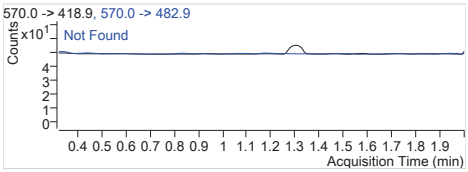
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



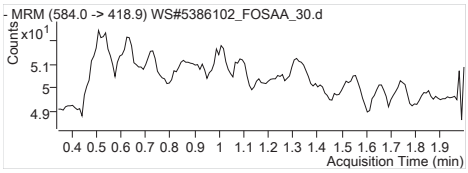


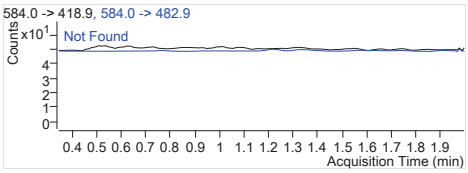
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.919)
Concentration: 1 µg/L
Sample type: Sample



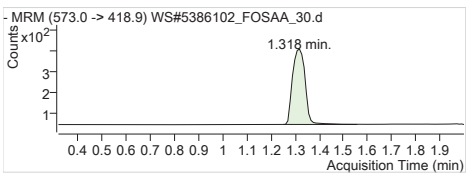


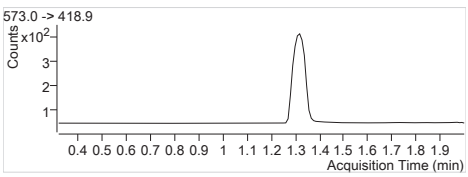
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



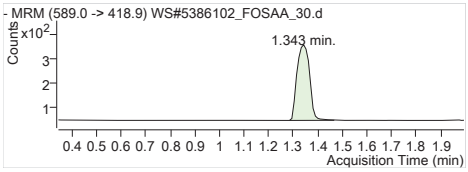


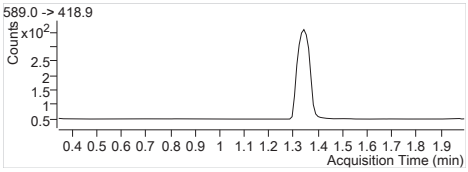
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



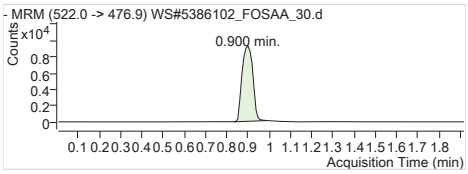


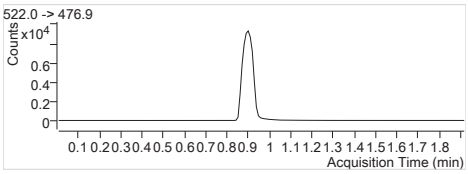
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 73.73 µg/L
Area ratio: 0.03923
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	71.96 µg/L
Area ratio:	0.03323
Sample type:	Sample





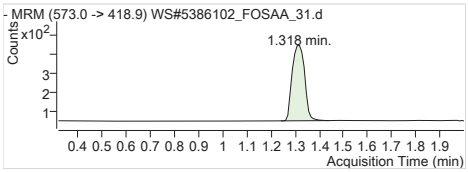
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.919)
Calc. conc.	2.33 µg/L
Area ratio:	0
Sample type:	Sample

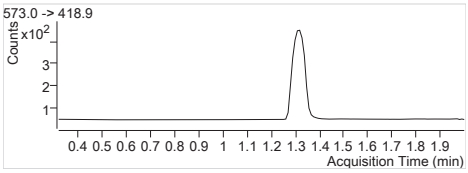
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**5386102:FZH348-01**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_31.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-F7
Acq. Date	2018/02/08 10:46:16 AM	**Injection Volume**	Per Method
Sample Annotation	-		

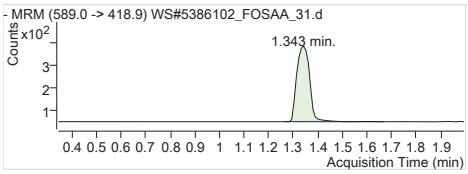
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1442	1.32	1 µg/L		
D5-EtFOSAA IS	1230	1.34	1 µg/L		
13C9-PFDA IS	32292	0.88	1 µg/L		

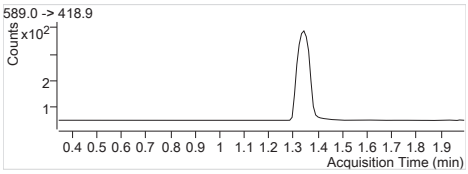
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1441	1.32	-	83.86 µg/L	-
D5-EtFOSAA	1218	1.34	-	81.69 µg/L	-
13C9-PFDA	31093	0.88	-	2.23 µg/L	-



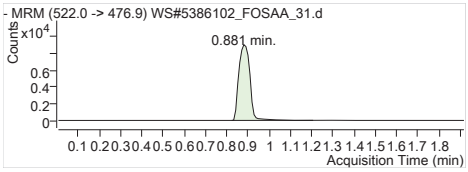


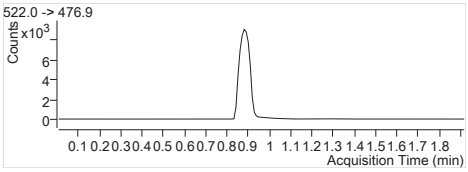
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



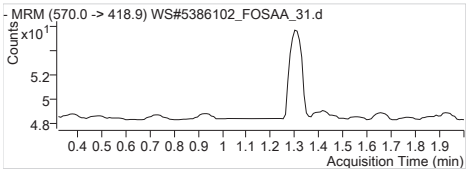


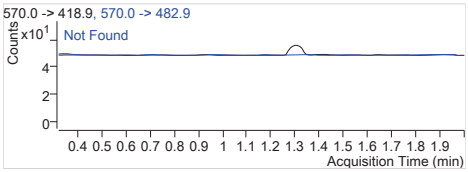
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



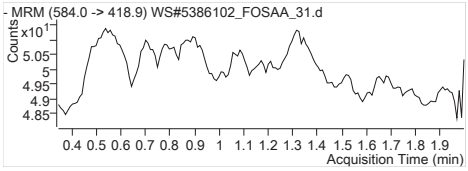


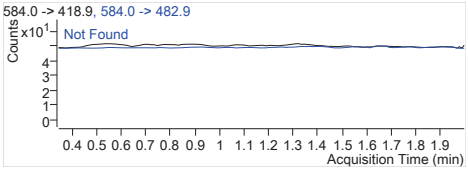
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.919)
Concentration: 1 µg/L
Sample type: Sample



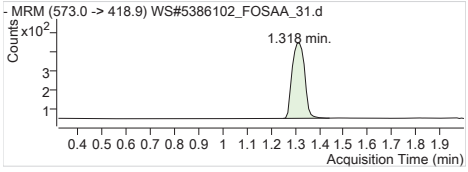


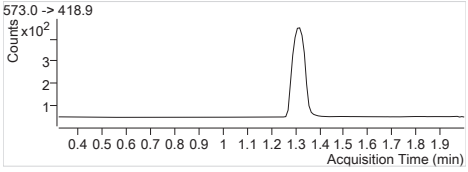
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



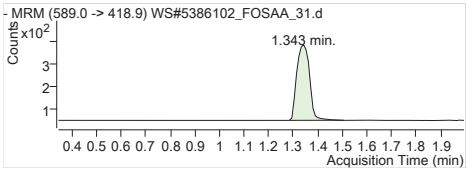


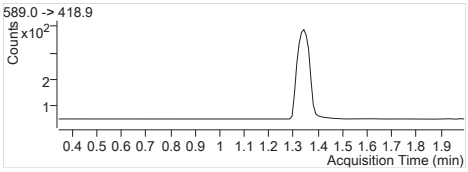
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



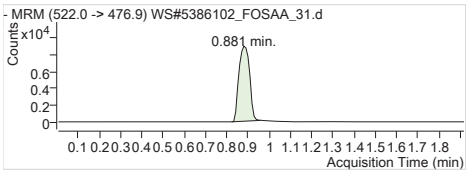


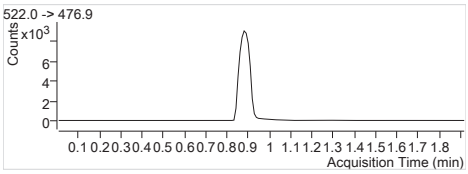
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 83.86 µg/L
Area ratio: 0.04462
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	81.69 µg/L
Area ratio:	0.03772
Sample type:	Sample





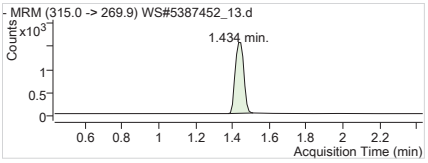
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.919)
Calc. conc.	2.23 µg/L
Area ratio:	0
Sample type:	Sample

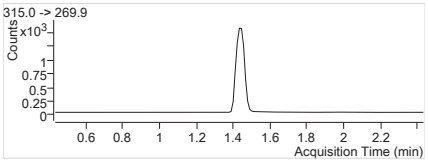
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:FZH318-01**	**Instrument**	LCMS04
Data File	WS#5387452_13.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-B3
Acq. Date	2018/02/08 1:28:13 AM	**Injection Volume**	Per Method
Sample Annotation	Not reported		

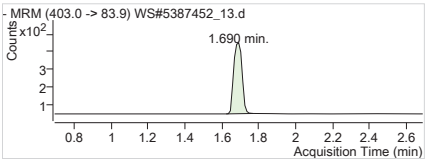
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4956	1.43	1 µg/L		
MPFHxS	1265	1.69	1 µg/L		
MPFHpA	7086	1.70	1 µg/L		
MPFOA	6625	1.88	1 µg/L		
MPFOS	1702	1.98	1 µg/L		
MPFNA	7636	2.02	1 µg/L		
MPFDA	5911	2.15	1 µg/L		
MPFUnA	6625	2.25	1 µg/L		
MPFDoA	8450	2.32	1 µg/L		
MPFTeDA	8861	2.47	1 µg/L		
13C6-PFHxA IS	26742	1.43	1 µg/L		
13C9-PFDA IS	34724	2.15	1 µg/L		

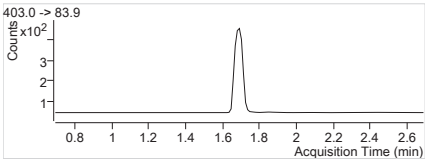
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	4956	1.43	-	86.72 µg/L	-
18O2-PFHxS	1265	1.69	-	81.57 µg/L	-
13C4-PFHpA	7086	1.70	-	96.10 µg/L	-
13C4-PFOA	6625	1.88	-	83.51 µg/L	-
13C4-PFOS	1702	1.98	-	89.02 µg/L	-
13C5-PFNA	7637	2.02	-	94.20 µg/L	-
13C2-PFDA	5829	2.15	-	92.08 µg/L	-
13C2-PFUnA	6625	2.25	-	83.43 µg/L	-
13C2-PFDoA	8450	2.32	-	78.35 µg/L	-
13C2-PFTeDA	8952	2.47	-	70.25 µg/L	-
13C6-PFHxA	26742	1.43	-	2.75 µg/L	-
13C9-PFDA	34724	2.15	-	2.64 µg/L	-



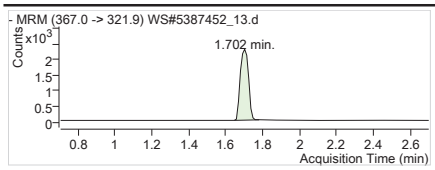


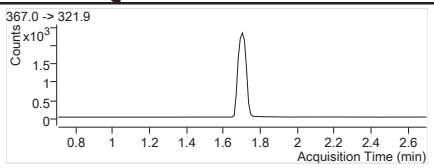
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



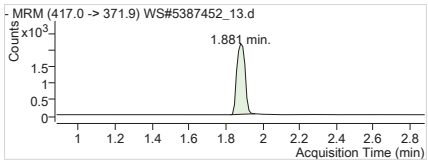


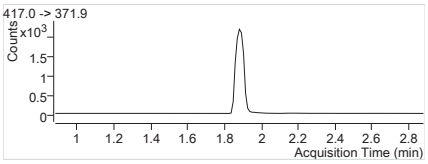
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



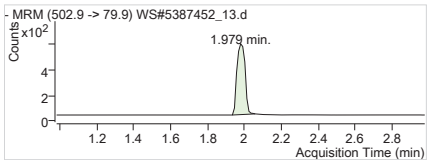


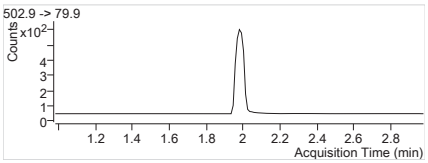
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



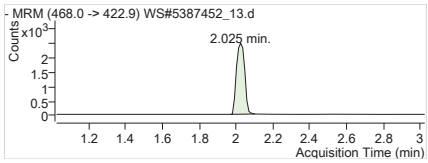


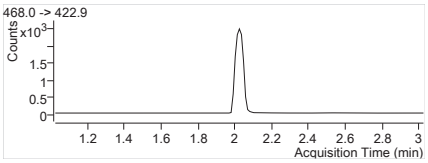
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



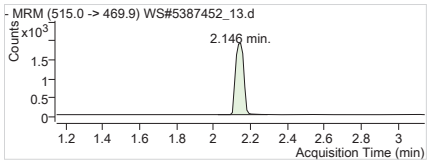


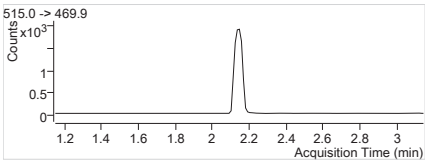
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



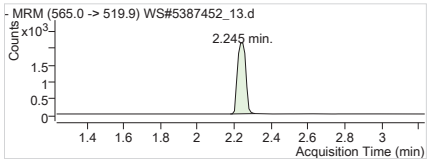


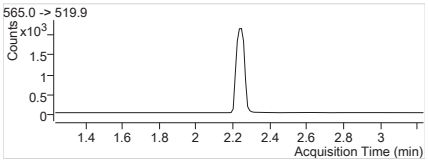
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



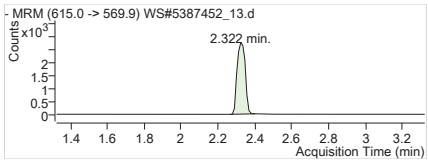


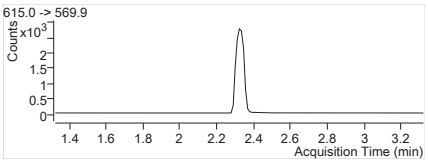
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



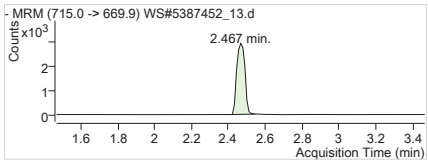


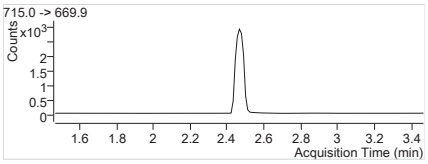
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



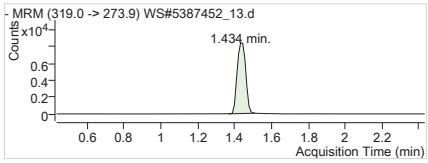


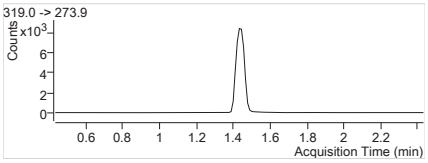
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



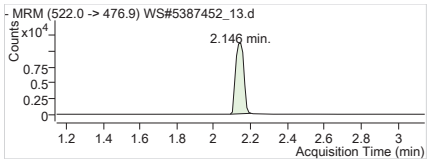


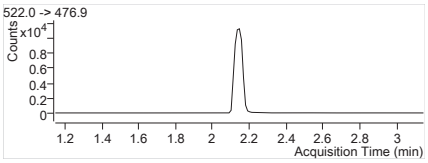
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



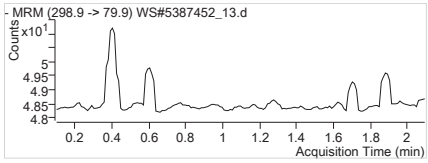


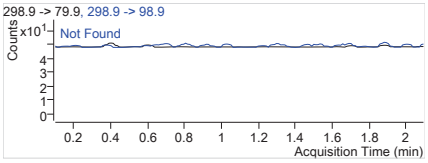
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



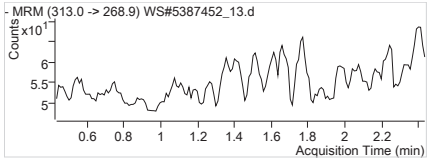


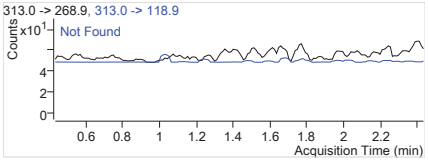
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



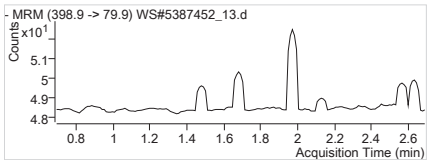


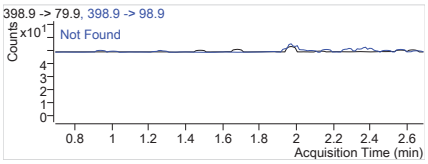
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



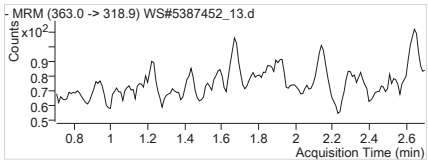


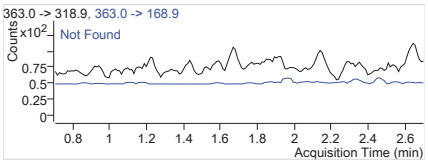
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



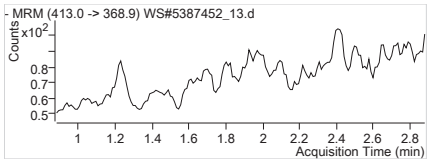


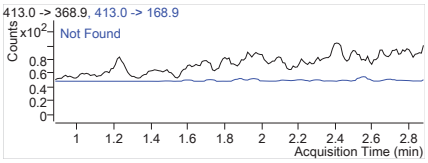
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



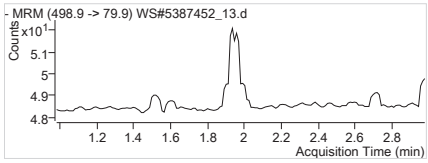


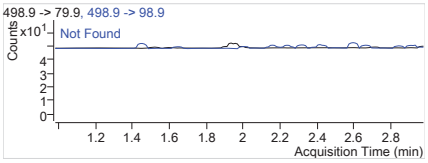
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



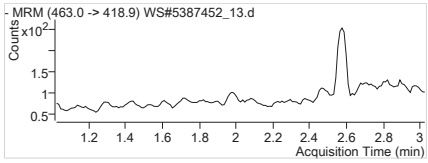


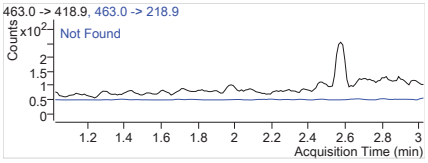
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



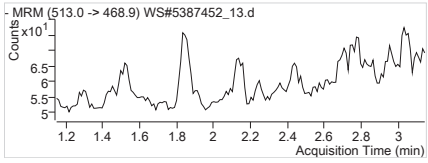


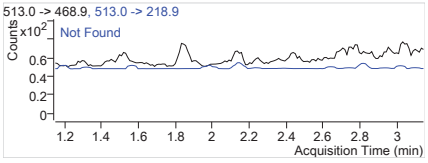
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



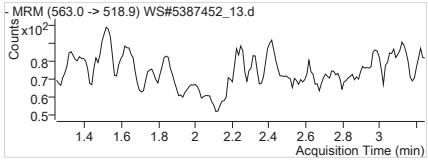


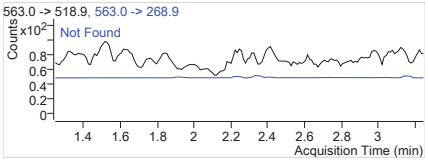
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



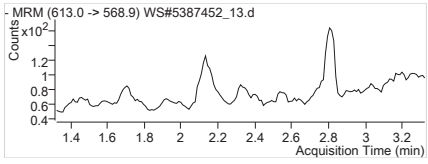


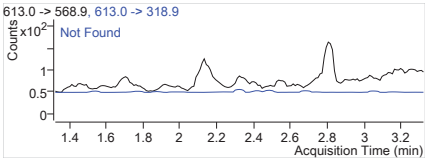
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



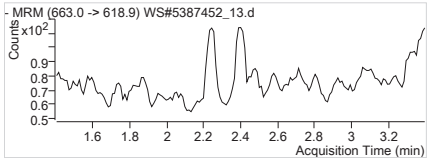


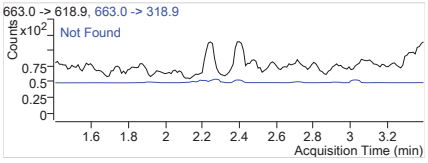
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



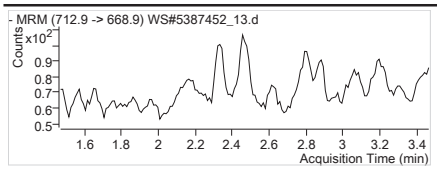


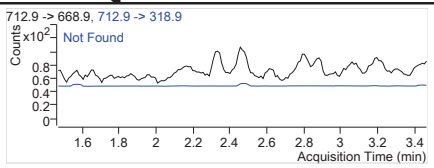
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



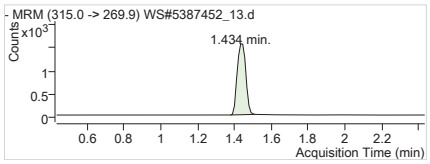


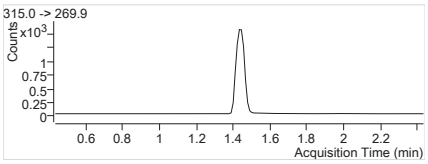
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



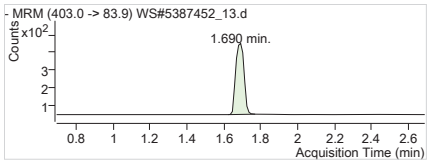


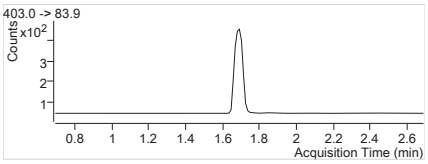
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



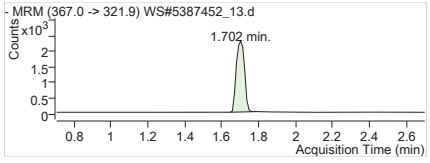


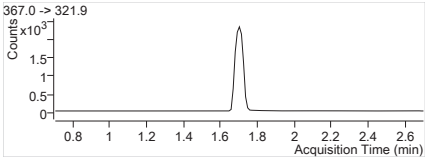
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 86.72 µg/L
Area ratio: 0.18533
Sample type: Sample



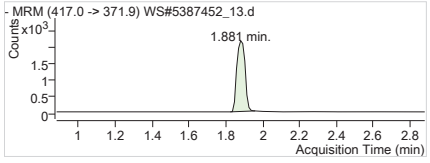


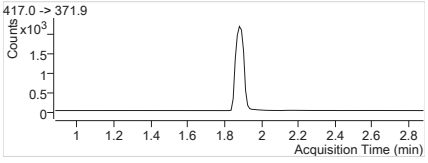
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 81.57 µg/L
Area ratio: 0.04730
Sample type: Sample



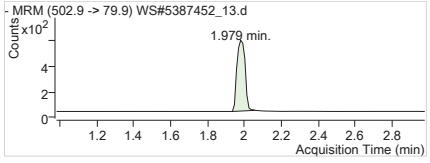


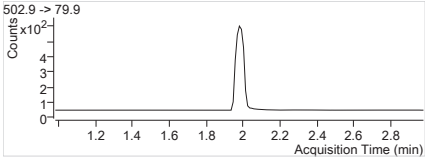
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 96.10 µg/L
Area ratio: 0.26498
Sample type: Sample



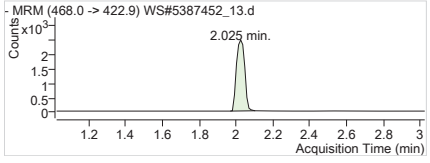


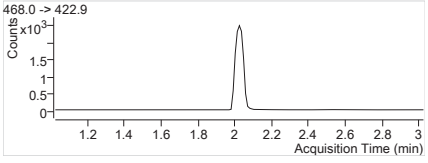
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 83.51 µg/L
Area ratio: 0.24774
Sample type: Sample



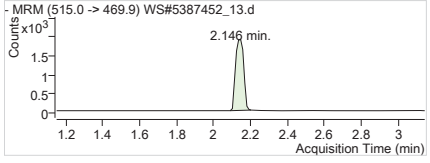


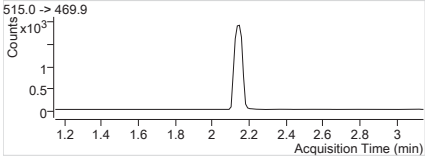
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 89.02 µg/L
Area ratio: 0.06365
Sample type: Sample



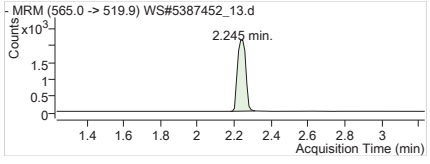


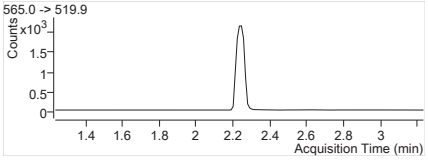
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 94.20 µg/L
Area ratio: 0.28558
Sample type: Sample



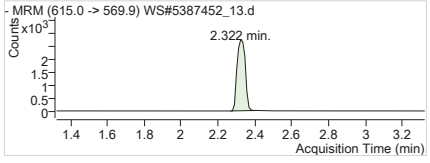


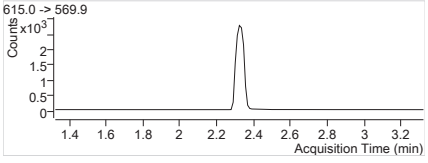
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 92.08 µg/L
Area ratio: 0.16787
Sample type: Sample



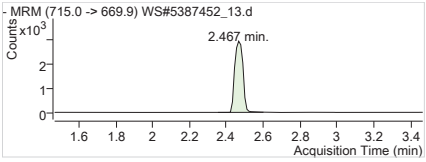


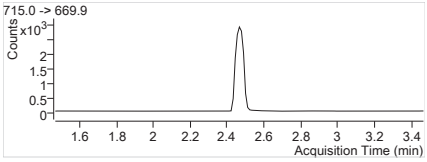
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 83.43 µg/L
Area ratio: 0.19079
Sample type: Sample



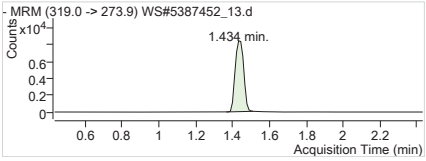


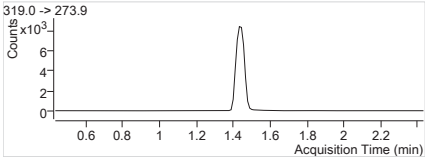
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 78.35 µg/L
Area ratio: 0.24335
Sample type: Sample



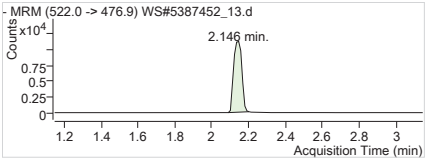


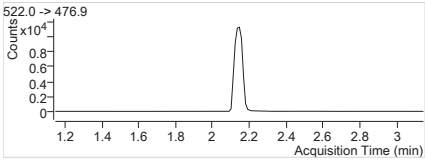
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	70.25 µg/L
Area ratio:	0.25780
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	2.75 µg/L
Area ratio:	0
Sample type:	Sample





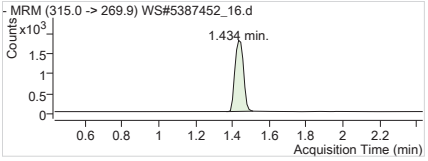
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.64 µg/L
Area ratio:	0
Sample type:	Sample

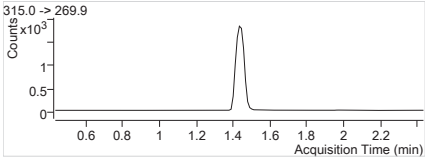
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:FZH321-01**	**Instrument**	LCMS04
Data File	WS#5387452_16.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-B6
Acq. Date	2018/02/08 1:43:01 AM	**Injection Volume**	Per Method
Sample Annotation	Not reported		

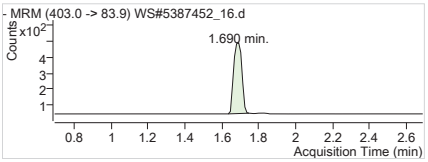
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5773	1.43	1 µg/L		
MPFHxS	1358	1.69	1 µg/L		
MPFHpA	7624	1.70	1 µg/L		
MPFOA	7876	1.88	1 µg/L		
MPFOS	1721	1.98	1 µg/L		
MPFNA	7818	2.02	1 µg/L		
MPFDA	6242	2.15	1 µg/L		
MPFUnA	6839	2.25	1 µg/L		
MPFDoA	9040	2.32	1 µg/L		
MPFTeDA	9558	2.47	1 µg/L		
13C6-PFHxA IS	28194	1.43	1 µg/L		
13C9-PFDA IS	36082	2.15	1 µg/L		

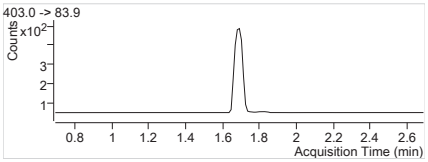
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5773	1.43	-	95.81 µg/L	-
18O2-PFHxS	1358	1.69	-	83.05 µg/L	-
13C4-PFHpA	7624	1.70	-	98.07 µg/L	-
13C4-PFOA	7876	1.88	-	94.16 µg/L	-
13C4-PFOS	1721	1.98	-	85.38 µg/L	-
13C5-PFNA	7818	2.02	-	91.46 µg/L	-
13C2-PFDA	6167	2.15	-	93.75 µg/L	-
13C2-PFUnA	6839	2.25	-	82.88 µg/L	-
13C2-PFDoA	9040	2.32	-	80.66 µg/L	-
13C2-PFTeDA	9741	2.47	-	73.56 µg/L	-
13C6-PFHxA	28194	1.43	-	2.90 µg/L	-
13C9-PFDA	36082	2.15	-	2.75 µg/L	-



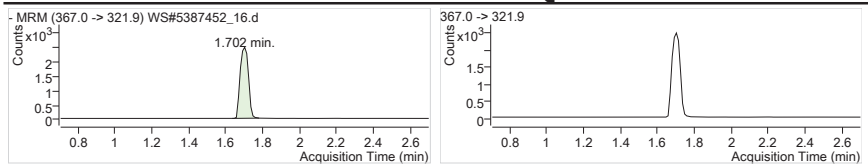


MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample

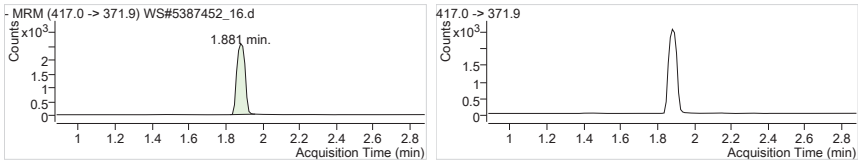




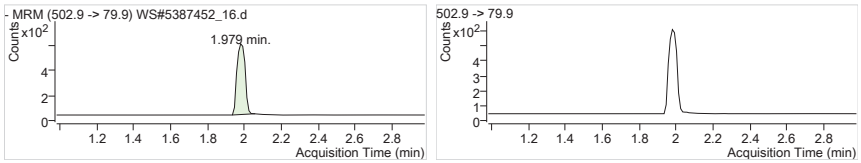
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



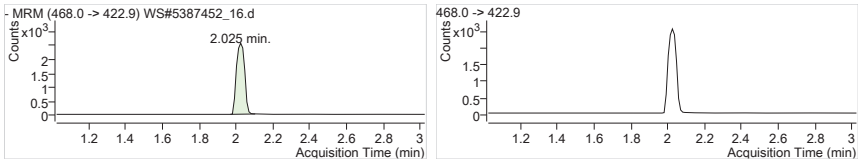
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



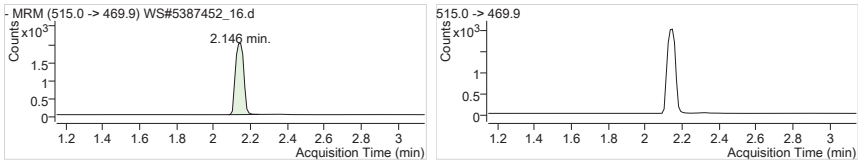
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



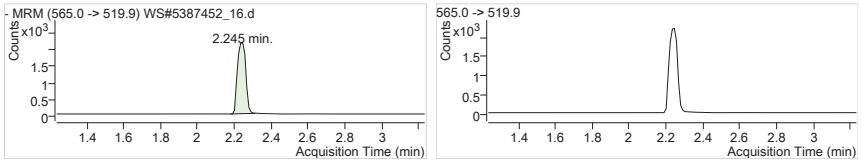
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



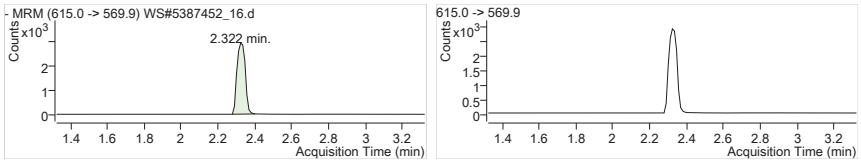
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



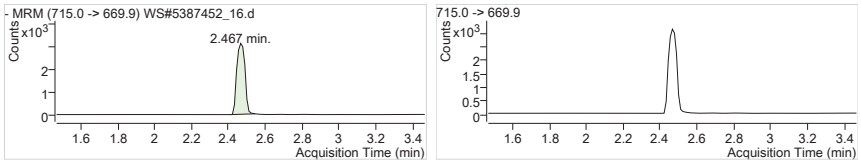
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



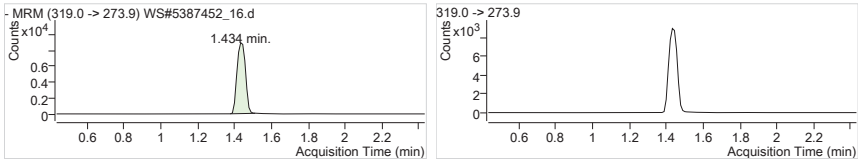
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



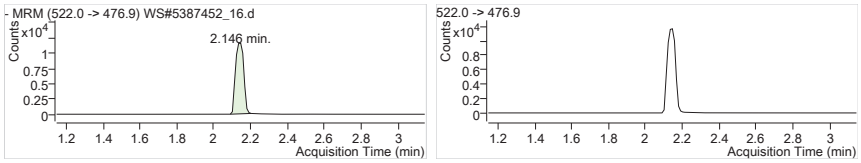
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



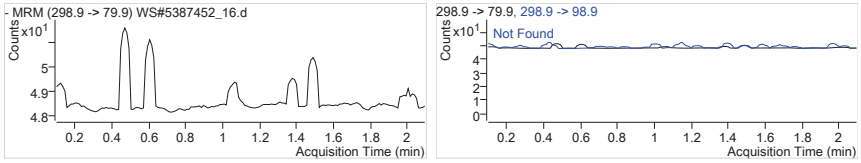
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



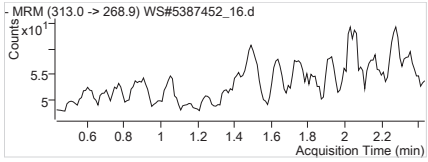
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample

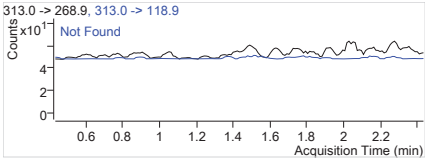


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

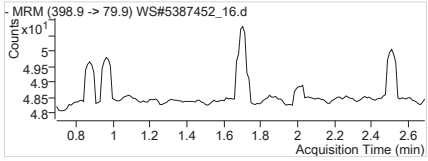


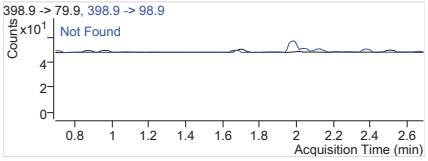
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



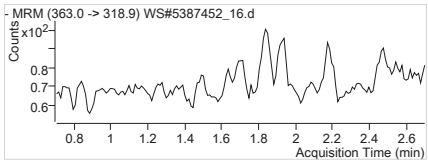


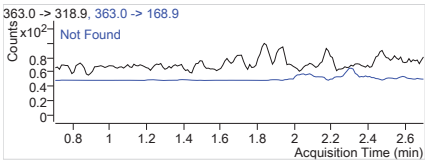
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



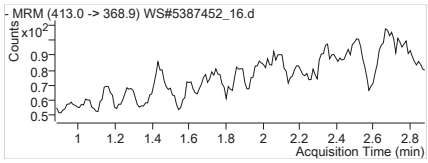


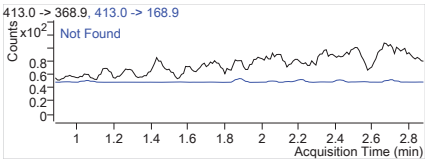
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



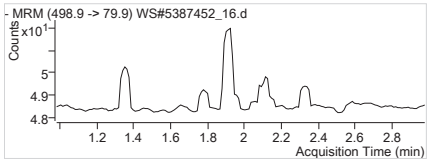


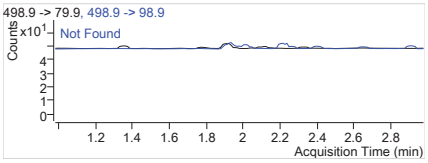
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



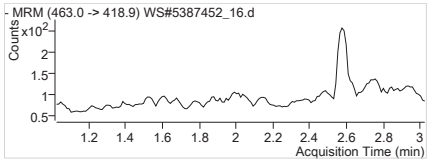


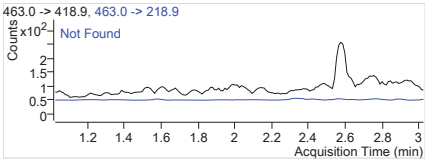
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



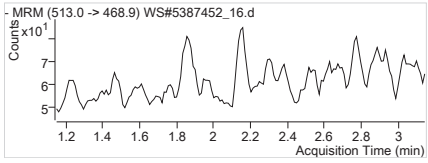


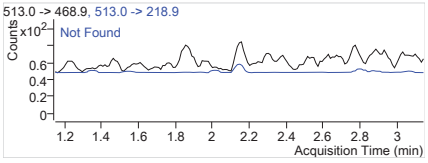
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



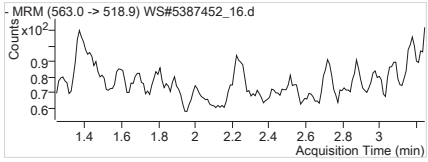


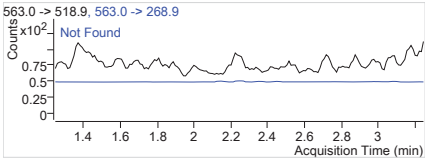
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



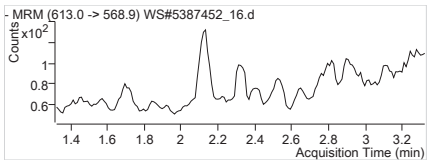


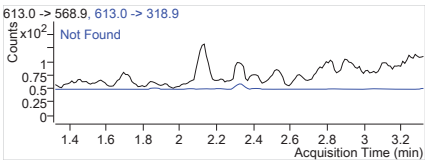
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



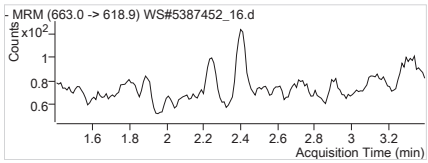


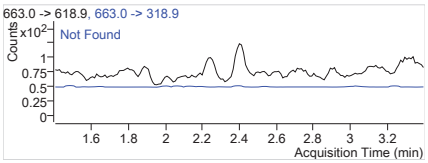
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



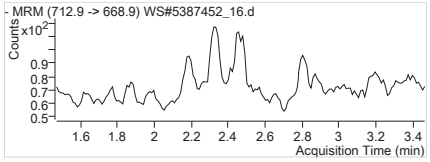


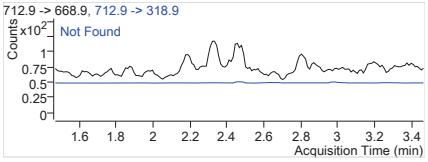
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



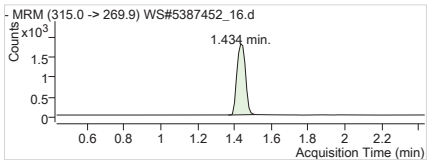


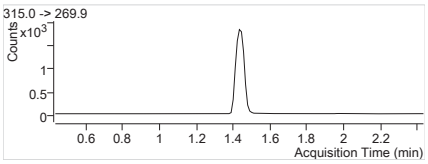
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



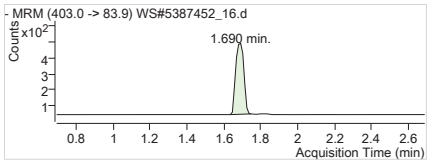


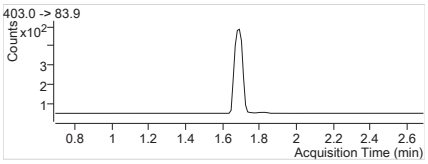
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



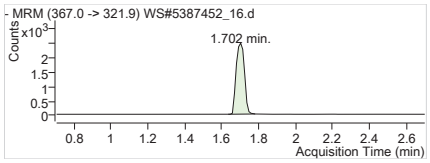


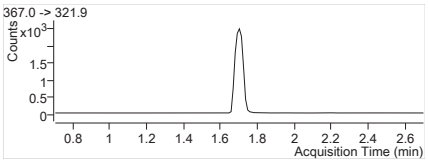
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 95.81 µg/L
Area ratio: 0.20476
Sample type: Sample



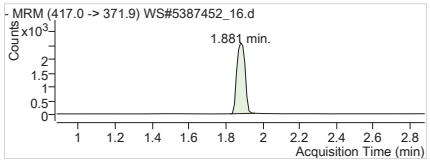


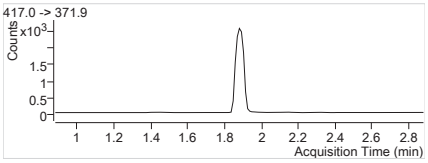
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 83.05 µg/L
Area ratio: 0.04817
Sample type: Sample



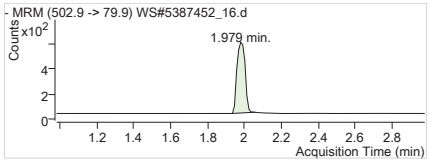


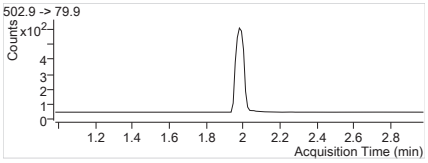
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 98.07 µg/L
Area ratio: 0.27041
Sample type: Sample



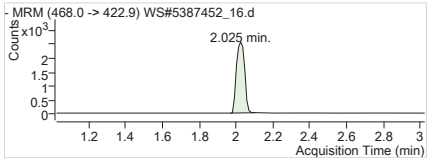


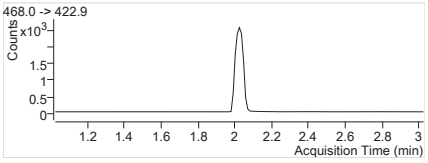
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 94.16 µg/L
Area ratio: 0.27935
Sample type: Sample



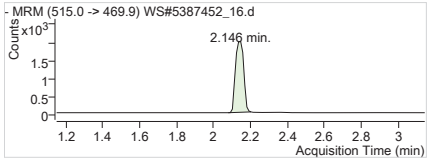


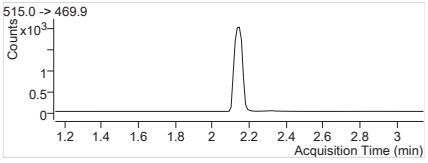
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 85.38 µg/L
Area ratio: 0.06104
Sample type: Sample



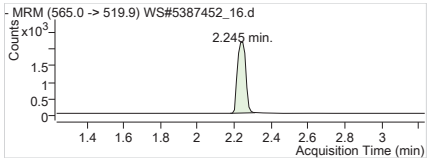


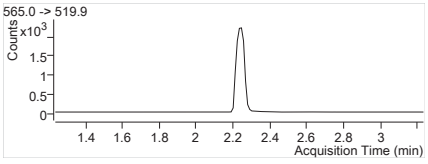
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 91.46 µg/L
Area ratio: 0.27729
Sample type: Sample



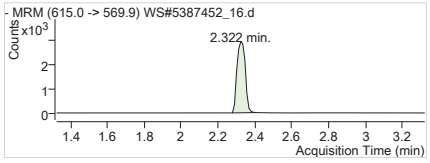


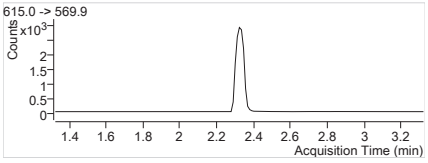
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 93.75 µg/L
Area ratio: 0.17092
Sample type: Sample



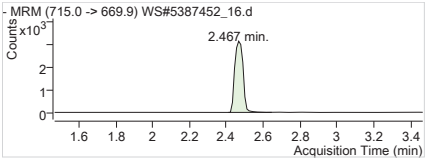


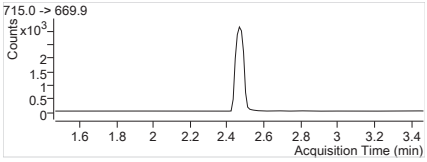
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 82.88 µg/L
Area ratio: 0.18954
Sample type: Sample



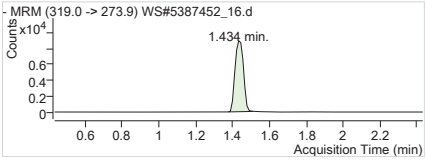


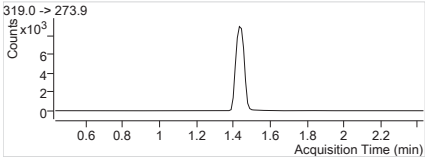
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 80.66 µg/L
Area ratio: 0.25054
Sample type: Sample



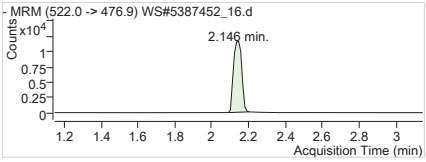


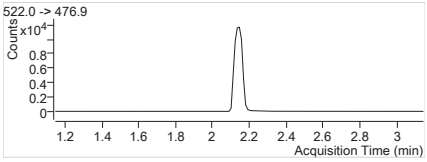
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	73.56 µg/L
Area ratio:	0.26997
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	2.90 µg/L
Area ratio:	0
Sample type:	Sample





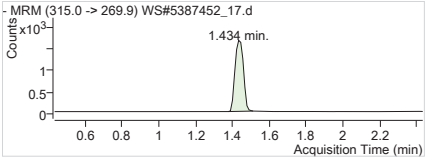
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.75 µg/L
Area ratio:	0
Sample type:	Sample

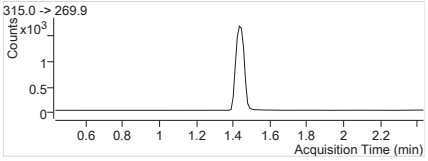
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:FZH322-01**	**Instrument**	LCMS04
Data File	WS#5387452_17.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-B7
Acq. Date	2018/02/08 1:47:57 AM	**Injection Volume**	Per Method
Sample Annotation	Not reported		

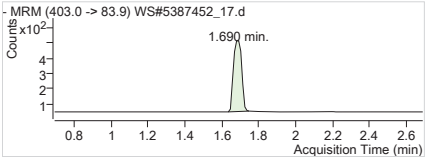
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5218	1.43	1 µg/L		
MPFHxS	1448	1.69	1 µg/L		
MPFHpA	7060	1.70	1 µg/L		
MPFOA	7269	1.88	1 µg/L		
MPFOS	1597	1.98	1 µg/L		
MPFNA	7607	2.02	1 µg/L		
MPFDA	5744	2.15	1 µg/L		
MPFUnA	6623	2.23	1 µg/L		
MPFDoA	8297	2.32	1 µg/L		
MPFTeDA	6971	2.47	1 µg/L		
13C6-PFHxA IS	27728	1.43	1 µg/L		
13C9-PFDA IS	35724	2.15	1 µg/L		

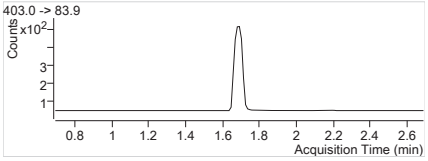
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5218	1.43	-	88.05 µg/L	-
18O2-PFHxS	1448	1.69	-	90.05 µg/L	-
13C4-PFHpA	7060	1.70	-	92.34 µg/L	-
13C4-PFOA	7269	1.88	-	88.37 µg/L	-
13C4-PFOS	1597	1.98	-	80.56 µg/L	-
13C5-PFNA	7606	2.02	-	90.48 µg/L	-
13C2-PFDA	5617	2.15	-	86.25 µg/L	-
13C2-PFUnA	6623	2.23	-	81.07 µg/L	-
13C2-PFDoA	8297	2.32	-	74.77 µg/L	-
13C2-PFTeDA	7029	2.47	-	53.61 µg/L	-
13C6-PFHxA	27728	1.43	-	2.85 µg/L	-
13C9-PFDA	35724	2.15	-	2.72 µg/L	-



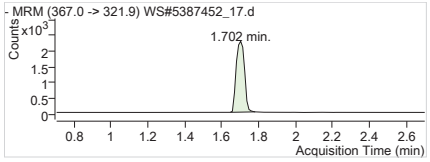


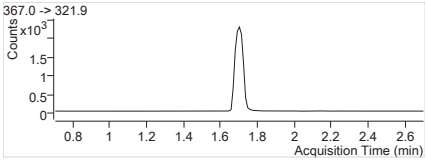
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



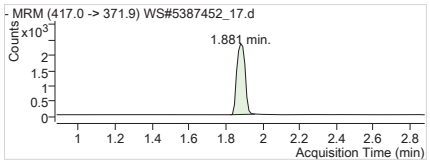


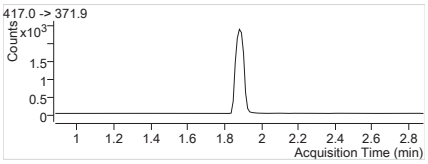
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



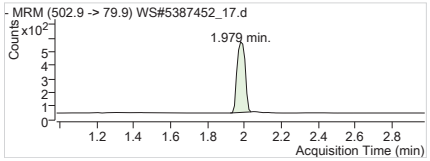


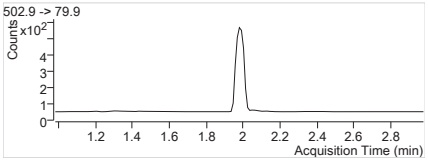
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



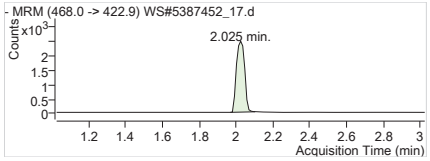


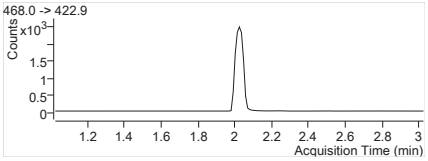
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



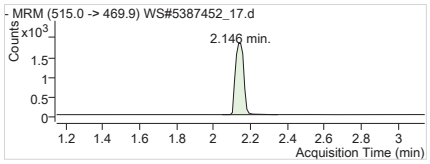


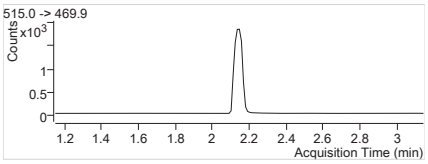
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



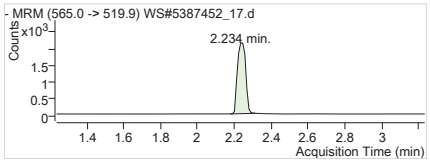


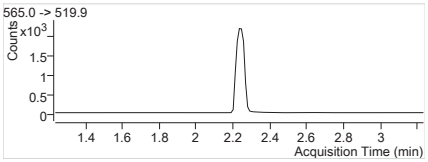
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



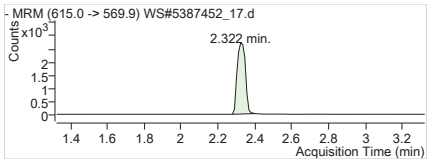


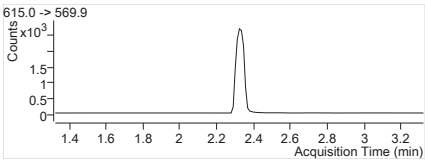
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



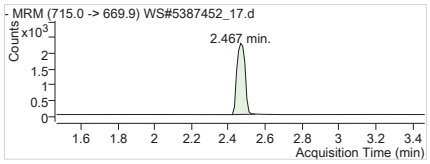


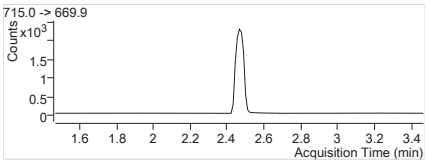
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



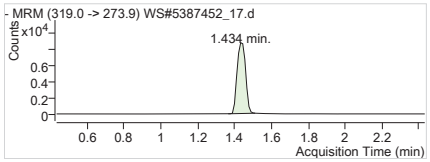


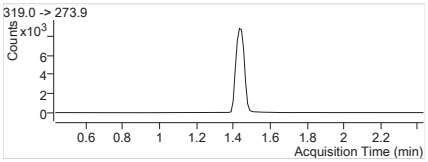
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



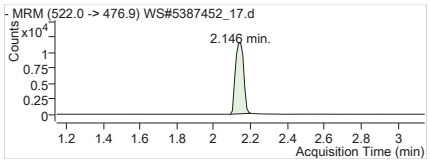


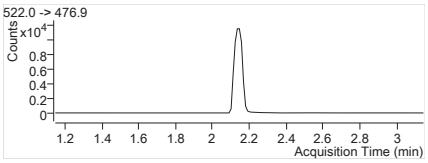
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



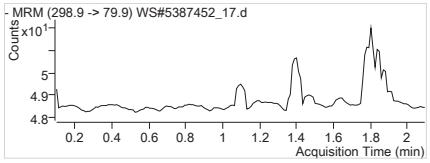


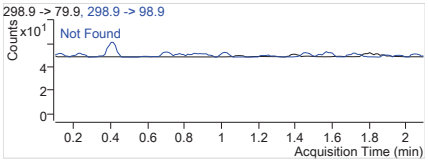
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



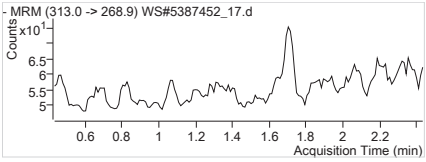


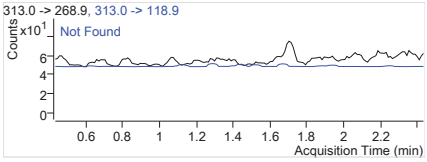
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



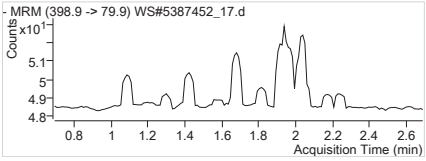


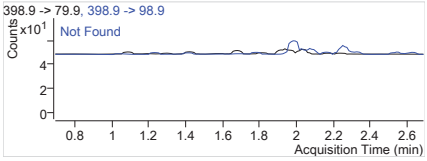
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



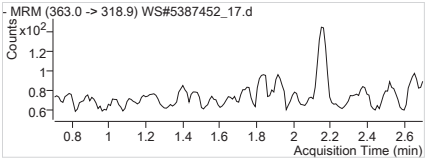


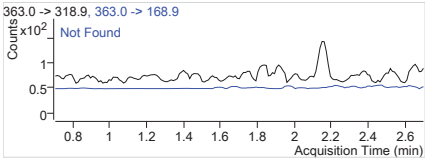
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



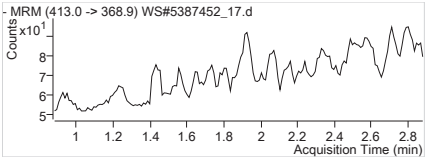


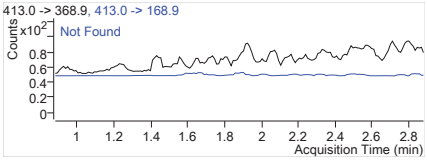
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



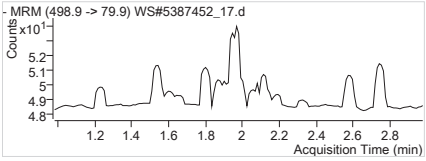


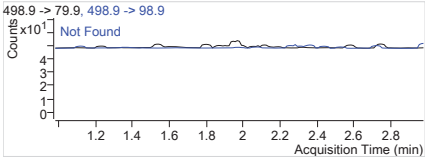
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



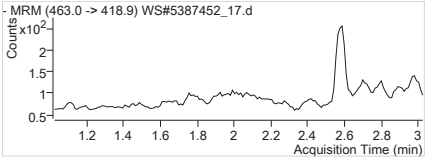


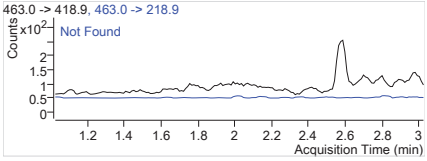
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



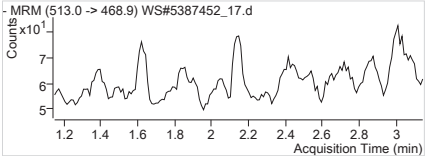


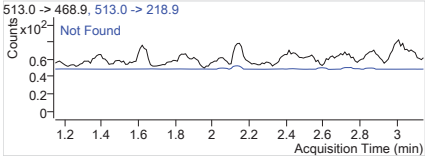
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



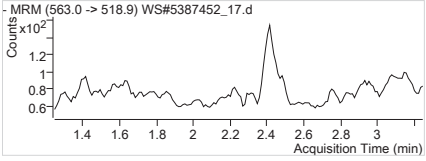


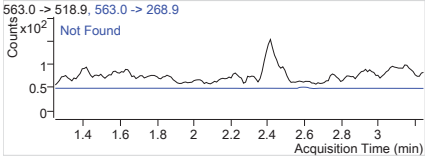
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



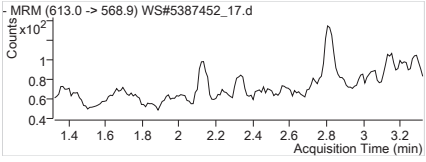


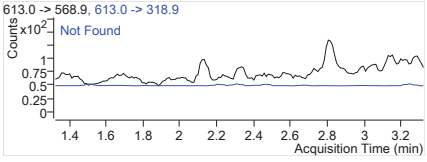
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



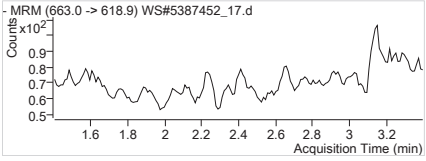


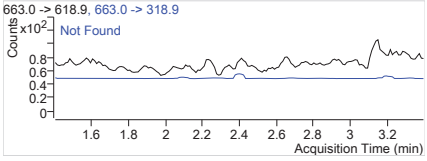
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



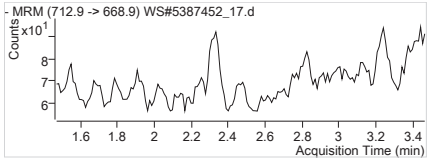


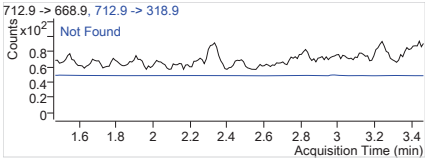
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



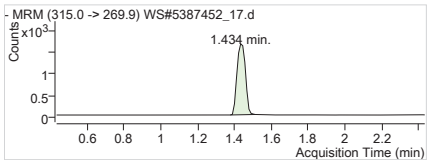


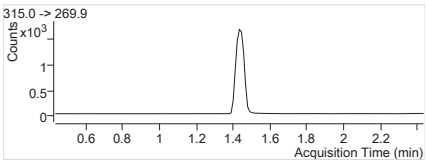
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



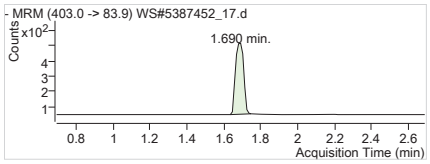


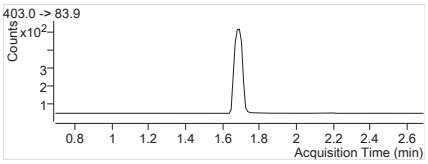
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



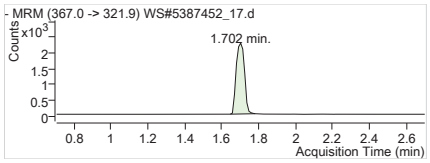


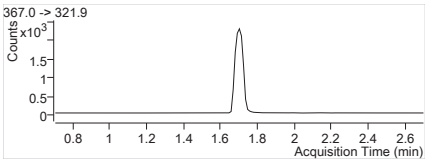
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	88.05 µg/L
Area ratio:	0.18819
Sample type:	Sample



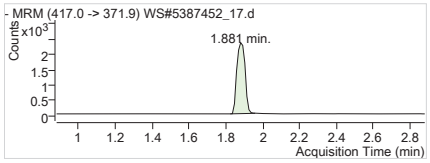


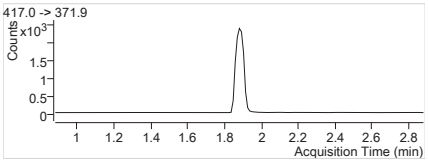
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	90.05 µg/L
Area ratio:	0.05222
Sample type:	Sample



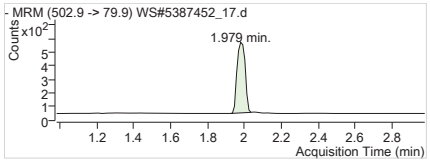


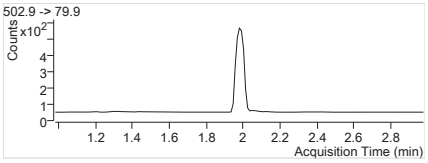
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.702 (1.702)
Calc. conc.	92.34 µg/L
Area ratio:	0.25462
Sample type:	Sample



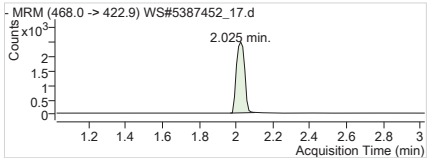


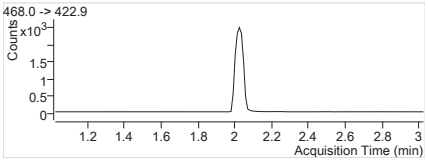
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	88.37 µg/L
Area ratio:	0.26215
Sample type:	Sample



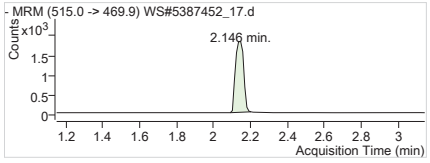


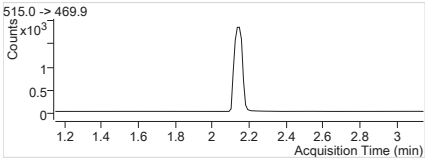
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	80.56 µg/L
Area ratio:	0.05760
Sample type:	Sample



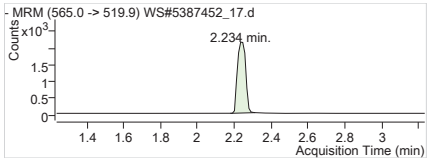


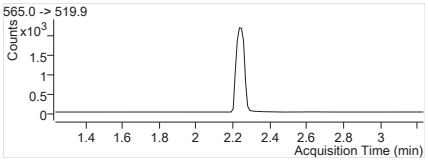
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.025 (2.025)
Calc. conc.	90.48 µg/L
Area ratio:	0.27431
Sample type:	Sample



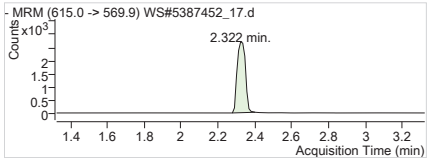


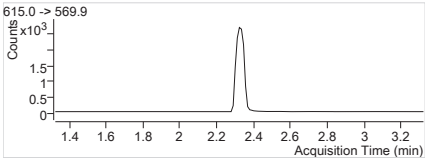
13C2-PFDA	515.0 -> 469.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	86.25 µg/L
Area ratio:	0.15723
Sample type:	Sample



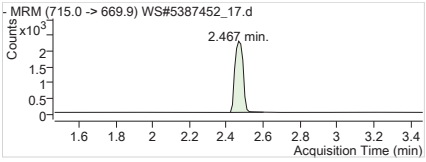


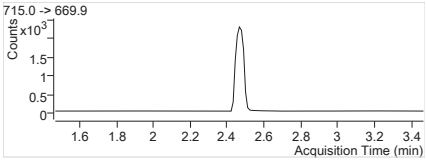
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.234 (2.234)
Calc. conc.	81.07 µg/L
Area ratio:	0.18539
Sample type:	Sample



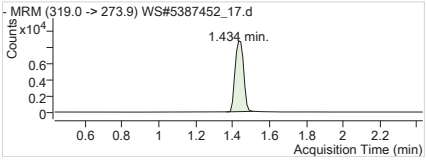


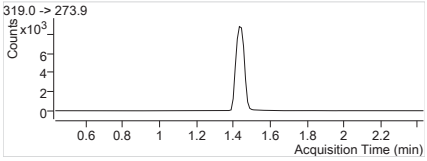
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.322 (2.322)
Calc. conc.	74.77 µg/L
Area ratio:	0.23225
Sample type:	Sample



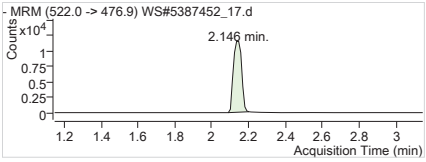


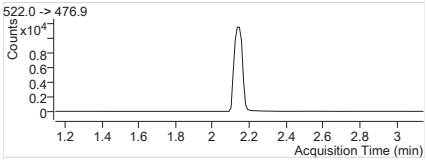
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	53.61 µg/L
Area ratio:	0.19676
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	2.85 µg/L
Area ratio:	0
Sample type:	Sample





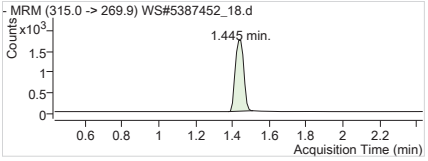
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.72 µg/L
Area ratio:	0
Sample type:	Sample

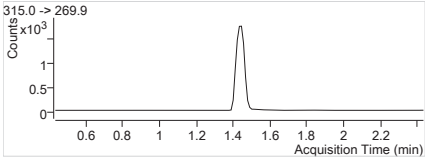
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:FZH323-01**	**Instrument**	LCMS04
Data File	WS#5387452_18.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-B8
Acq. Date	2018/02/08 1:52:53 AM	**Injection Volume**	Per Method
Sample Annotation	Not reported		

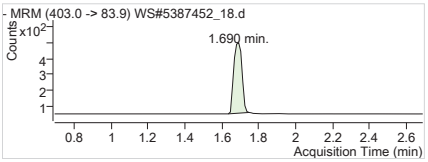
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5460	1.44	1 µg/L		
MPFHxS	1397	1.69	1 µg/L		
MPFHpA	7133	1.70	1 µg/L		
MPFOA	8119	1.88	1 µg/L		
MPFOS	1694	1.98	1 µg/L		
MPFNA	8050	2.02	1 µg/L		
MPFDA	6432	2.15	1 µg/L		
MPFUnA	7189	2.25	1 µg/L		
MPFDoA	8449	2.32	1 µg/L		
MPFTeDA	8648	2.47	1 µg/L		
13C6-PFHxA IS	28728	1.43	1 µg/L		
13C9-PFDA IS	37120	2.15	1 µg/L		

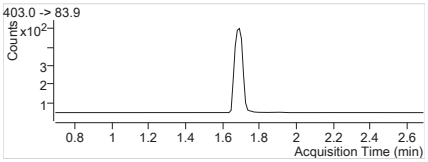
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5460	1.44	-	88.93 µg/L	-
18O2-PFHxS	1397	1.69	-	83.85 µg/L	-
13C4-PFHpA	7133	1.70	-	90.05 µg/L	-
13C4-PFOA	8119	1.88	-	95.26 µg/L	-
13C4-PFOS	1694	1.98	-	82.47 µg/L	-
13C5-PFNA	8050	2.02	-	92.43 µg/L	-
13C2-PFDA	6340	2.15	-	93.69 µg/L	-
13C2-PFUnA	7189	2.25	-	84.69 µg/L	-
13C2-PFDoA	8449	2.32	-	73.28 µg/L	-
13C2-PFTeDA	8800	2.47	-	64.60 µg/L	-
13C6-PFHxA	28728	1.43	-	2.96 µg/L	-
13C9-PFDA	37120	2.15	-	2.83 µg/L	-



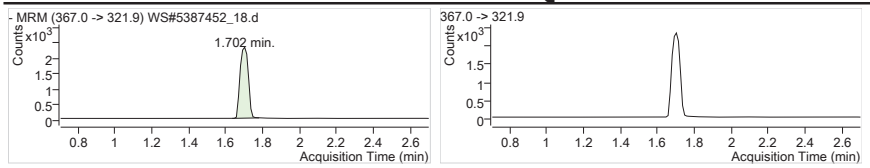


MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.434)
Concentration: 1 µg/L
Sample type: Sample

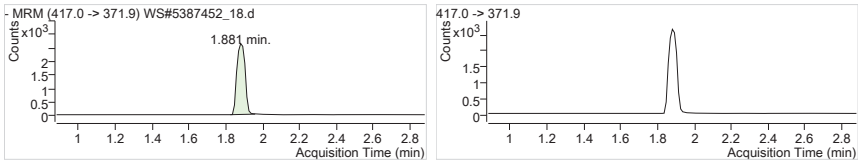




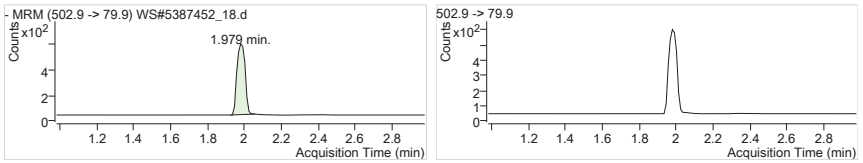
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



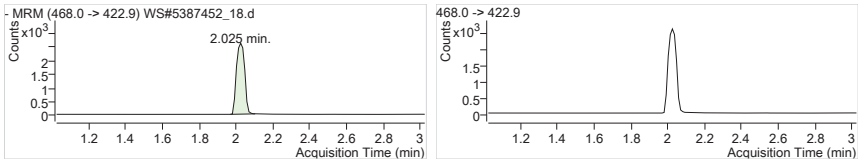
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



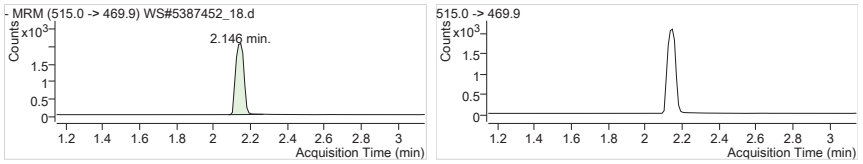
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



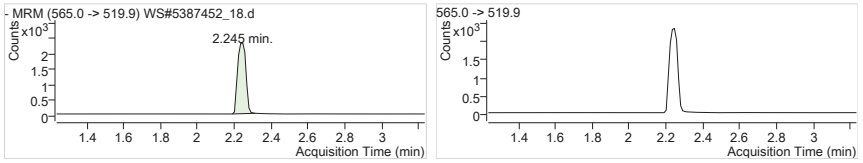
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



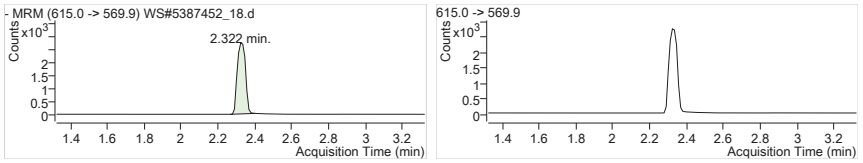
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



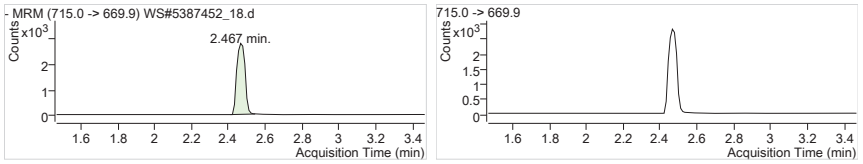
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



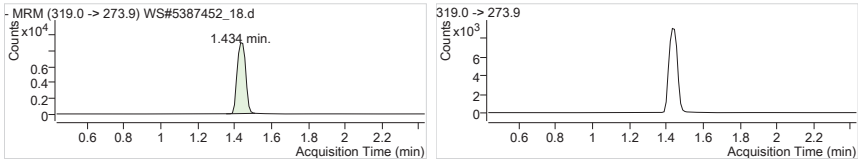
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



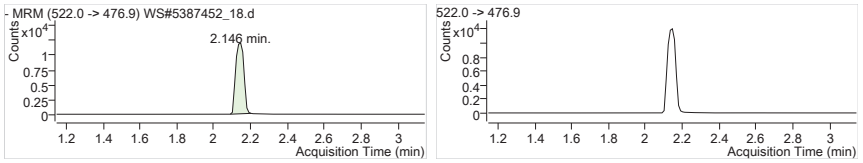
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



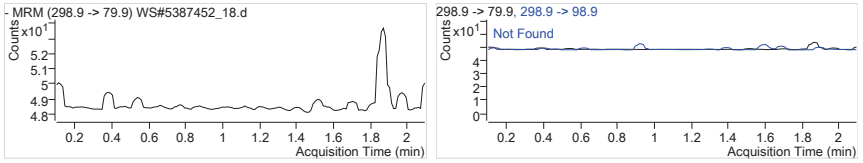
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



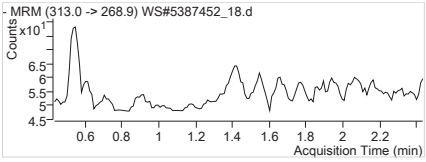
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample

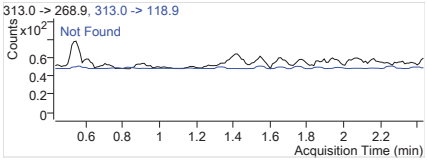


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

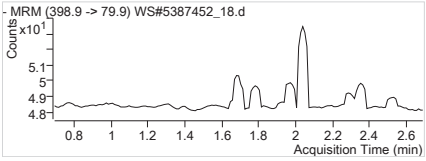


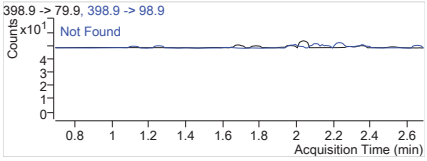
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



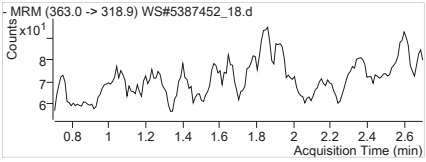


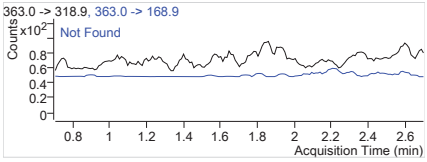
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



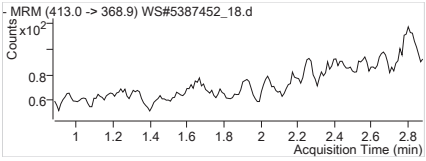


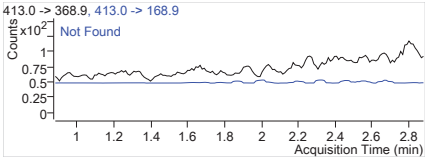
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



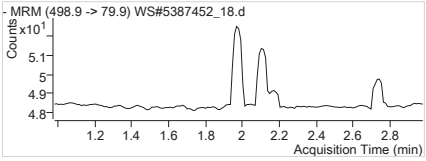


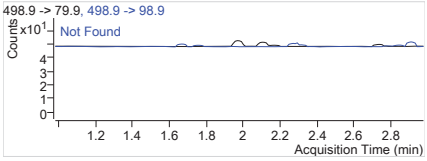
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



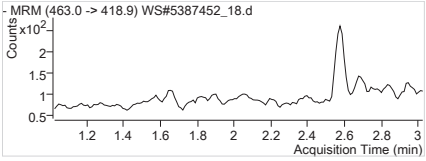


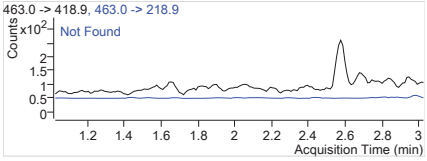
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



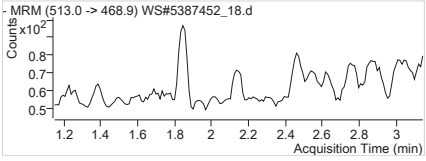


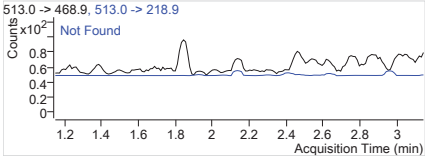
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



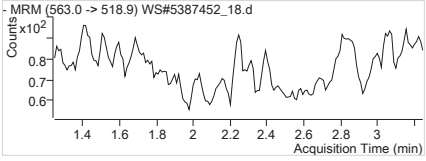


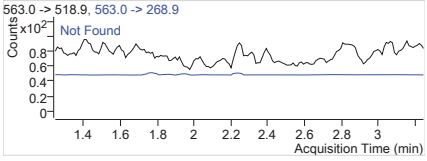
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



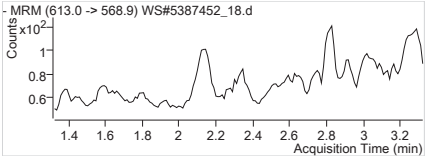


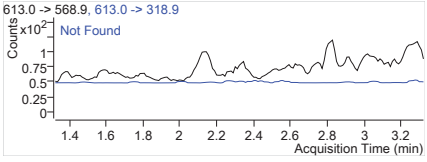
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



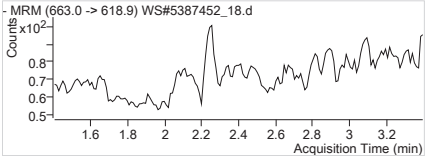


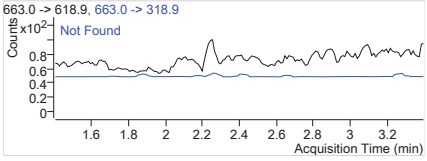
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



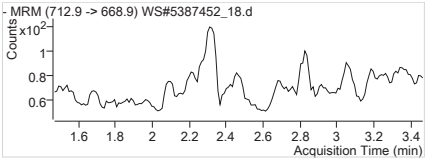


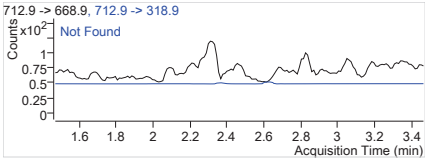
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



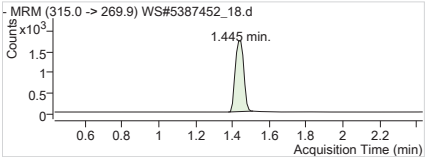


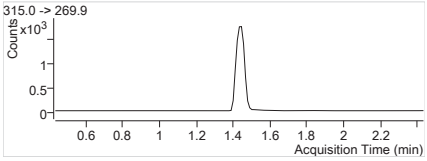
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



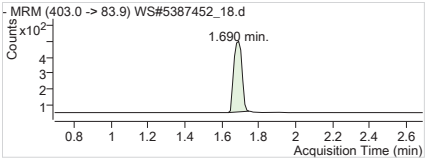


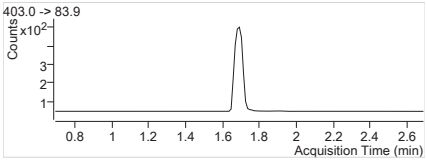
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



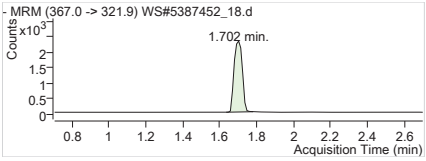


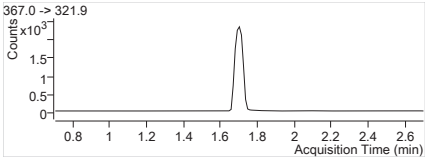
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.434)
Calc. conc. 88.93 µg/L
Area ratio: 0.19006
Sample type: Sample



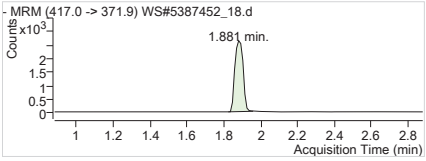


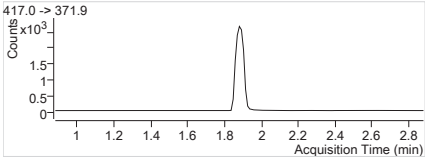
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 83.85 µg/L
Area ratio: 0.04863
Sample type: Sample



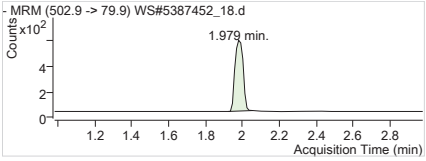


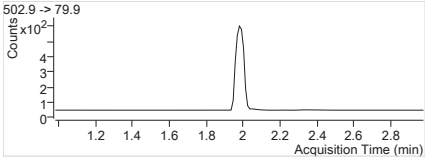
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 90.05 µg/L
Area ratio: 0.24829
Sample type: Sample



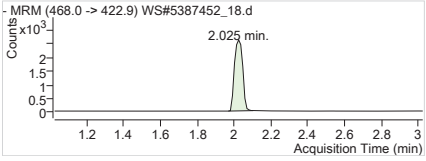


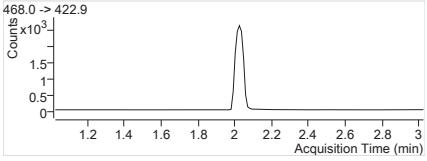
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 95.26 µg/L
Area ratio: 0.28262
Sample type: Sample



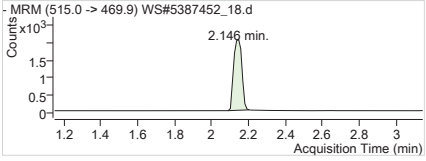


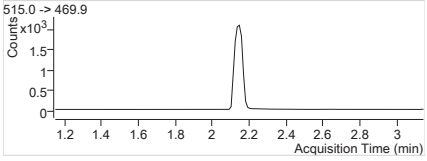
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 82.47 µg/L
Area ratio: 0.05897
Sample type: Sample



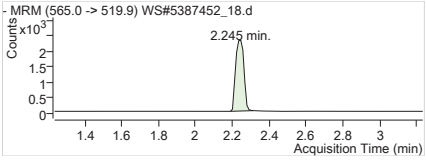


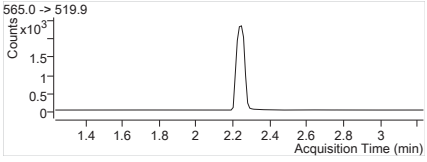
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 92.43 µg/L
Area ratio: 0.28021
Sample type: Sample



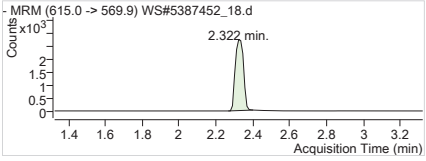


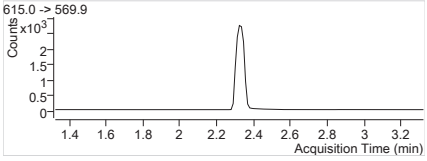
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 93.69 µg/L
Area ratio: 0.17080
Sample type: Sample



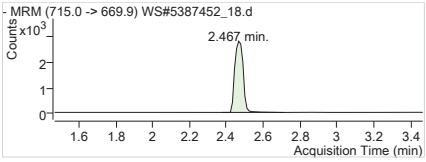


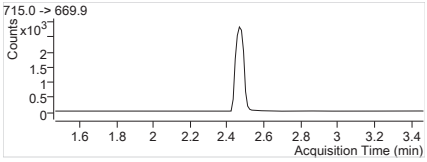
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 84.69 µg/L
Area ratio: 0.19367
Sample type: Sample



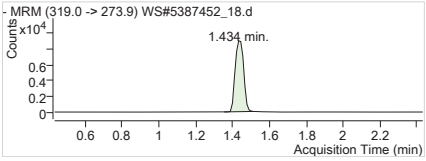


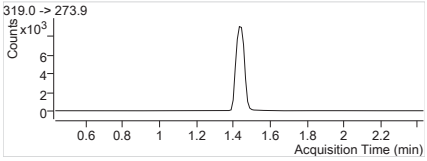
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 73.28 µg/L
Area ratio: 0.22761
Sample type: Sample



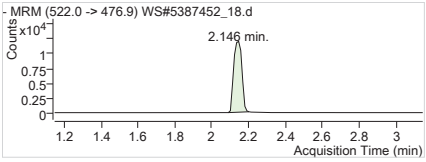


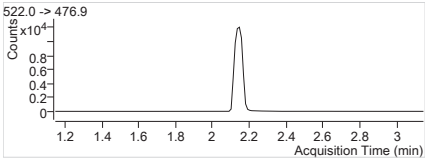
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	64.60 µg/L
Area ratio:	0.23707
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	2.96 µg/L
Area ratio:	0
Sample type:	Sample





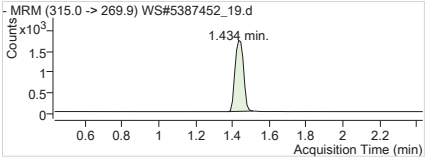
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.83 µg/L
Area ratio:	0
Sample type:	Sample

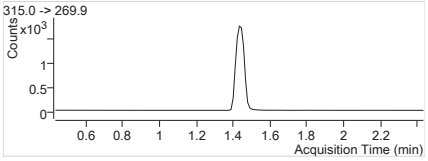
Batch Path	T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:FZH331-01:20x**	**Instrument**	LCMS04
Data File	WS#5387452_19.d	**Operator**	
Sample Type	Sample	**Dilution**	0.48
Acq. Method	PFC_Water_Low.m	**Position**	P1-B9
Acq. Date	2018/02/08 1:57:49 AM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFOS only		

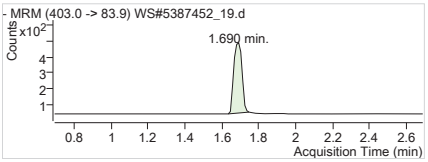
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5460	1.43	1 µg/L		
MPFHxS	1350	1.69	1 µg/L		
MPFHpA	6327	1.70	1 µg/L		
MPFOA	7231	1.88	1 µg/L		
MPFOS	1647	1.98	1 µg/L		
MPFNA	7494	2.02	1 µg/L		
MPFDA	5540	2.15	1 µg/L		
MPFUnA	7152	2.23	1 µg/L		
MPFDoA	9518	2.32	1 µg/L		
MPFTeDA	9784	2.47	1 µg/L		
13C6-PFHxA IS	29962	1.43	1 µg/L		
13C9-PFDA IS	39889	2.15	1 µg/L		

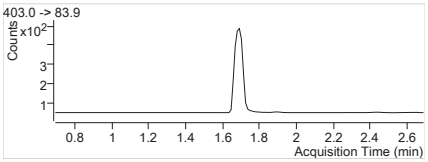
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	2829	1.43	-	0.63 µg/L	-
PFHxS 1	1375	1.69	-	1.02 µg/L	-
PFHpA 1	3730	1.70	-	0.68 µg/L	-
PFOA 1	3449	1.88	-	0.58 µg/L	-
PFOS 1	7137	1.98	-	5.39 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5460	1.43	-	85.27 µg/L	-
18O2-PFHxS	1350	1.69	-	77.69 µg/L	-
13C4-PFHpA	6327	1.70	-	76.58 µg/L	-
13C4-PFOA	7231	1.88	-	81.35 µg/L	-
13C4-PFOS	1647	1.98	-	76.88 µg/L	-
13C5-PFNA	7494	2.02	-	82.50 µg/L	-
13C2-PFDA	5454	2.15	-	75.00 µg/L	-
13C2-PFUnA	7152	2.23	-	78.40 µg/L	-
13C2-PFDoA	9518	2.32	-	76.82 µg/L	-
13C2-PFTeDA	9995	2.47	-	68.28 µg/L	-
13C6-PFHxA	29962	1.43	-	61.70 µg/L	-
13C9-PFDA	39889	2.15	-	60.76 µg/L	-



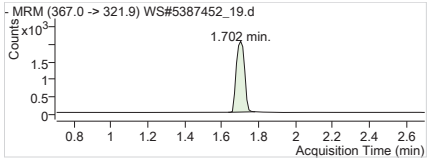


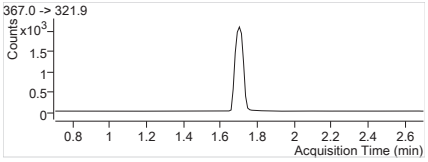
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



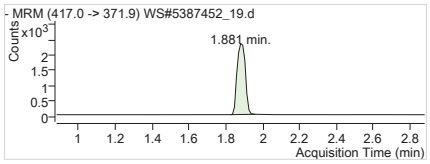


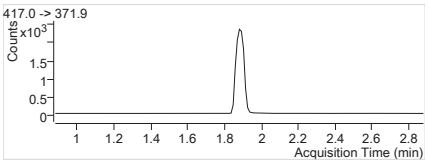
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



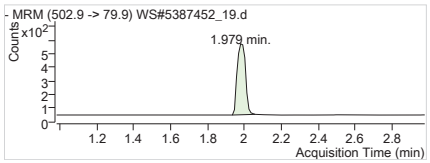


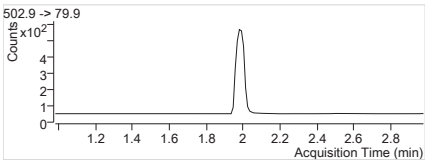
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



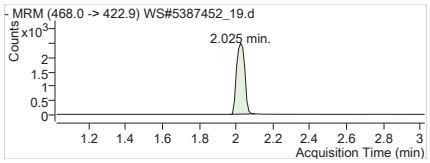


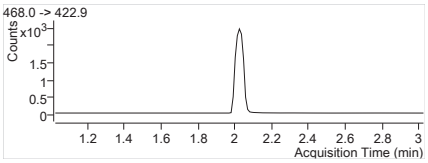
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



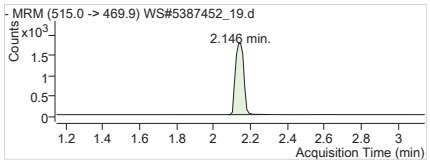


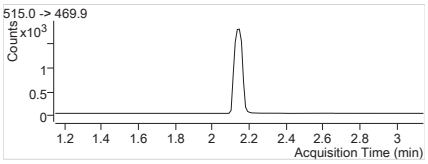
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



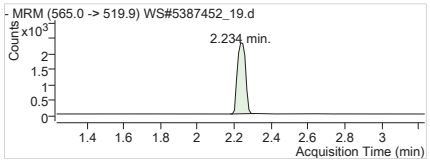


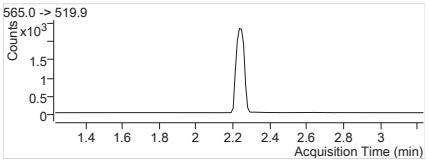
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



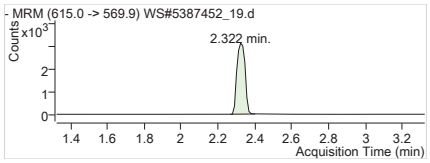


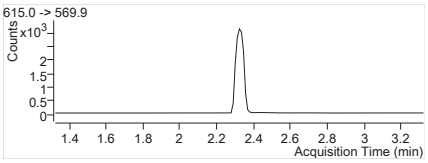
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



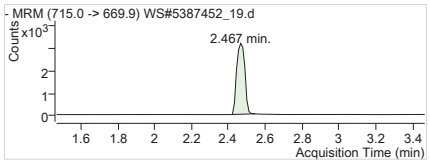


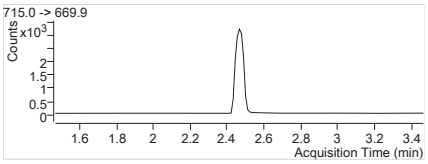
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



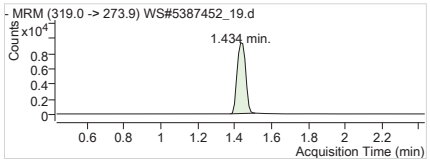


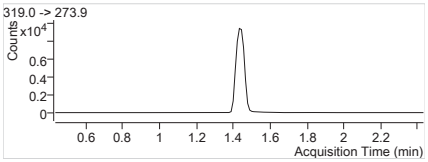
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



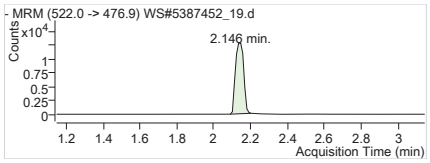


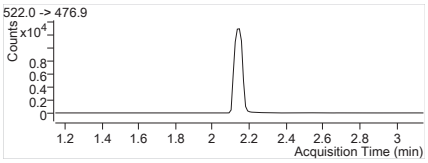
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



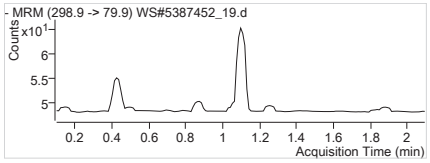


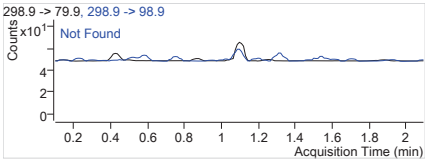
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



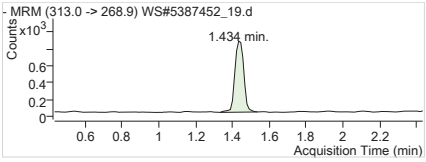


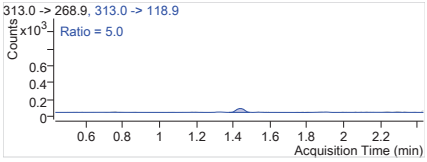
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



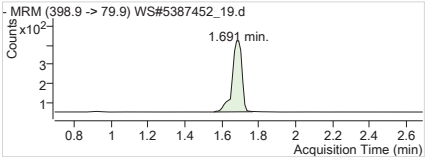


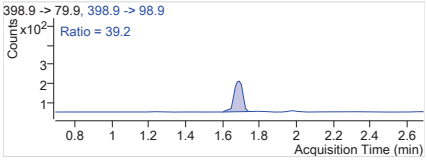
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



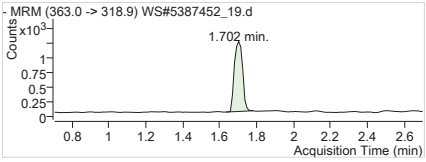


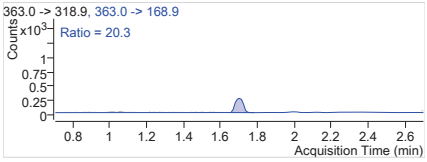
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.63 µg/L
Area ratio: 0.51813
Sample type: Sample



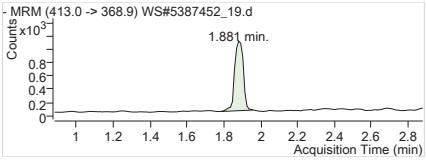


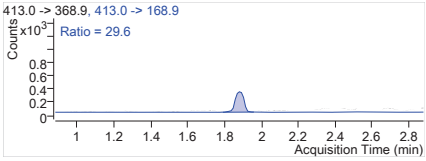
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 1.02 µg/L
Area ratio: 1.01852
Sample type: Sample



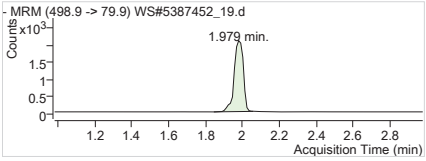


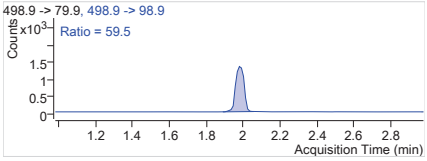
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.68 µg/L
Area ratio: 0.58954
Sample type: Sample



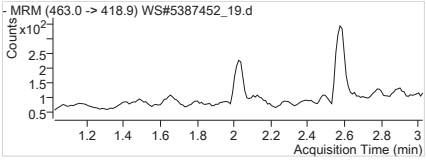


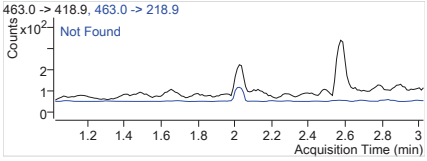
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.58 µg/L
Area ratio: 0.47697
Sample type: Sample



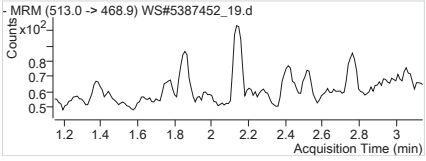


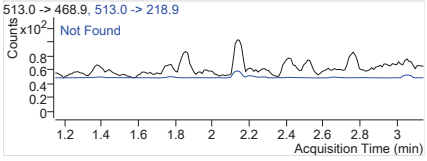
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 5.39 µg/L
Area ratio: 4.33333
Sample type: Sample



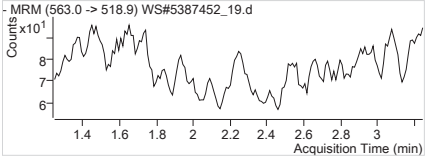


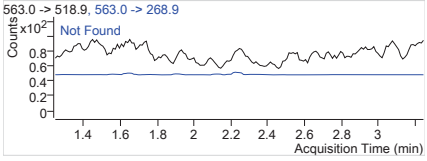
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



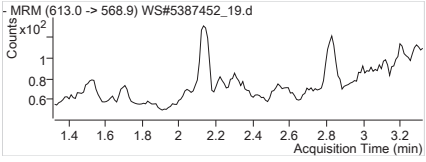


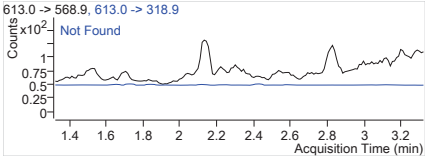
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



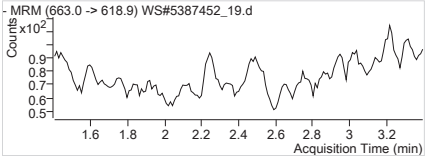


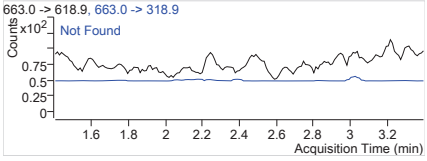
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



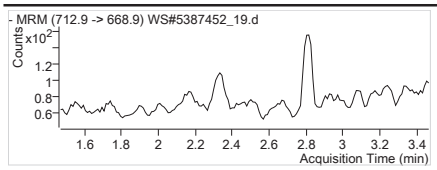


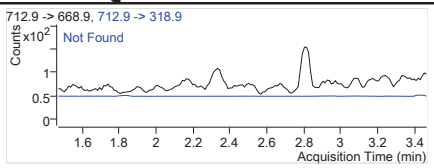
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



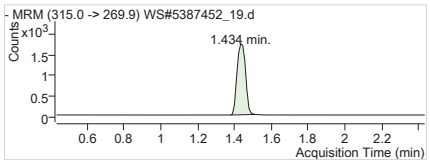


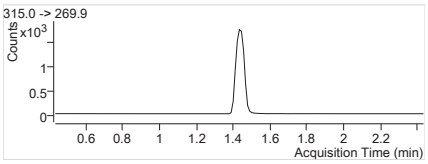
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



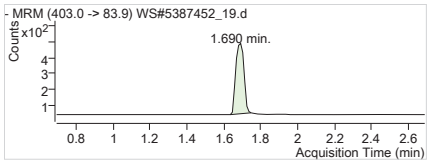


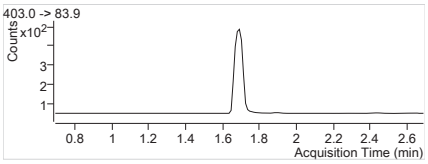
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



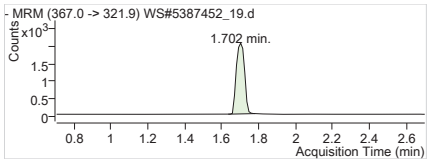


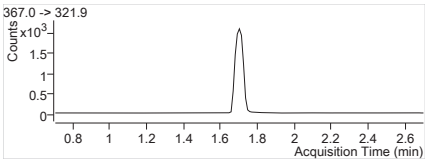
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 85.27 µg/L
Area ratio: 0.18223
Sample type: Sample



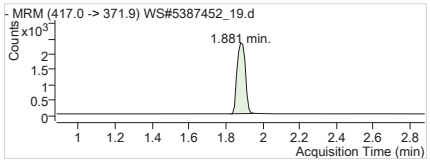


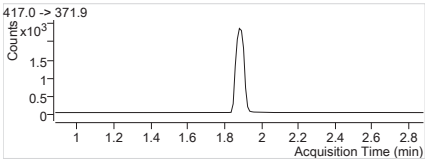
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 77.69 µg/L
Area ratio: 0.04506
Sample type: Sample



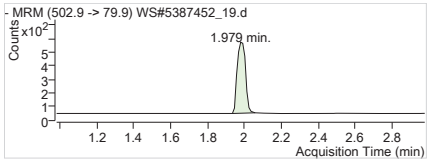


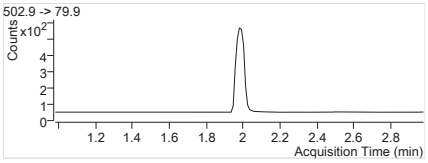
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 76.58 µg/L
Area ratio: 0.21117
Sample type: Sample



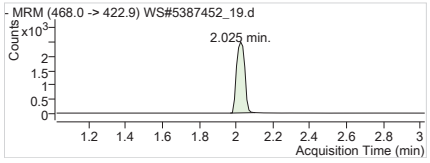


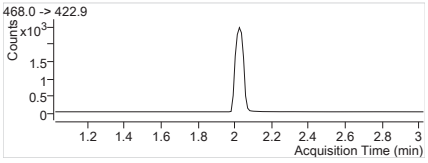
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 81.35 µg/L
Area ratio: 0.24134
Sample type: Sample



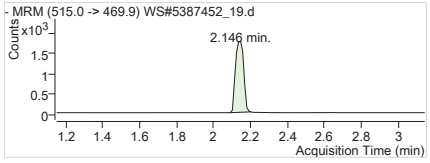


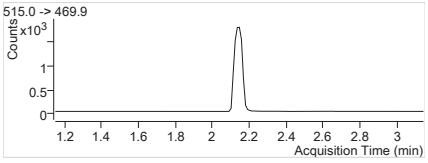
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 76.88 µg/L
Area ratio: 0.05497
Sample type: Sample



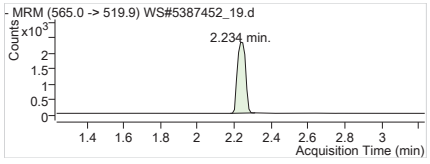


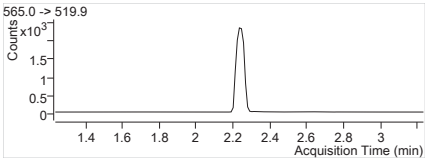
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 82.50 µg/L
Area ratio: 0.25012
Sample type: Sample



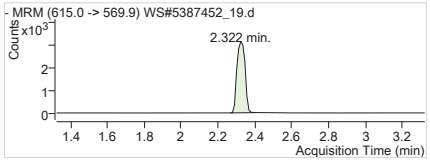


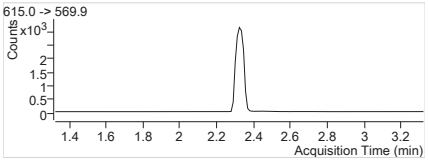
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 75.00 µg/L
Area ratio: 0.13673
Sample type: Sample



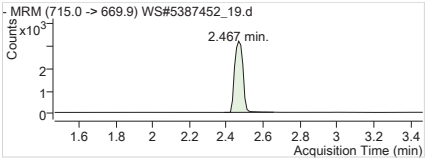


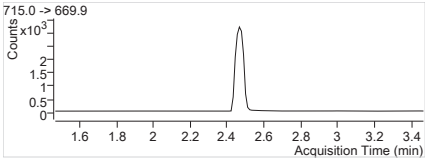
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 78.40 µg/L
Area ratio: 0.17930
Sample type: Sample



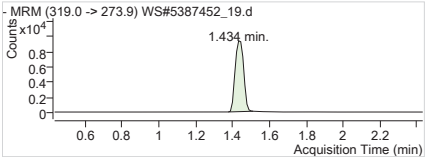


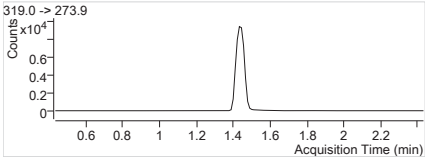
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 76.82 µg/L
Area ratio: 0.23861
Sample type: Sample



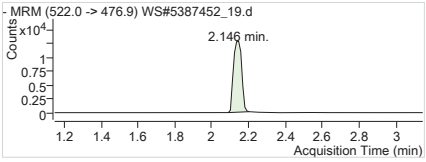


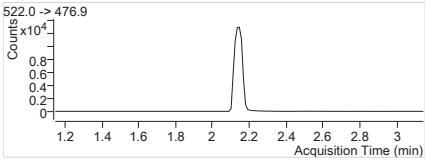
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	68.28 µg/L
Area ratio:	0.25057
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	61.70 µg/L
Area ratio:	0
Sample type:	Sample





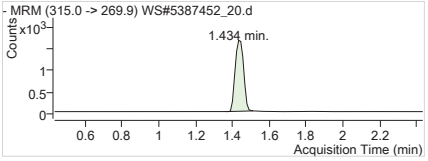
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	60.76 µg/L
Area ratio:	0
Sample type:	Sample

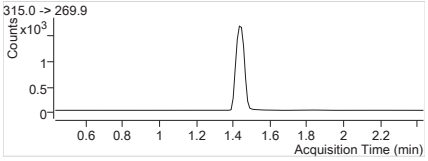
Batch Path	T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:FZH331-01:2x**	**Instrument**	LCMS04
Data File	WS#5387452_20.d	**Operator**	
Sample Type	Sample	**Dilution**	0.048
Acq. Method	PFC_Water_Low.m	**Position**	P1-C1
Acq. Date	2018/02/08 2:02:44 AM	**Injection Volume**	Per Method
Sample Annotation	Reported for all, except PFOS		

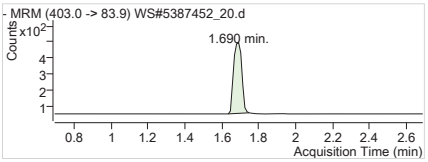
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5256	1.43	1 µg/L		
MPFHxS	1384	1.69	1 µg/L		
MPFHpA	7089	1.70	1 µg/L		
MPFOA	7559	1.88	1 µg/L		
MPFOS	1389	1.98	1 µg/L		
MPFNA	7530	2.02	1 µg/L		
MPFDA	5846	2.15	1 µg/L		
MPFUnA	6289	2.23	1 µg/L		
MPFDoA	9201	2.32	1 µg/L		
MPFTeDA	8612	2.47	1 µg/L		
13C6-PFHxA IS	25213	1.43	1 µg/L		
13C9-PFDA IS	33548	2.15	1 µg/L		

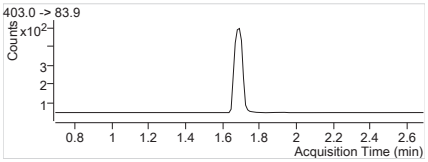
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	666	1.10	-	0.05 µg/L	-
PFHxA 1	28542	1.43	-	0.62 µg/L	-
PFHxS 1	12403	1.69	-	0.86 µg/L	-
PFHpA 1	34700	1.70	-	0.58 µg/L	-
PFOA 1	31138	1.88	-	0.45 µg/L	-
PFOS 1	65368	1.98	-	5.80 µg/L	-
PFNA 1	5713	2.03	-	0.10 µg/L	-
PFDA 1	1416	2.14	-	0.03 µg/L	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5256	1.43	-	97.54 µg/L	-
18O2-PFHxS	1384	1.69	-	94.65 µg/L	-
13C4-PFHpA	7089	1.70	-	101.97 µg/L	-
13C4-PFOA	7559	1.88	-	101.06 µg/L	-
13C4-PFOS	1389	1.98	-	77.05 µg/L	-
13C5-PFNA	7529	2.02	-	98.49 µg/L	-
13C2-PFDA	5766	2.15	-	94.28 µg/L	-
13C2-PFUnA	6289	2.23	-	81.97 µg/L	-
13C2-PFDoA	9201	2.32	-	88.30 µg/L	-
13C2-PFTeDA	8748	2.47	-	71.05 µg/L	-
13C6-PFHxA	25213	1.43	-	5.19 µg/L	-
13C9-PFDA	33548	2.15	-	5.11 µg/L	-



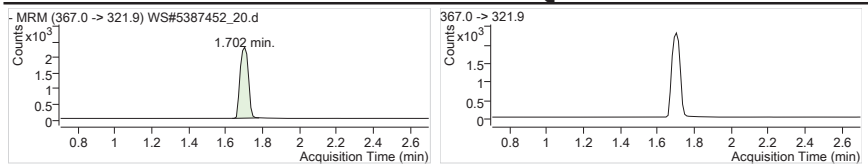


MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample

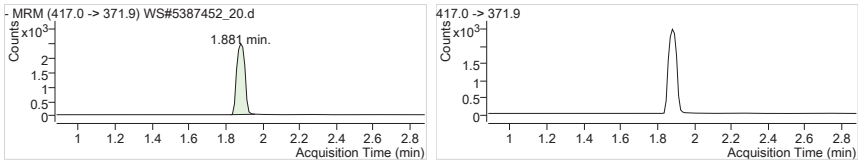




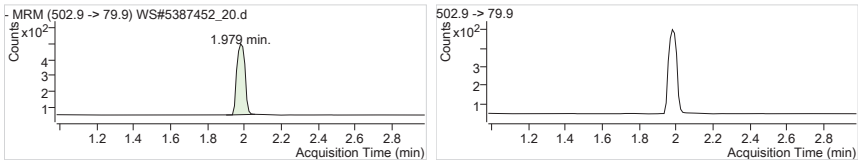
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



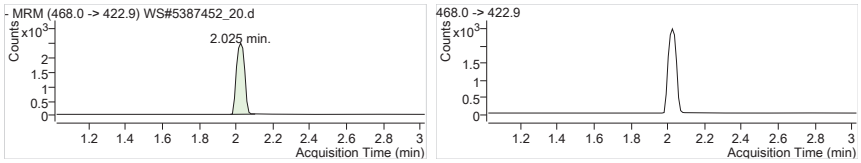
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



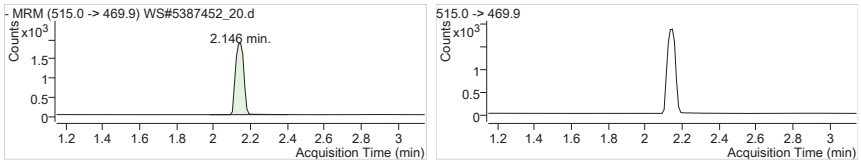
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



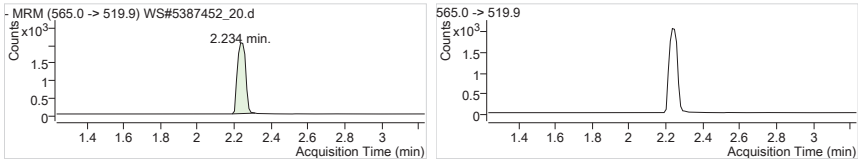
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



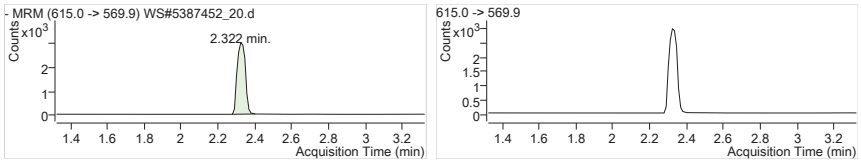
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



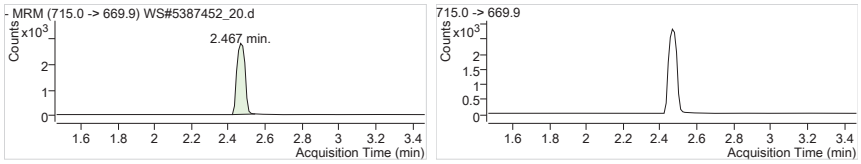
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



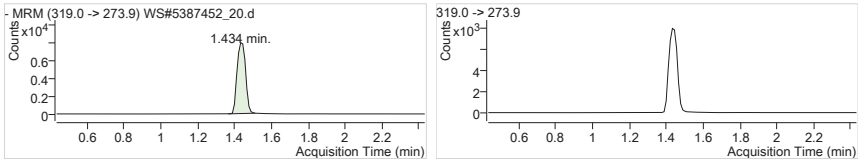
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



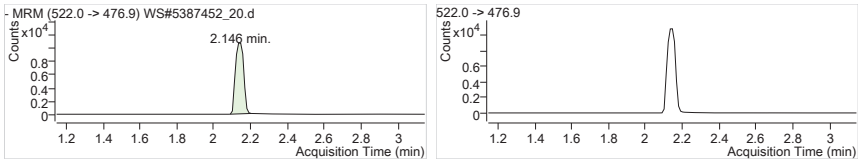
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



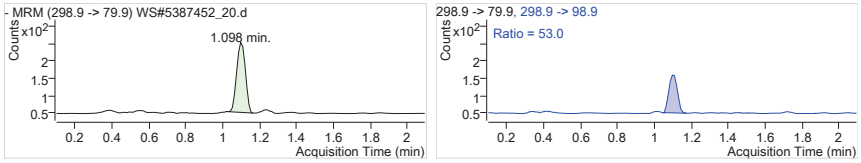
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



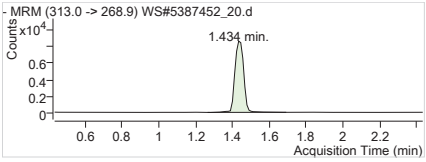
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample

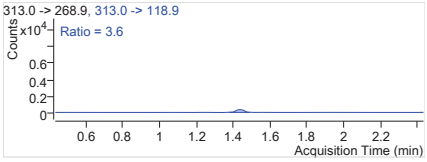


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

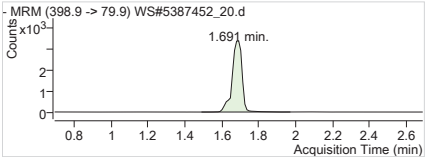


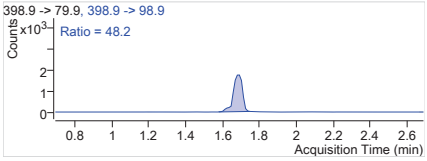
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 0.05 µg/L
Area ratio: 0.48121
Sample type: Sample



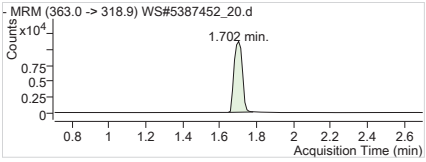


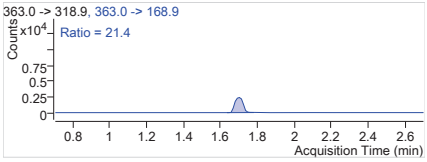
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.62 µg/L
Area ratio: 5.43037
Sample type: Sample



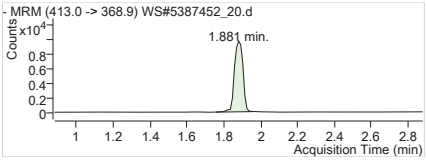


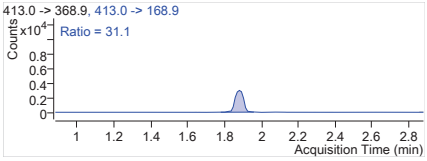
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.86 µg/L
Area ratio: 8.96171
Sample type: Sample



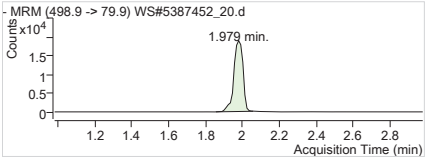


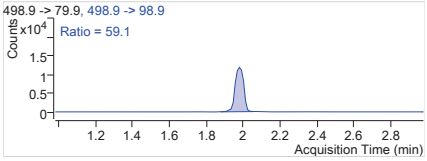
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.58 µg/L
Area ratio: 4.89491
Sample type: Sample



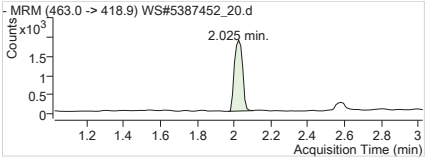


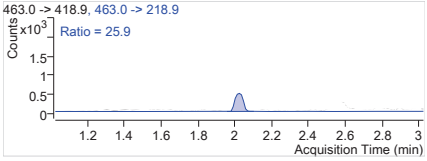
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.45 µg/L
Area ratio: 4.11933
Sample type: Sample



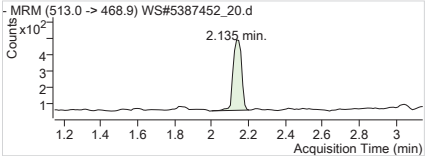


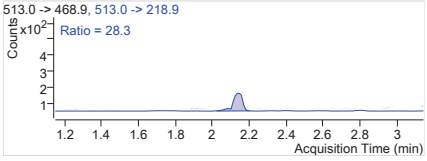
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 5.80 µg/L
Area ratio: 47.06120
Sample type: Sample



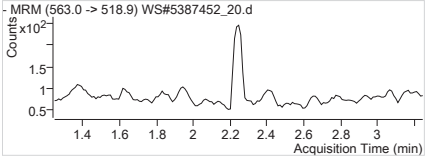


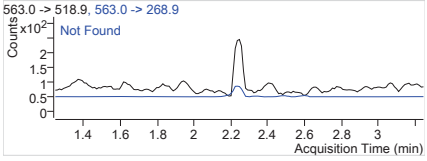
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 0.10 µg/L
Area ratio: 0.75870
Sample type: Sample



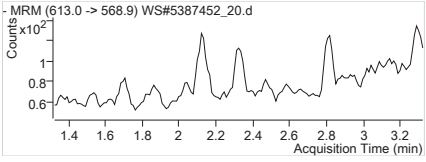


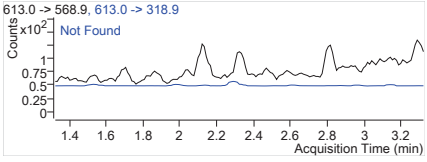
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.147)
Calc. conc. 0.03 µg/L
Area ratio: 0.24222
Sample type: Sample



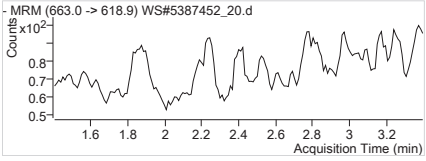


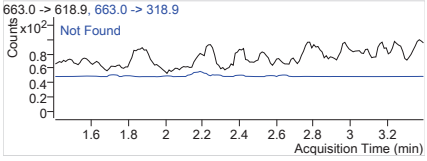
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



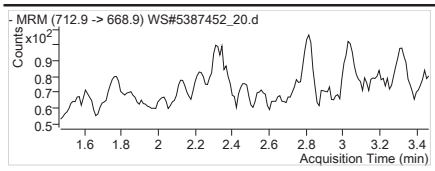


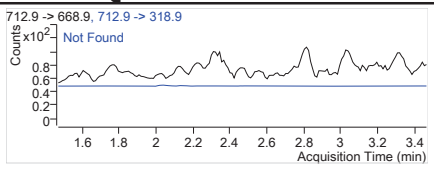
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



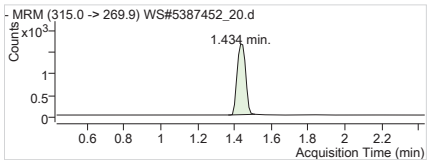


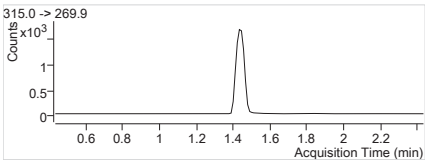
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



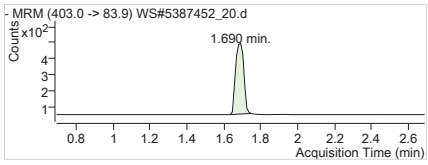


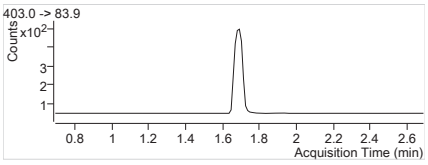
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



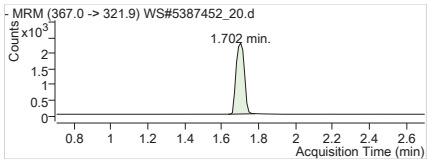


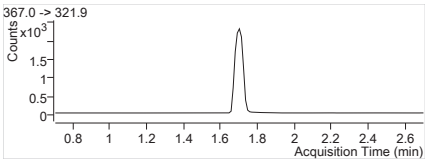
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 97.54 µg/L
Area ratio: 0.20846
Sample type: Sample



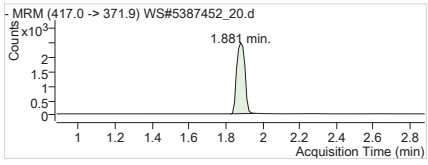


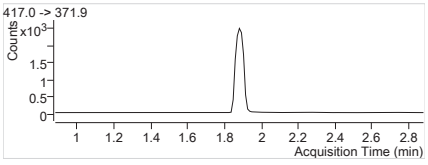
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 94.65 µg/L
Area ratio: 0.05489
Sample type: Sample



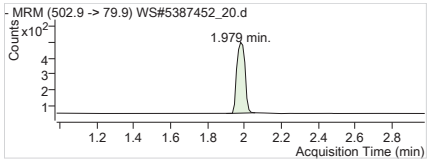


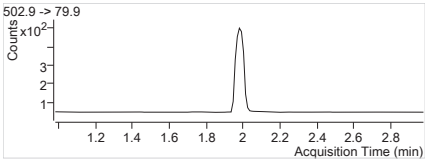
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 101.97 µg/L
Area ratio: 0.28116
Sample type: Sample



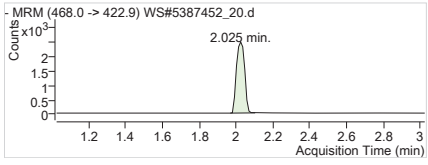


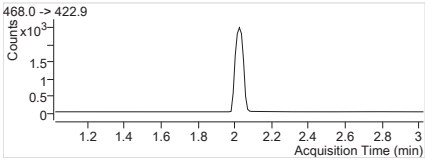
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 101.06 µg/L
Area ratio: 0.29981
Sample type: Sample



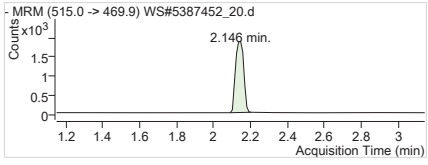


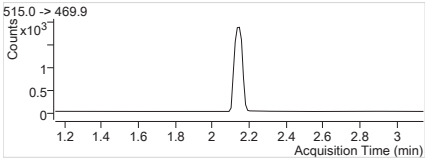
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 77.05 µg/L
Area ratio: 0.05509
Sample type: Sample



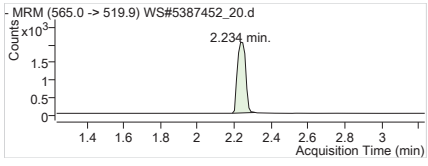


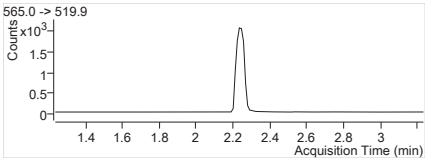
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 98.49 µg/L
Area ratio: 0.29862
Sample type: Sample



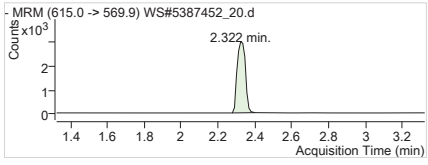


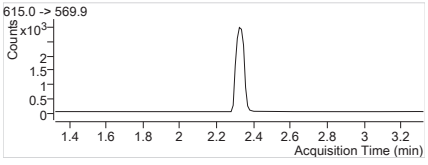
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 94.28 µg/L
Area ratio: 0.17187
Sample type: Sample



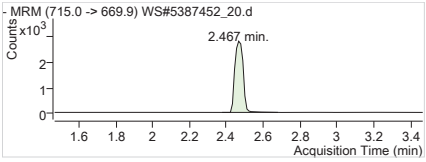


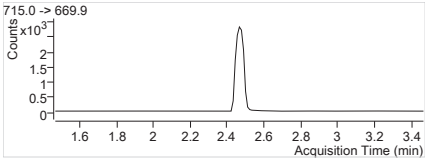
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 81.97 µg/L
Area ratio: 0.18746
Sample type: Sample



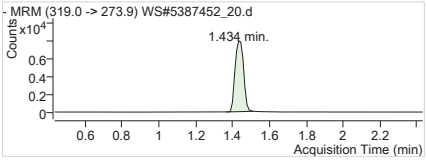


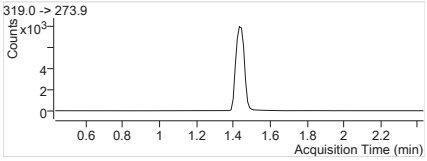
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 88.30 µg/L
Area ratio: 0.27426
Sample type: Sample



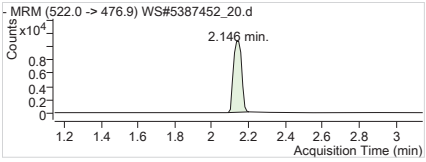


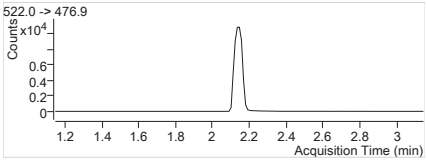
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	71.05 µg/L
Area ratio:	0.26076
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	5.19 µg/L
Area ratio:	0
Sample type:	Sample



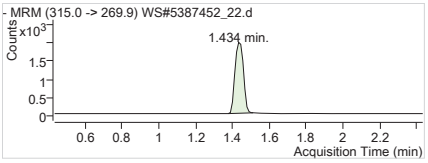


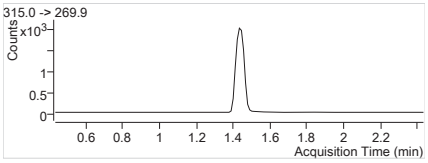
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	5.11 µg/L
Area ratio:	0
Sample type:	Sample

Batch Path	T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics		
Sample Name	**5387452:FZH332-01:10x**	**Instrument**	LCMS04
Data File	WS#5387452_22.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low.m	**Position**	P1-C2
Acq. Date	2018/02/08 2:12:37 AM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFOS only		

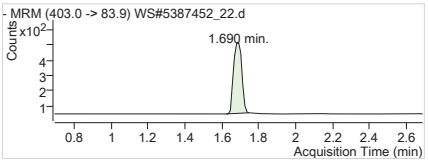
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6274	1.43	1 µg/L		
MPFHxS	1460	1.69	1 µg/L		
MPFHpA	7569	1.70	1 µg/L		
MPFOA	8349	1.88	1 µg/L		
MPFOS	1747	1.98	1 µg/L		
MPFNA	8027	2.02	1 µg/L		
MPFDA	6302	2.15	1 µg/L		
MPFUnA	7574	2.25	1 µg/L		
MPFDoA	10565	2.32	1 µg/L		
MPFTeDA	10699	2.47	1 µg/L		
13C6-PFHxA IS	27765	1.43	1 µg/L		
13C9-PFDA IS	36538	2.15	1 µg/L		

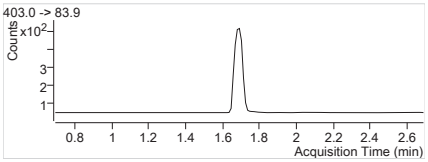
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	154	1.10	-	0.09 µg/L	-
PFHxA 1	4206	1.43	-	0.40 µg/L	-
PFHxS 1	2355	1.68	-	0.79 µg/L	-
PFHpA 1	5499	1.70	-	0.42 µg/L	-
PFOA 1	5733	1.88	-	0.40 µg/L	-
PFOS 1	10347	1.98	-	3.67 µg/L	-
PFNA 1	923	2.03	-	0.09 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6274	1.43	-	105.73 µg/L	-
18O2-PFHxS	1460	1.69	-	90.67 µg/L	-
13C4-PFHpA	7569	1.70	-	98.87 µg/L	-
13C4-PFOA	8349	1.88	-	101.36 µg/L	-
13C4-PFOS	1747	1.98	-	88.00 µg/L	-
13C5-PFNA	8028	2.02	-	95.37 µg/L	-
13C2-PFDA	6182	2.15	-	92.81 µg/L	-
13C2-PFUnA	7574	2.25	-	90.64 µg/L	-
13C2-PFDoA	10565	2.32	-	93.09 µg/L	-
13C2-PFTeDA	10912	2.47	-	81.38 µg/L	-
13C6-PFHxA	27765	1.43	-	28.59 µg/L	-
13C9-PFDA	36538	2.15	-	27.83 µg/L	-



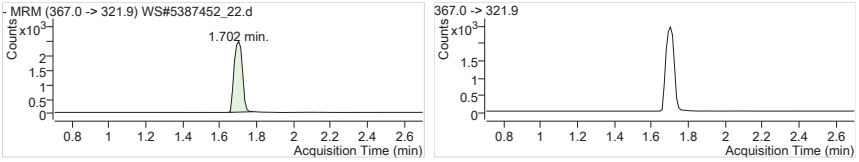


MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample

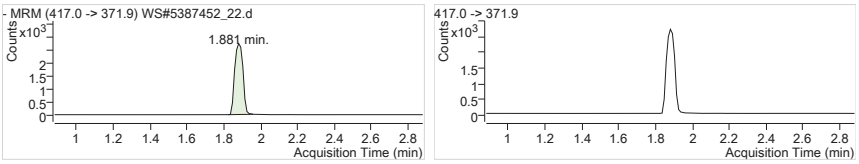




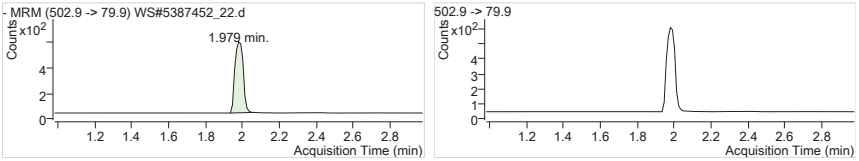
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



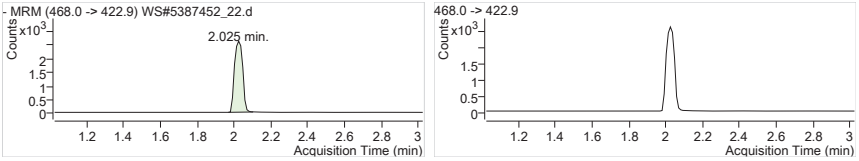
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



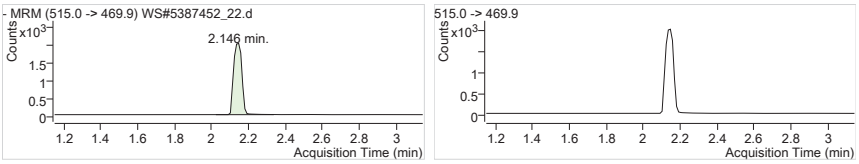
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



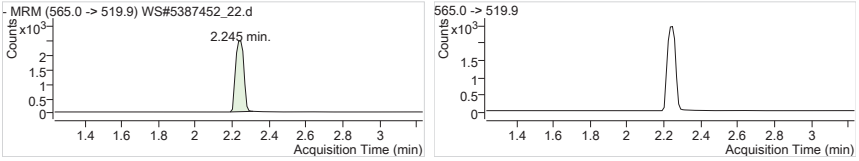
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



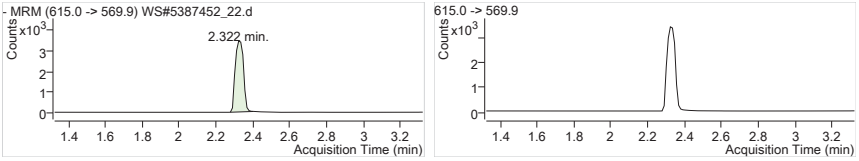
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



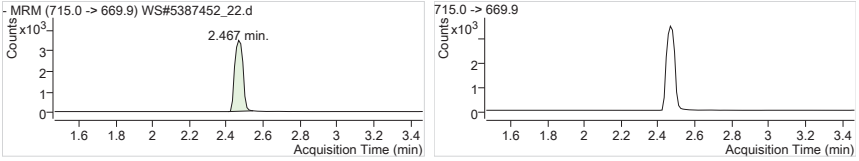
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



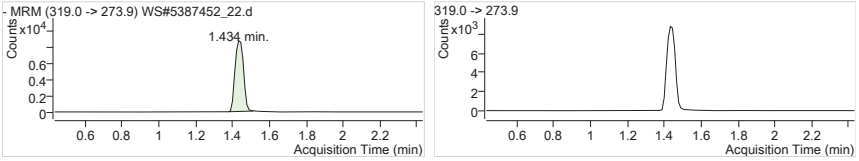
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



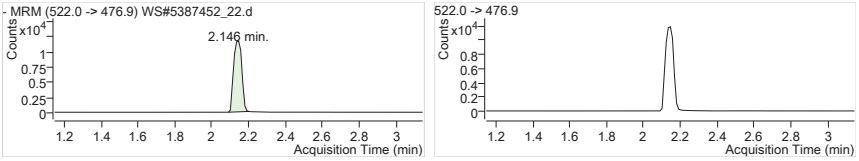
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



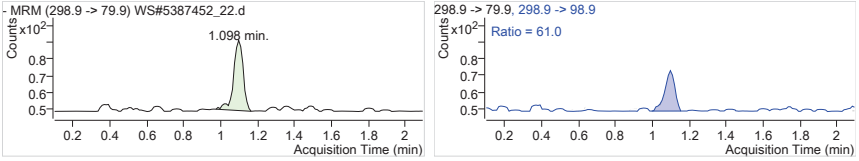
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



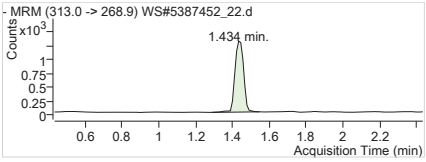
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample

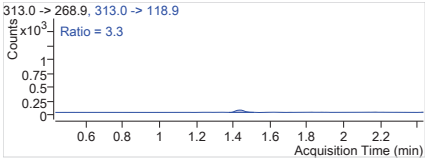


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

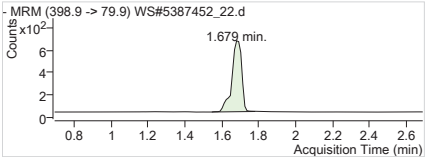


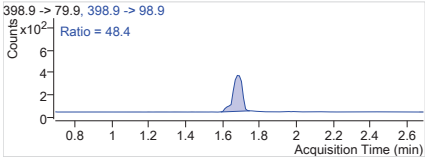
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 0.09 µg/L
Area ratio: 0.10548
Sample type: Sample



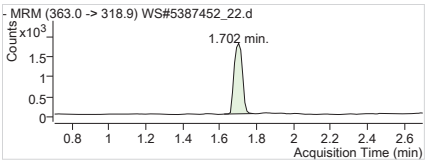


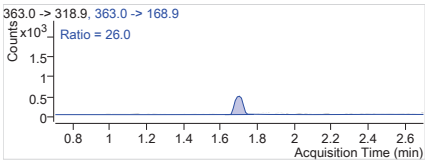
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.40 µg/L
Area ratio: 0.67039
Sample type: Sample



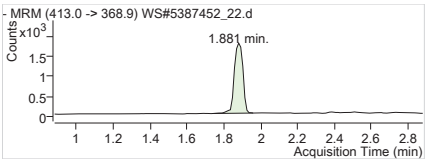


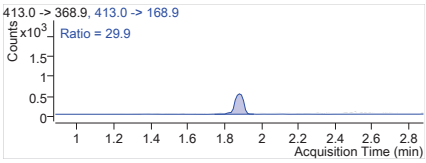
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 0.79 µg/L
Area ratio: 1.61301
Sample type: Sample



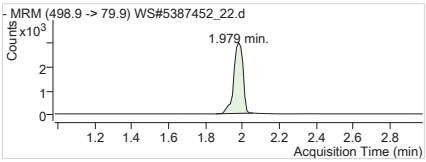


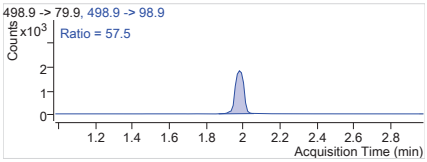
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.42 µg/L
Area ratio: 0.72652
Sample type: Sample



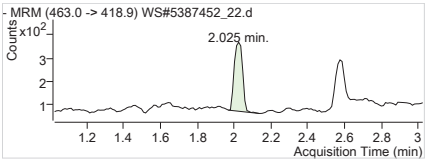


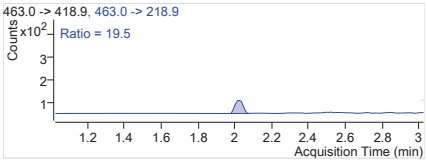
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.40 µg/L
Area ratio: 0.68667
Sample type: Sample



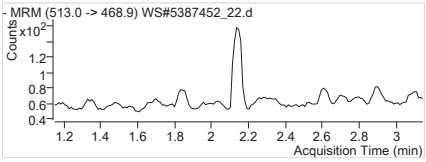


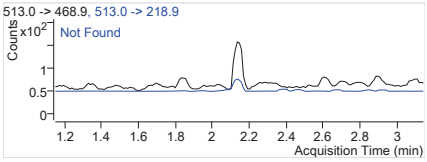
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 3.67 µg/L
Area ratio: 5.92272
Sample type: Sample



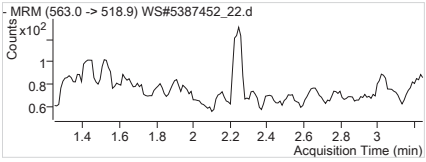


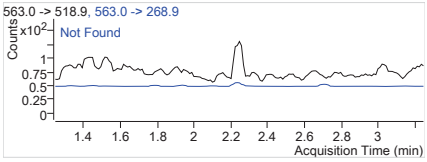
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 0.09 µg/L
Area ratio: 0.11499
Sample type: Sample



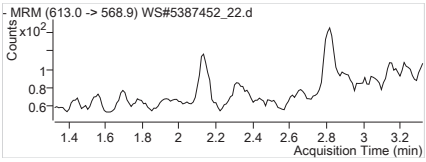


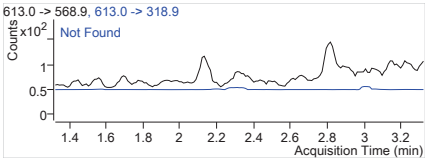
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



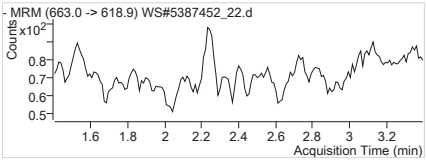


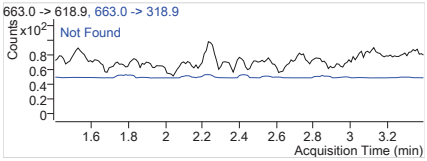
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



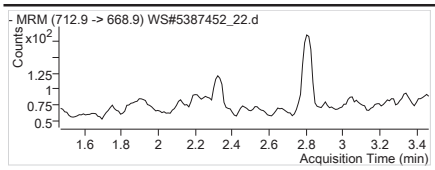


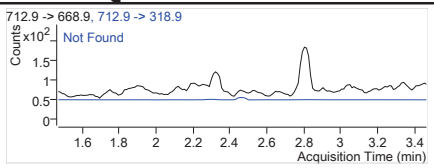
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



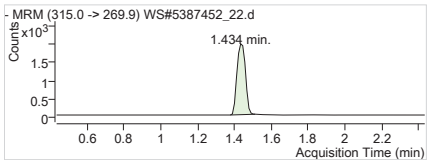


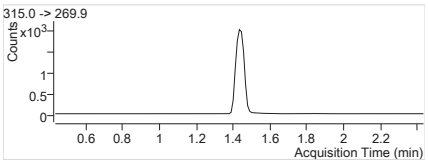
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



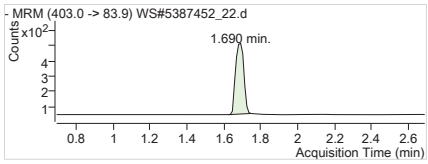


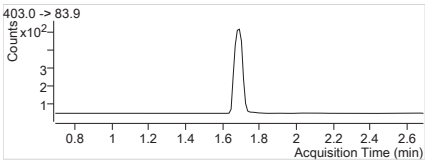
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



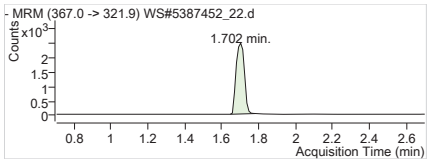


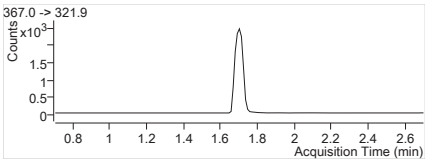
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 105.73 µg/L
Area ratio: 0.22597
Sample type: Sample



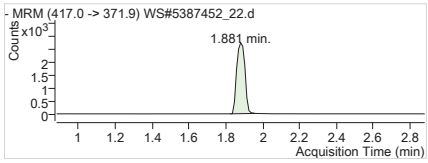


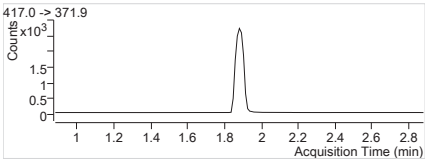
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 90.67 µg/L
Area ratio: 0.05258
Sample type: Sample



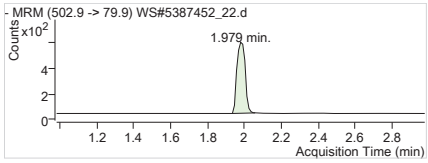


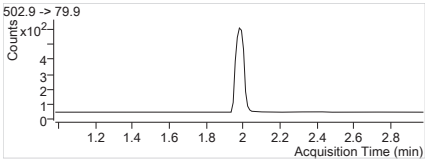
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 98.87 µg/L
Area ratio: 0.27261
Sample type: Sample



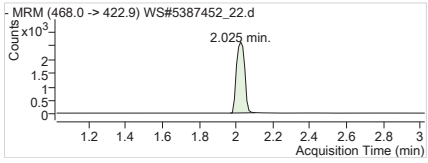


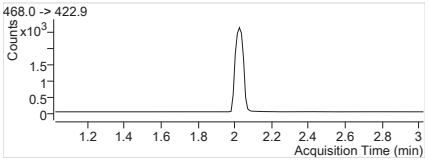
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 101.36 µg/L
Area ratio: 0.30070
Sample type: Sample



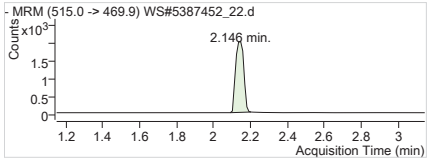


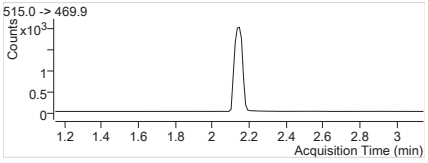
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 88.00 µg/L
Area ratio: 0.06292
Sample type: Sample



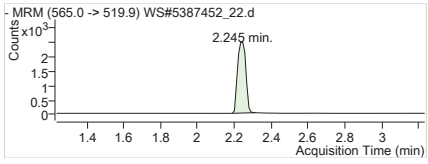


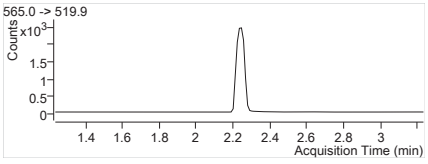
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 95.37 µg/L
Area ratio: 0.28914
Sample type: Sample



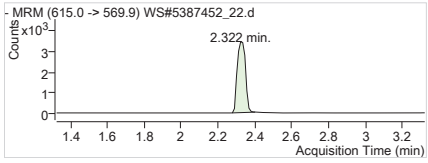


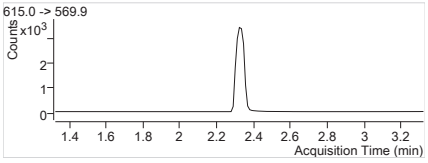
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 92.81 µg/L
Area ratio: 0.16919
Sample type: Sample



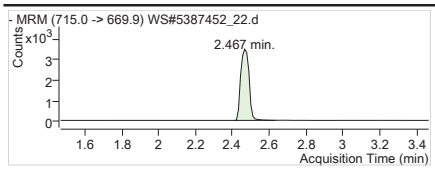


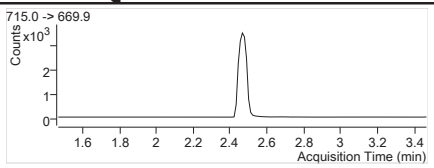
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 90.64 µg/L
Area ratio: 0.20729
Sample type: Sample



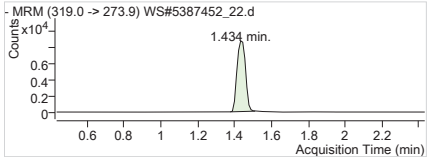


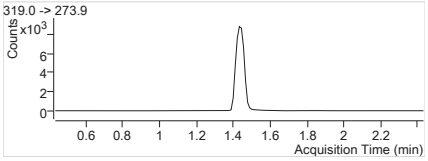
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 93.09 µg/L
Area ratio: 0.28915
Sample type: Sample



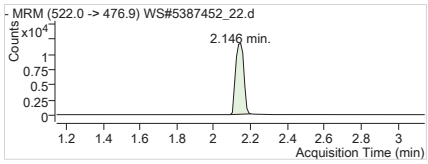


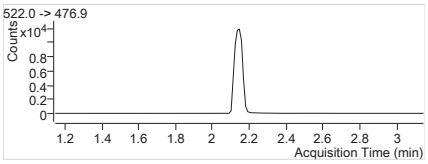
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	81.38 µg/L
Area ratio:	0.29865
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	28.59 µg/L
Area ratio:	0
Sample type:	Sample





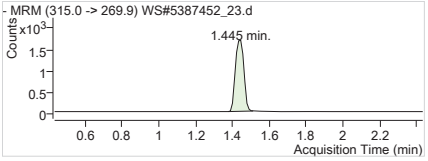
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	27.83 µg/L
Area ratio:	0
Sample type:	Sample

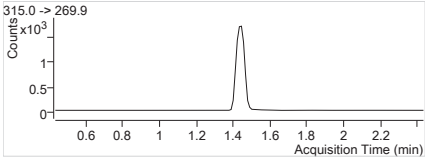
Batch Path	T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:FZH332-01**	**Instrument**	LCMS04
Data File	WS#5387452_23.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C3
Acq. Date	2018/02/08 2:17:33 AM	**Injection Volume**	Per Method
Sample Annotation	Reported for all, except PFOS		

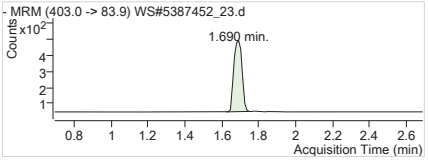
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5358	1.44	1 µg/L		
MPFHxS	1364	1.69	1 µg/L		
MPFHpA	7426	1.70	1 µg/L		
MPFOA	8051	1.88	1 µg/L		
MPFOS	1699	1.98	1 µg/L		
MPFNA	7882	2.02	1 µg/L		
MPFDA	5914	2.15	1 µg/L		
MPFUnA	6689	2.23	1 µg/L		
MPFDoA	8141	2.32	1 µg/L		
MPFTeDA	5917	2.47	1 µg/L		
13C6-PFHxA IS	28515	1.44	1 µg/L		
13C9-PFDA IS	37150	2.15	1 µg/L		

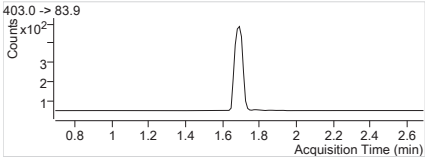
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1367	1.10	-	0.05 µg/L	-
PFHxA 1	38415	1.45	-	0.41 µg/L	-
PFHxS 1	19512	1.69	-	0.68 µg/L	-
PFHpA 1	44356	1.70	-	0.35 µg/L	-
PFOA 1	48414	1.88	-	0.33 µg/L	-
PFOS 1	86575	1.98	-	3.14 µg/L	-
PFNA 1	7897	2.03	-	0.06 µg/L	-
PFDA 1	1754	2.14	-	0.02 µg/L	-
PFUnA 1	1112	2.23	-	0.01 µg/L	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5358	1.44	-	87.92 µg/L	-
18O2-PFHxS	1364	1.69	-	82.48 µg/L	-
13C4-PFHpA	7426	1.70	-	94.45 µg/L	-
13C4-PFOA	8051	1.88	-	95.17 µg/L	-
13C4-PFOS	1699	1.98	-	83.34 µg/L	-
13C5-PFNA	7882	2.02	-	91.17 µg/L	-
13C2-PFDA	5749	2.15	-	84.89 µg/L	-
13C2-PFUnA	6689	2.23	-	78.73 µg/L	-
13C2-PFDoA	8141	2.32	-	70.55 µg/L	-
13C2-PFTeDA	5997	2.47	-	43.99 µg/L	-
13C6-PFHxA	28515	1.44	-	2.94 µg/L	-
13C9-PFDA	37150	2.15	-	2.83 µg/L	-



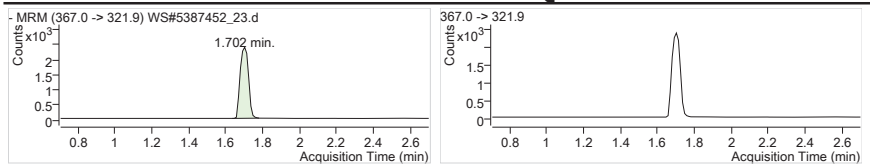


MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.434)
Concentration: 1 µg/L
Sample type: Sample

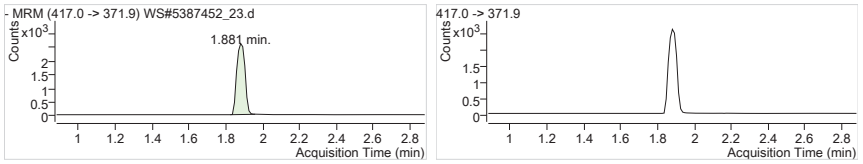




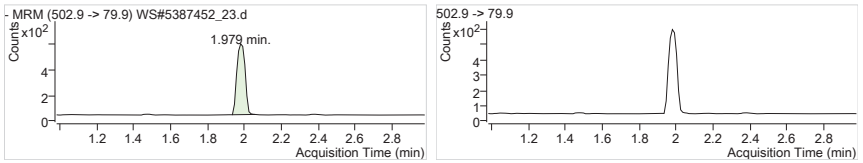
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



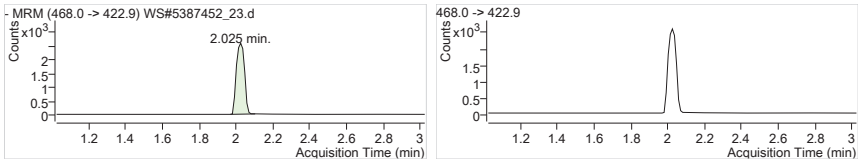
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



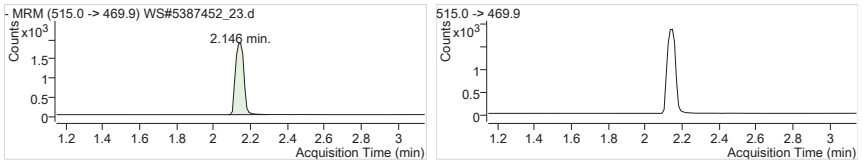
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



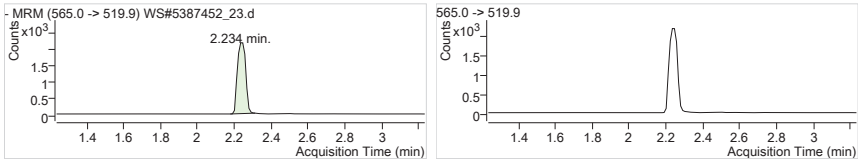
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



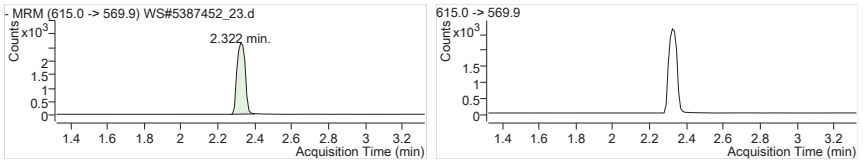
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



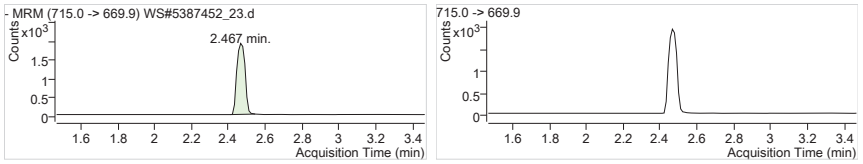
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



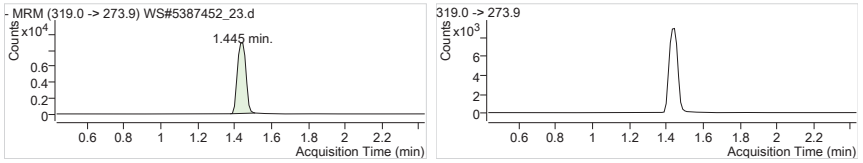
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



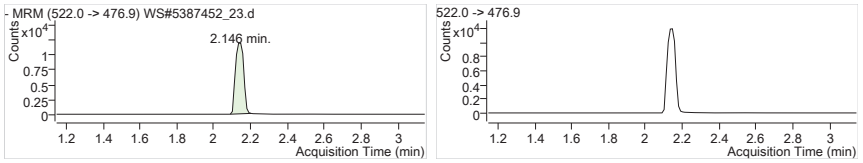
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



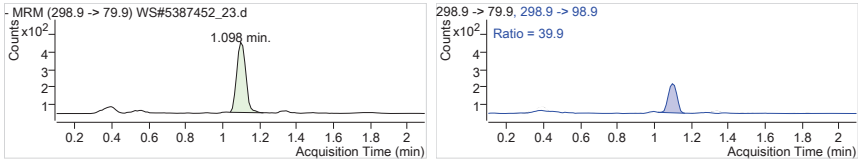
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



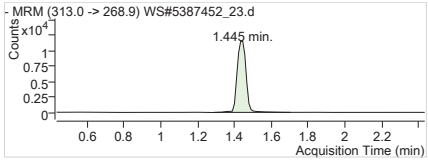
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.434)
Concentration: 1 µg/L
Sample type: Sample

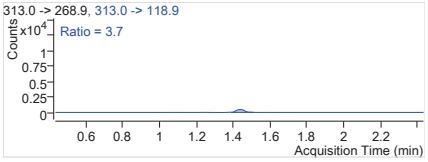


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

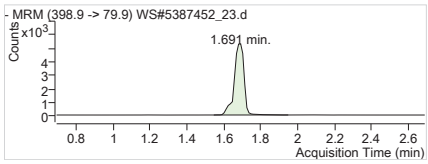


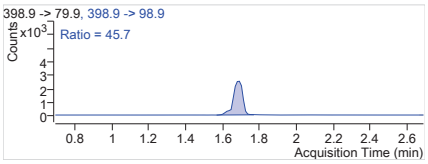
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 0.05 µg/L
Area ratio: 1.00220
Sample type: Sample



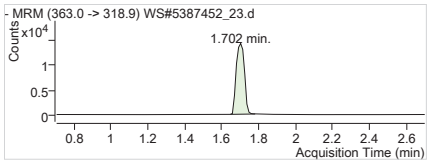


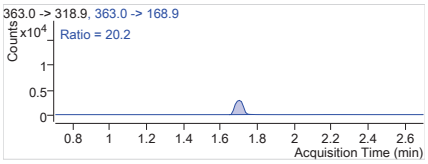
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.445 (1.434)
Calc. conc. 0.41 µg/L
Area ratio: 7.16965
Sample type: Sample



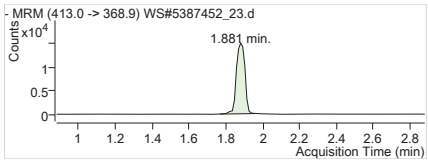


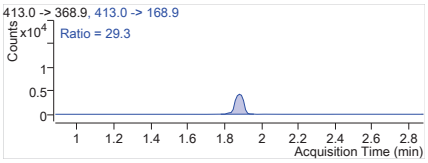
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.68 µg/L
Area ratio: 14.30499
Sample type: Sample



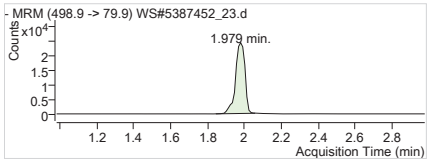


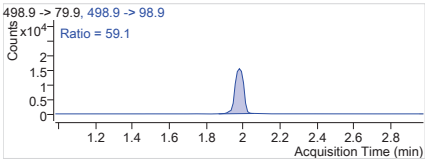
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.35 µg/L
Area ratio: 5.97307
Sample type: Sample



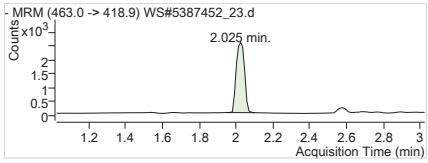


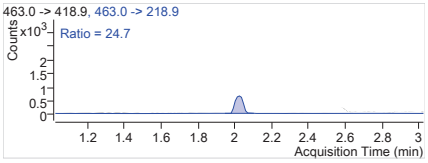
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.33 µg/L
Area ratio: 6.01341
Sample type: Sample



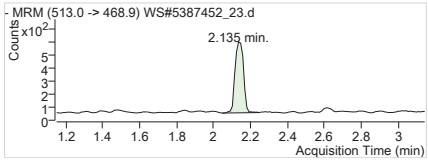


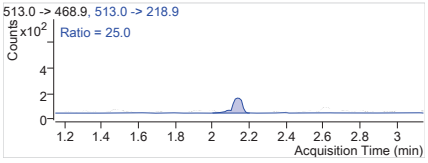
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 3.14 µg/L
Area ratio: 50.95644
Sample type: Sample



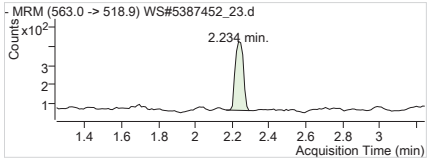


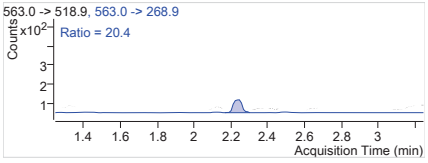
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 0.06 µg/L
Area ratio: 1.00190
Sample type: Sample



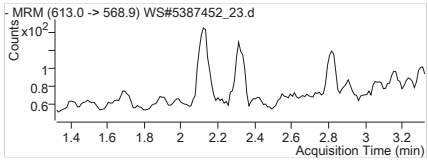


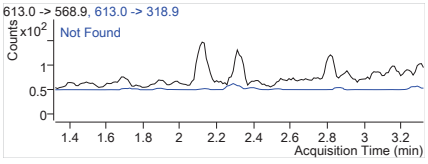
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.147)
Calc. conc. 0.02 µg/L
Area ratio: 0.29658
Sample type: Sample



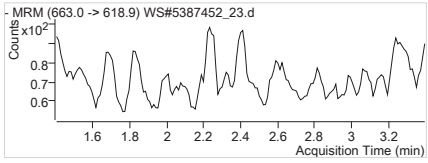


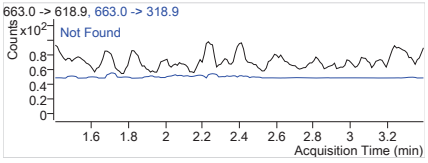
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.246)
Calc. conc. 0.01 µg/L
Area ratio: 0.16624
Sample type: Sample



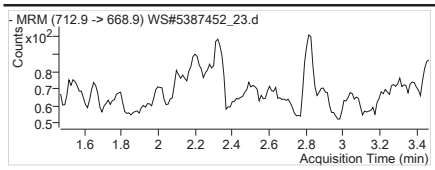


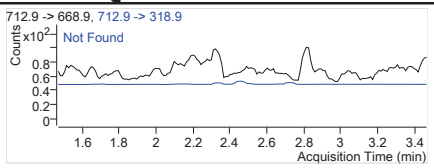
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



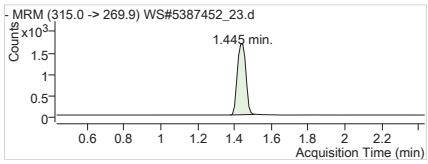


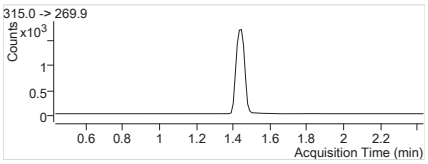
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



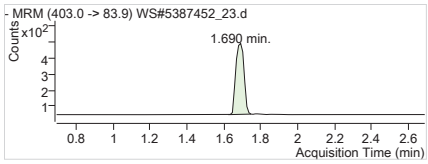


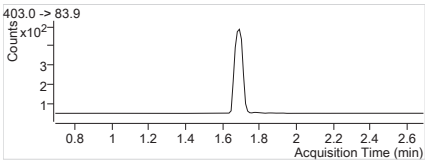
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



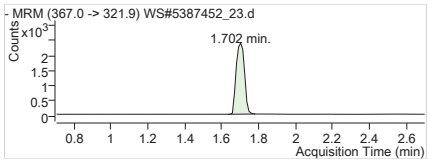


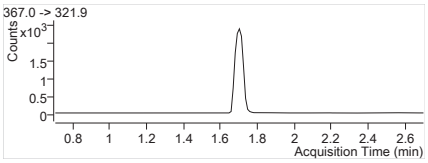
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.434)
Calc. conc. 87.92 µg/L
Area ratio: 0.18790
Sample type: Sample



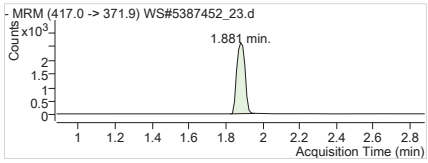


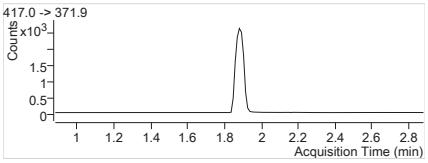
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 82.48 µg/L
Area ratio: 0.04783
Sample type: Sample



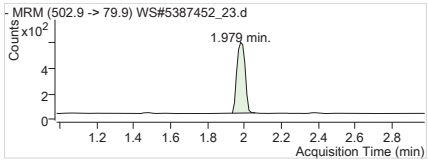


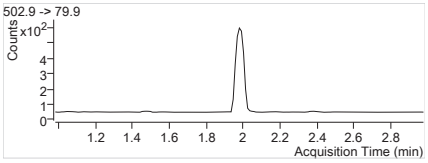
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 94.45 µg/L
Area ratio: 0.26042
Sample type: Sample



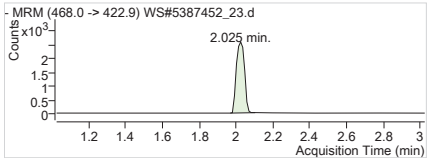


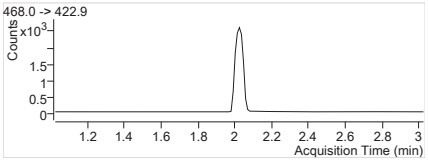
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 95.17 µg/L
Area ratio: 0.28234
Sample type: Sample



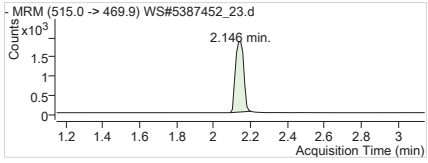


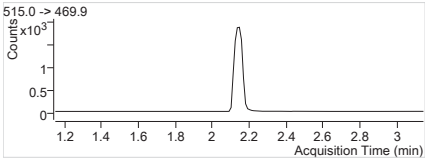
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 83.34 µg/L
Area ratio: 0.05958
Sample type: Sample



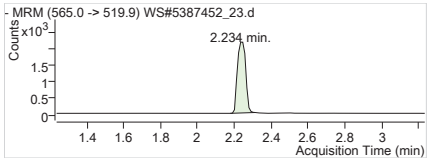


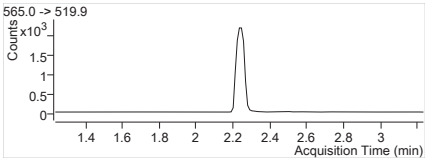
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 91.17 µg/L
Area ratio: 0.27642
Sample type: Sample



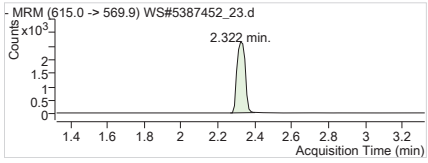


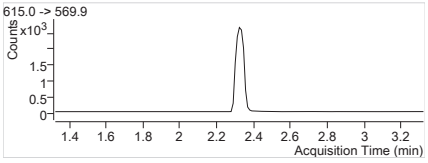
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 84.89 µg/L
Area ratio: 0.15475
Sample type: Sample



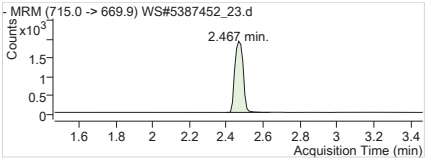


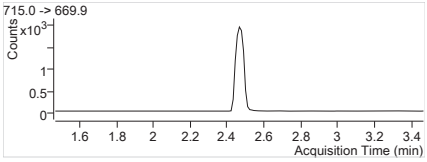
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 78.73 µg/L
Area ratio: 0.18005
Sample type: Sample



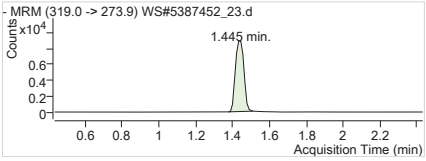


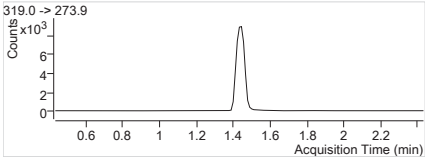
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 70.55 µg/L
Area ratio: 0.21914
Sample type: Sample



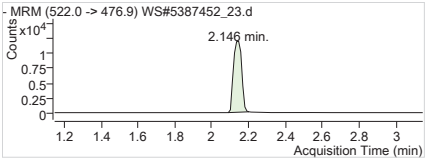


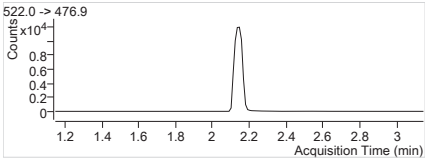
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	43.99 µg/L
Area ratio:	0.16143
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.445 (1.434)
Calc. conc.	2.94 µg/L
Area ratio:	0
Sample type:	Sample





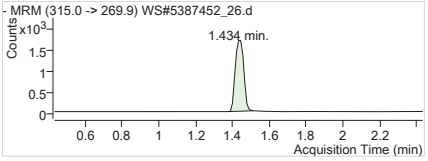
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.83 µg/L
Area ratio:	0
Sample type:	Sample

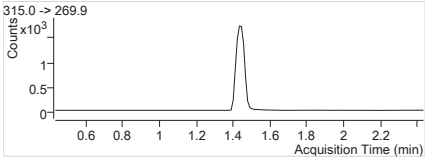
Batch Path	T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:FZH333-01:100x**	**Instrument**	LCMS04
Data File	WS#5387452_26.d	**Operator**	
Sample Type	Sample	**Dilution**	2.4
Acq. Method	PFC_Water_Low.m	**Position**	P1-C4
Acq. Date	2018/02/08 2:32:21 AM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFOS only		

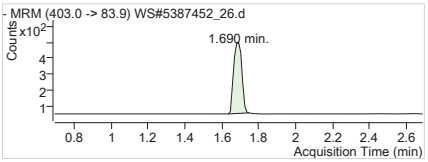
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5407	1.43	1 µg/L		
MPFHxS	1390	1.69	1 µg/L		
MPFHpA	7563	1.70	1 µg/L		
MPFOA	8279	1.88	1 µg/L		
MPFOS	1944	1.98	1 µg/L		
MPFNA	7915	2.02	1 µg/L		
MPFDA	6200	2.15	1 µg/L		
MPFUnA	7070	2.25	1 µg/L		
MPFDoA	9222	2.32	1 µg/L		
MPFTeDA	10053	2.47	1 µg/L		
13C6-PFHxA IS	28836	1.44	1 µg/L		
13C9-PFDA IS	35379	2.15	1 µg/L		

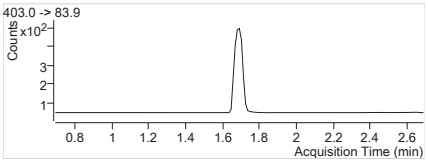
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	4122	1.43	-	4.53 µg/L	-
PFHxS 1	1137	1.69	-	4.12 µg/L	-
PFHpA 1	9386	1.70	-	7.25 µg/L	-
PFOA 1	7861	1.88	-	5.44 µg/L	-
PFOS 1	18722	1.98	-	59.56 µg/L	-
PFNA 1	1458	2.03	-	1.33 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5407	1.43	-	87.74 µg/L	-
18O2-PFHxS	1390	1.69	-	83.12 µg/L	-
13C4-PFHpA	7563	1.70	-	95.12 µg/L	-
13C4-PFOA	8279	1.88	-	96.78 µg/L	-
13C4-PFOS	1944	1.98	-	94.29 µg/L	-
13C5-PFNA	7915	2.02	-	90.53 µg/L	-
13C2-PFDA	6074	2.15	-	94.17 µg/L	-
13C2-PFUnA	7070	2.25	-	87.38 µg/L	-
13C2-PFDoA	9222	2.32	-	83.92 µg/L	-
13C2-PFTeDA	10333	2.47	-	79.58 µg/L	-
13C6-PFHxA	28836	1.44	-	296.89 µg/L	-
13C9-PFDA	35379	2.15	-	269.43 µg/L	-



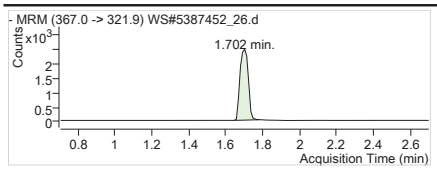


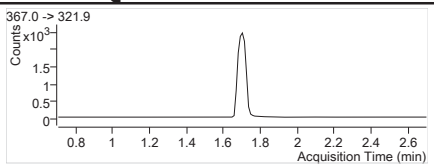
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



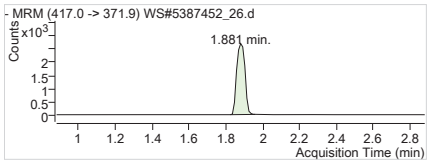


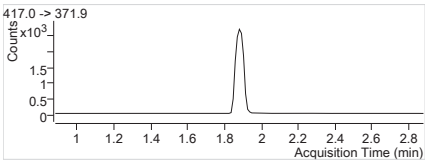
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



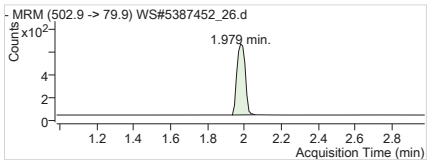


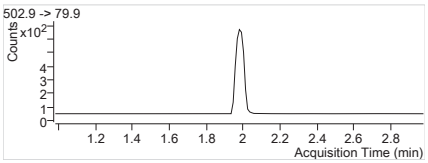
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



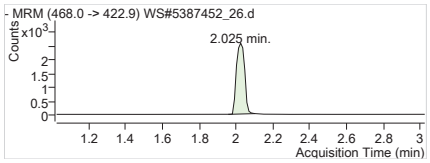


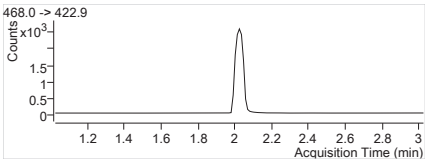
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



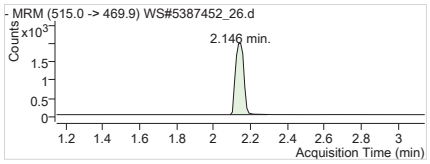


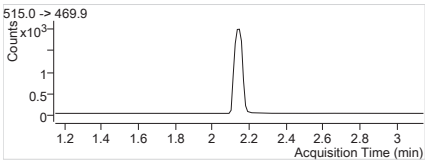
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



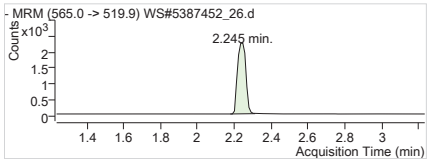


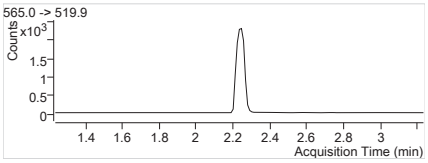
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



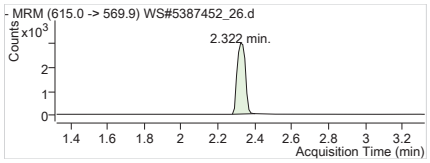


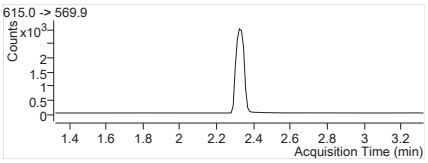
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



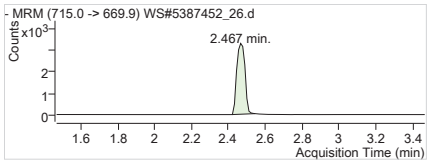


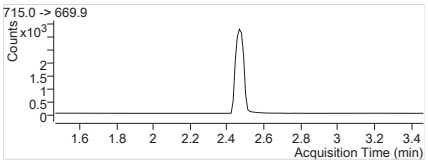
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



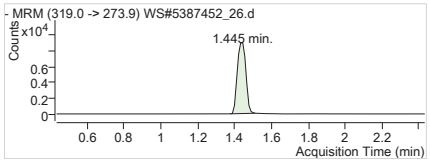


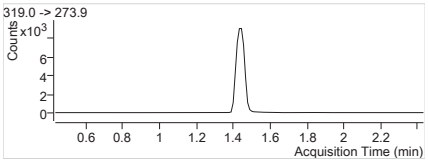
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



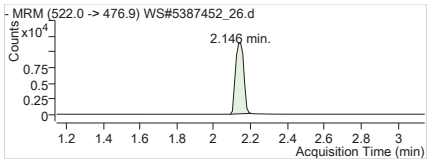


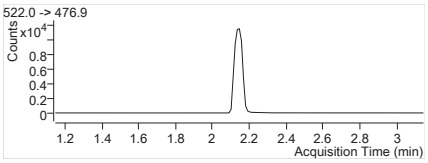
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



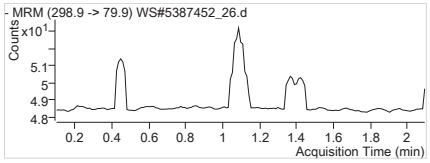


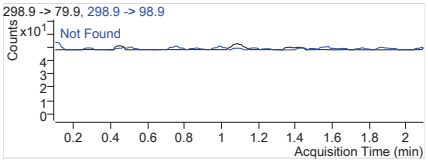
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.434)
Concentration: 1 µg/L
Sample type: Sample



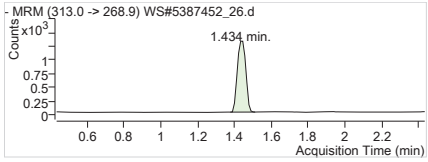


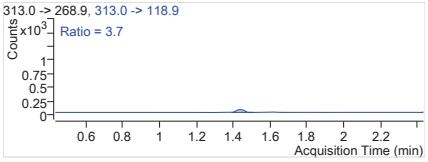
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



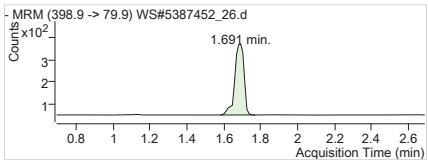


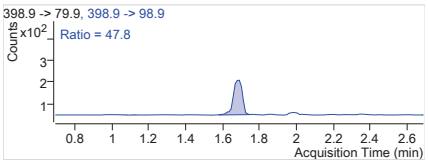
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



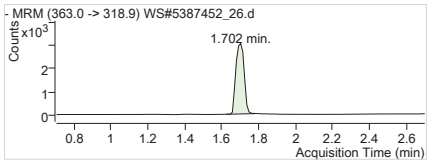


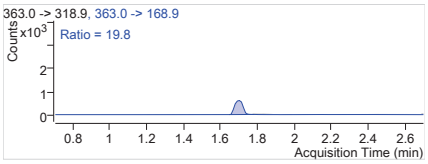
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 4.53 µg/L
Area ratio: 0.76235
Sample type: Sample



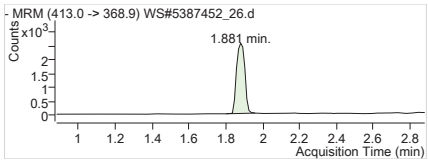


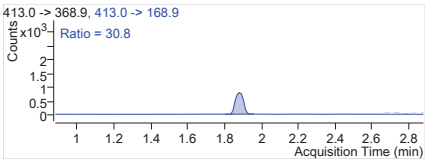
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 4.12 µg/L
Area ratio: 0.81799
Sample type: Sample



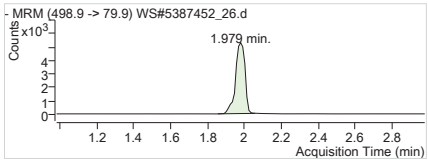


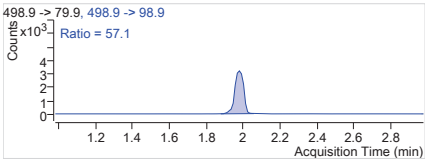
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 7.25 µg/L
Area ratio: 1.24104
Sample type: Sample



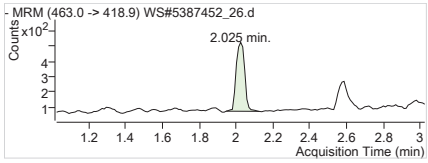


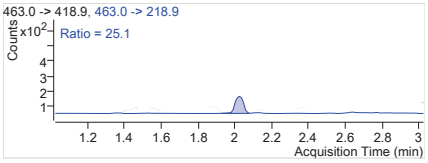
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 5.44 µg/L
Area ratio: 0.94951
Sample type: Sample



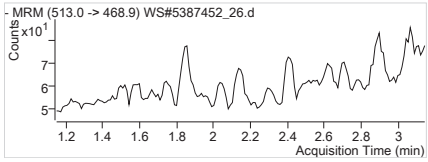


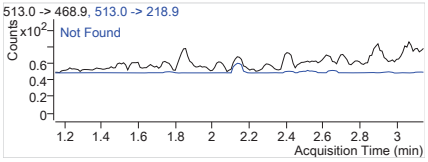
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 59.56 µg/L
Area ratio: 9.63066
Sample type: Sample



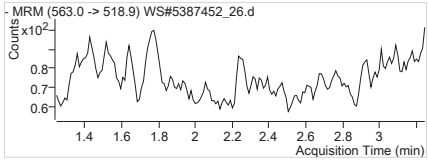


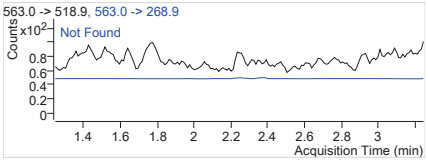
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 1.33 µg/L
Area ratio: 0.18421
Sample type: Sample



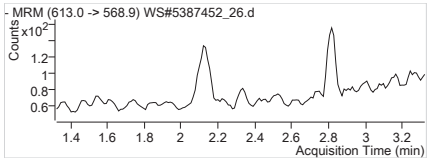


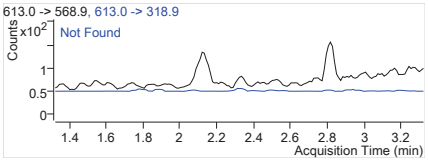
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



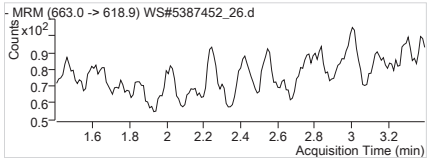


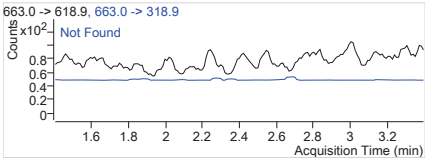
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



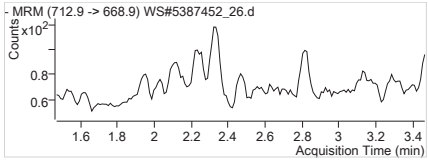


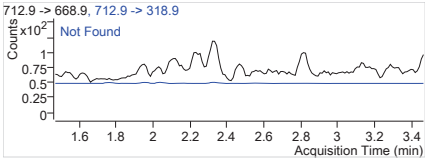
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



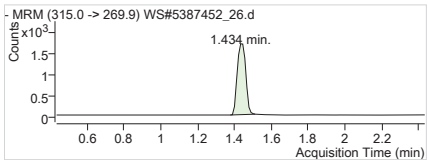


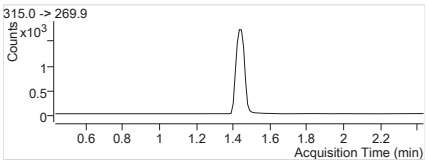
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



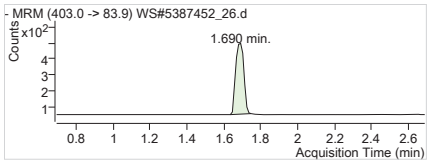


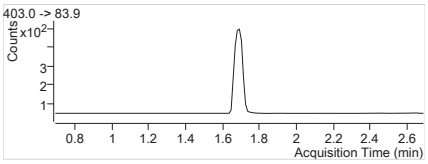
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



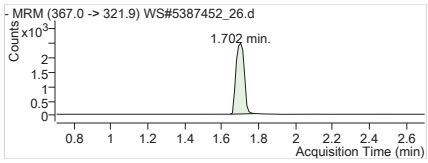


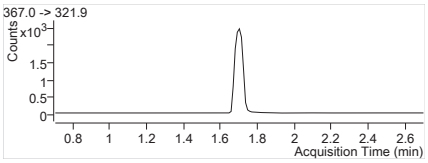
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 87.74 µg/L
Area ratio: 0.18751
Sample type: Sample



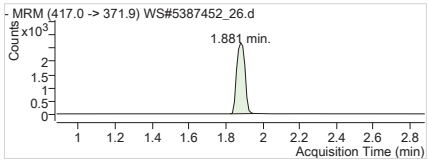


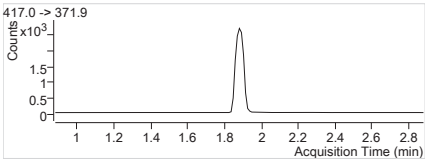
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 83.12 µg/L
Area ratio: 0.04820
Sample type: Sample



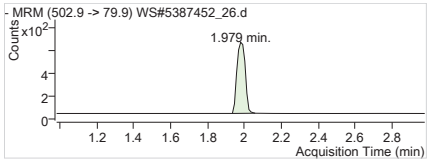


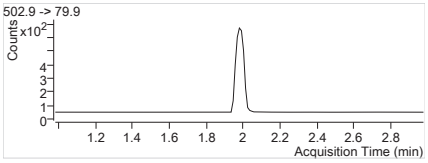
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 95.12 µg/L
Area ratio: 0.26228
Sample type: Sample



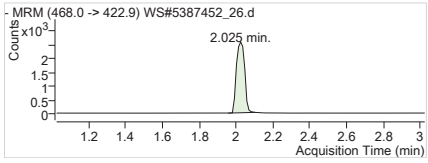


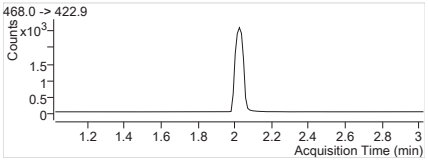
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 96.78 µg/L
Area ratio: 0.28711
Sample type: Sample



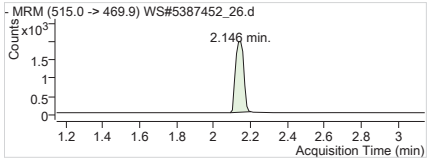


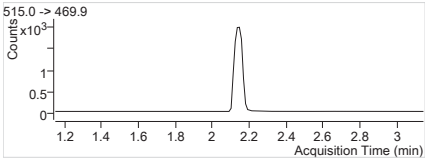
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 94.29 µg/L
Area ratio: 0.06742
Sample type: Sample



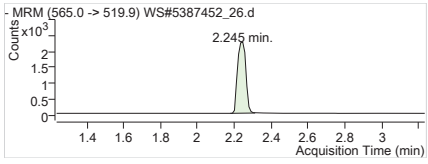


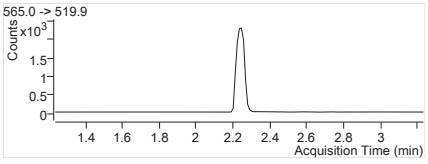
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 90.53 µg/L
Area ratio: 0.27448
Sample type: Sample



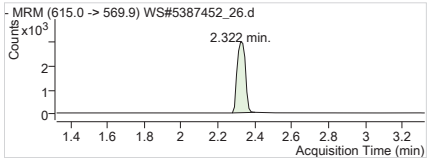


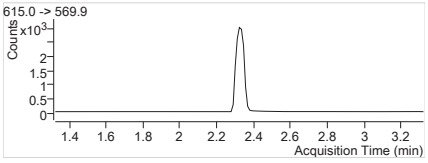
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 94.17 µg/L
Area ratio: 0.17168
Sample type: Sample



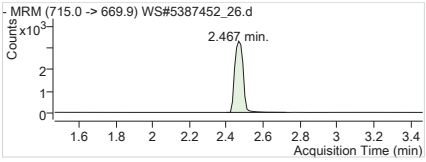


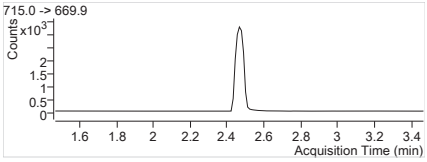
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 87.38 µg/L
Area ratio: 0.19984
Sample type: Sample



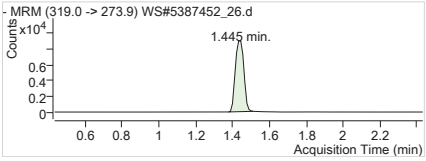


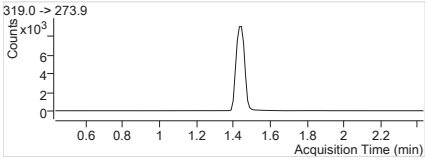
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 83.92 µg/L
Area ratio: 0.26066
Sample type: Sample



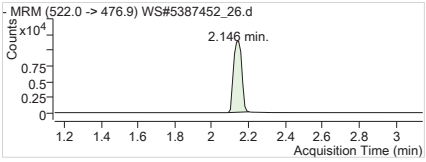


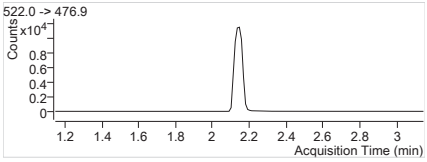
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	79.58 µg/L
Area ratio:	0.29207
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.445 (1.434)
Calc. conc.	296.89 µg/L
Area ratio:	0
Sample type:	Sample





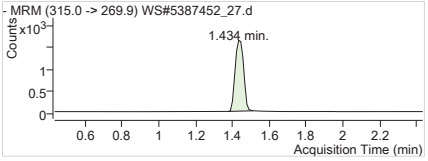
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	269.43 µg/L
Area ratio:	0
Sample type:	Sample

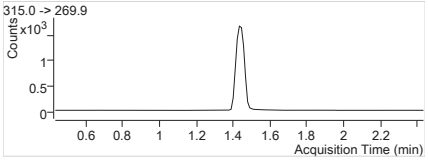
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:FZH333-01:10x**	**Instrument**	LCMS04
Data File	WS#5387452_27.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low.m	**Position**	P1-C5
Acq. Date	2018/02/08 2:37:17 AM	**Injection Volume**	Per Method
Sample Annotation	Reported for all, except PFOS		

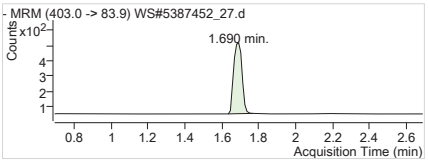
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5150	1.43	1 µg/L		
MPFHxS	1483	1.69	1 µg/L		
MPFHpA	7242	1.70	1 µg/L		
MPFOA	7484	1.88	1 µg/L		
MPFOS	1270	1.98	1 µg/L		
MPFNA	7469	2.02	1 µg/L		
MPFDA	6085	2.15	1 µg/L		
MPFUnA	7250	2.25	1 µg/L		
MPFDoA	9782	2.32	1 µg/L		
MPFTeDA	10295	2.47	1 µg/L		
13C6-PFHxA IS	25953	1.43	1 µg/L		
13C9-PFDA IS	32989	2.15	1 µg/L		

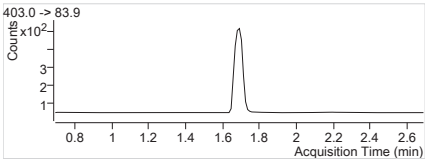
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	87	1.10	-	0.07 µg/L	-
PFHxA 1	39685	1.43	-	4.36 µg/L	-
PFHxS 1	10767	1.69	-	3.49 µg/L	-
PFHpA 1	85836	1.70	-	6.97 µg/L	-
PFOA 1	77787	1.88	-	5.66 µg/L	-
PFOS 1	152480	1.98	-	73.92 µg/L	-
PFNA 1	14246	2.03	-	1.18 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5150	1.43	-	92.85 µg/L	-
18O2-PFHxS	1483	1.69	-	98.53 µg/L	-
13C4-PFHpA	7242	1.70	-	101.20 µg/L	-
13C4-PFOA	7484	1.88	-	97.20 µg/L	-
13C4-PFOS	1270	1.98	-	68.44 µg/L	-
13C5-PFNA	7468	2.02	-	94.91 µg/L	-
13C2-PFDA	5954	2.15	-	99.00 µg/L	-
13C2-PFUnA	7250	2.25	-	96.10 µg/L	-
13C2-PFDoA	9782	2.32	-	95.47 µg/L	-
13C2-PFTeDA	10448	2.47	-	86.30 µg/L	-
13C6-PFHxA	25953	1.43	-	26.72 µg/L	-
13C9-PFDA	32989	2.15	-	25.12 µg/L	-



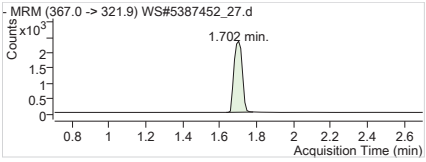


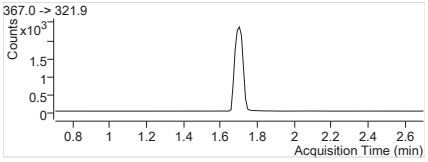
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



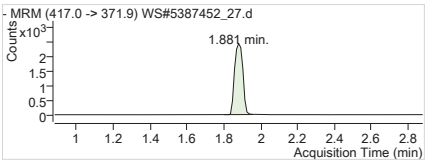


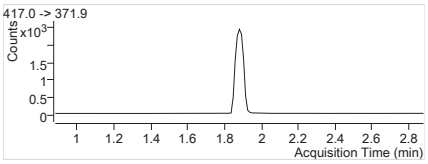
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



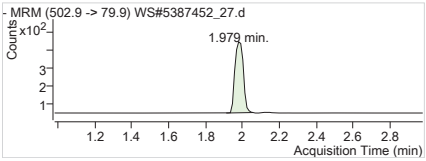


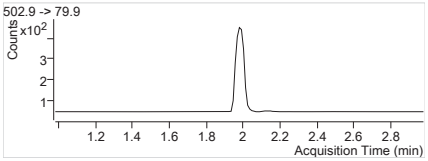
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



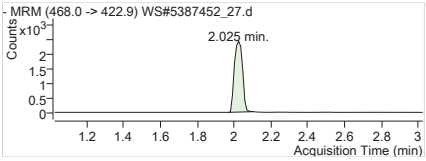


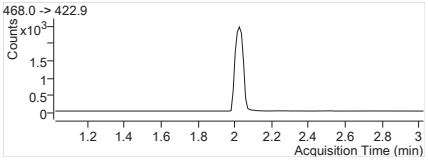
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



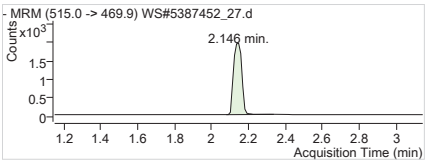


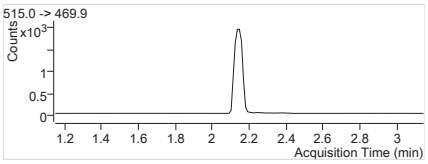
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



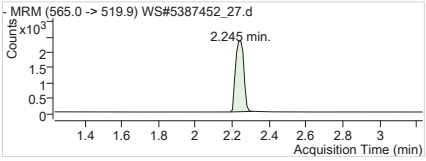


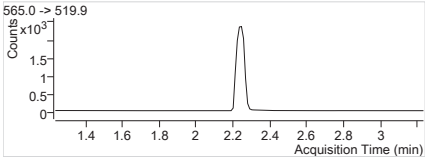
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



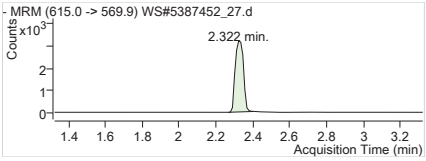


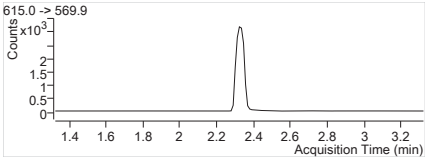
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



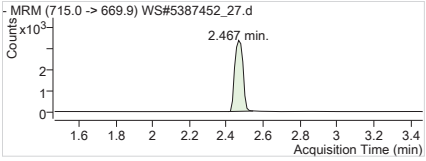


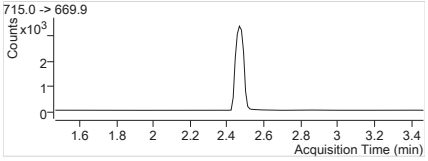
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



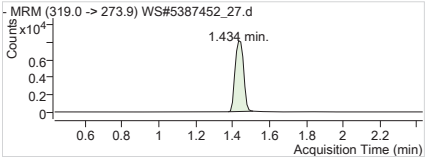


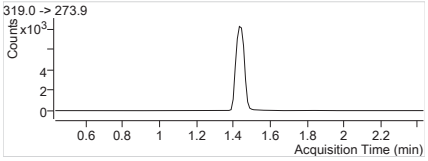
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



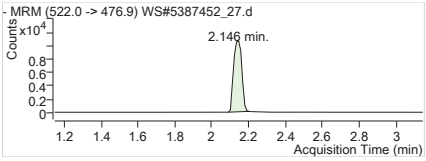


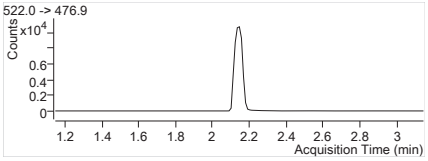
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



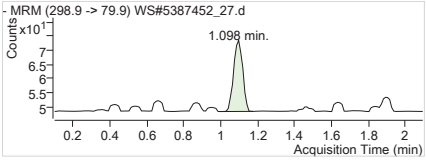


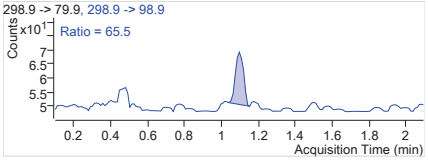
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



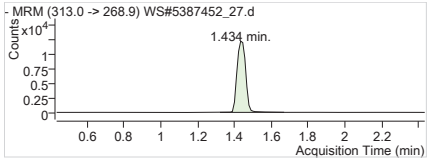


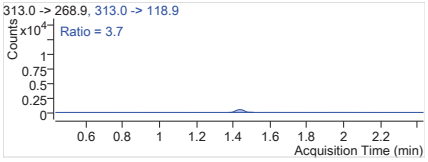
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



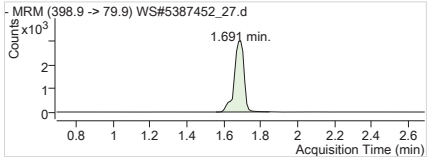


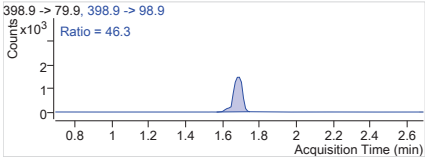
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 0.07 µg/L
Area ratio: 0.05866
Sample type: Sample



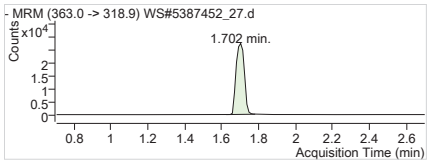


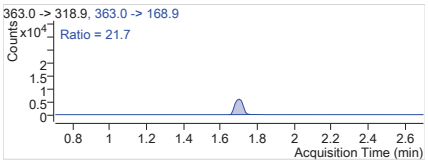
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 4.36 µg/L
Area ratio: 7.70583
Sample type: Sample



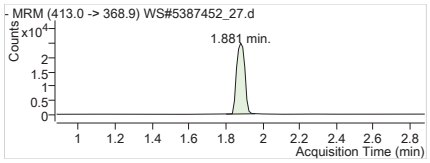


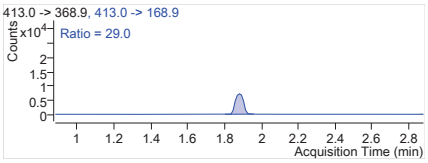
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 3.49 µg/L
Area ratio: 7.26028
Sample type: Sample



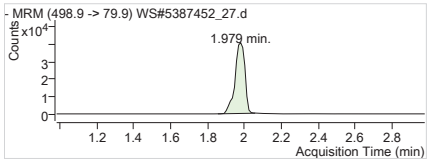


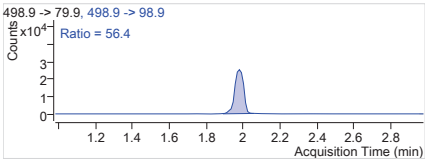
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 6.97 µg/L
Area ratio: 11.85253
Sample type: Sample



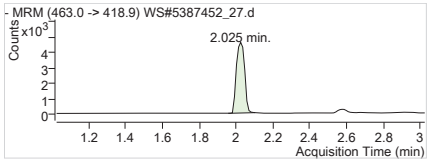


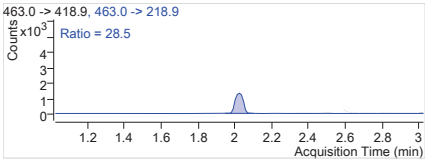
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 5.66 µg/L
Area ratio: 10.39377
Sample type: Sample



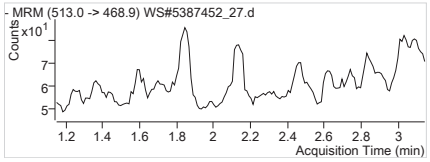


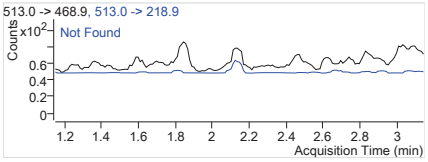
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 73.92 µg/L
Area ratio: 120.06299
Sample type: Sample



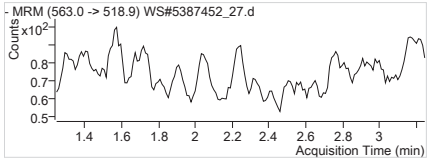


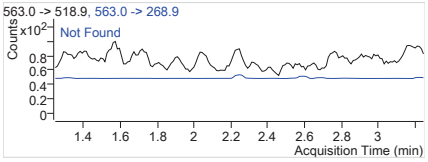
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 1.18 µg/L
Area ratio: 1.90735
Sample type: Sample



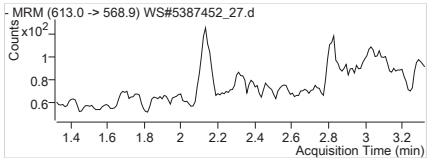


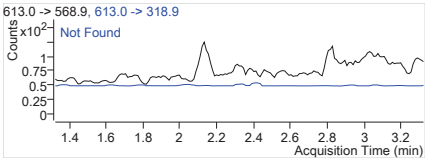
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



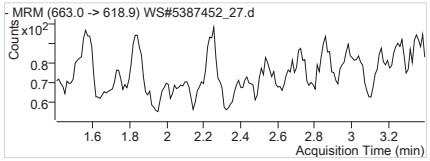


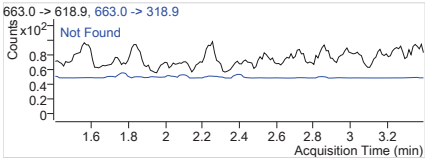
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



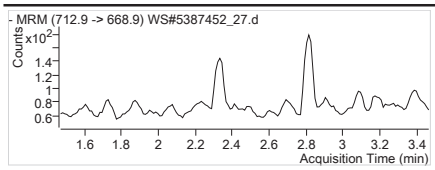


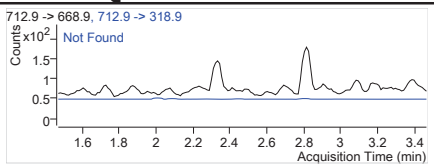
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



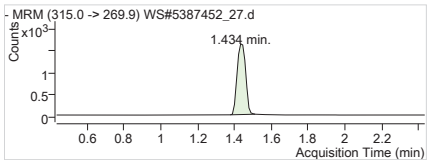


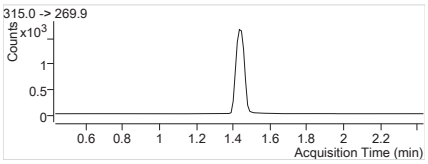
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



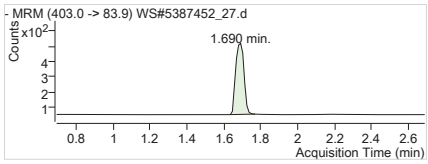


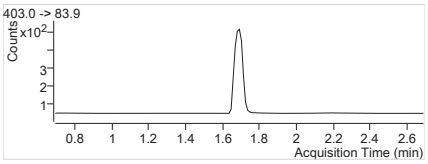
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



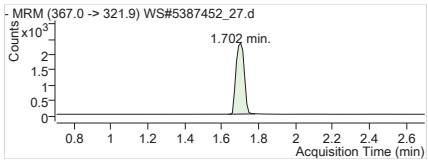


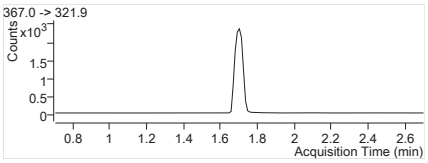
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 92.85 µg/L
Area ratio: 0.19844
Sample type: Sample



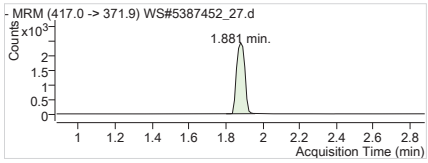


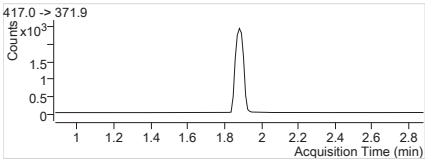
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 98.53 µg/L
Area ratio: 0.05714
Sample type: Sample



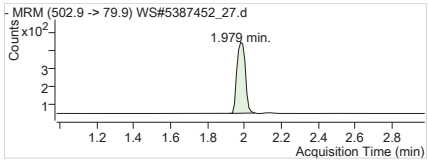


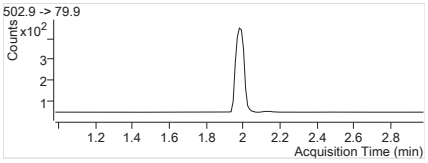
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 101.20 µg/L
Area ratio: 0.27904
Sample type: Sample



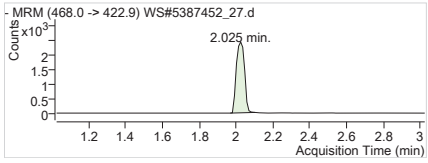


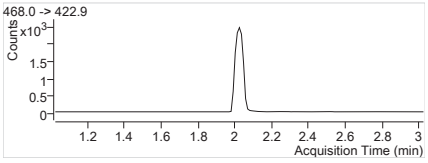
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 97.20 µg/L
Area ratio: 0.28837
Sample type: Sample



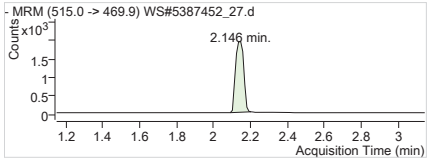


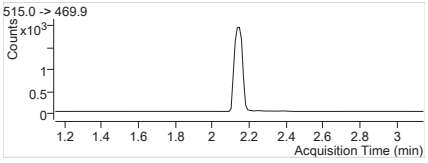
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 68.44 µg/L
Area ratio: 0.04893
Sample type: Sample



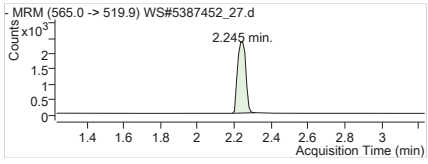


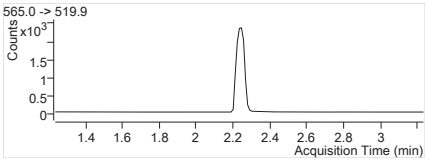
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 94.91 µg/L
Area ratio: 0.28775
Sample type: Sample



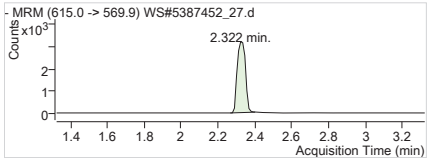


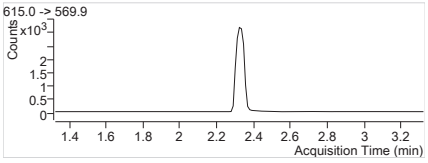
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 99.00 µg/L
Area ratio: 0.18048
Sample type: Sample



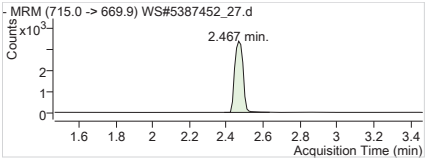


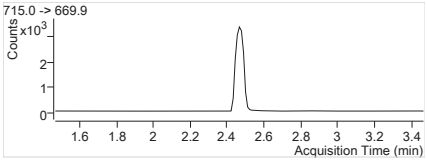
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 96.10 µg/L
Area ratio: 0.21977
Sample type: Sample



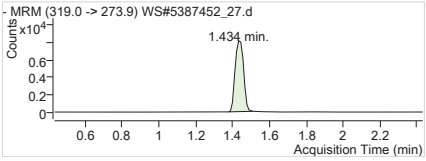


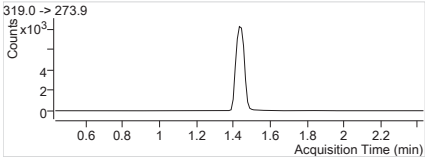
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 95.47 µg/L
Area ratio: 0.29652
Sample type: Sample



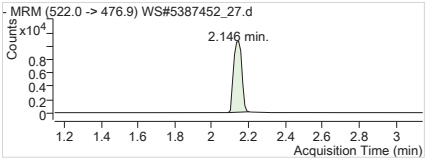


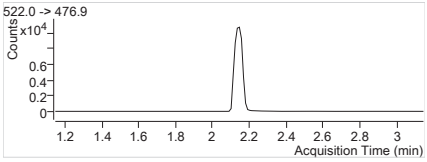
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 86.30 µg/L
Area ratio: 0.31671
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 26.72 µg/L
Area ratio: 0
Sample type: Sample





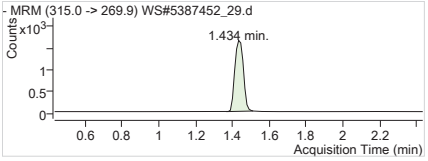
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 25.12 µg/L
Area ratio: 0
Sample type: Sample

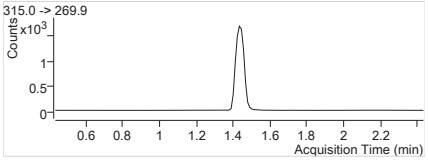
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:FZH334-01:10x**	**Instrument**	LCMS04
Data File	WS#5387452_29.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low.m	**Position**	P1-C6
Acq. Date	2018/02/08 2:47:09 AM	**Injection Volume**	Per Method
Sample Annotation	-		

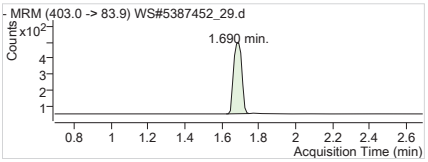
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5211	1.43	1 µg/L		
MPFHxS	1399	1.69	1 µg/L		
MPFHpA	6925	1.70	1 µg/L		
MPFOA	7862	1.88	1 µg/L		
MPFOS	1480	1.98	1 µg/L		
MPFNA	6781	2.02	1 µg/L		
MPFDA	5544	2.15	1 µg/L		
MPFUnA	6369	2.25	1 µg/L		
MPFDoA	7069	2.32	1 µg/L		
MPFTeDA	4308	2.47	1 µg/L		
13C6-PFHxA IS	28283	1.43	1 µg/L		
13C9-PFDA IS	36820	2.13	1 µg/L		

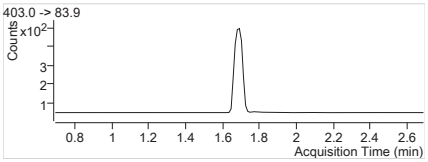
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1	1109	1.88	-	0.11 µg/L	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5211	1.43	-	86.21 µg/L	-
18O2-PFHxS	1399	1.69	-	85.29 µg/L	-
13C4-PFHpA	6925	1.70	-	88.80 µg/L	-
13C4-PFOA	7862	1.88	-	93.70 µg/L	-
13C4-PFOS	1480	1.98	-	73.19 µg/L	-
13C5-PFNA	6781	2.02	-	79.08 µg/L	-
13C2-PFDA	5362	2.15	-	79.88 µg/L	-
13C2-PFUnA	6369	2.25	-	75.64 µg/L	-
13C2-PFDoA	7069	2.32	-	61.81 µg/L	-
13C2-PFTeDA	4400	2.47	-	32.56 µg/L	-
13C6-PFHxA	28283	1.43	-	29.12 µg/L	-
13C9-PFDA	36820	2.13	-	28.04 µg/L	-



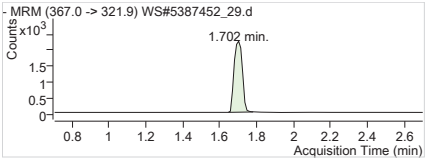


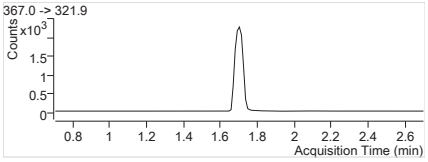
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



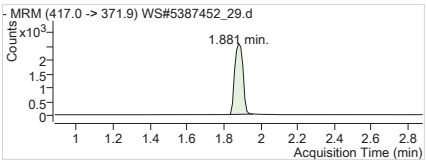


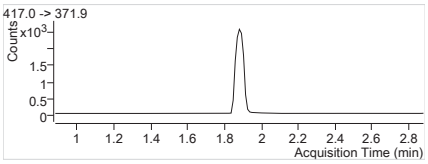
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



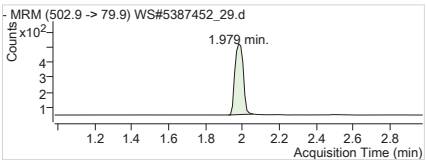


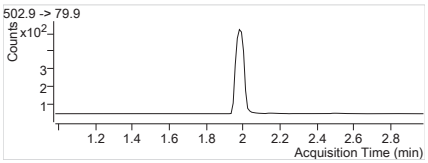
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



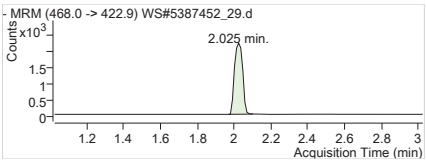


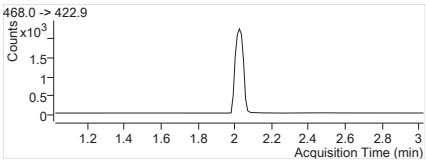
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



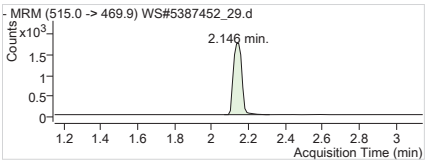


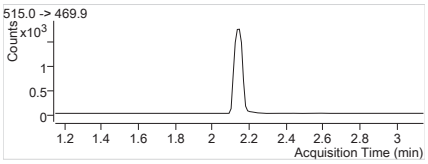
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



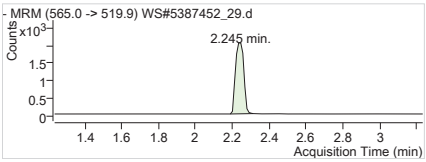


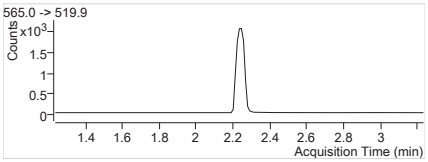
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



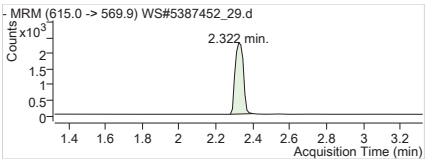


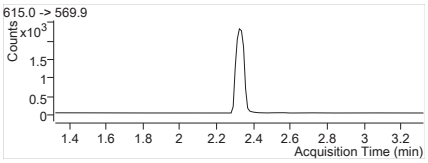
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



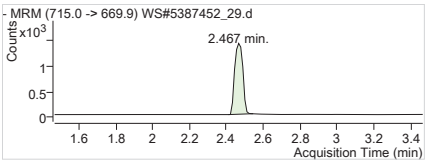


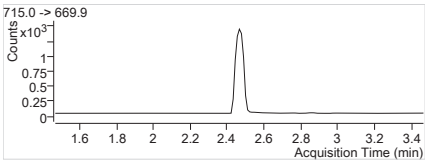
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



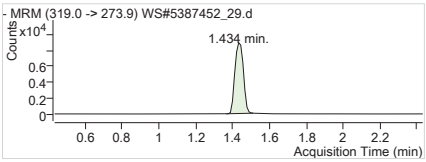


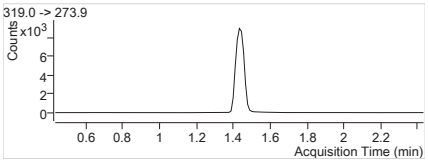
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



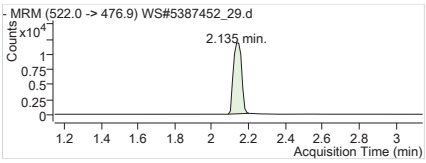


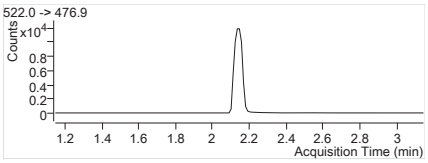
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



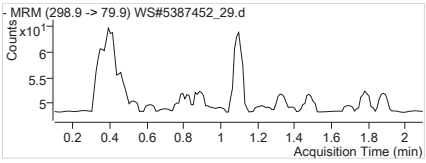


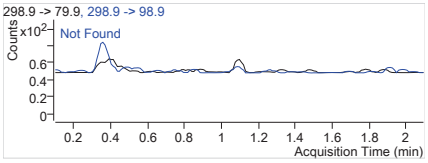
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



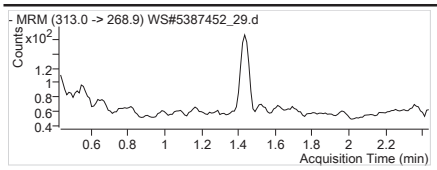


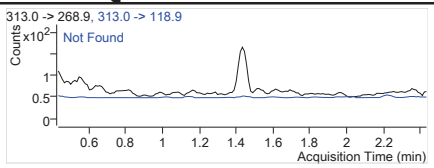
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: Sample



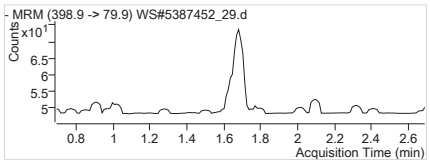


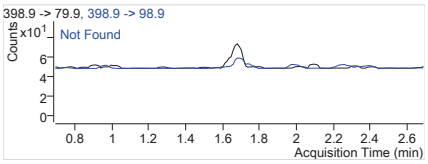
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



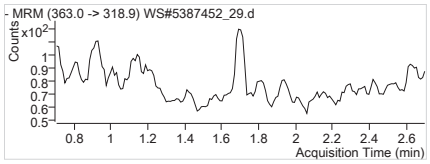


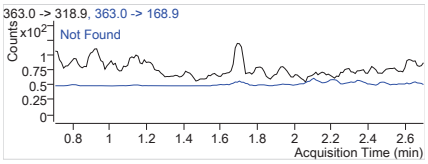
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



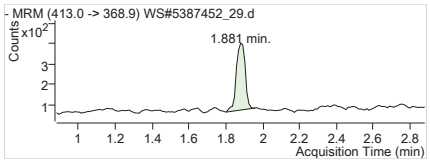


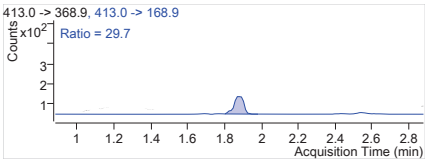
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



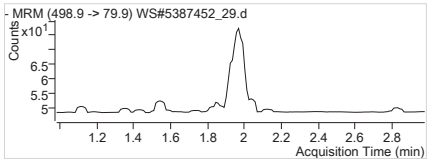


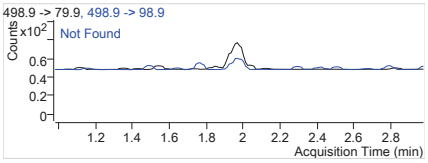
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



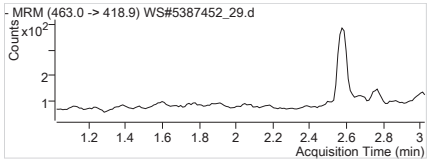


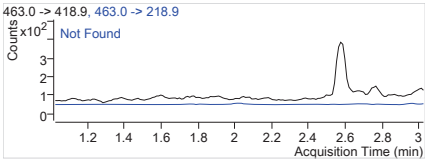
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.11 µg/L
Area ratio: 0.14106
Sample type: Sample



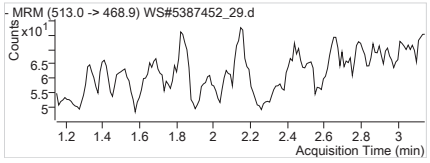


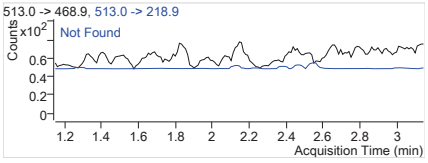
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



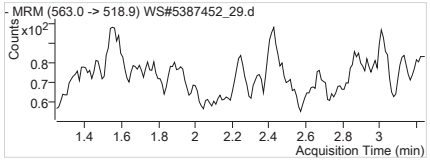


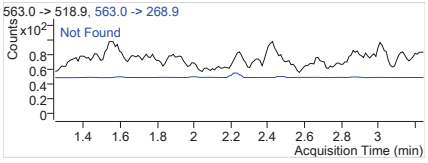
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



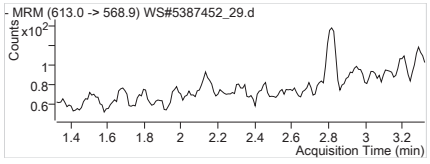


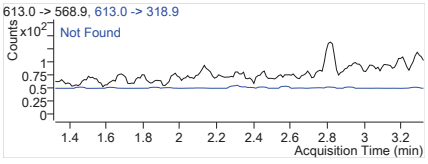
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



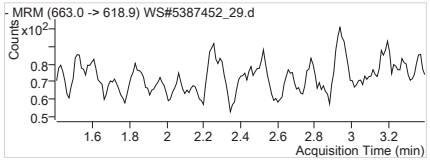


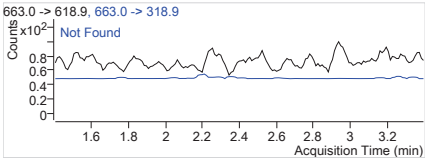
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



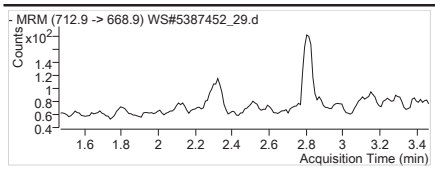


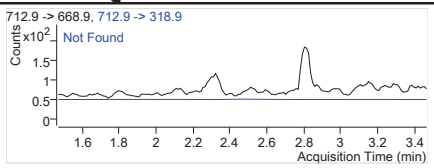
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



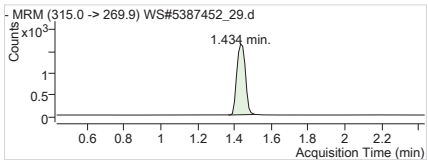


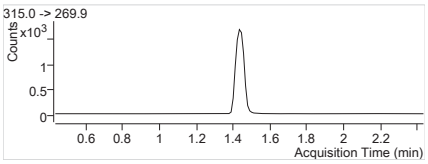
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



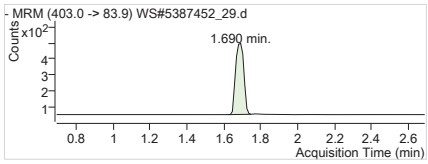


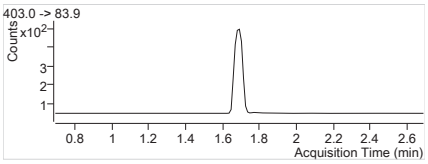
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



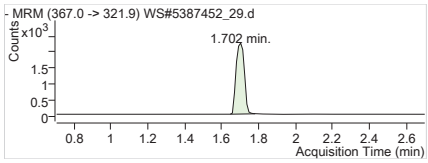


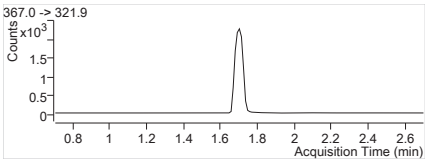
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 86.21 µg/L
Area ratio: 0.18424
Sample type: Sample



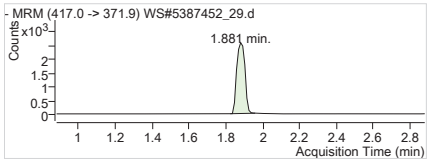


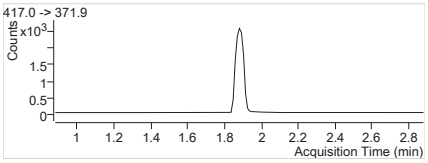
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 85.29 µg/L
Area ratio: 0.04946
Sample type: Sample



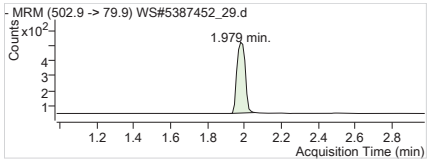


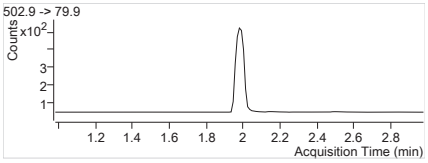
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 88.80 µg/L
Area ratio: 0.24485
Sample type: Sample



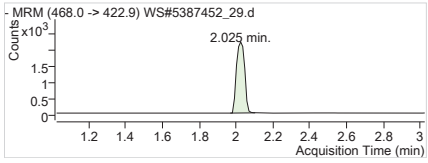


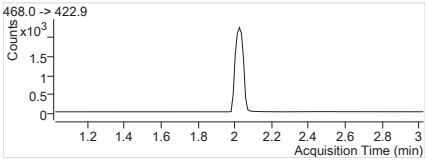
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 93.70 µg/L
Area ratio: 0.27798
Sample type: Sample



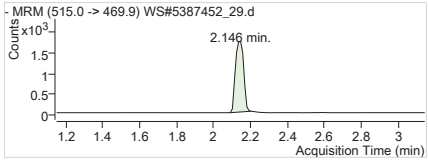


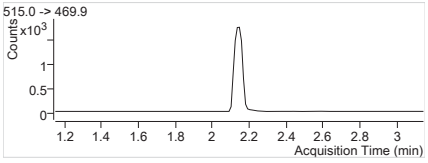
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 73.19 µg/L
Area ratio: 0.05233
Sample type: Sample



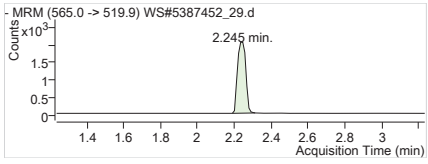


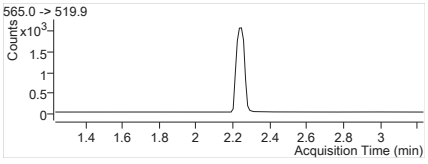
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 79.08 µg/L
Area ratio: 0.23976
Sample type: Sample



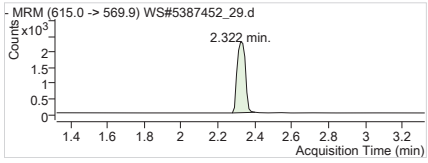


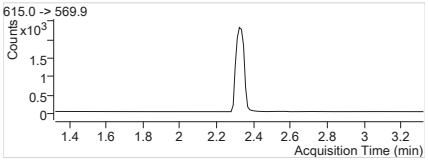
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 79.88 µg/L
Area ratio: 0.14563
Sample type: Sample



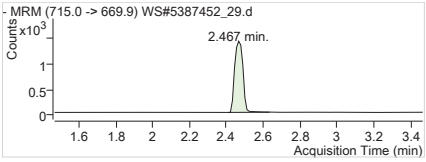


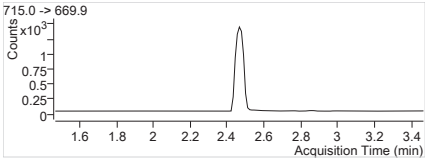
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 75.64 µg/L
Area ratio: 0.17298
Sample type: Sample



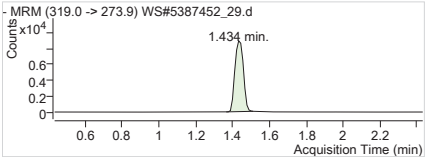


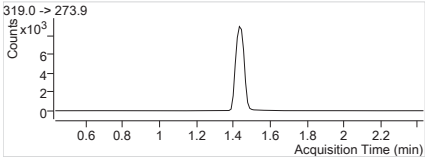
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 61.81 µg/L
Area ratio: 0.19199
Sample type: Sample



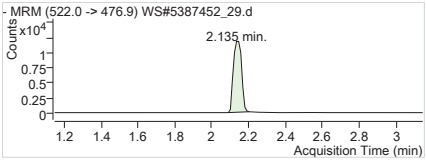


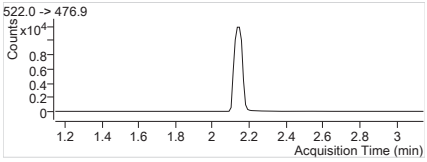
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	32.56 µg/L
Area ratio:	0.11950
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	29.12 µg/L
Area ratio:	0
Sample type:	Sample





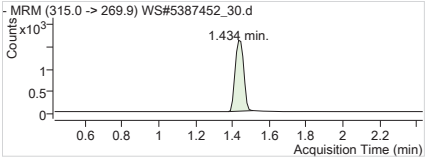
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.146)
Calc. conc.	28.04 µg/L
Area ratio:	0
Sample type:	Sample

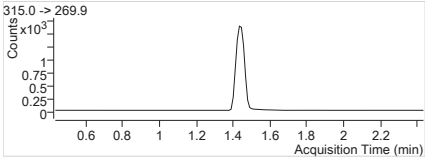
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:FZH334-01:D1:10x**	**Instrument**	LCMS04
Data File	WS#5387452_30.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low.m	**Position**	P1-C7
Acq. Date	2018/02/08 2:52:05 AM	**Injection Volume**	Per Method
Sample Annotation	-		

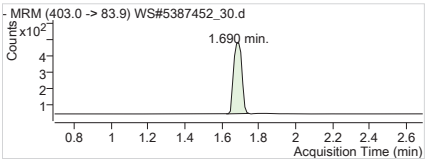
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5115	1.43	1 µg/L		
MPFHxS	1356	1.69	1 µg/L		
MPFHpA	7090	1.70	1 µg/L		
MPFOA	7231	1.88	1 µg/L		
MPFOS	1635	1.98	1 µg/L		
MPFNA	6894	2.02	1 µg/L		
MPFDA	5681	2.14	1 µg/L		
MPFUnA	6161	2.23	1 µg/L		
MPFDoA	6997	2.32	1 µg/L		
MPFTeDA	4359	2.47	1 µg/L		
13C6-PFHxA IS	28076	1.43	1 µg/L		
13C9-PFDA IS	37847	2.15	1 µg/L		

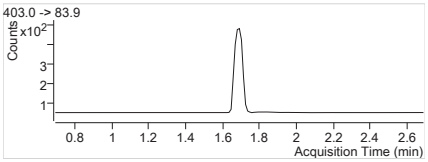
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1	1388	1.88	-	0.13 µg/L	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5115	1.43	-	85.25 µg/L	-
18O2-PFHxS	1356	1.69	-	83.28 µg/L	-
13C4-PFHpA	7090	1.70	-	91.58 µg/L	-
13C4-PFOA	7231	1.88	-	86.81 µg/L	-
13C4-PFOS	1635	1.98	-	81.45 µg/L	-
13C5-PFNA	6894	2.02	-	80.99 µg/L	-
13C2-PFDA	5573	2.14	-	80.77 µg/L	-
13C2-PFUnA	6161	2.23	-	71.18 µg/L	-
13C2-PFDoA	6997	2.32	-	59.52 µg/L	-
13C2-PFTeDA	4416	2.47	-	31.79 µg/L	-
13C6-PFHxA	28076	1.43	-	28.91 µg/L	-
13C9-PFDA	37847	2.15	-	28.82 µg/L	-



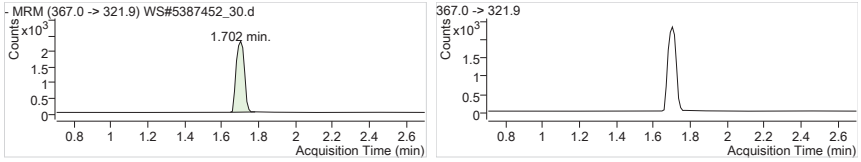


MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample

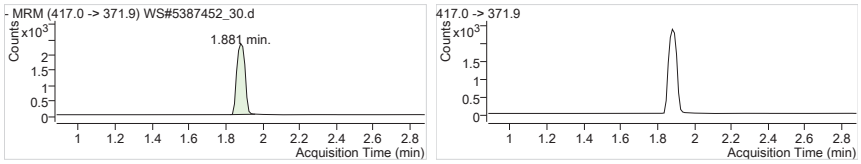




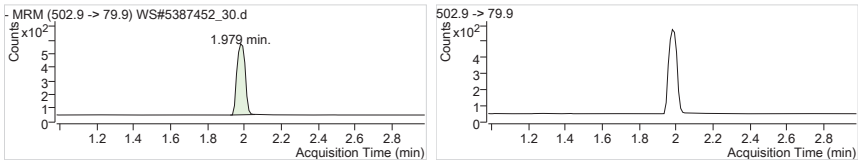
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



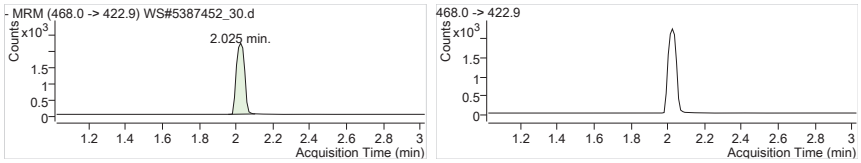
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



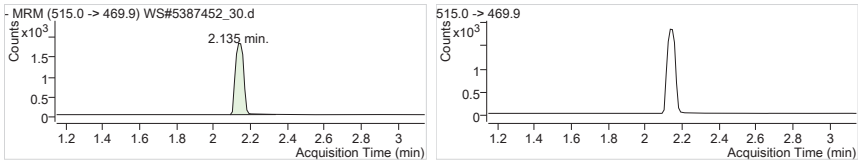
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



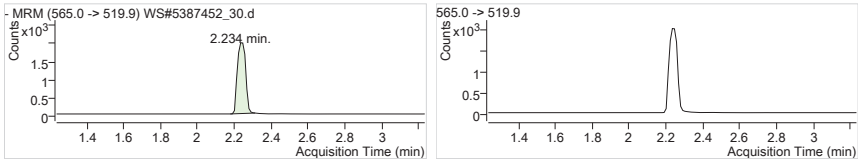
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



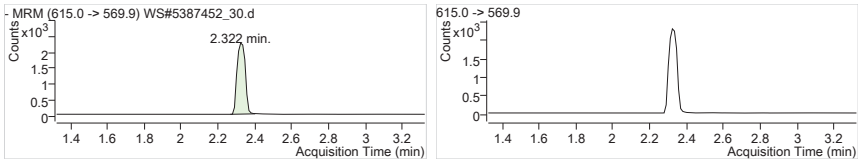
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



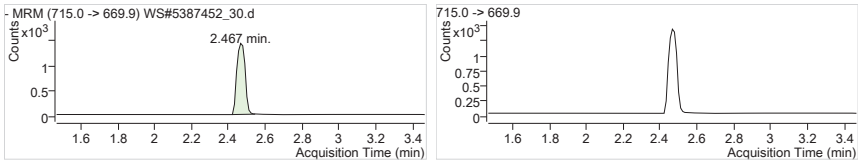
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: Sample



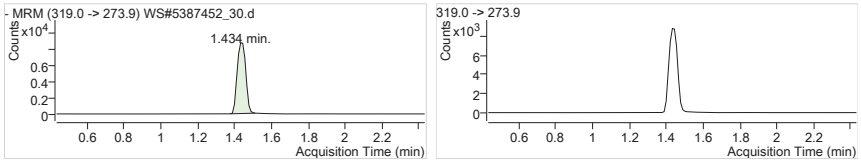
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



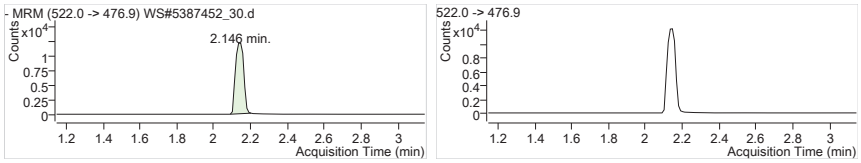
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



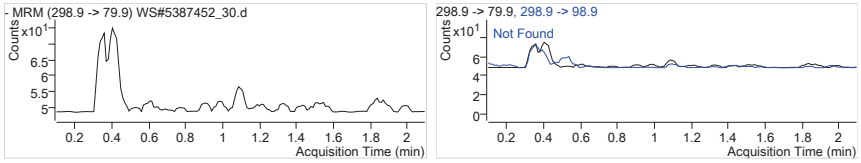
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



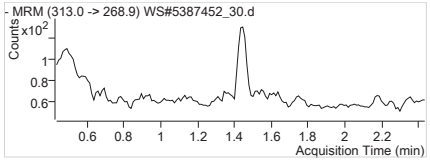
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample

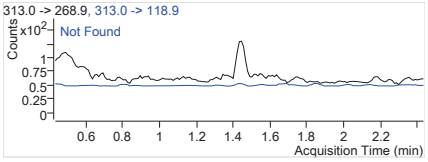


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

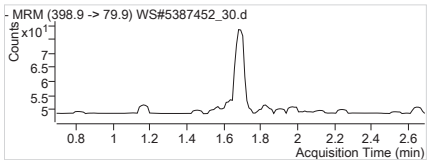


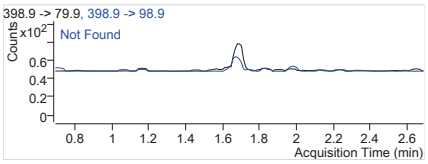
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



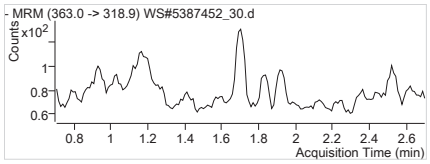


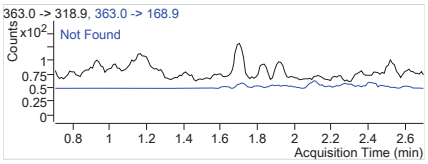
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



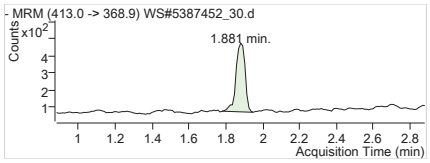


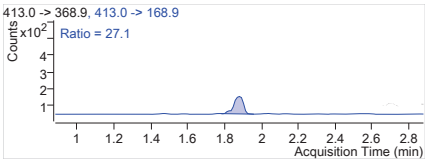
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



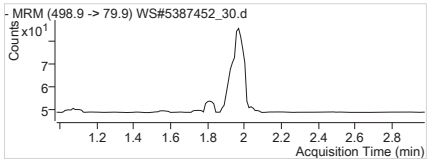


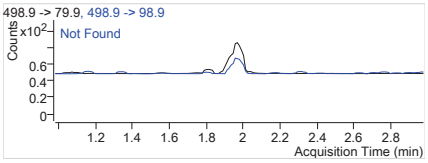
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



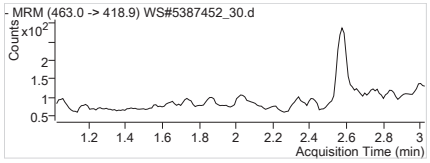


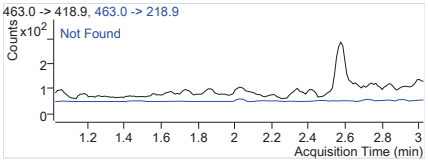
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.13 µg/L
Area ratio: 0.19195
Sample type: Sample



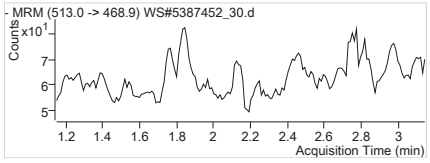


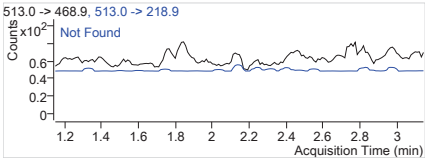
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



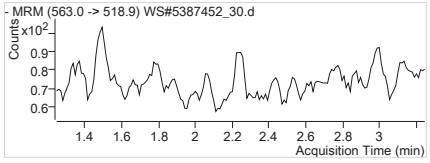


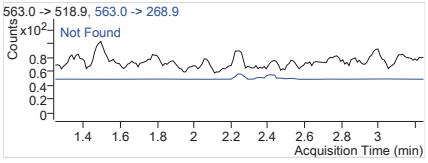
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



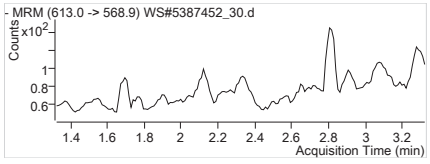


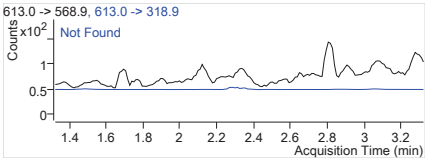
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



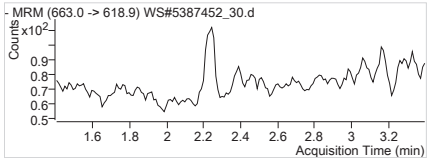


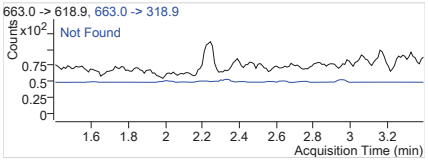
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



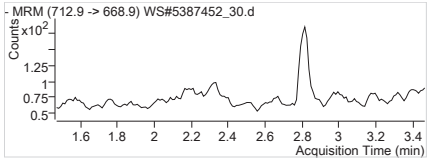


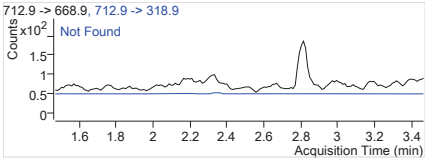
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



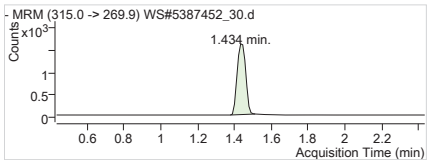


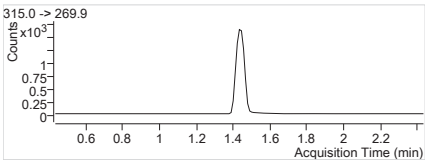
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



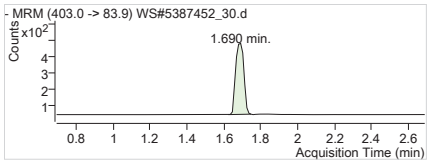


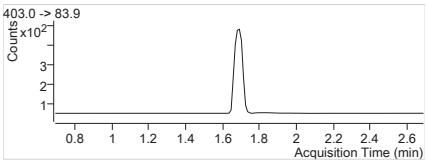
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



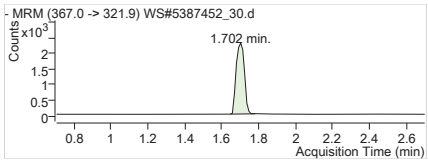


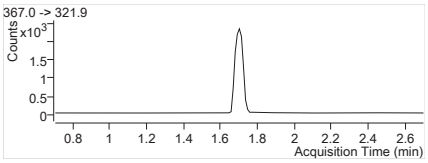
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 85.25 µg/L
Area ratio: 0.18218
Sample type: Sample



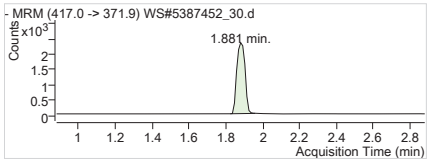


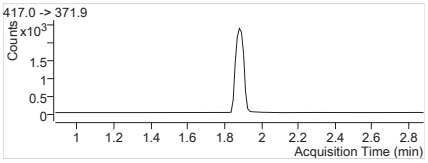
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 83.28 µg/L
Area ratio: 0.04830
Sample type: Sample



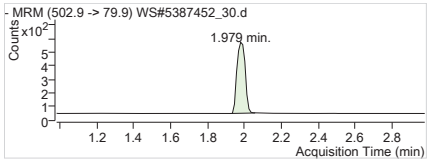


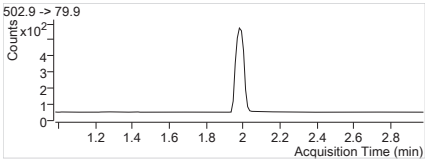
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 91.58 µg/L
Area ratio: 0.25253
Sample type: Sample



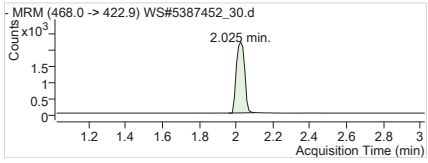


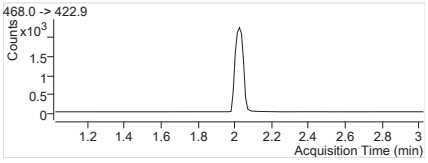
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 86.81 µg/L
Area ratio: 0.25755
Sample type: Sample



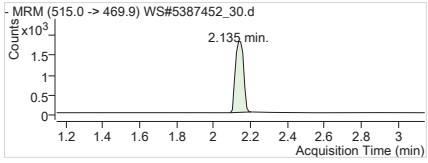


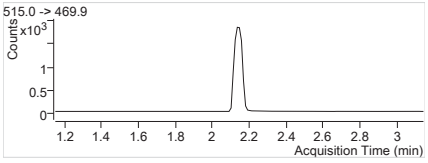
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 81.45 µg/L
Area ratio: 0.05823
Sample type: Sample



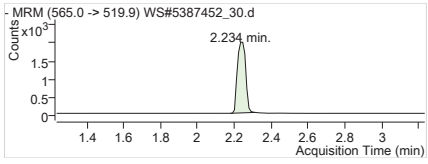


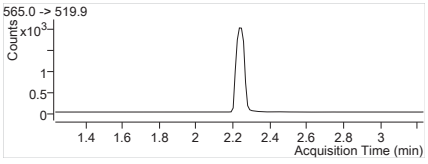
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 80.99 µg/L
Area ratio: 0.24555
Sample type: Sample



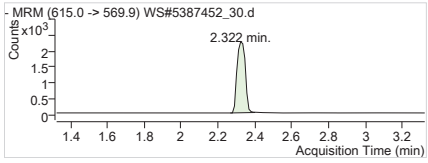


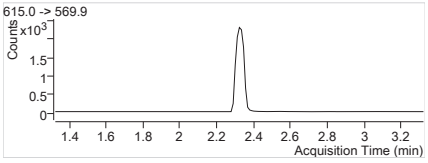
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 80.77 µg/L
Area ratio: 0.14725
Sample type: Sample



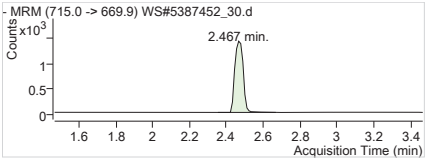


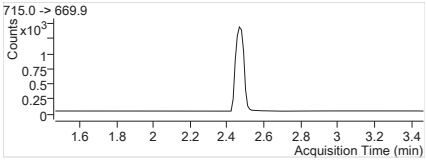
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 71.18 µg/L
Area ratio: 0.16279
Sample type: Sample



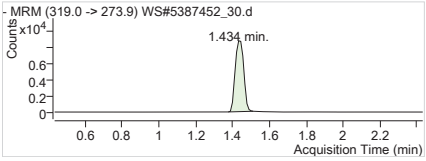


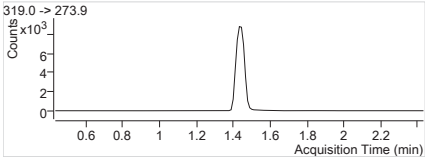
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 59.52 µg/L
Area ratio: 0.18488
Sample type: Sample



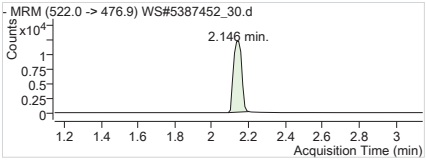


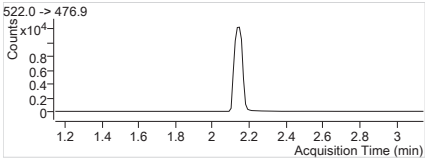
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	31.79 µg/L
Area ratio:	0.11668
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	28.91 µg/L
Area ratio:	0
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	28.82 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

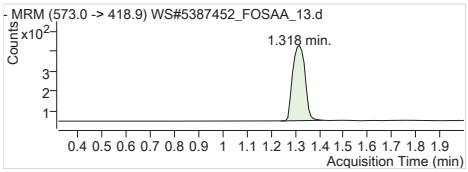
Agilent Technologies

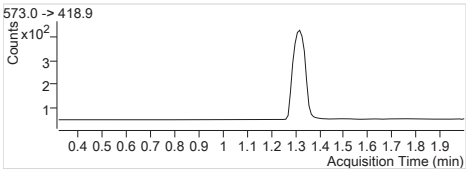
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:FZH318-01**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_13.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-B3
Acq. Date	2018/02/08 8:45:43 AM	**Injection Volume**	Per Method
Sample Annotation	Not reported		

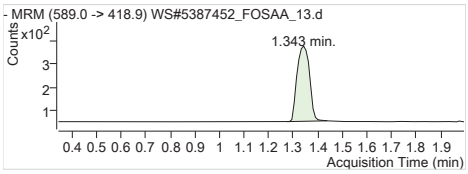
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1348	1.32	1 µg/L		
D5-EtFOSAA IS	1160	1.34	1 µg/L		
13C9-PFDA IS	29063	0.89	1 µg/L		

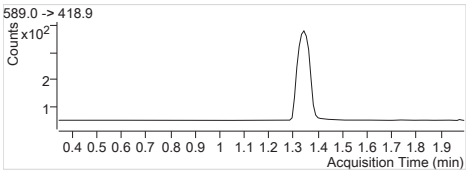
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1351	1.32	-	82.89 µg/L	-
D5-EtFOSAA	1175	1.34	-	84.20 µg/L	-
13C9-PFDA	28259	0.89	-	2.30 µg/L	-



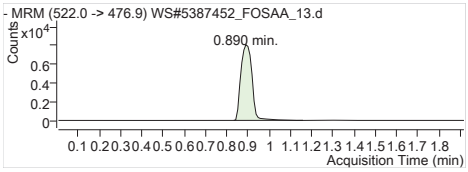


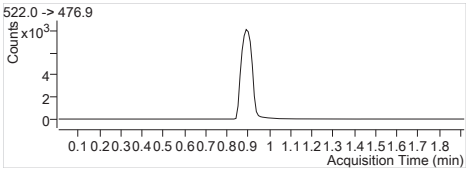
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



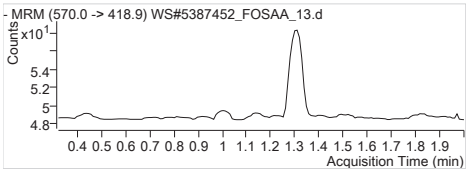


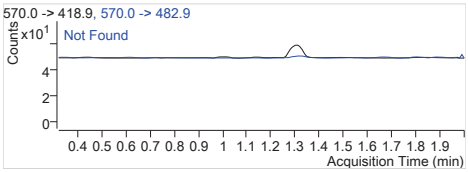
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



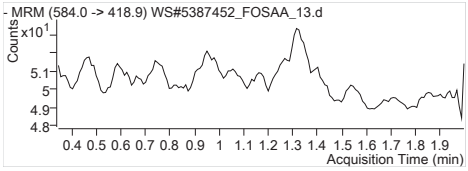


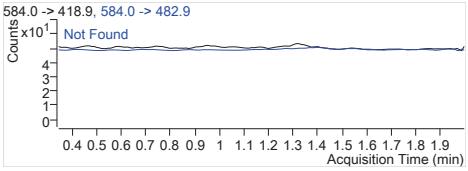
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.919)
Concentration: 1 µg/L
Sample type: Sample



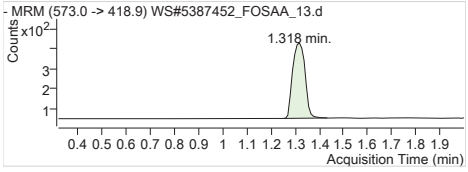


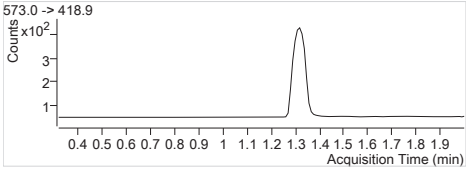
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



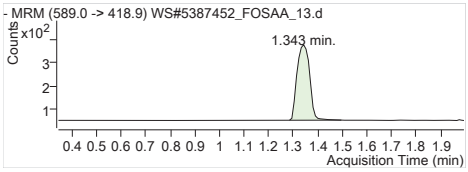


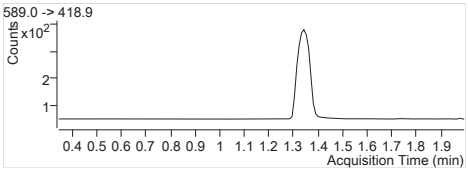
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



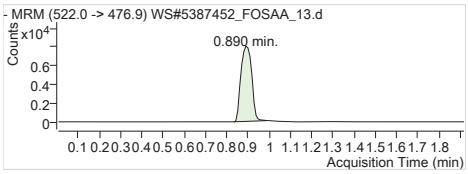


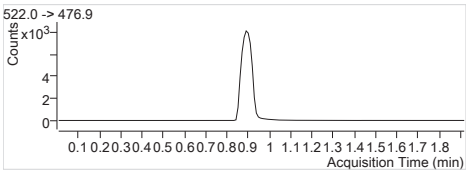
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 82.89 µg/L
Area ratio: 0.04649
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	84.20 µg/L
Area ratio:	0.04043
Sample type:	Sample





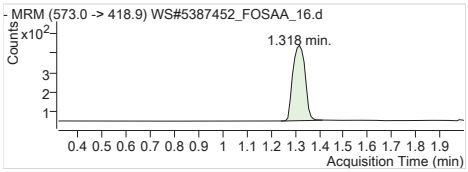
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.919)
Calc. conc.	2.30 µg/L
Area ratio:	0
Sample type:	Sample

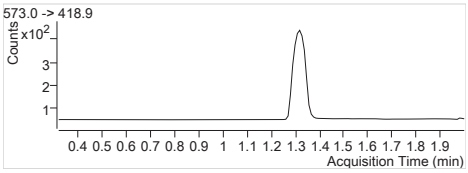
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:FZH321-01**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_16.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-B6
Acq. Date	2018/02/08 8:52:59 AM	**Injection Volume**	Per Method
Sample Annotation	Not reported		

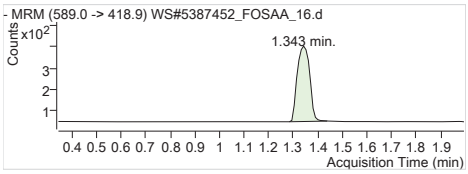
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1377	1.32	1 µg/L		
D5-EtFOSAA IS	1243	1.34	1 µg/L		
13C9-PFDA IS	32113	0.91	1 µg/L		

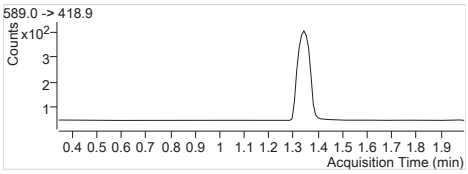
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1376	1.32	-	76.41 µg/L	-
D5-EtFOSAA	1256	1.34	-	81.46 µg/L	-
13C9-PFDA	30905	0.91	-	2.51 µg/L	-



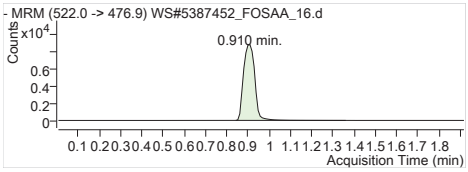


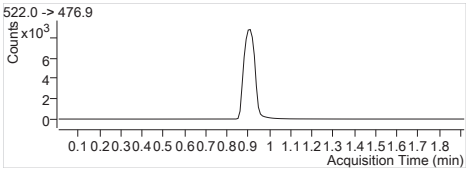
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



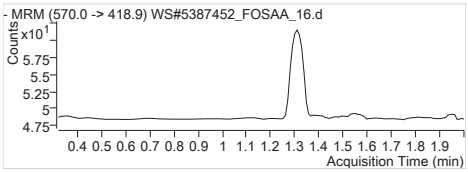


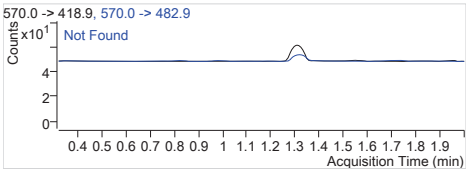
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



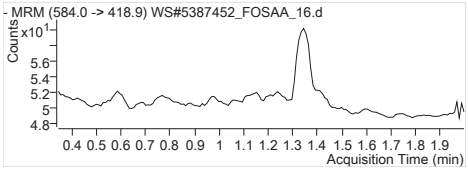


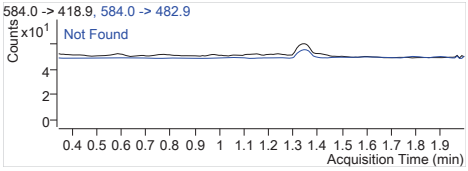
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.919)
Concentration: 1 µg/L
Sample type: Sample



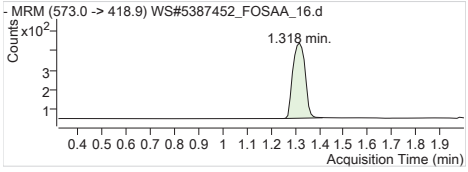


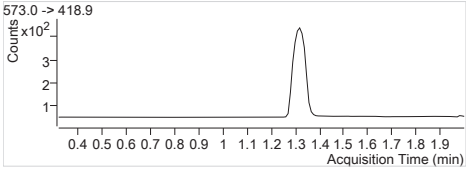
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



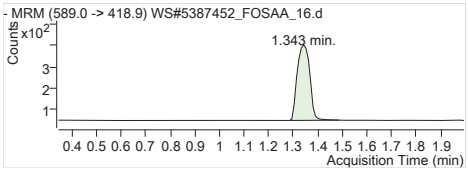


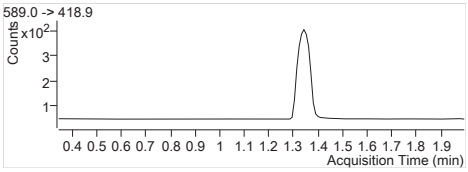
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



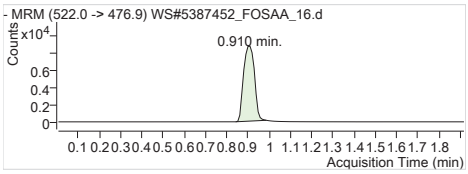


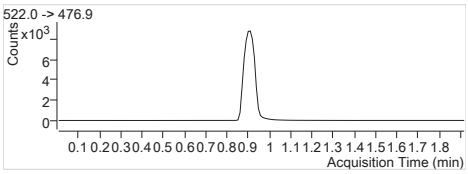
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 76.41 µg/L
Area ratio: 0.04285
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	81.46 µg/L
Area ratio:	0.03911
Sample type:	Sample





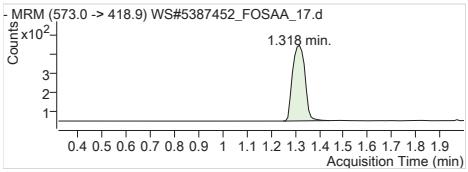
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.919)
Calc. conc.	2.51 µg/L
Area ratio:	0
Sample type:	Sample

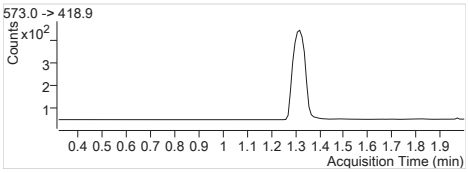
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:FZH322-01**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_17.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-B7
Acq. Date	2018/02/08 8:55:23 AM	**Injection Volume**	Per Method
Sample Annotation	Not reported		

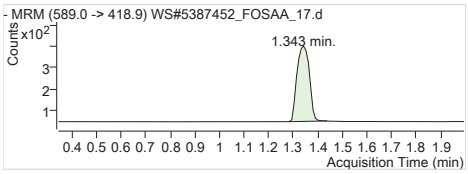
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1423	1.32	1 µg/L		
D5-EtFOSAA IS	1229	1.34	1 µg/L		
13C9-PFDA IS	31724	0.89	1 µg/L		

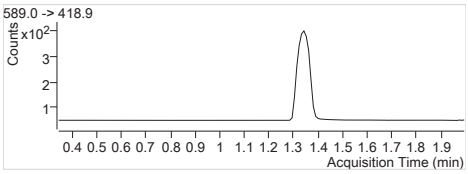
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1423	1.32	-	79.99 µg/L	-
D5-EtFOSAA	1246	1.34	-	81.80 µg/L	-
13C9-PFDA	30847	0.89	-	2.51 µg/L	-



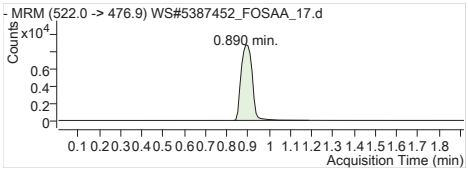


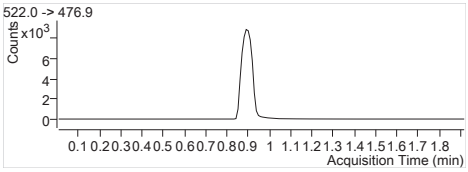
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



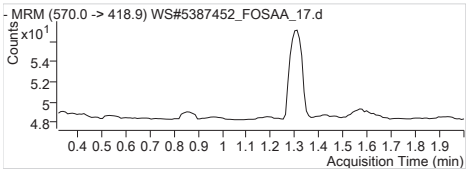


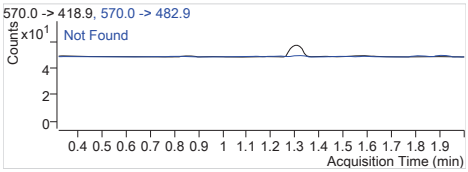
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



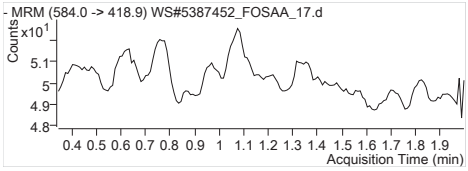


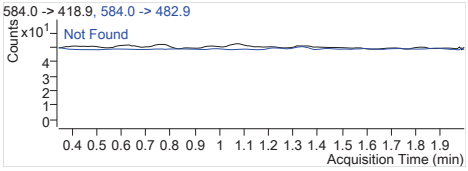
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.919)
Concentration: 1 µg/L
Sample type: Sample



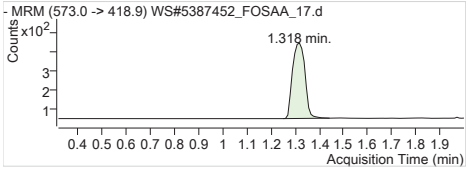


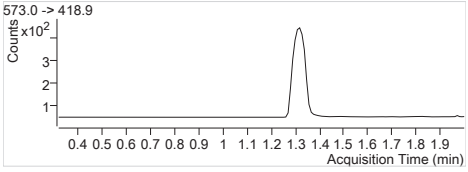
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



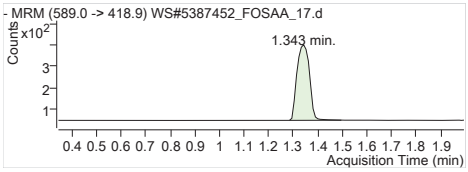


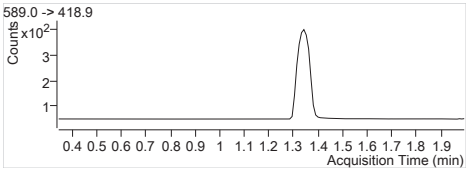
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



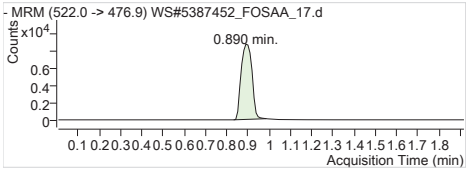


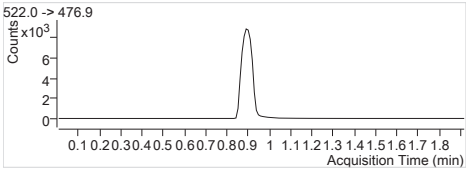
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 79.99 µg/L
Area ratio: 0.04486
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	81.80 µg/L
Area ratio:	0.03928
Sample type:	Sample





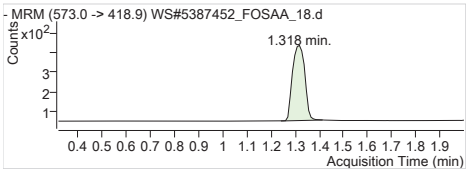
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.919)
Calc. conc.	2.51 µg/L
Area ratio:	0
Sample type:	Sample

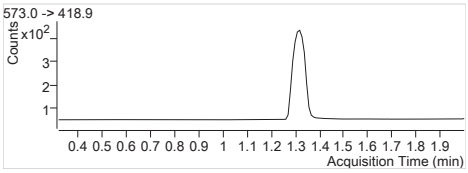
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:FZH323-01**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_18.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-B8
Acq. Date	2018/02/08 8:57:47 AM	**Injection Volume**	Per Method
Sample Annotation	Not reported		

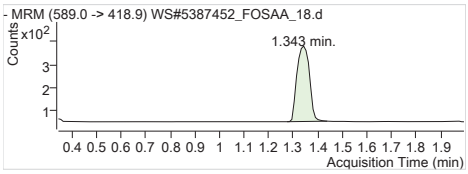
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1365	1.32	1 µg/L		
D5-EtFOSAA IS	1173	1.34	1 µg/L		
13C9-PFDA IS	30943	0.90	1 µg/L		

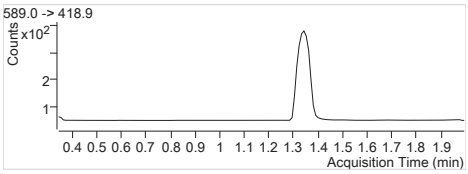
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1383	1.32	-	79.70 µg/L	-
D5-EtFOSAA	1178	1.34	-	79.29 µg/L	-
13C9-PFDA	29979	0.90	-	2.44 µg/L	-



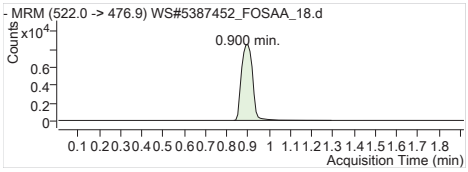


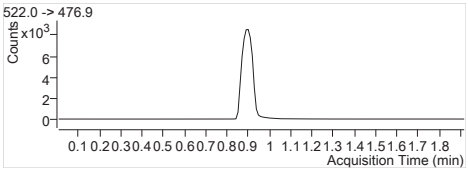
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



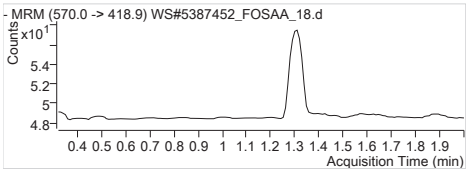


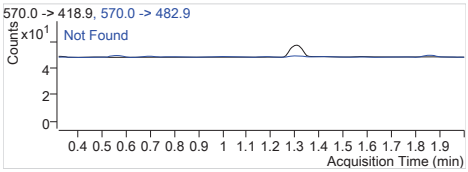
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



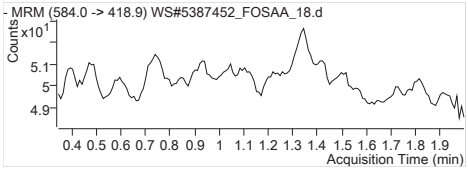


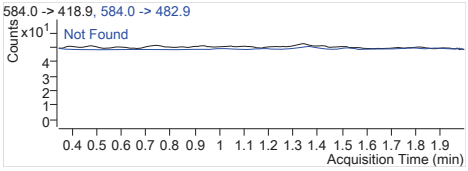
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.919)
Concentration: 1 µg/L
Sample type: Sample



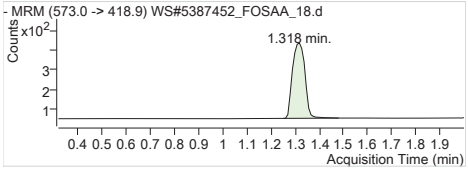


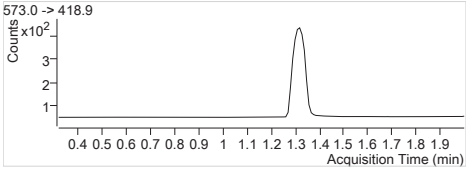
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



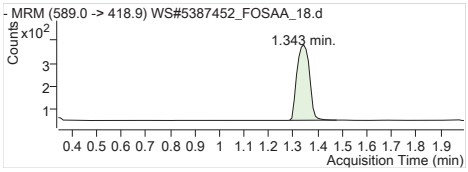


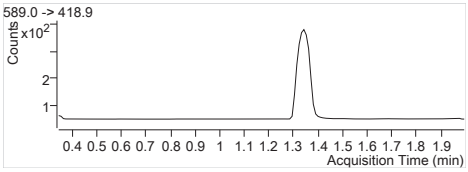
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



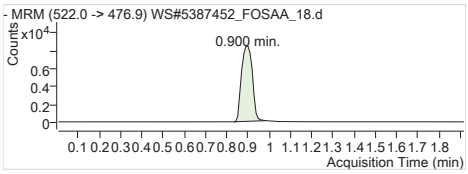


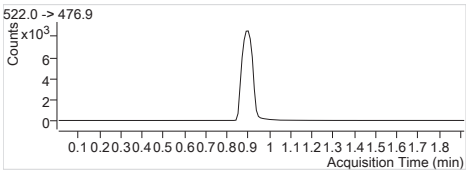
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 79.70 µg/L
Area ratio: 0.04470
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	79.29 µg/L
Area ratio:	0.03807
Sample type:	Sample





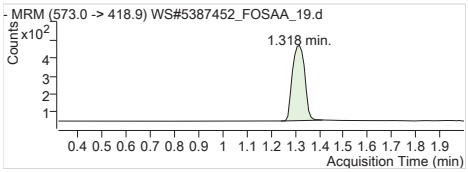
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.919)
Calc. conc.	2.44 µg/L
Area ratio:	0
Sample type:	Sample

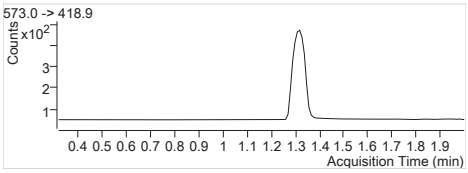
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:FZH331-01:20x**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_19.d	**Operator**	
Sample Type	Sample	**Dilution**	0.48
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-B9
Acq. Date	2018/02/08 9:00:12 AM	**Injection Volume**	Per Method
Sample Annotation	Not used		

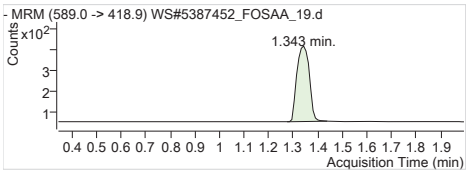
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1489	1.32	1 µg/L		
D5-EtFOSAA IS	1293	1.34	1 µg/L		
13C9-PFDA IS	32994	0.89	1 µg/L		

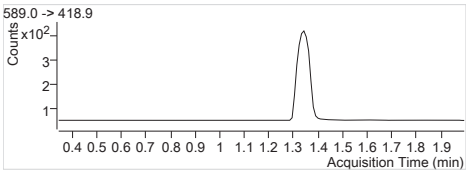
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1503	1.32	-	81.23 µg/L	-
D5-EtFOSAA	1304	1.34	-	82.31 µg/L	-
13C9-PFDA	32097	0.89	-	52.16 µg/L	-



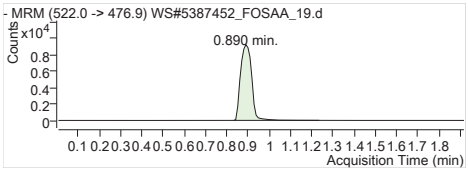


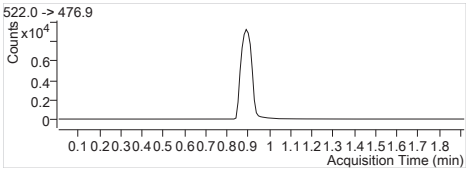
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



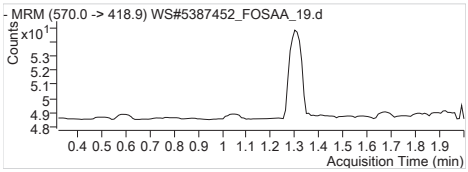


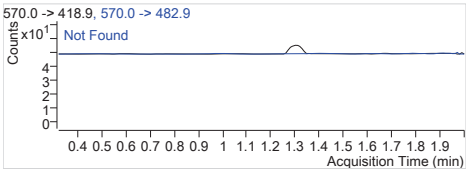
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



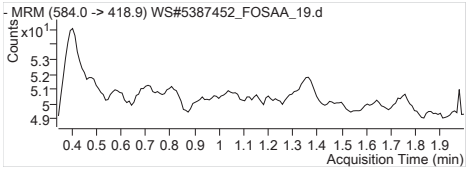


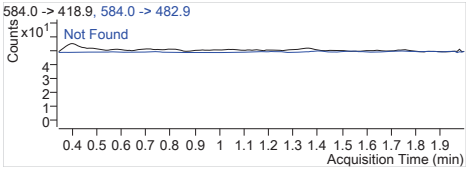
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.919)
Concentration: 1 µg/L
Sample type: Sample



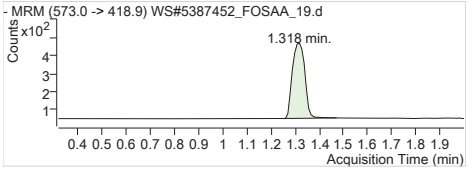


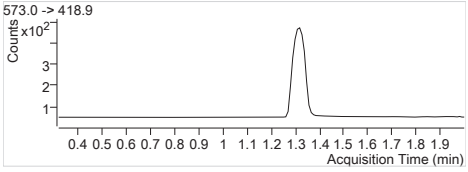
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



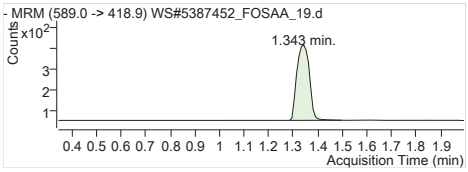


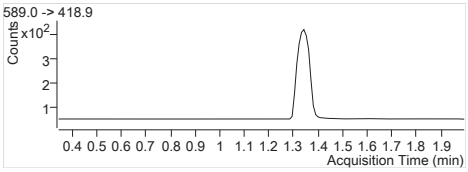
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



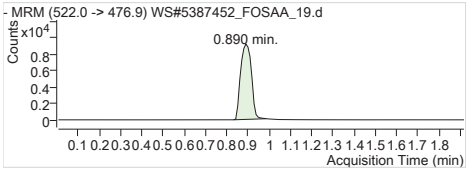


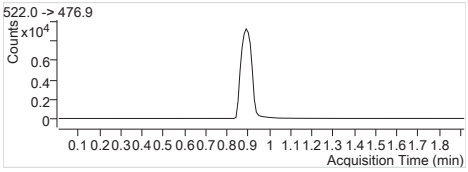
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 81.23 µg/L
Area ratio: 0.04555
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	82.31 µg/L
Area ratio:	0.03952
Sample type:	Sample





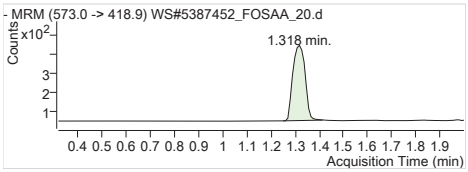
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.919)
Calc. conc.	52.16 µg/L
Area ratio:	0
Sample type:	Sample

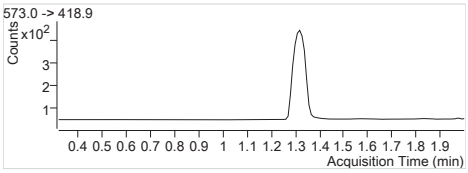
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:FZH331-01:2x**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_20.d	**Operator**	
Sample Type	Sample	**Dilution**	0.048
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C1
Acq. Date	2018/02/08 9:02:36 AM	**Injection Volume**	Per Method
Sample Annotation	-		

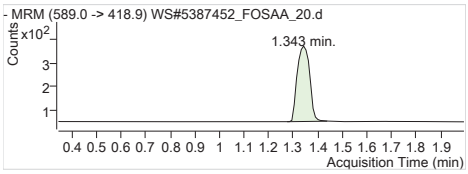
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1404	1.32	1 µg/L		
D5-EtFOSAA IS	1140	1.34	1 µg/L		
13C9-PFDA IS	28699	0.90	1 µg/L		

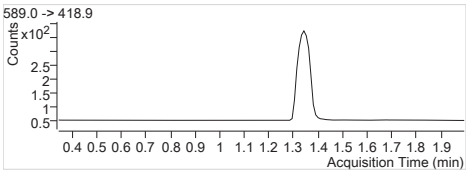
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1421	1.32	-	88.29 µg/L	-
D5-EtFOSAA	1149	1.34	-	83.38 µg/L	-
13C9-PFDA	27805	0.90	-	4.52 µg/L	-



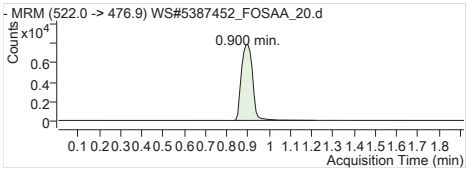


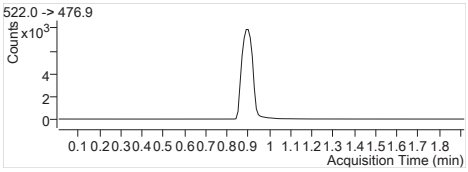
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



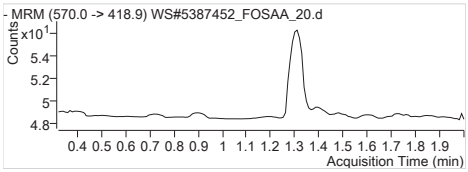


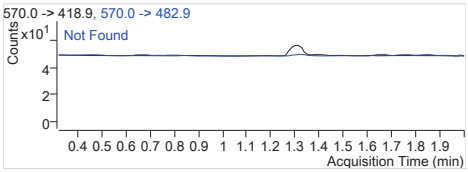
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



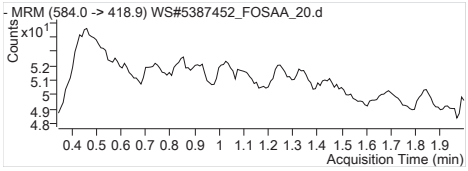


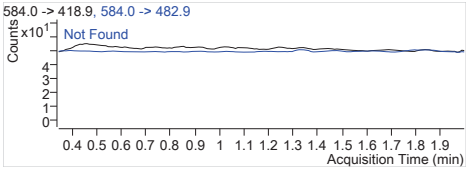
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.919)
Concentration: 1 µg/L
Sample type: Sample



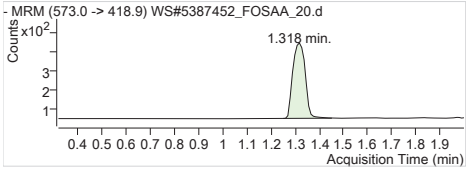


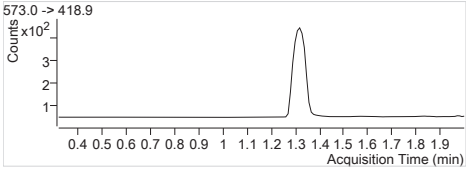
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



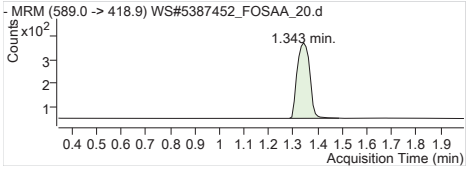


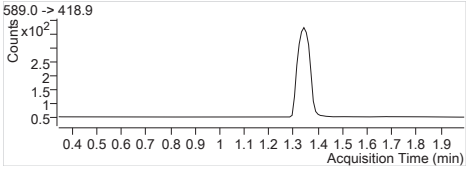
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



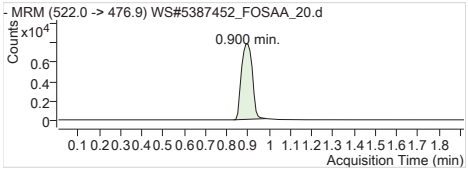


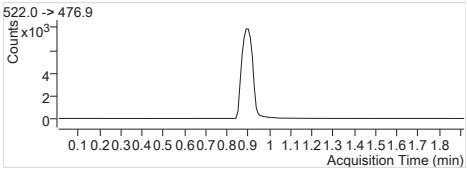
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 88.29 µg/L
Area ratio: 0.04951
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	83.38 µg/L
Area ratio:	0.04004
Sample type:	Sample





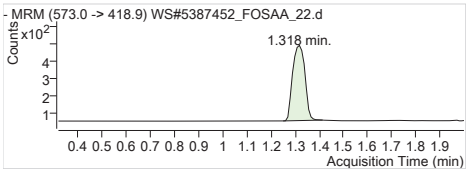
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.919)
Calc. conc.	4.52 µg/L
Area ratio:	0
Sample type:	Sample

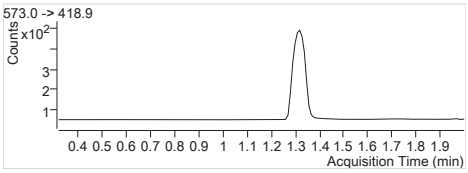
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:FZH332-01:10x**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_22.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C2
Acq. Date	2018/02/08 9:07:26 AM	**Injection Volume**	Per Method
Sample Annotation	Not used		

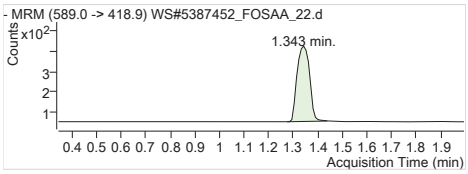
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1561	1.32	1 µg/L		
D5-EtFOSAA IS	1335	1.34	1 µg/L		
13C9-PFDA IS	30871	0.89	1 µg/L		

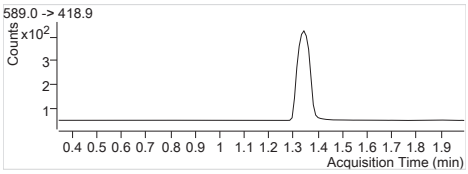
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1586	1.32	-	91.61 µg/L	-
D5-EtFOSAA	1347	1.34	-	90.87 µg/L	-
13C9-PFDA	29922	0.89	-	24.31 µg/L	-



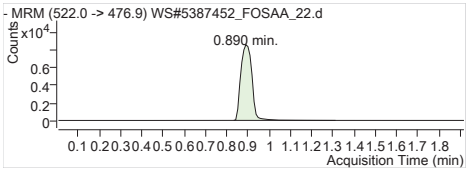


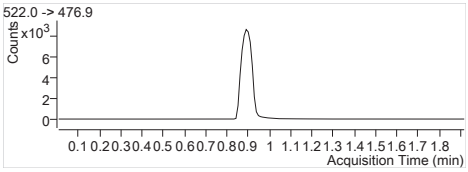
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



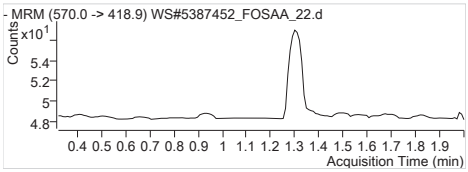


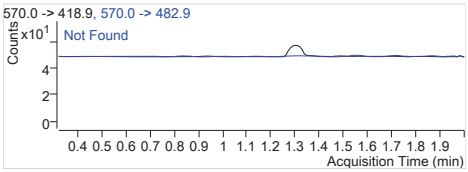
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



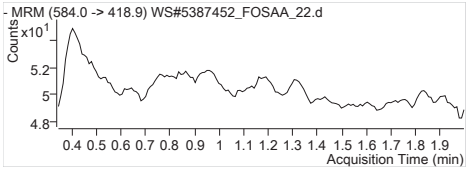


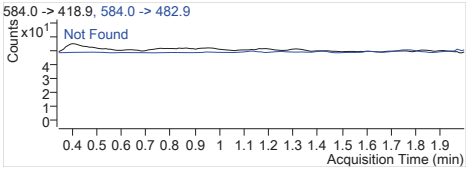
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.919)
Concentration: 1 µg/L
Sample type: Sample



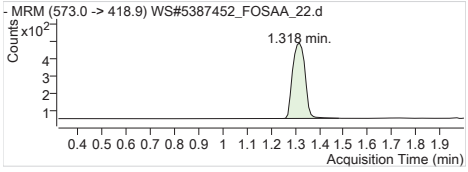


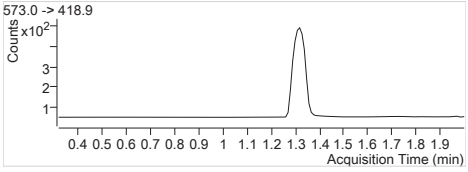
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



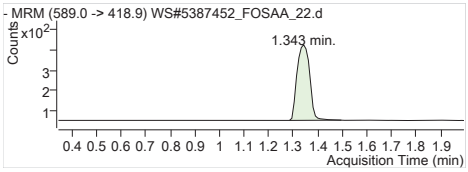


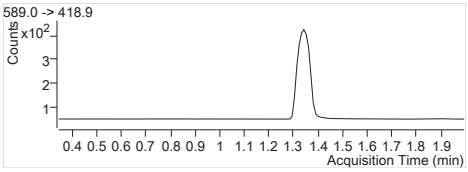
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



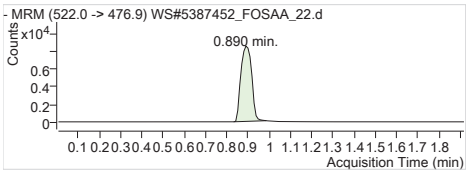


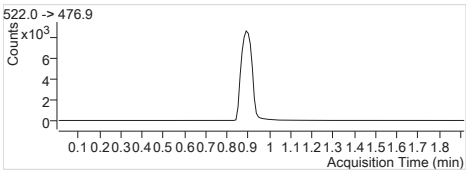
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 91.61 µg/L
Area ratio: 0.05138
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	90.87 µg/L
Area ratio:	0.04363
Sample type:	Sample





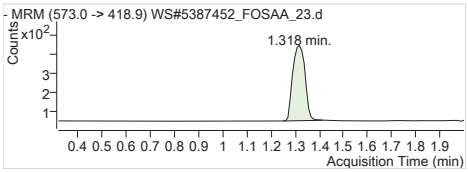
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.919)
Calc. conc.	24.31 µg/L
Area ratio:	0
Sample type:	Sample

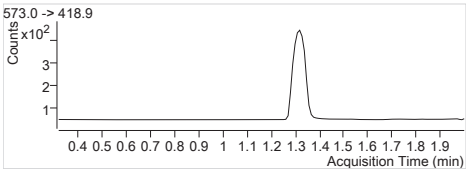
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:FZH332-01**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_23.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C3
Acq. Date	2018/02/08 9:09:51 AM	**Injection Volume**	Per Method
Sample Annotation	-		

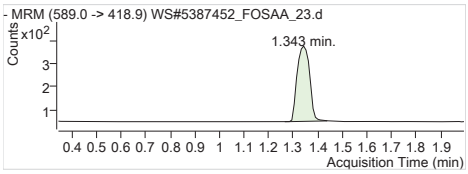
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1390	1.32	1 µg/L		
D5-EtFOSAA IS	1152	1.34	1 µg/L		
13C9-PFDA IS	32540	0.90	1 µg/L		

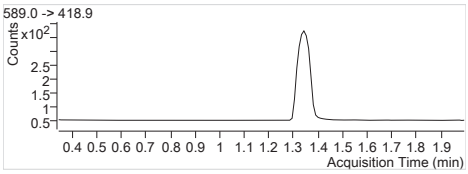
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1400	1.32	-	76.72 µg/L	-
D5-EtFOSAA	1165	1.34	-	74.56 µg/L	-
13C9-PFDA	31562	0.90	-	2.56 µg/L	-



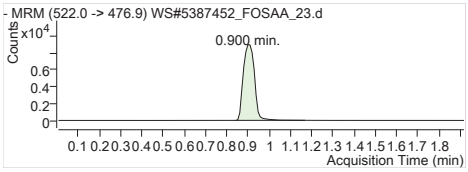


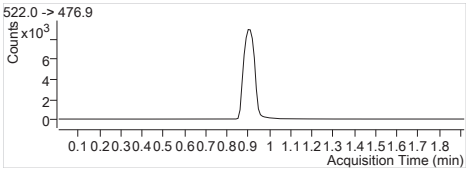
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



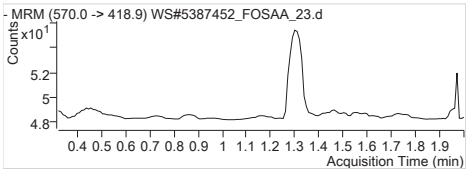


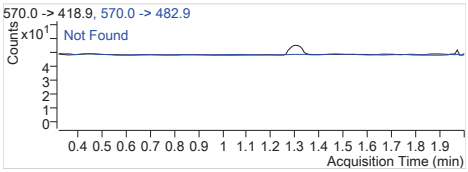
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



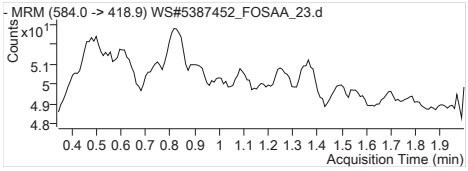


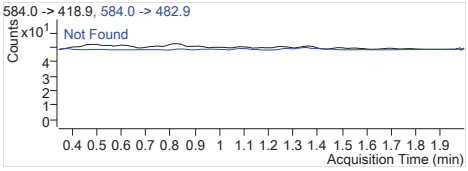
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.919)
Concentration: 1 µg/L
Sample type: Sample



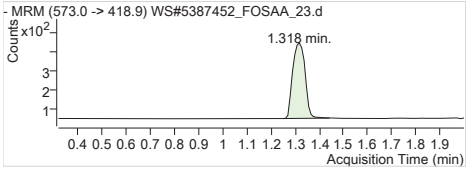


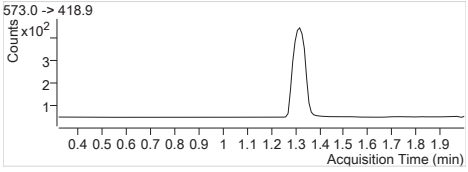
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



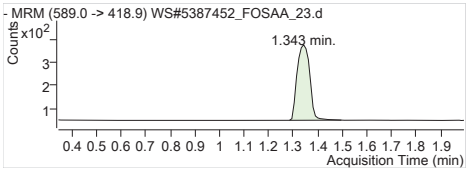


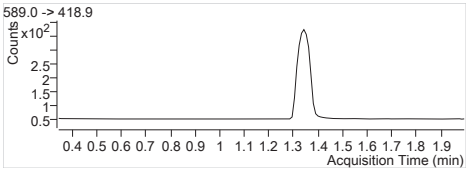
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



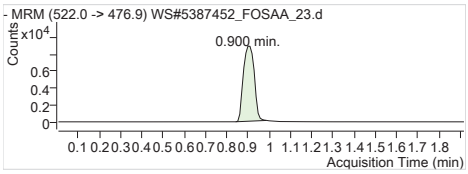


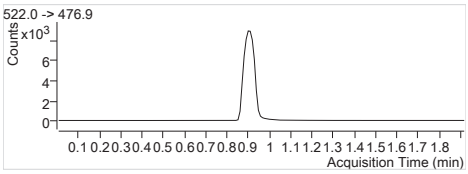
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 76.72 µg/L
Area ratio: 0.04302
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	74.56 µg/L
Area ratio:	0.03580
Sample type:	Sample





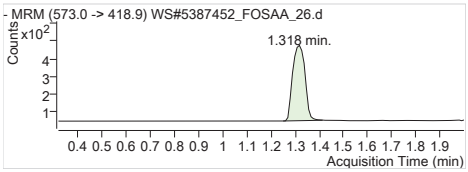
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.919)
Calc. conc.	2.56 µg/L
Area ratio:	0
Sample type:	Sample

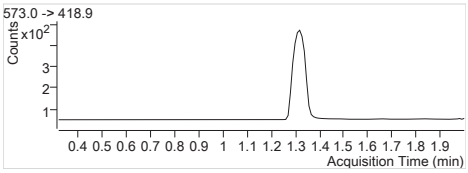
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:FZH333-01:100x**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_26.d	**Operator**	
Sample Type	Sample	**Dilution**	2.4
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C4
Acq. Date	2018/02/08 9:17:06 AM	**Injection Volume**	Per Method
Sample Annotation	Not used		

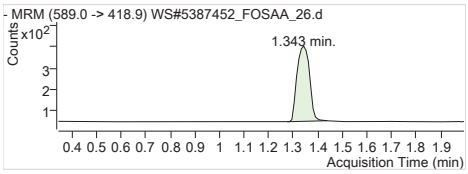
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1505	1.32	1 µg/L		
D5-EtFOSAA IS	1252	1.34	1 µg/L		
13C9-PFDA IS	31282	0.90	1 µg/L		

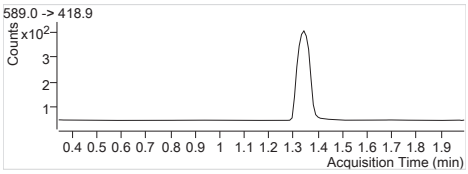
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1506	1.32	-	85.85 µg/L	-
D5-EtFOSAA	1275	1.34	-	84.89 µg/L	-
13C9-PFDA	30396	0.90	-	246.99 µg/L	-



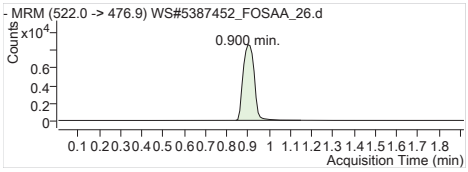


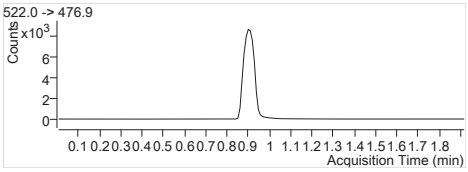
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



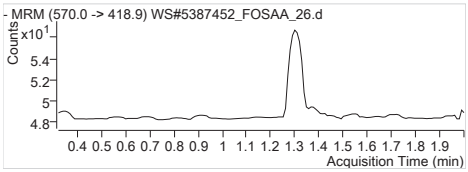


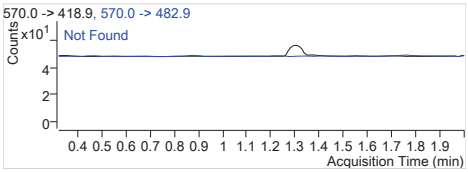
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



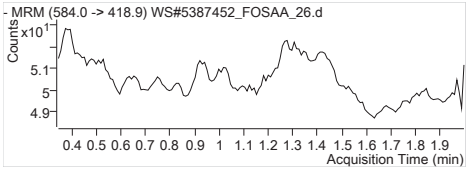


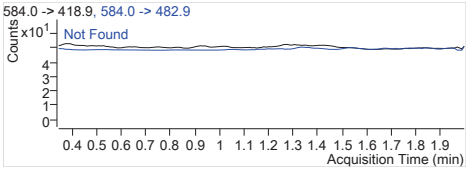
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.919)
Concentration: 1 µg/L
Sample type: Sample



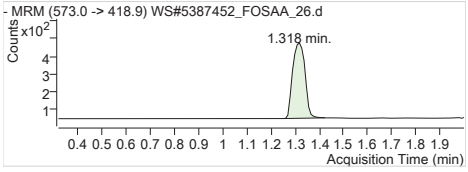


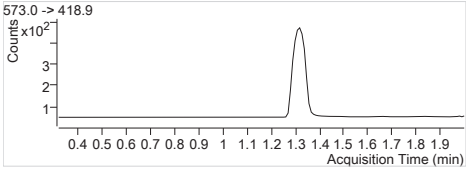
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



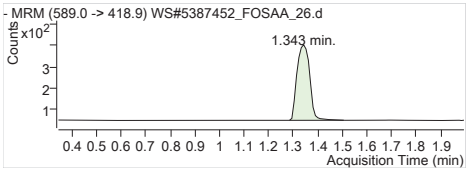


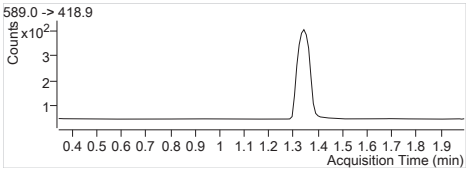
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



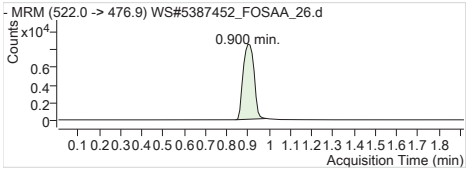


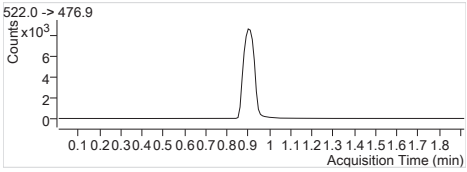
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 85.85 µg/L
Area ratio: 0.04814
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	84.89 µg/L
Area ratio:	0.04076
Sample type:	Sample





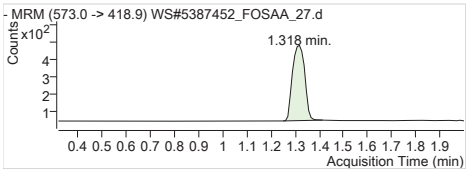
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.919)
Calc. conc.	246.99 µg/L
Area ratio:	0
Sample type:	Sample

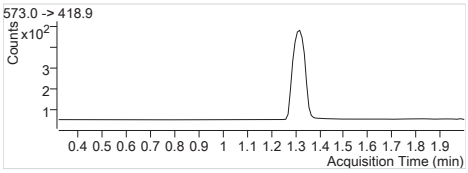
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:FZH333-01:10x**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_27.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C5
Acq. Date	2018/02/08 9:19:31 AM	**Injection Volume**	Per Method
Sample Annotation	-		

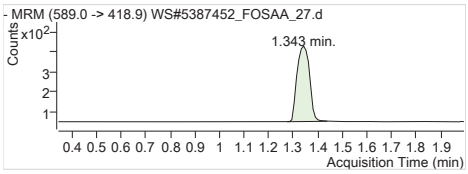
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1535	1.32	1 µg/L		
D5-EtFOSAA IS	1346	1.34	1 µg/L		
13C9-PFDA IS	28232	0.89	1 µg/L		

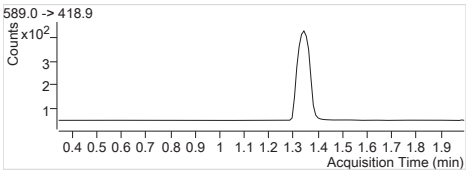
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1555	1.32	-	98.22 µg/L	-
D5-EtFOSAA	1347	1.34	-	99.37 µg/L	-
13C9-PFDA	27522	0.89	-	22.36 µg/L	-



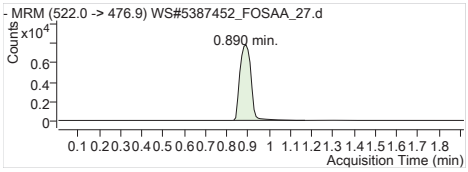


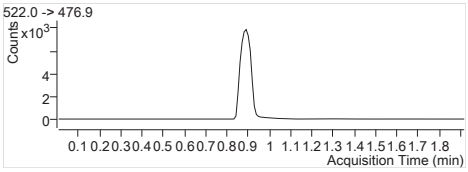
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



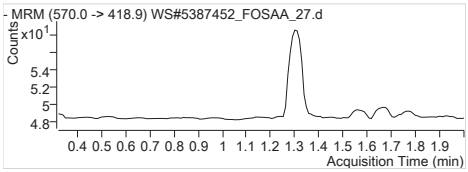


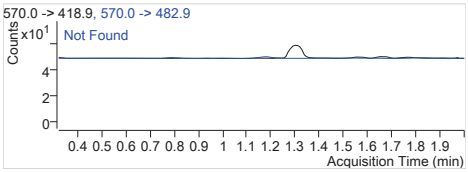
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



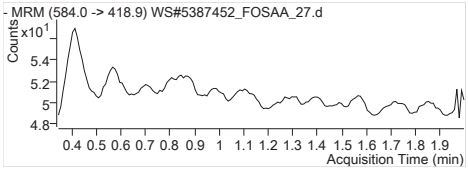


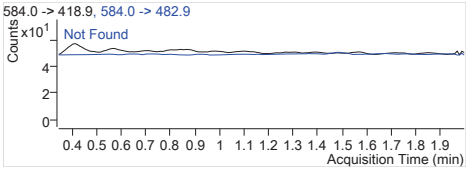
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.919)
Concentration: 1 µg/L
Sample type: Sample



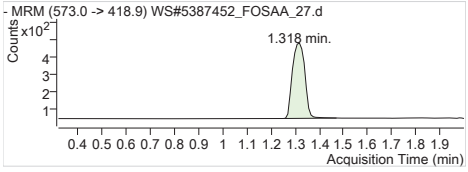


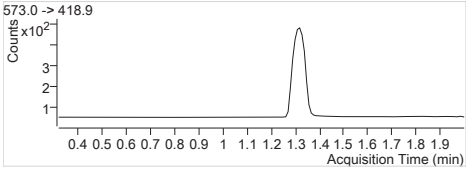
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



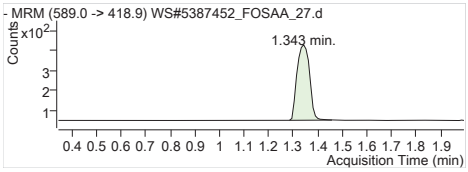


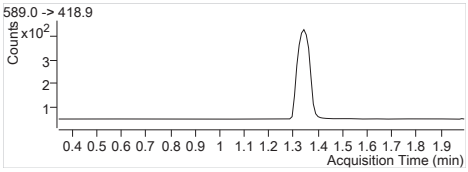
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



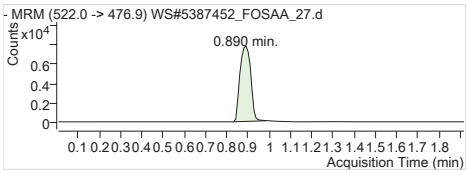


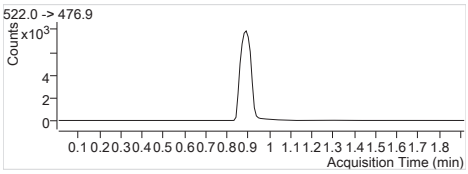
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 98.22 µg/L
Area ratio: 0.05508
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	99.37 µg/L
Area ratio:	0.04771
Sample type:	Sample





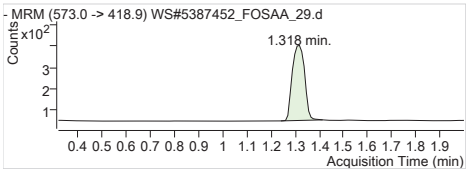
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.919)
Calc. conc.	22.36 µg/L
Area ratio:	0
Sample type:	Sample

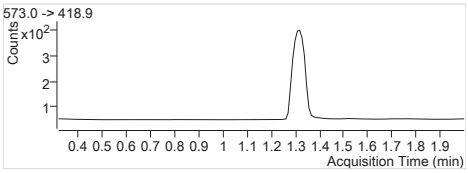
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:FZH334-01:10x**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_29.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C6
Acq. Date	2018/02/08 9:24:21 AM	**Injection Volume**	Per Method
Sample Annotation	-		

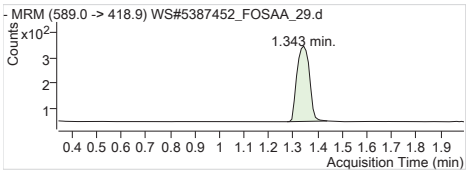
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1251	1.32	1 µg/L		
D5-EtFOSAA IS	1046	1.34	1 µg/L		
13C9-PFDA IS	30433	0.88	1 µg/L		

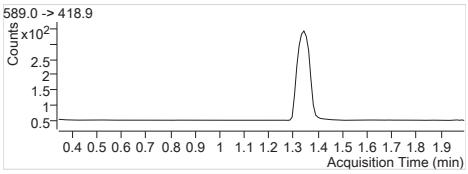
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1269	1.32	-	74.36 µg/L	-
D5-EtFOSAA	1060	1.34	-	72.54 µg/L	-
13C9-PFDA	29282	0.88	-	23.79 µg/L	-



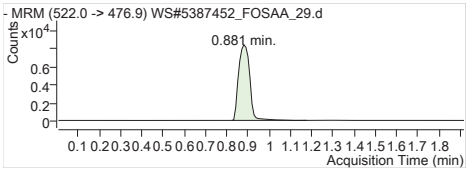


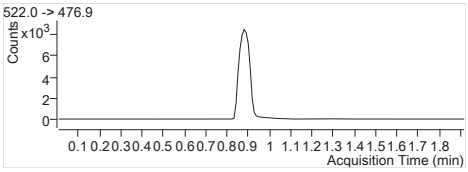
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



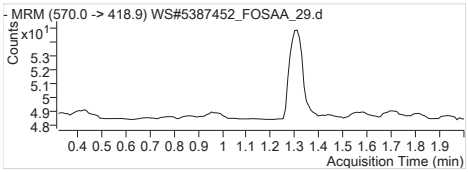


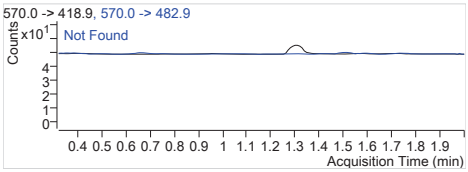
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



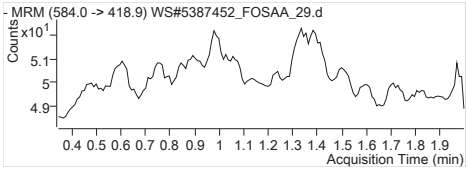


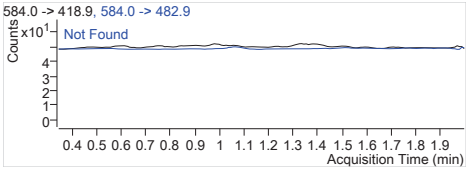
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.919)
Concentration: 1 µg/L
Sample type: Sample



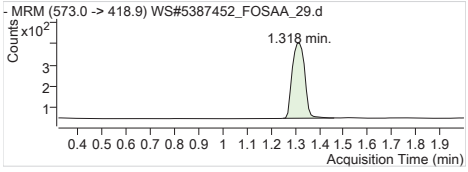


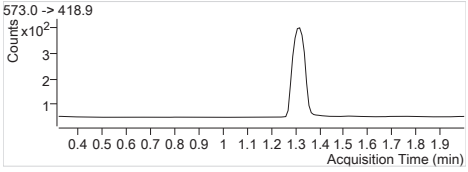
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



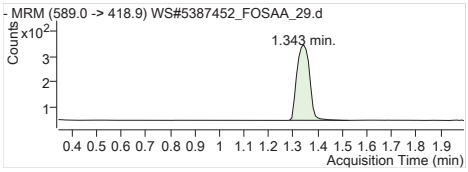


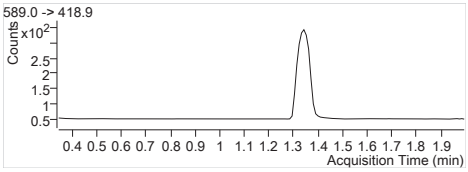
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



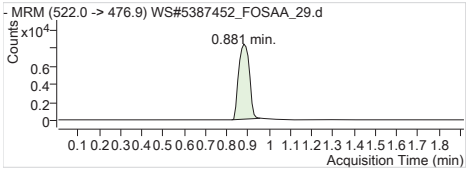


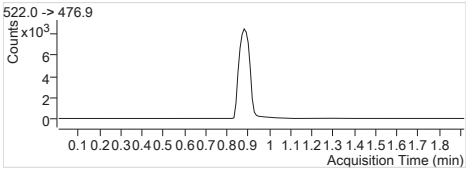
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 74.36 µg/L
Area ratio: 0.04170
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	72.54 µg/L
Area ratio:	0.03483
Sample type:	Sample





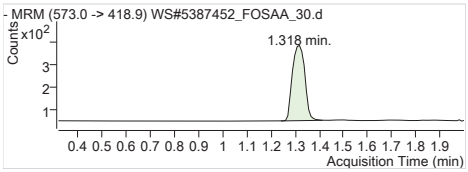
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.919)
Calc. conc.	23.79 µg/L
Area ratio:	0
Sample type:	Sample

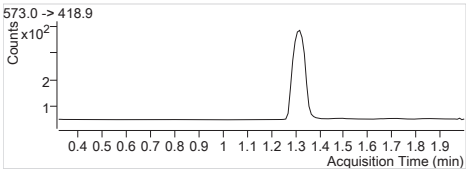
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:FZH334-01:D1:10x**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_30.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C7
Acq. Date	2018/02/08 9:26:46 AM	**Injection Volume**	Per Method
Sample Annotation	-		

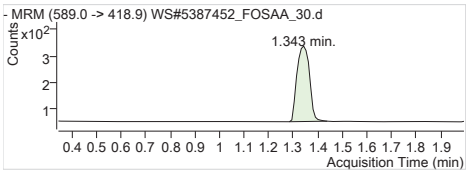
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1203	1.32	1 µg/L		
D5-EtFOSAA IS	1022	1.34	1 µg/L		
13C9-PFDA IS	29897	0.88	1 µg/L		

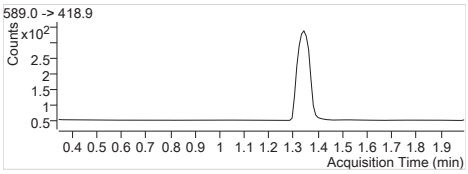
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1202	1.32	-	71.69 µg/L	-
D5-EtFOSAA	1031	1.34	-	71.82 µg/L	-
13C9-PFDA	28912	0.88	-	23.49 µg/L	-



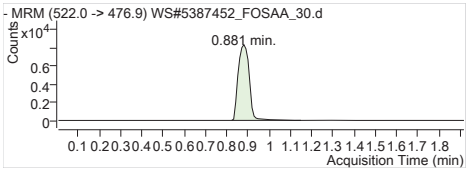


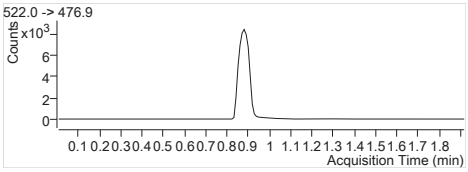
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



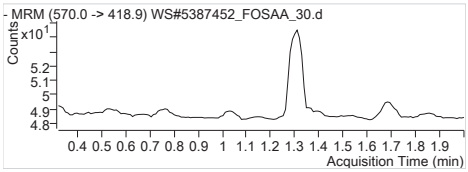


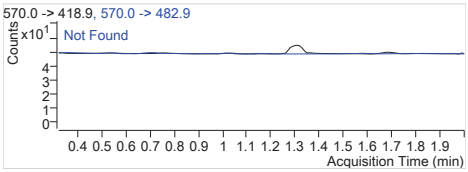
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



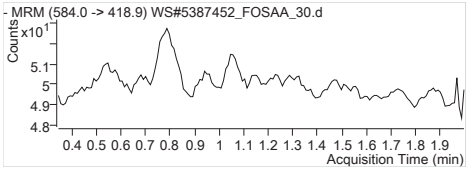


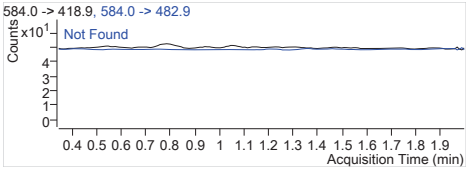
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.919)
Concentration: 1 µg/L
Sample type: Sample



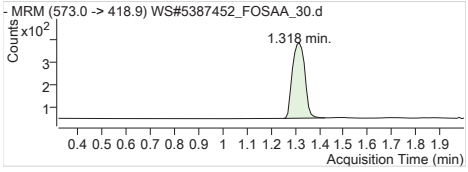


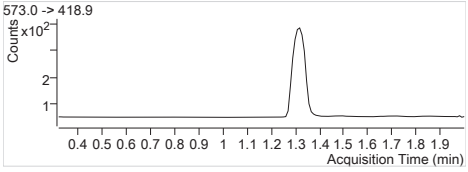
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



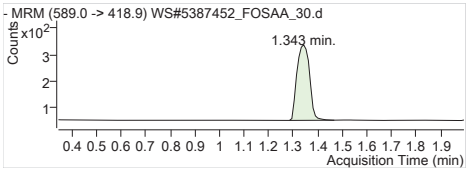


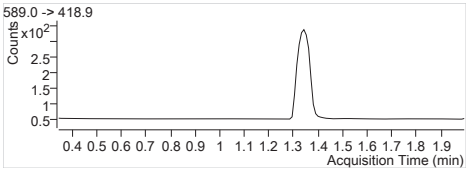
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



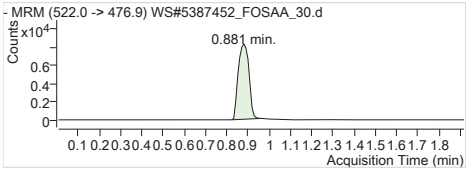


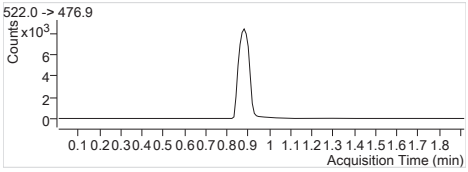
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 71.69 µg/L
Area ratio: 0.04020
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	71.82 µg/L
Area ratio:	0.03449
Sample type:	Sample





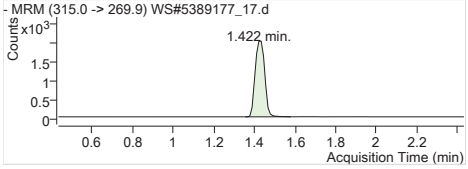
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.919)
Calc. conc.	23.49 µg/L
Area ratio:	0
Sample type:	Sample

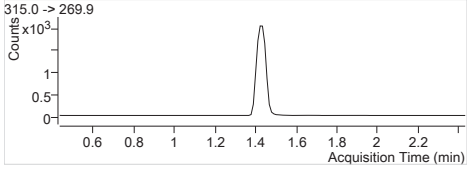
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**5389177:FZH324-01:100x**	**Instrument**	LCMS04
Data File	WS#5389177_17.d	**Operator**	
Sample Type	Sample	**Dilution**	2.4
Acq. Method	PFC_Water_Low.m	**Position**	P3-B7
Acq. Date	2018/02/09 1:16:21 AM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFOS only.		

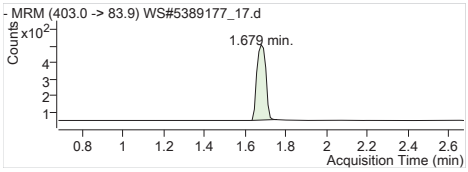
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6576	1.42	1 µg/L		
MPFHxS	1406	1.68	1 µg/L		
MPFHpA	8309	1.69	1 µg/L		
MPFOA	8666	1.88	1 µg/L		
MPFOS	2171	1.98	1 µg/L		
MPFNA	8305	2.01	1 µg/L		
MPFDA	7187	2.14	1 µg/L		
MPFUnA	8152	2.23	1 µg/L		
MPFDoA	10229	2.32	1 µg/L		
MPFTeDA	11469	2.47	1 µg/L		
13C6-PFHxA IS	22416	1.42	1 µg/L		
13C9-PFDA IS	30180	2.13	1 µg/L		

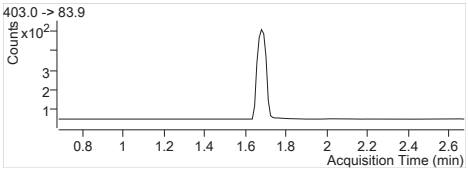
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	1789	1.42	-	1.84 µg/L	-
PFHxS 1	607	1.68	-	2.60 µg/L	-
PFHpA 1	1463	1.69	-	1.25 µg/L	-
PFOA 1	1727	1.88	-	1.14 µg/L	-
PFOS 1	7277	1.97	-	21.39 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6576	1.42	-	104.63 µg/L	-
18O2-PFHxS	1406	1.68	-	86.83 µg/L	-
13C4-PFHpA	8309	1.69	-	99.40 µg/L	-
13C4-PFOA	8666	1.88	-	96.89 µg/L	-
13C4-PFOS	2171	1.98	-	109.35 µg/L	-
13C5-PFNA	8305	2.01	-	92.11 µg/L	-
13C2-PFDA	7091	2.14	-	93.28 µg/L	-
13C2-PFUnA	8152	2.23	-	89.92 µg/L	-
13C2-PFDoA	10229	2.32	-	85.53 µg/L	-
13C2-PFTeDA	11668	2.47	-	81.51 µg/L	-
13C6-PFHxA	22416	1.42	-	251.29 µg/L	-
13C9-PFDA	30180	2.13	-	253.45 µg/L	-



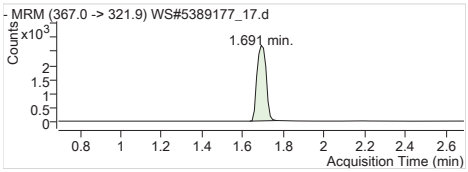


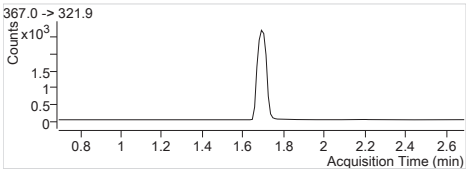
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.434)
Concentration:	1 µg/L
Sample type:	Sample



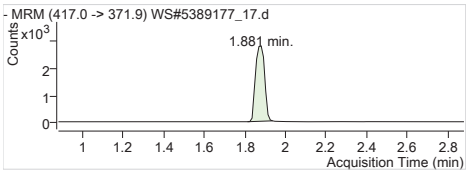


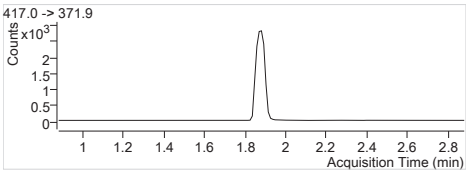
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



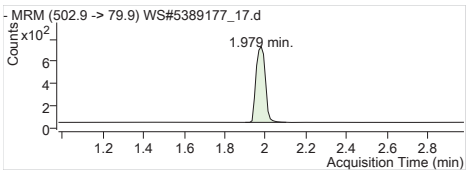


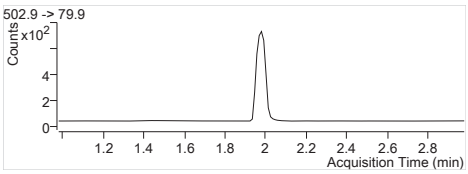
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



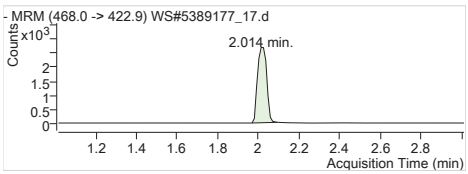


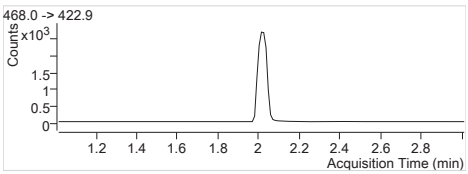
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



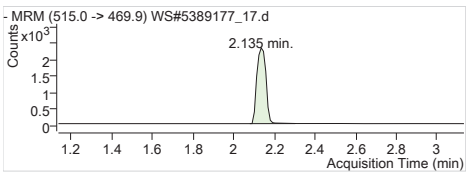


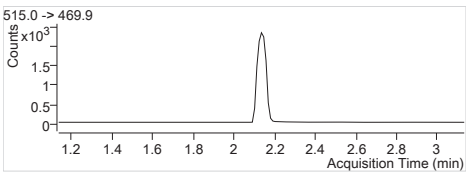
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



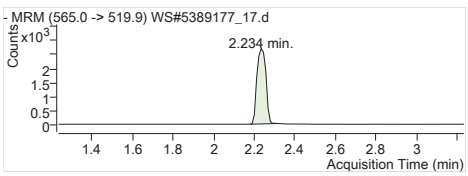


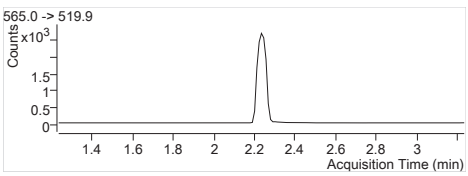
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



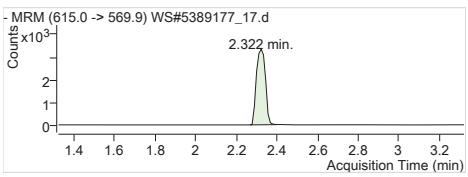


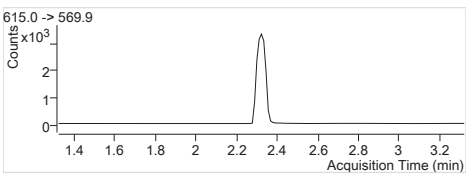
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



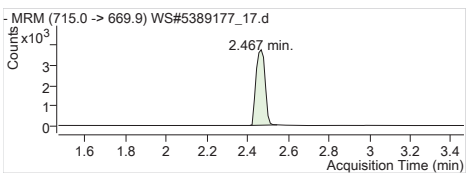


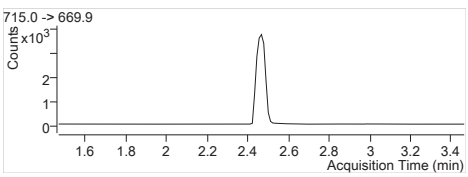
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



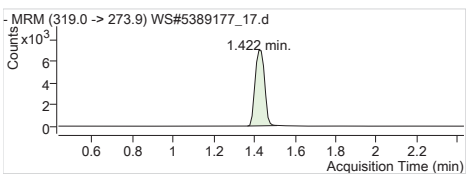


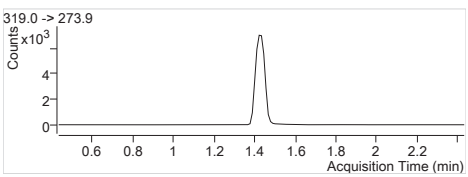
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



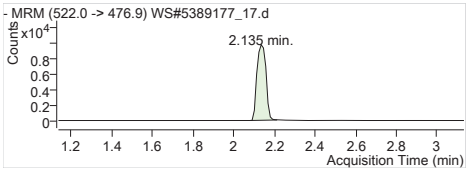


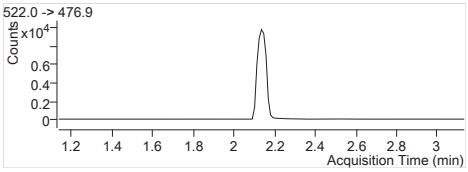
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



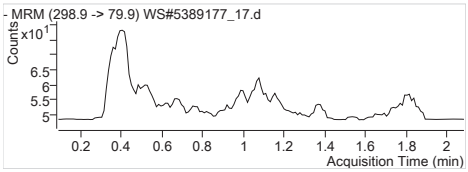


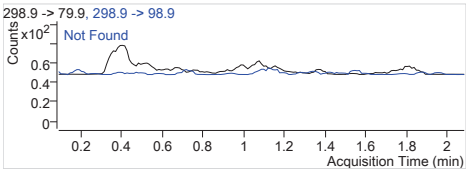
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.434)
Concentration: 1 µg/L
Sample type: Sample



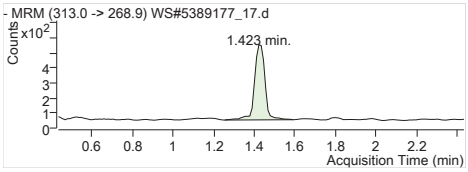


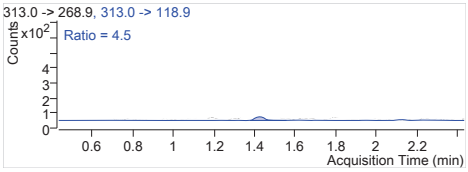
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



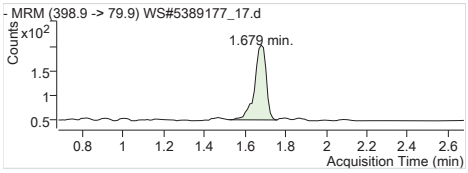


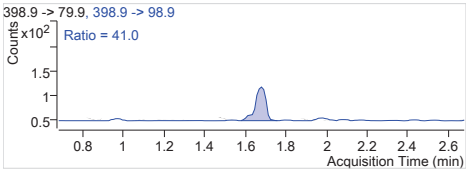
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



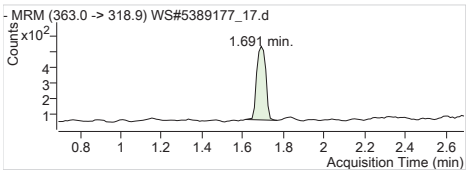


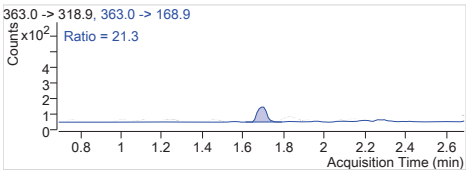
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.434)
Calc. conc. 1.84 µg/L
Area ratio: 0.27205
Sample type: Sample



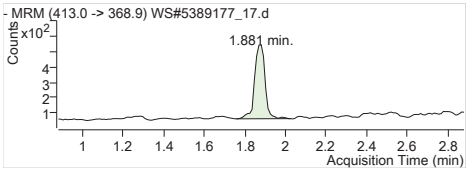


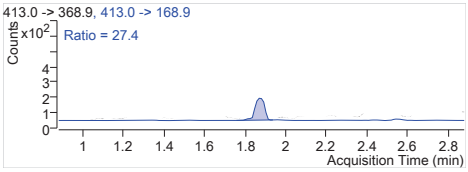
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 2.60 µg/L
Area ratio: 0.43172
Sample type: Sample



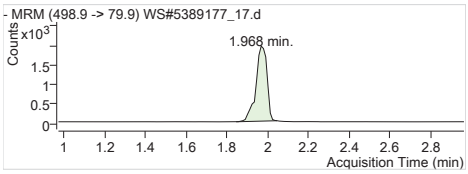


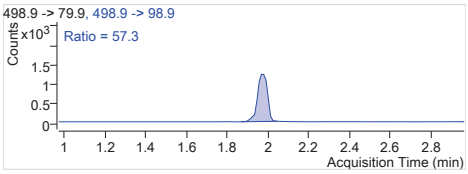
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 1.25 µg/L
Area ratio: 0.17607
Sample type: Sample



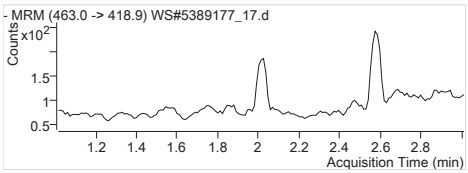


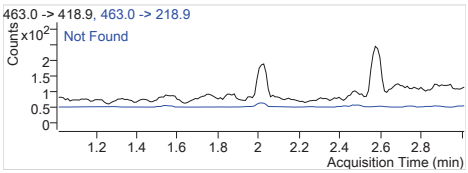
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 1.14 µg/L
Area ratio: 0.19928
Sample type: Sample



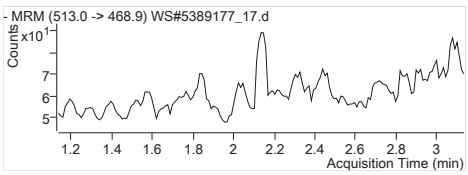


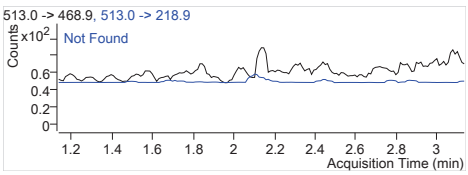
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 21.39 µg/L
Area ratio: 3.35191
Sample type: Sample



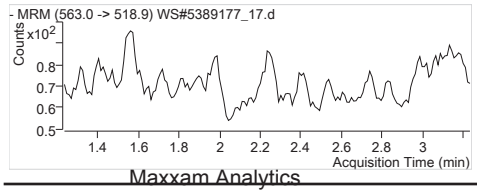


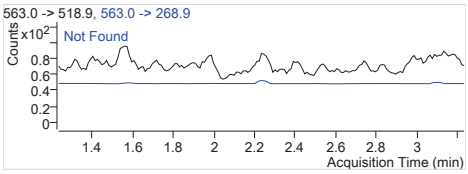
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



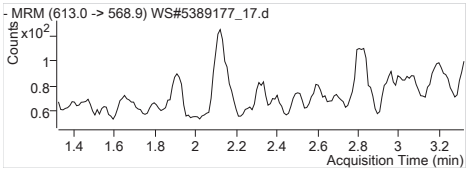


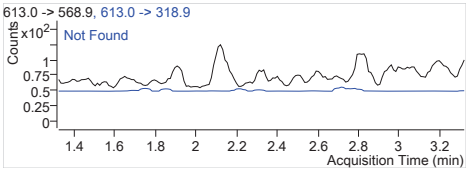
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



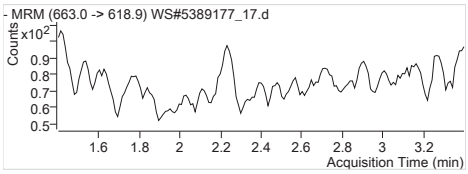


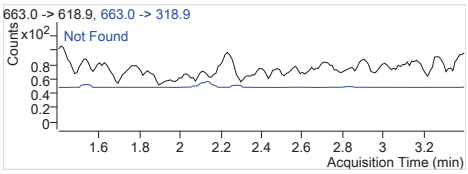
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



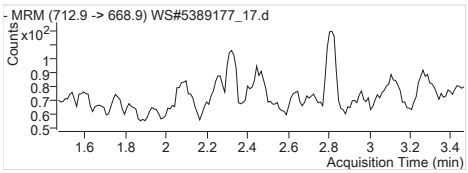


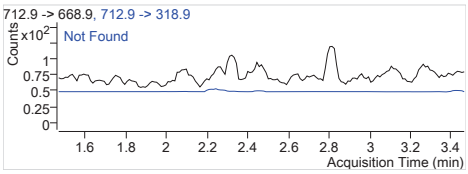
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



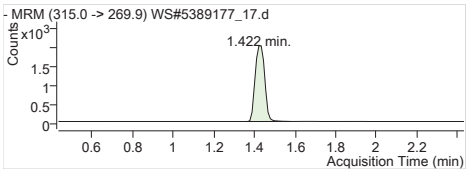


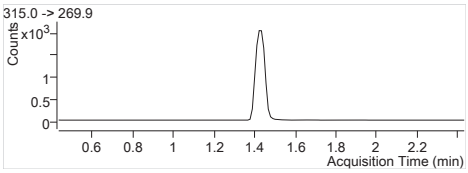
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



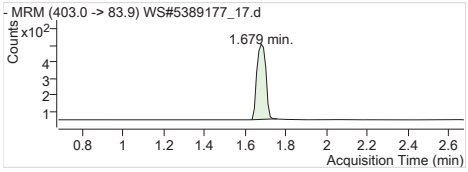


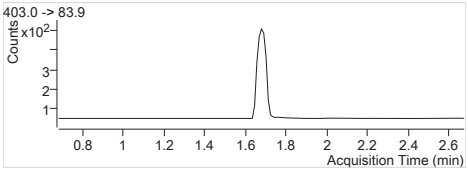
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



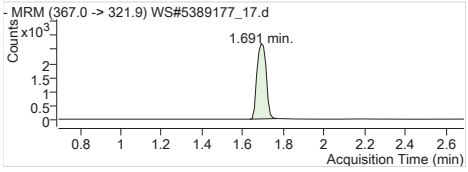


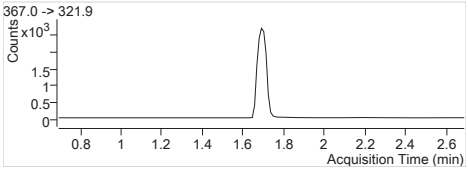
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.434)
Calc. conc. 104.63 µg/L
Area ratio: 0.29336
Sample type: Sample



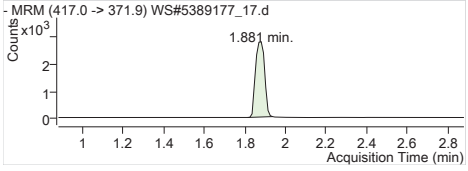


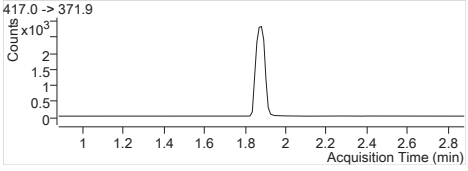
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 86.83 µg/L
Area ratio: 0.06272
Sample type: Sample



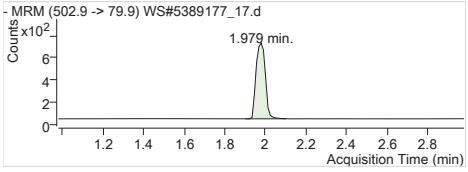


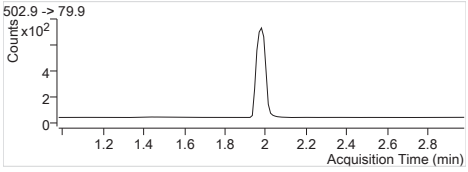
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 99.40 µg/L
Area ratio: 0.37067
Sample type: Sample



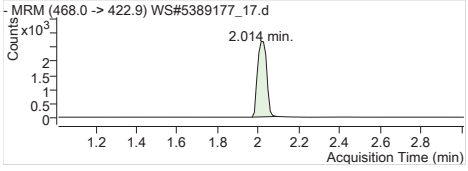


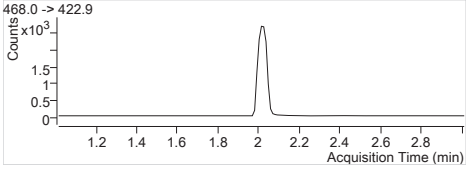
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 96.89 µg/L
Area ratio: 0.38660
Sample type: Sample



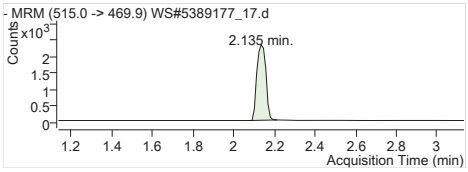


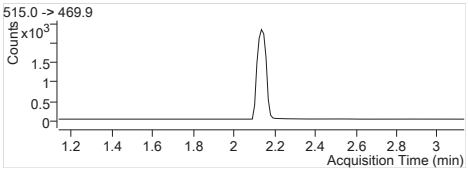
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 109.35 µg/L
Area ratio: 0.09685
Sample type: Sample



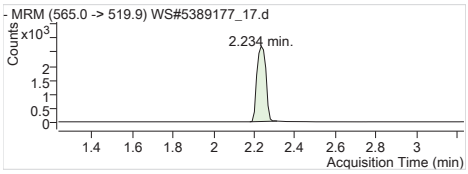


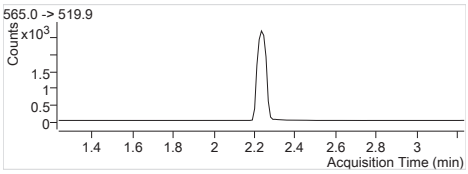
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 92.11 µg/L
Area ratio: 0.37049
Sample type: Sample



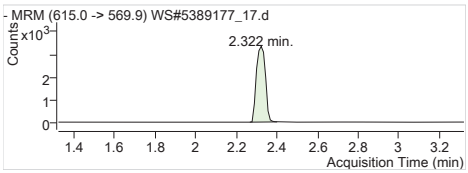


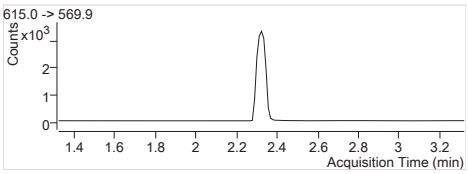
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 93.28 µg/L
Area ratio: 0.23496
Sample type: Sample



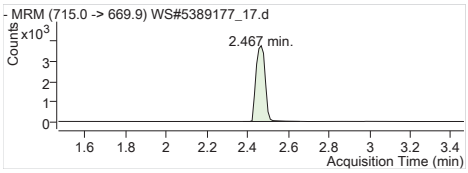


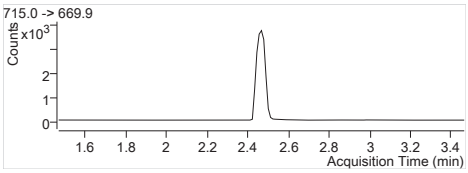
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 89.92 µg/L
Area ratio: 0.27011
Sample type: Sample



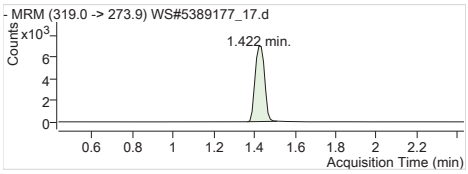


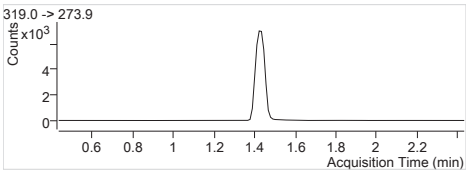
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 85.53 µg/L
Area ratio: 0.33893
Sample type: Sample



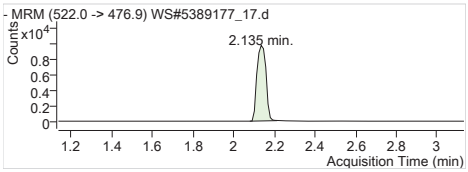


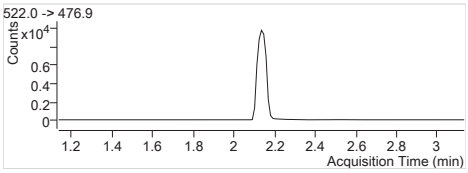
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 81.51 µg/L
Area ratio: 0.38661
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.434)
Calc. conc. 251.29 µg/L
Area ratio: 0
Sample type: Sample





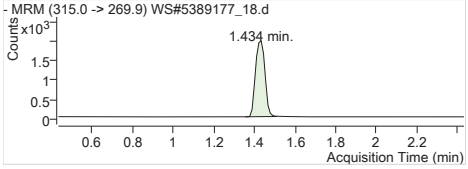
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 253.45 µg/L
Area ratio: 0
Sample type: Sample

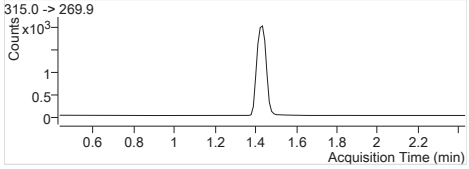
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**5389177:FZH324-01:10x**	**Instrument**	LCMS04
Data File	WS#5389177_18.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low.m	**Position**	P3-B8
Acq. Date	2018/02/09 1:21:17 AM	**Injection Volume**	Per Method
Sample Annotation	Reported for all except PFOS.		

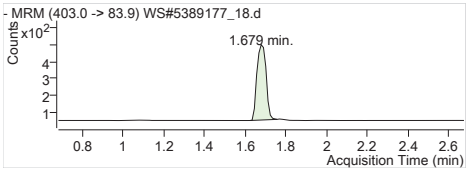
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6365	1.43	1 µg/L		
MPFHxS	1410	1.68	1 µg/L		
MPFHpA	8639	1.69	1 µg/L		
MPFOA	8125	1.88	1 µg/L		
MPFOS	1593	1.98	1 µg/L		
MPFNA	8554	2.01	1 µg/L		
MPFDA	6572	2.14	1 µg/L		
MPFUnA	8019	2.23	1 µg/L		
MPFDoA	10199	2.32	1 µg/L		
MPFTeDA	10815	2.47	1 µg/L		
13C6-PFHxA IS	21770	1.43	1 µg/L		
13C9-PFDA IS	29401	2.13	1 µg/L		

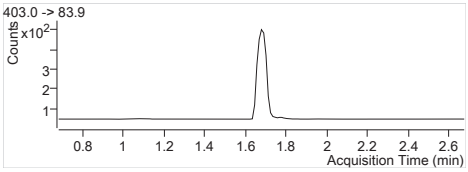
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	346	1.09	-	0.13 µg/L	-
PFHxA 1	14444	1.43	-	1.33 µg/L	-
PFHxS 1	5700	1.68	-	2.18 µg/L	-
PFHpA 1	14613	1.69	-	1.00 µg/L	-
PFOA 1	14258	1.88	-	0.99 µg/L	-
PFOS 1	71236	1.97	-	28.13 µg/L	-
PFNA 1	2269	2.01	-	0.18 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6365	1.43	-	104.28 µg/L	-
18O2-PFHxS	1410	1.68	-	89.66 µg/L	-
13C4-PFHpA	8639	1.69	-	106.41 µg/L	-
13C4-PFOA	8125	1.88	-	93.54 µg/L	-
13C4-PFOS	1593	1.98	-	82.62 µg/L	-
13C5-PFNA	8555	2.01	-	97.69 µg/L	-
13C2-PFDA	6462	2.14	-	87.26 µg/L	-
13C2-PFUnA	8019	2.23	-	90.79 µg/L	-
13C2-PFDoA	10199	2.32	-	87.53 µg/L	-
13C2-PFTeDA	10900	2.47	-	78.16 µg/L	-
13C6-PFHxA	21770	1.43	-	24.41 µg/L	-
13C9-PFDA	29401	2.13	-	24.69 µg/L	-



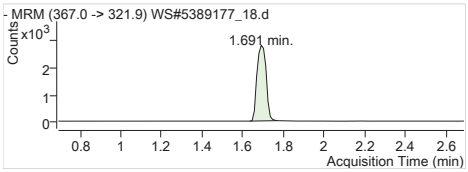


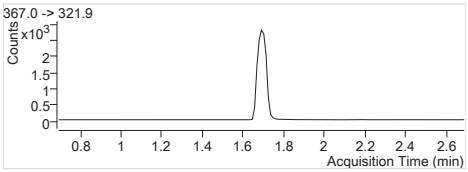
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	Sample



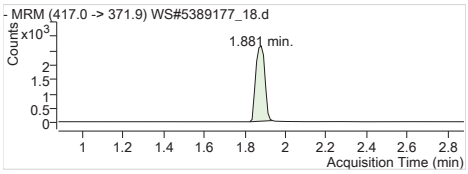


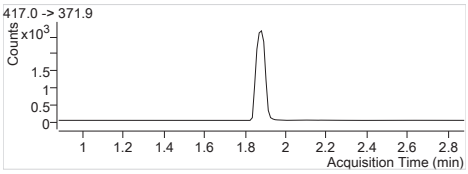
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



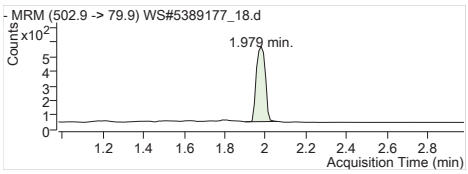


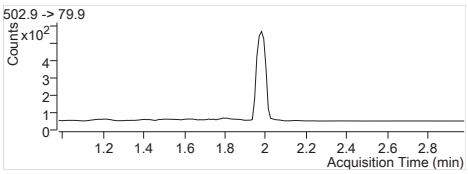
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



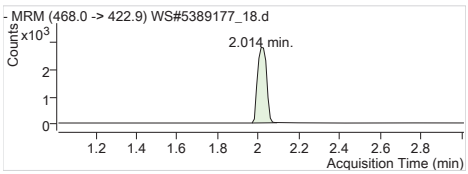


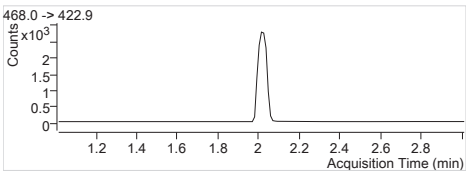
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



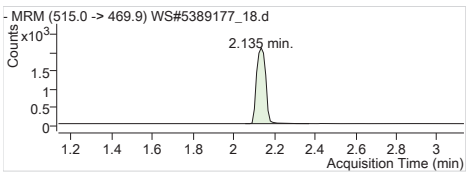


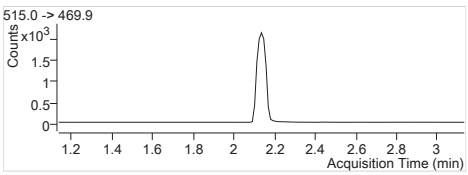
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



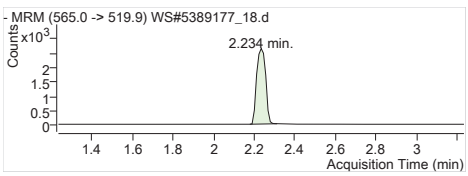


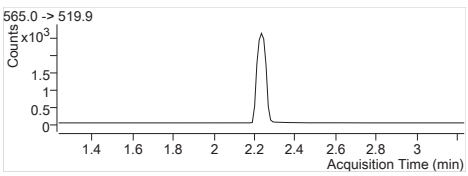
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



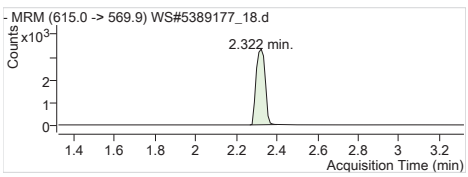


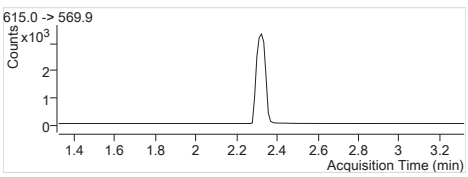
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



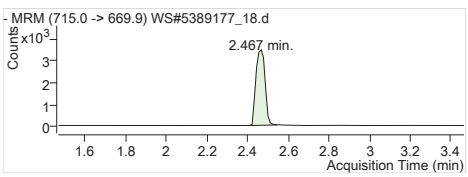


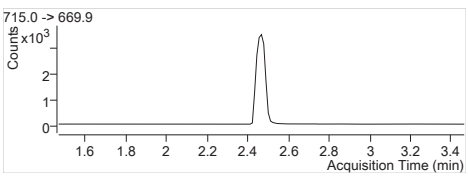
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



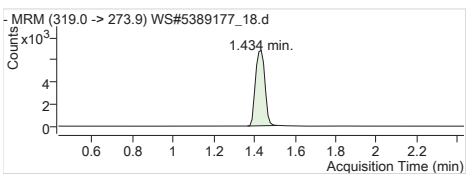


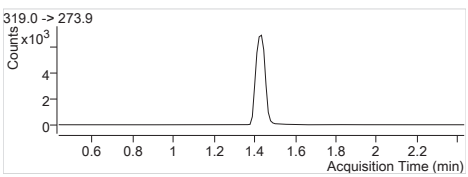
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



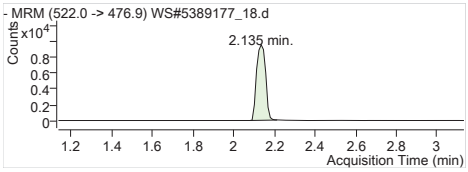


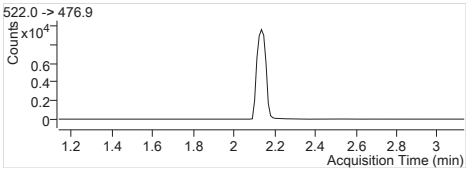
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



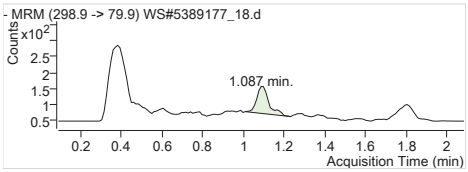


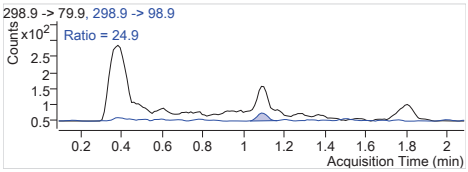
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



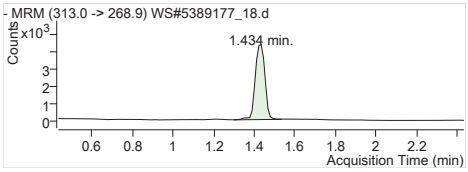


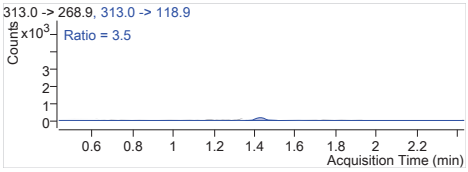
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



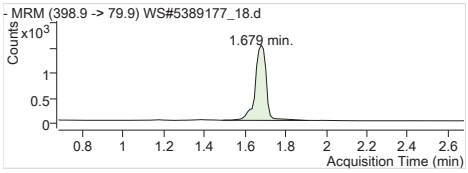


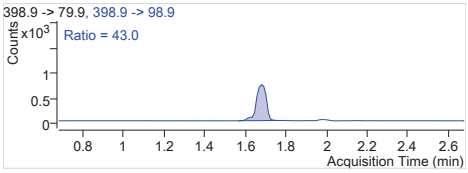
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.13 µg/L
Area ratio: 0.24539
Sample type: Sample



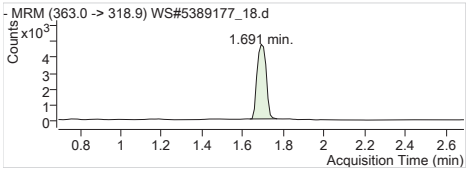


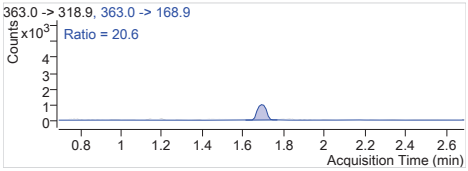
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 1.33 µg/L
Area ratio: 2.26929
Sample type: Sample



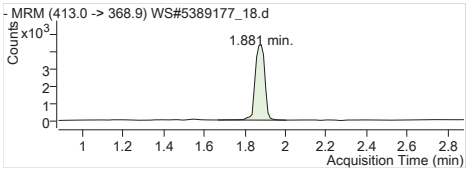


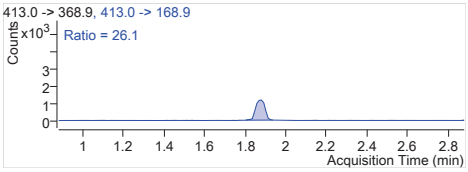
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 2.18 µg/L
Area ratio: 4.04255
Sample type: Sample



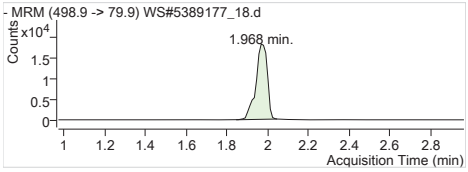


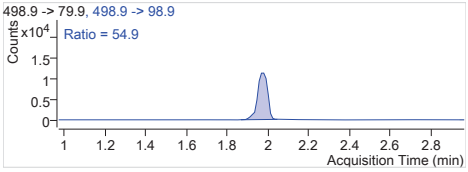
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 1.00 µg/L
Area ratio: 1.69152
Sample type: Sample



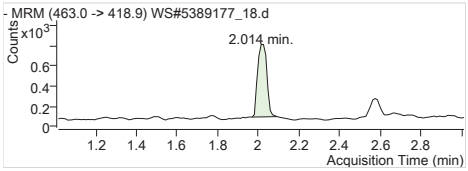


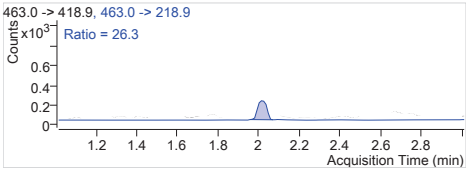
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.99 µg/L
Area ratio: 1.75483
Sample type: Sample



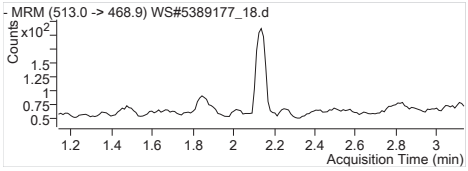


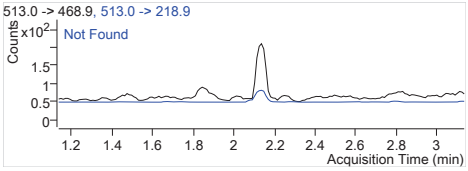
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 28.13 µg/L
Area ratio: 44.71814
Sample type: Sample



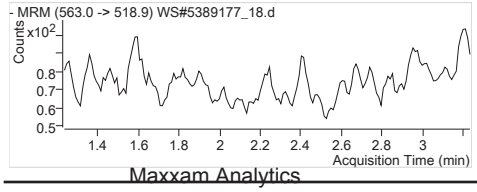


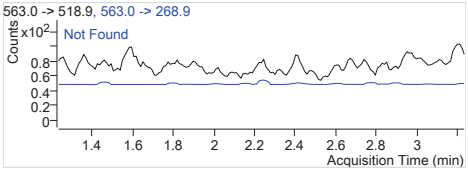
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.18 µg/L
Area ratio: 0.26526
Sample type: Sample



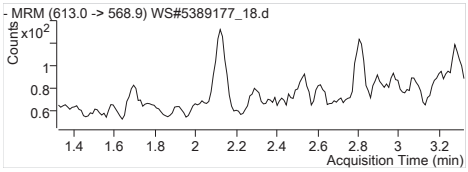


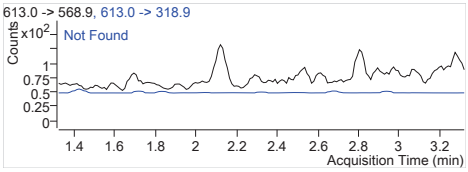
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



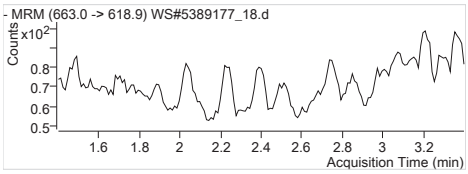


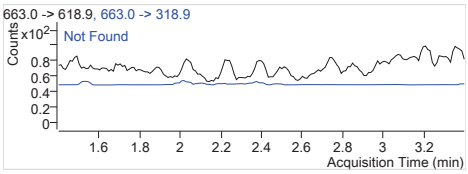
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



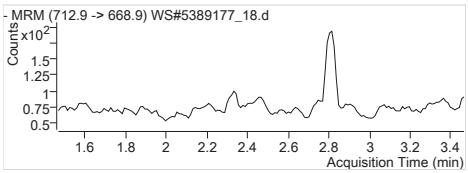


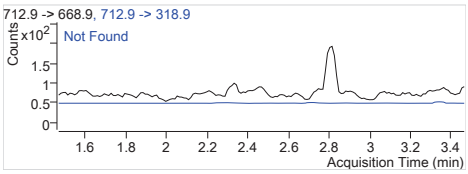
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



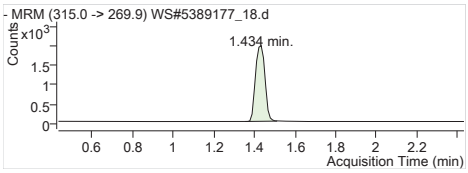


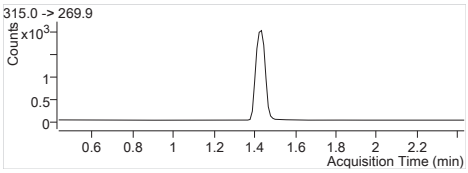
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



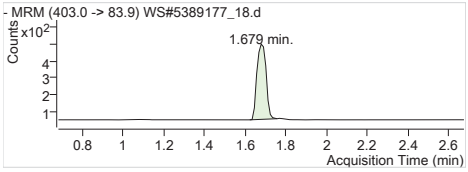


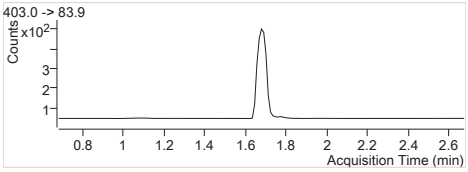
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



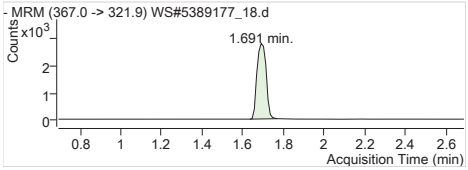


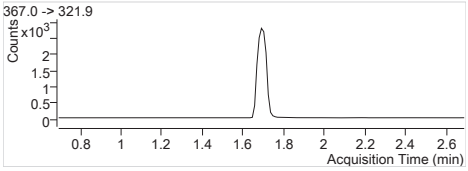
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 104.28 µg/L
Area ratio: 0.29237
Sample type: Sample



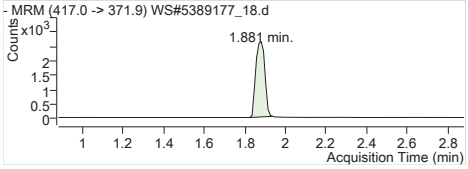


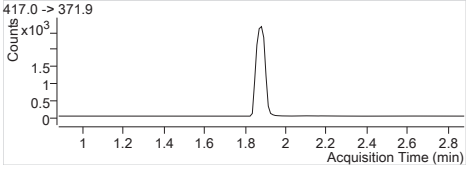
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 89.66 µg/L
Area ratio: 0.06477
Sample type: Sample



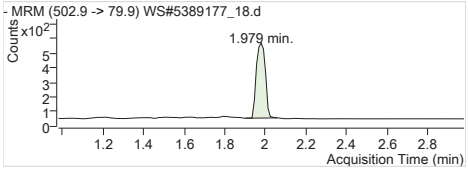


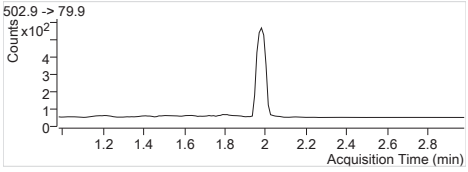
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 106.41 µg/L
Area ratio: 0.39683
Sample type: Sample



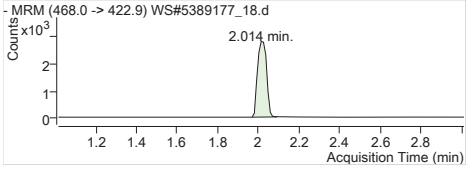


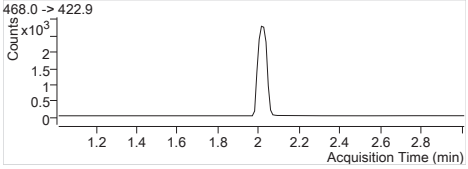
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 93.54 µg/L
Area ratio: 0.37322
Sample type: Sample



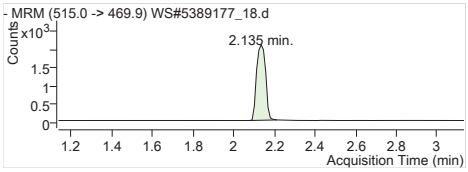


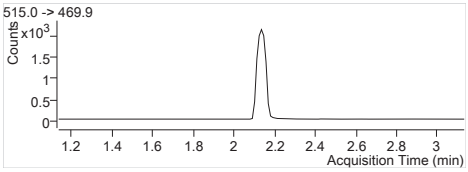
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 82.62 µg/L
Area ratio: 0.07317
Sample type: Sample



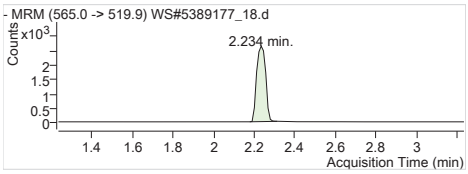


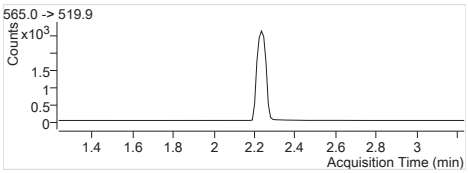
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 97.69 µg/L
Area ratio: 0.39297
Sample type: Sample



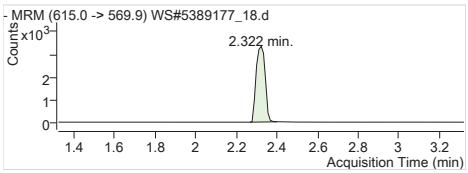


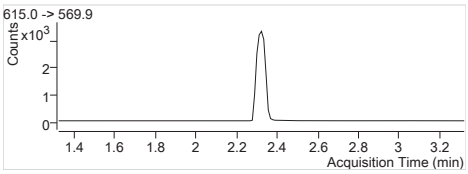
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 87.26 µg/L
Area ratio: 0.21979
Sample type: Sample



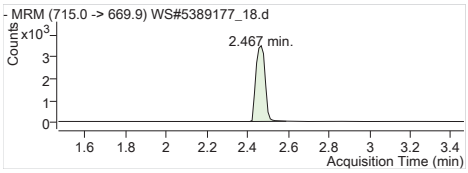


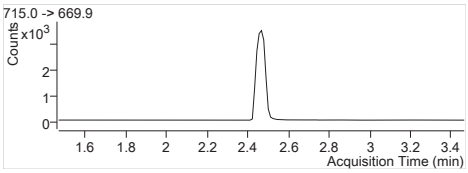
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 90.79 µg/L
Area ratio: 0.27275
Sample type: Sample



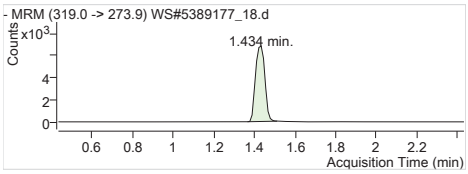


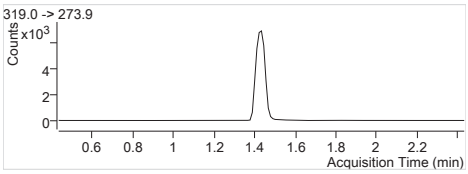
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 87.53 µg/L
Area ratio: 0.34689
Sample type: Sample



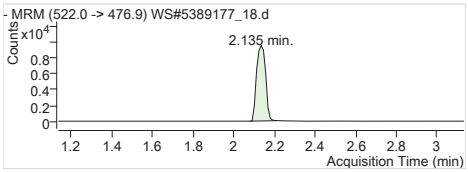


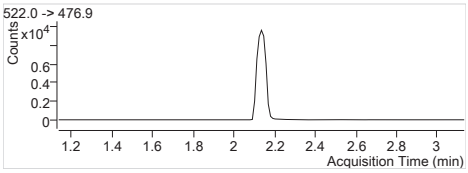
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 78.16 µg/L
Area ratio: 0.37074
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 24.41 µg/L
Area ratio: 0
Sample type: Sample





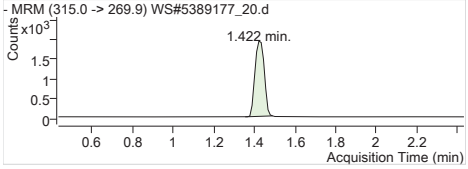
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 24.69 µg/L
Area ratio: 0
Sample type: Sample

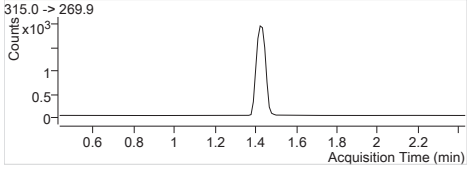
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**5389177:FZH325-01:100x**	**Instrument**	LCMS04
Data File	WS#5389177_20.d	**Operator**	
Sample Type	Sample	**Dilution**	2.4
Acq. Method	PFC_Water_Low.m	**Position**	P3-B9
Acq. Date	2018/02/09 1:31:09 AM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFOS, PFHxS only.		

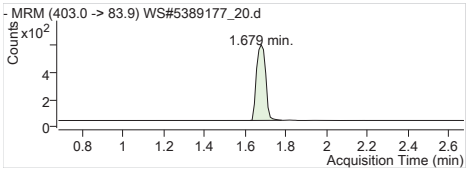
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6042	1.42	1 µg/L		
MPFHxS	1727	1.68	1 µg/L		
MPFHpA	7797	1.69	1 µg/L		
MPFOA	8657	1.88	1 µg/L		
MPFOS	1749	1.98	1 µg/L		
MPFNA	7829	2.02	1 µg/L		
MPFDA	7410	2.14	1 µg/L		
MPFUnA	7375	2.23	1 µg/L		
MPFDoA	9828	2.32	1 µg/L		
MPFTeDA	10800	2.47	1 µg/L		
13C6-PFHxA IS	22961	1.42	1 µg/L		
13C9-PFDA IS	30341	2.13	1 µg/L		

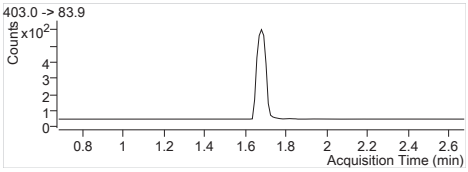
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	2453	1.42	-	2.61 µg/L	-
PFHxS 1	3713	1.68	-	11.74 µg/L	-
PFHpA 1	2748	1.69	-	2.26 µg/L	-
PFOA 1	2037	1.88	-	1.35 µg/L	-
PFOS 1	10119	1.98	-	36.68 µg/L	-
PFNA 1	1233	2.01	-	1.17 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6042	1.42	-	93.86 µg/L	-
18O2-PFHxS	1727	1.68	-	104.13 µg/L	-
13C4-PFHpA	7797	1.69	-	91.06 µg/L	-
13C4-PFOA	8657	1.88	-	94.49 µg/L	-
13C4-PFOS	1749	1.98	-	86.00 µg/L	-
13C5-PFNA	7830	2.02	-	84.78 µg/L	-
13C2-PFDA	7311	2.14	-	95.66 µg/L	-
13C2-PFUnA	7375	2.23	-	80.91 µg/L	-
13C2-PFDoA	9828	2.32	-	81.74 µg/L	-
13C2-PFTeDA	11157	2.47	-	77.53 µg/L	-
13C6-PFHxA	22961	1.42	-	257.40 µg/L	-
13C9-PFDA	30341	2.13	-	254.80 µg/L	-



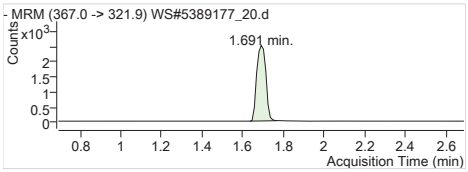


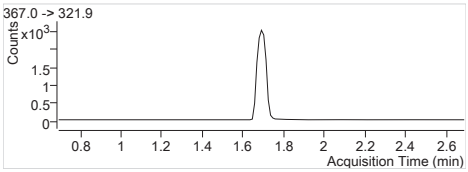
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.434)
Concentration:	1 µg/L
Sample type:	Sample



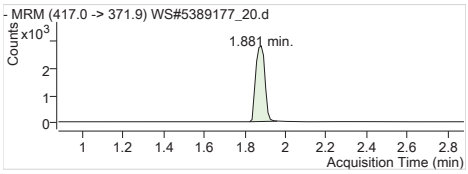


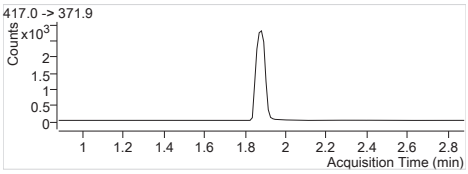
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



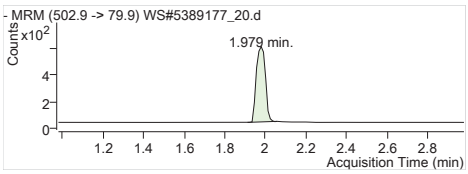


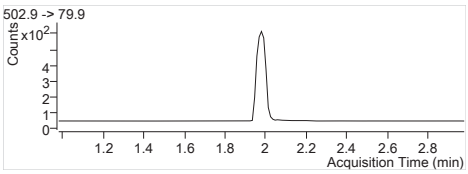
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



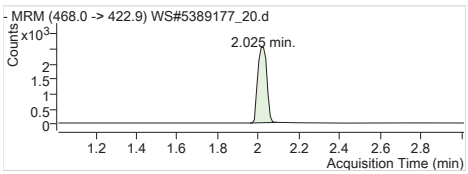


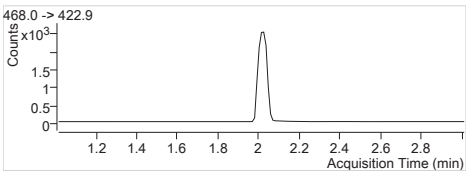
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



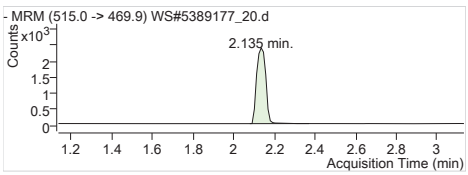


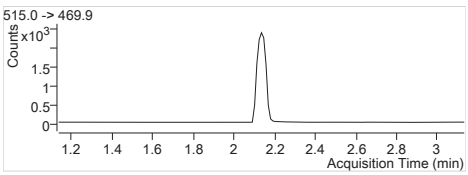
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



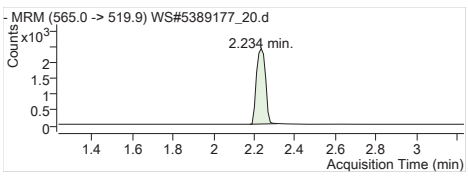


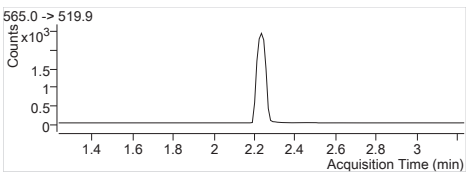
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.014)
Concentration: 1 µg/L
Sample type: Sample



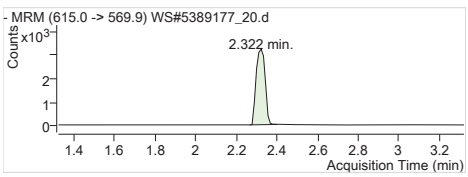


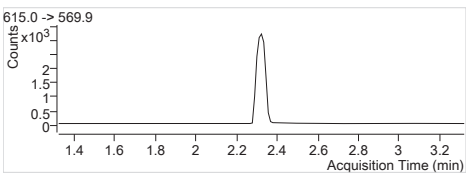
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



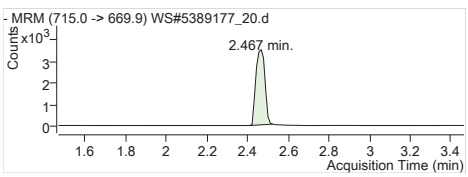


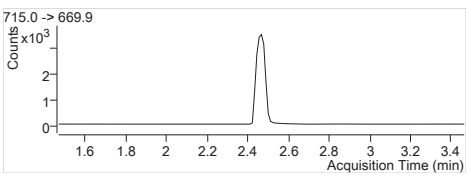
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



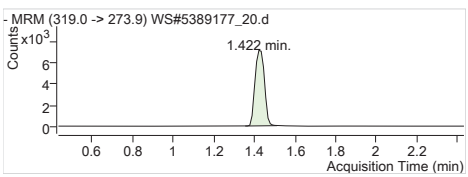


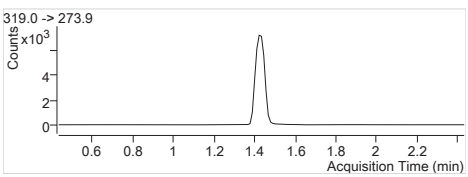
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



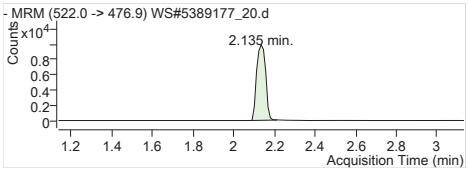


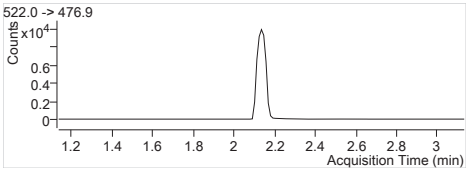
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



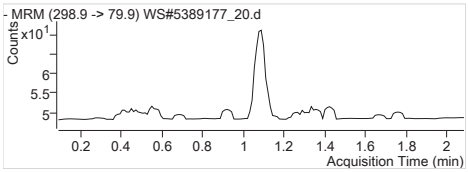


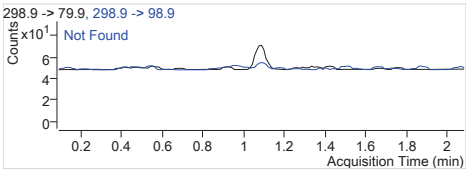
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.434)
Concentration: 1 µg/L
Sample type: Sample



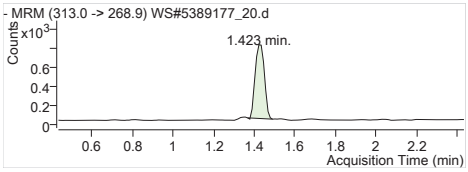


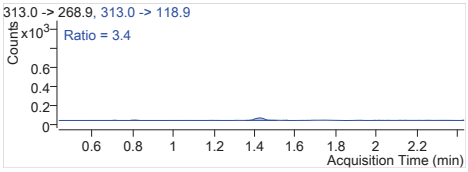
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



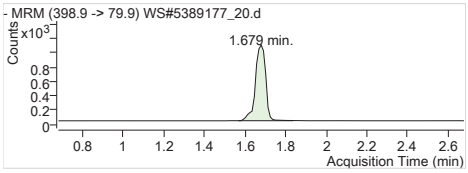


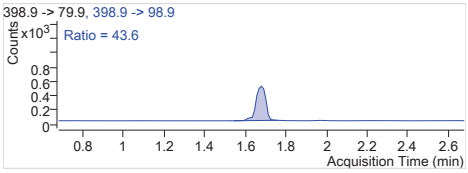
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



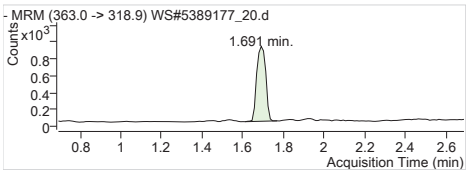


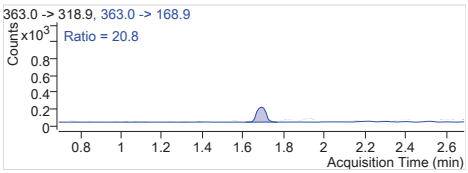
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.434)
Calc. conc. 2.61 µg/L
Area ratio: 0.40599
Sample type: Sample



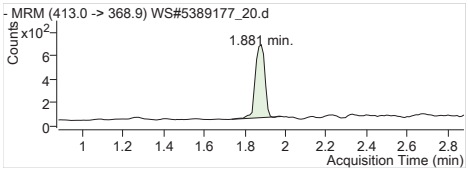


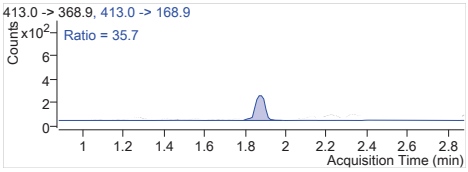
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 11.74 µg/L
Area ratio: 2.14997
Sample type: Sample



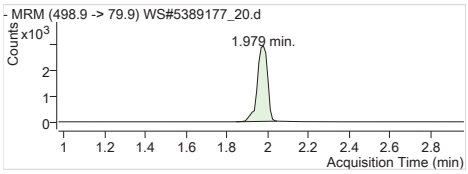


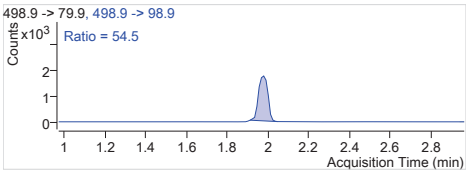
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 2.26 µg/L
Area ratio: 0.35244
Sample type: Sample



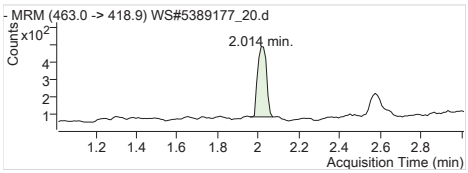


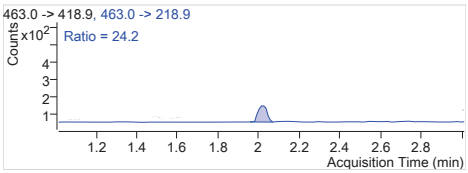
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 1.35 µg/L
Area ratio: 0.23530
Sample type: Sample



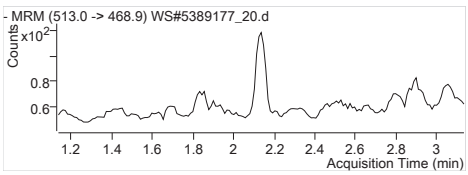


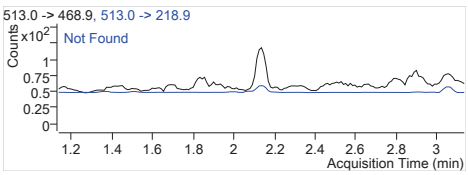
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.968)
Calc. conc. 36.68 µg/L
Area ratio: 5.78559
Sample type: Sample



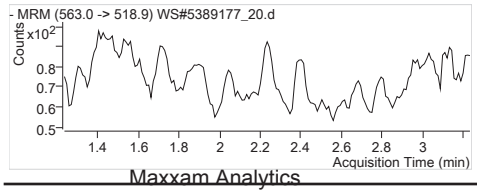


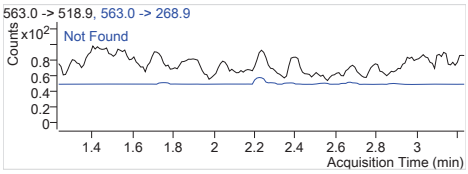
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 1.17 µg/L
Area ratio: 0.15749
Sample type: Sample



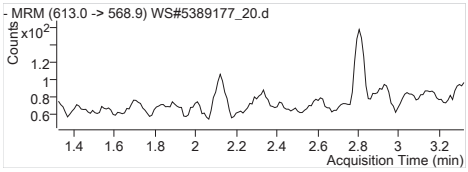


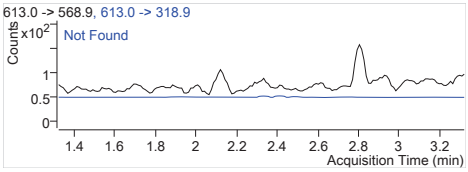
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



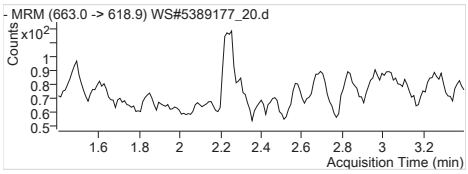


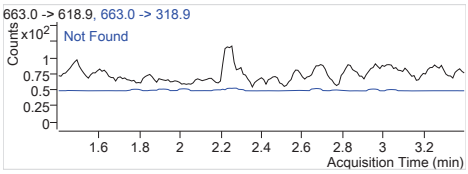
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



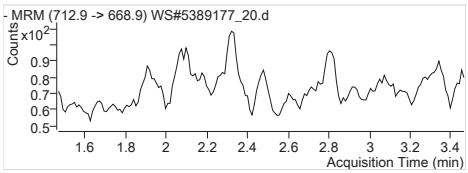


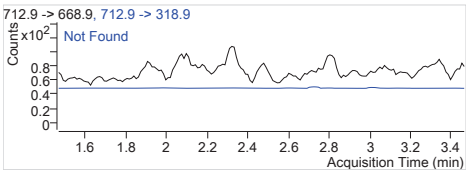
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



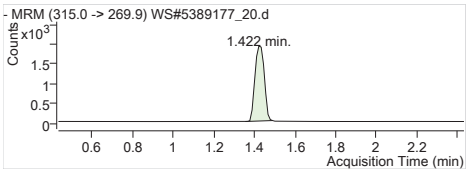


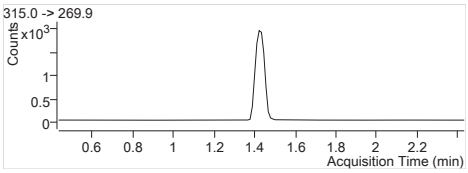
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



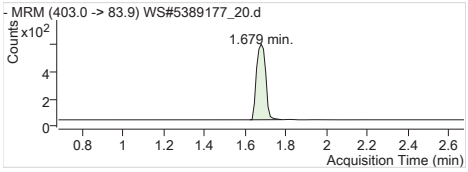


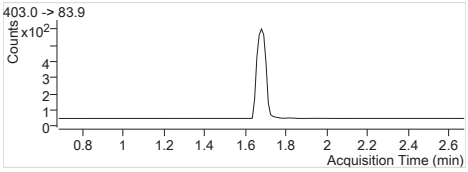
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



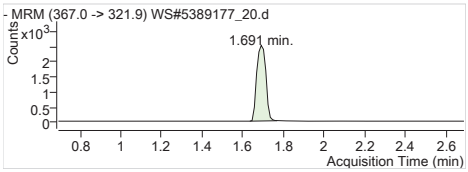


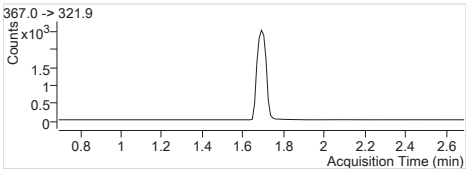
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.434)
Calc. conc.	93.86 µg/L
Area ratio:	0.26314
Sample type:	Sample



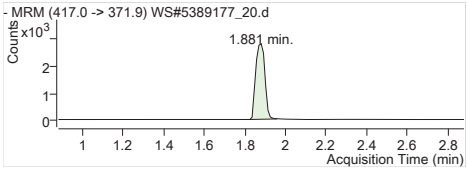


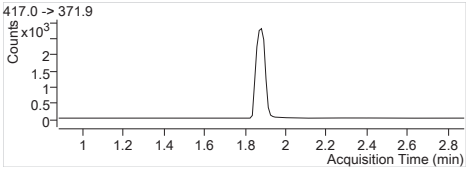
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	104.13 µg/L
Area ratio:	0.07521
Sample type:	Sample



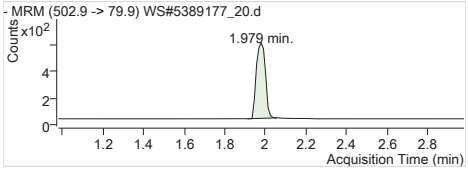


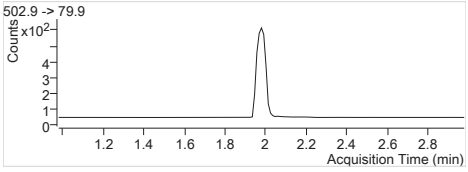
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	91.06 µg/L
Area ratio:	0.33958
Sample type:	Sample



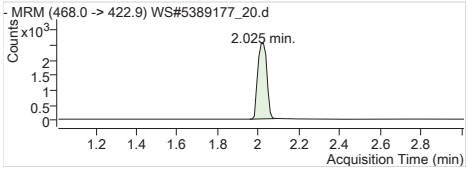


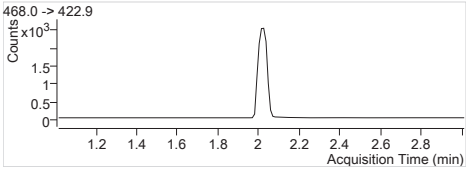
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	94.49 µg/L
Area ratio:	0.37703
Sample type:	Sample



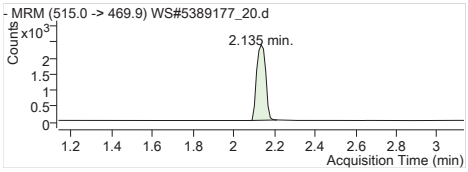


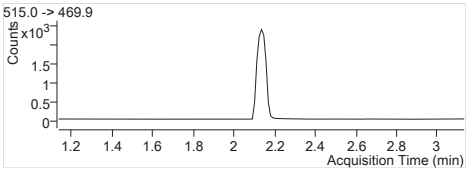
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	86.00 µg/L
Area ratio:	0.07617
Sample type:	Sample



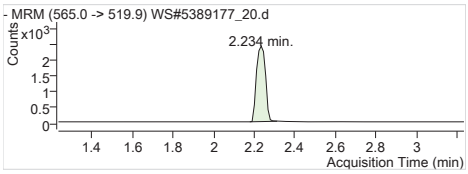


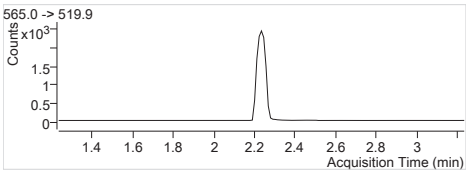
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.025 (2.014)
Calc. conc.	84.78 µg/L
Area ratio:	0.34101
Sample type:	Sample



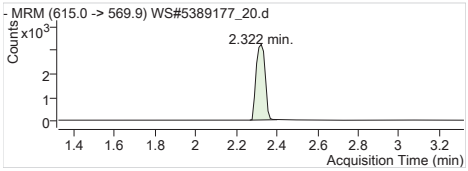


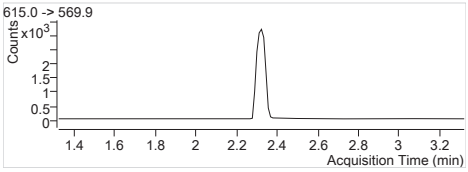
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 95.66 µg/L
Area ratio: 0.24096
Sample type: Sample



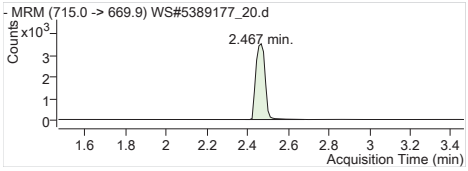


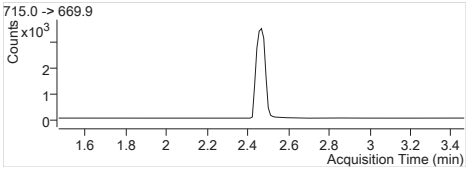
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 80.91 µg/L
Area ratio: 0.24307
Sample type: Sample



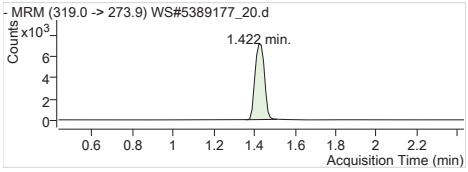


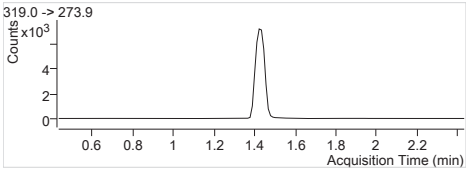
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 81.74 µg/L
Area ratio: 0.32392
Sample type: Sample



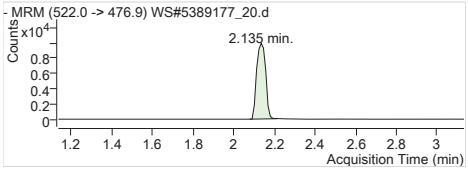


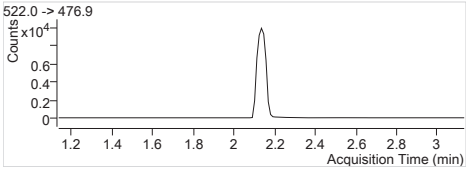
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 77.53 µg/L
Area ratio: 0.36772
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.434)
Calc. conc. 257.40 µg/L
Area ratio: 0
Sample type: Sample





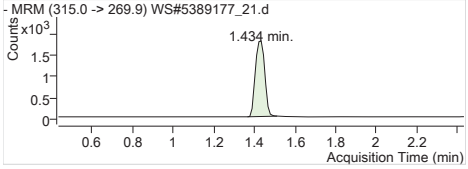
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 254.80 µg/L
Area ratio: 0
Sample type: Sample

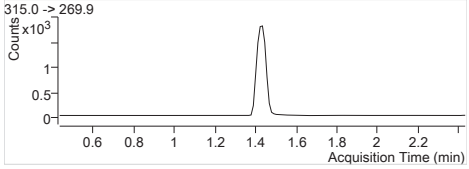
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**5389177:FZH325-01:10x**	**Instrument**	LCMS04
Data File	WS#5389177_21.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low.m	**Position**	P3-C1
Acq. Date	2018/02/09 1:36:05 AM	**Injection Volume**	Per Method
Sample Annotation	Reported for all except PFOS, PFHxS.		

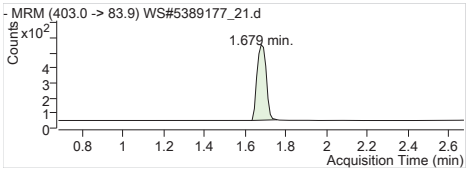
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5733	1.43	1 µg/L		
MPFHxS	1589	1.68	1 µg/L		
MPFHpA	7411	1.69	1 µg/L		
MPFOA	8167	1.88	1 µg/L		
MPFOS	1750	1.98	1 µg/L		
MPFNA	7648	2.02	1 µg/L		
MPFDA	6380	2.14	1 µg/L		
MPFUnA	7280	2.23	1 µg/L		
MPFDoA	9695	2.32	1 µg/L		
MPFTeDA	10978	2.47	1 µg/L		
13C6-PFHxA IS	22336	1.43	1 µg/L		
13C9-PFDA IS	29662	2.13	1 µg/L		

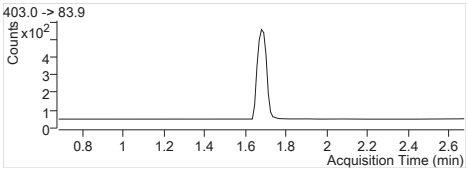
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	587	1.09	-	0.19 µg/L	-
PFHxA 1	25187	1.43	-	2.56 µg/L	-
PFHxS 1	35738	1.68	-	11.98 µg/L	-
PFHpA 1	25734	1.69	-	2.03 µg/L	-
PFOA 1	22792	1.88	-	1.58 µg/L	-
PFOS 1	88166	1.98	-	31.69 µg/L	-
PFNA 1	10640	2.01	-	0.90 µg/L	-
PFDA 1	1255	2.14	-	0.12 µg/L	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5733	1.43	-	91.55 µg/L	-
18O2-PFHxS	1589	1.68	-	98.49 µg/L	-
13C4-PFHpA	7411	1.69	-	88.97 µg/L	-
13C4-PFOA	8167	1.88	-	91.64 µg/L	-
13C4-PFOS	1750	1.98	-	88.46 µg/L	-
13C5-PFNA	7648	2.02	-	85.12 µg/L	-
13C2-PFDA	6274	2.14	-	83.97 µg/L	-
13C2-PFUnA	7280	2.23	-	81.70 µg/L	-
13C2-PFDoA	9695	2.32	-	82.48 µg/L	-
13C2-PFTeDA	11223	2.47	-	79.77 µg/L	-
13C6-PFHxA	22336	1.43	-	25.04 µg/L	-
13C9-PFDA	29662	2.13	-	24.91 µg/L	-



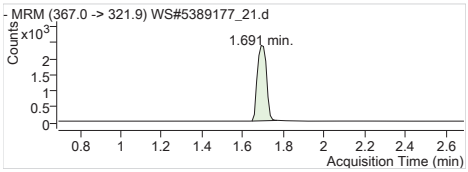


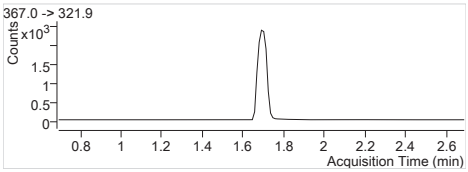
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	Sample



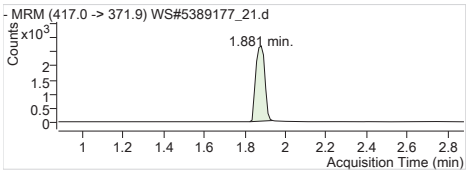


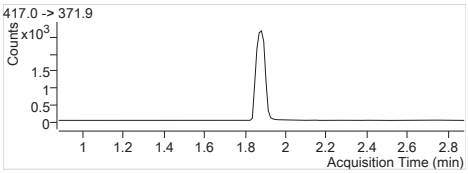
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



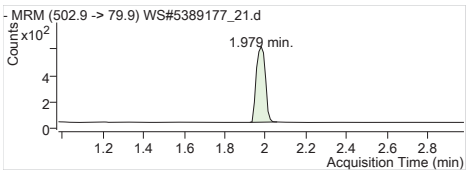


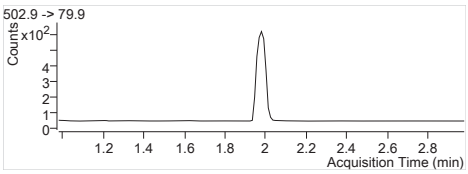
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



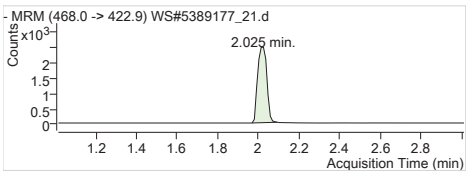


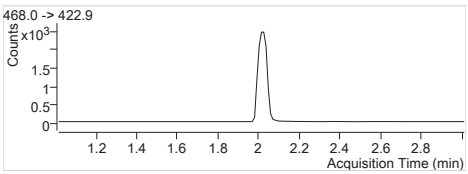
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



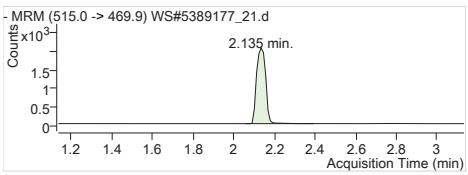


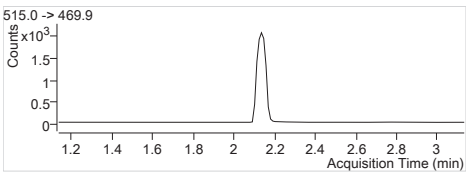
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



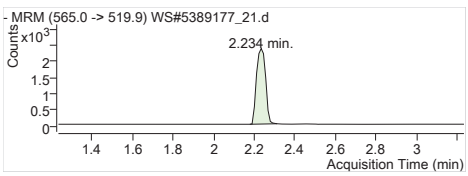


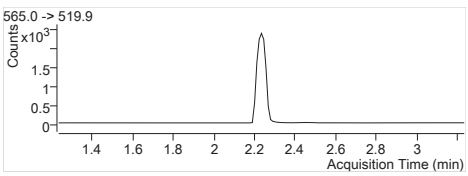
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.014)
Concentration: 1 µg/L
Sample type: Sample



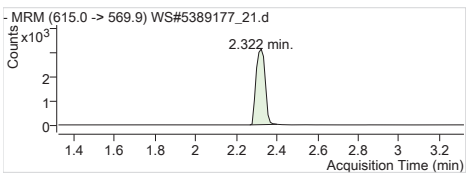


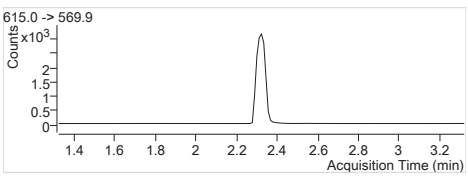
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



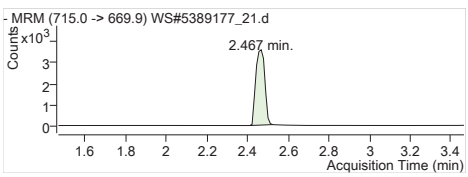


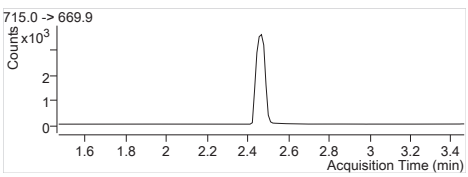
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



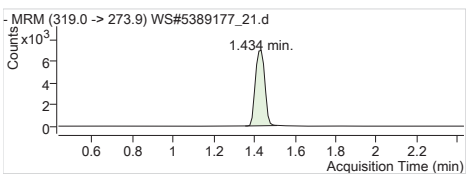


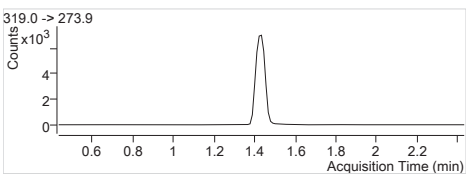
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



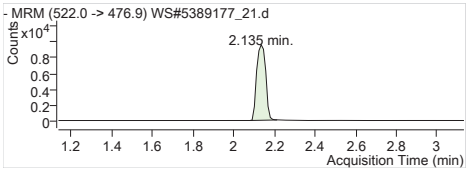


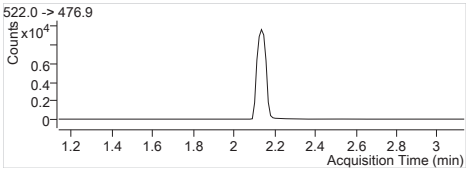
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



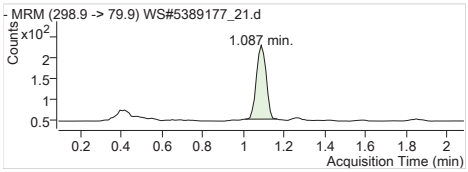


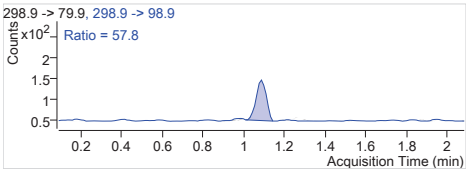
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



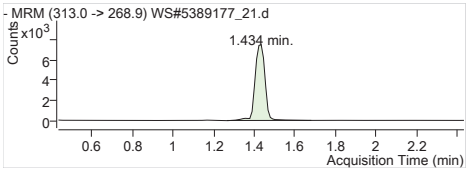


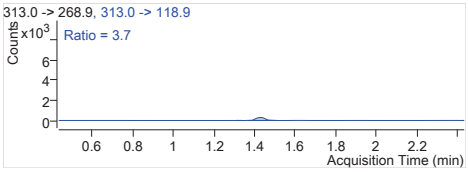
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



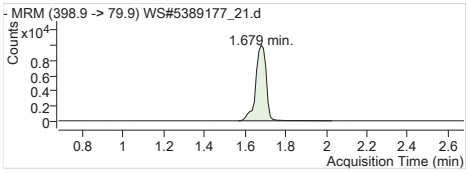


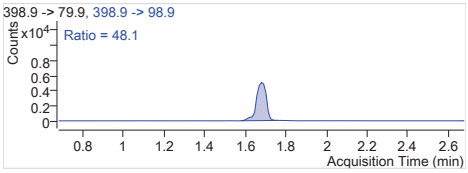
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.19 µg/L
Area ratio: 0.36941
Sample type: Sample



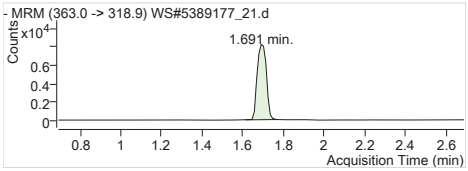


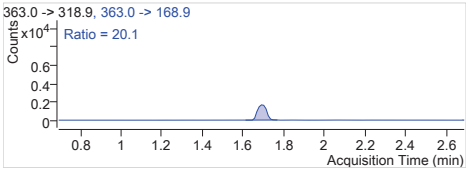
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.56 µg/L
Area ratio: 4.39334
Sample type: Sample



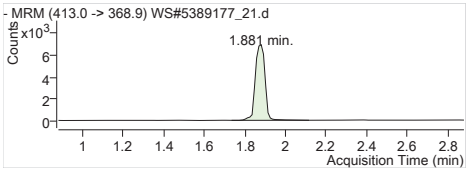


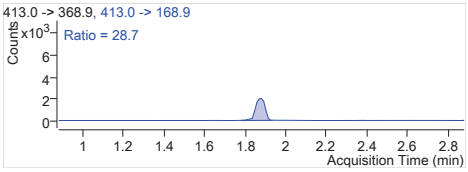
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 11.98 µg/L
Area ratio: 22.49087
Sample type: Sample



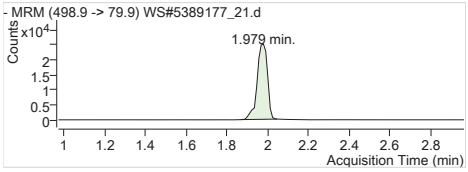


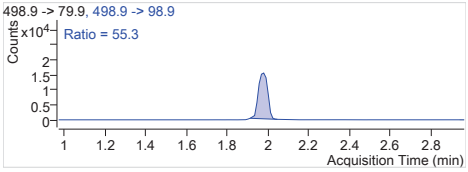
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 2.03 µg/L
Area ratio: 3.47241
Sample type: Sample



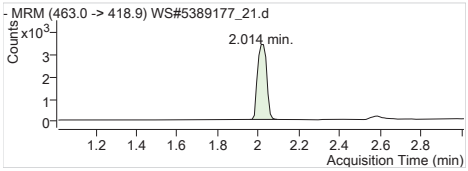


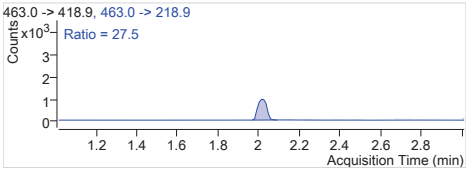
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 1.58 µg/L
Area ratio: 2.79074
Sample type: Sample



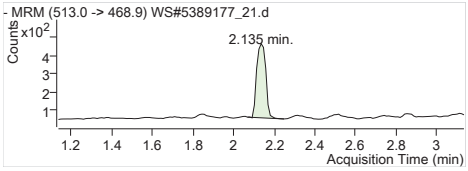


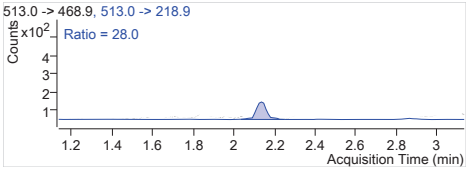
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.968)
Calc. conc. 31.69 µg/L
Area ratio: 50.38057
Sample type: Sample



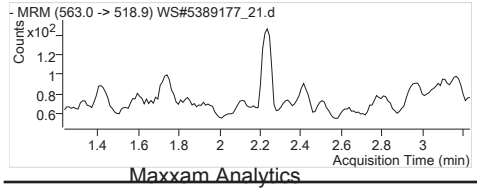


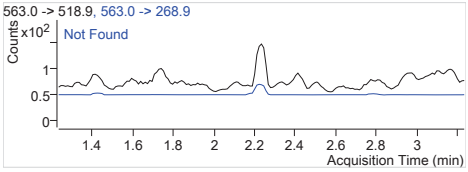
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.90 µg/L
Area ratio: 1.39121
Sample type: Sample



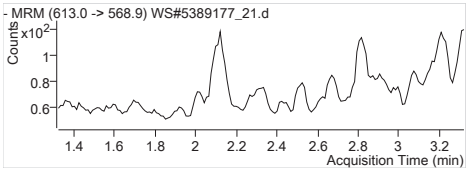


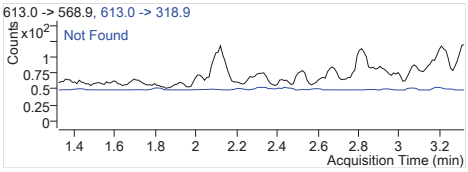
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.12 µg/L
Area ratio: 0.19671
Sample type: Sample



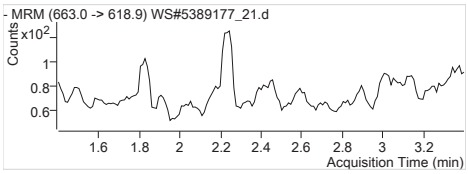


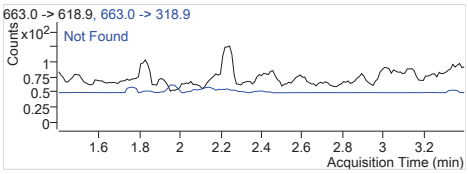
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



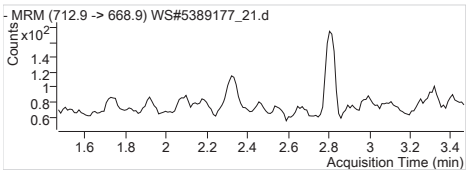


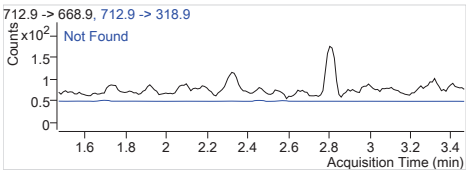
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



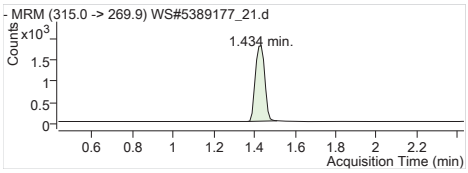


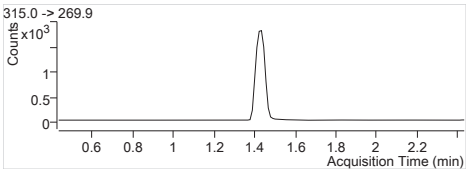
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



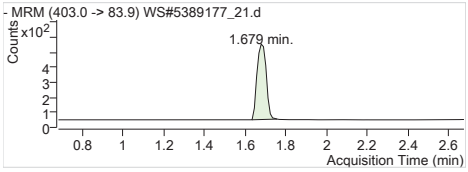


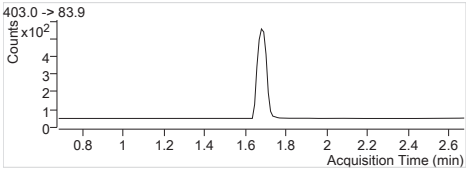
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



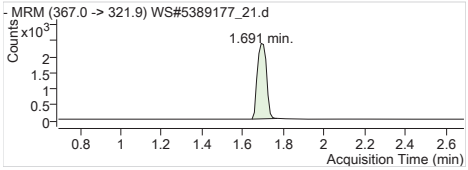


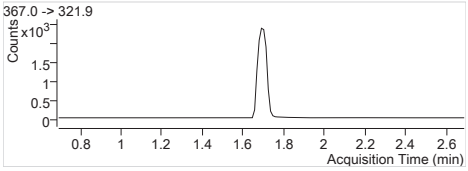
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 91.55 µg/L
Area ratio: 0.25667
Sample type: Sample



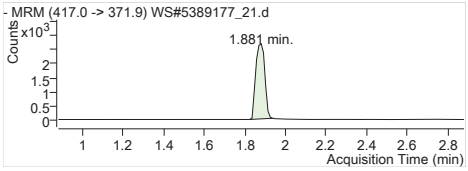


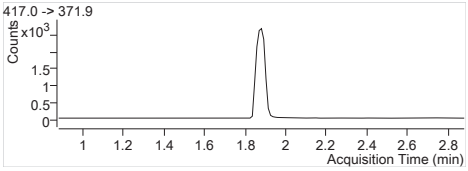
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 98.49 µg/L
Area ratio: 0.07114
Sample type: Sample



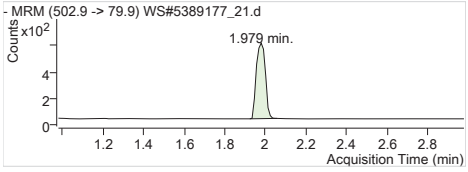


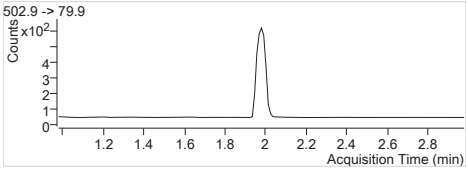
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 88.97 µg/L
Area ratio: 0.33180
Sample type: Sample



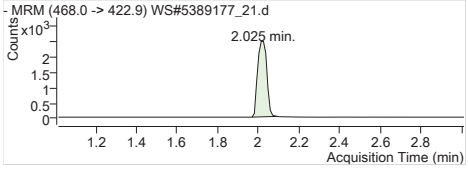


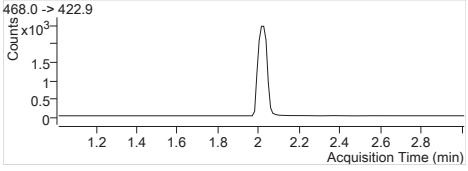
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 91.64 µg/L
Area ratio: 0.36564
Sample type: Sample



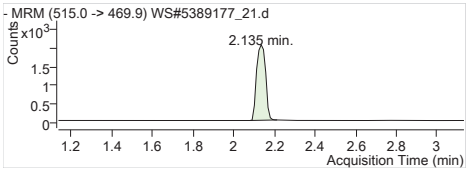


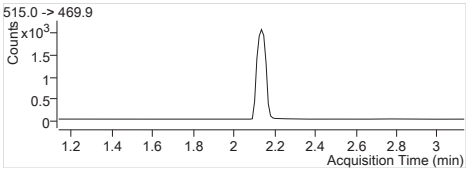
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 88.46 µg/L
Area ratio: 0.07835
Sample type: Sample



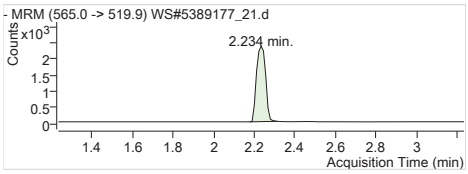


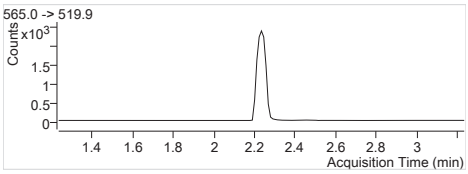
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.014)
Calc. conc. 85.12 µg/L
Area ratio: 0.34241
Sample type: Sample



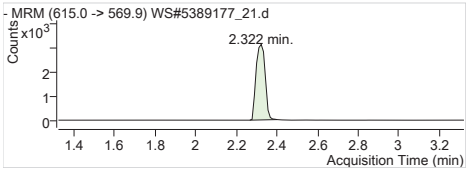


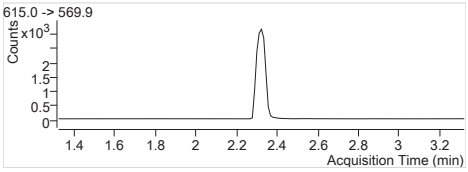
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 83.97 µg/L
Area ratio: 0.21152
Sample type: Sample



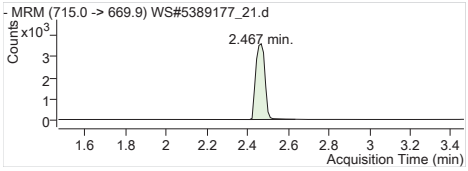


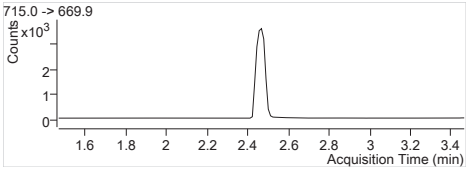
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 81.70 µg/L
Area ratio: 0.24543
Sample type: Sample



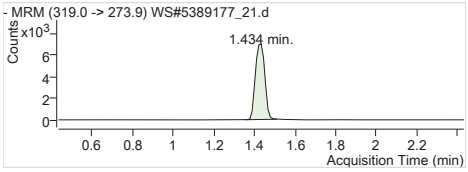


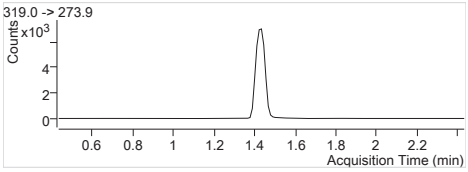
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 82.48 µg/L
Area ratio: 0.32685
Sample type: Sample



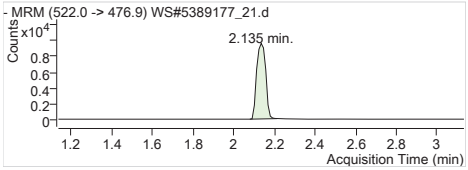


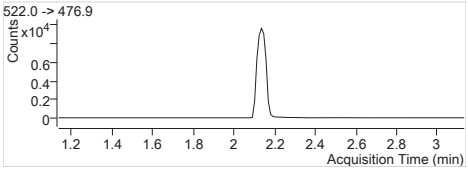
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 79.77 µg/L
Area ratio: 0.37836
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 25.04 µg/L
Area ratio: 0
Sample type: Sample





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 24.91 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

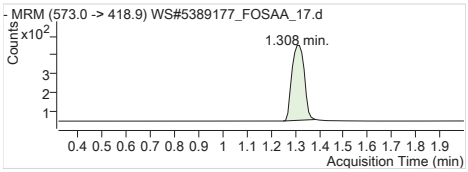
Agilent Technologies

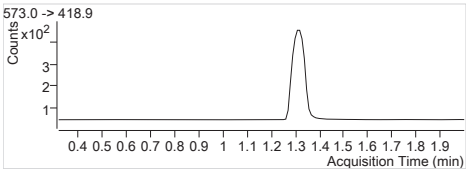
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**5389177:FZH324-01:100x**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_17.d	**Operator**	
Sample Type	Sample	**Dilution**	2.4
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-B7
Acq. Date	2018/02/08 6:40:04 PM	**Injection Volume**	Per Method
Sample Annotation	Not Used		

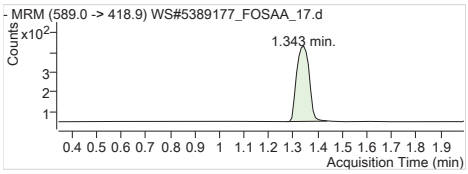
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1425	1.31	1 µg/L		
D5-EtFOSAA IS	1365	1.34	1 µg/L		
13C9-PFDA IS	21763	0.88	1 µg/L		

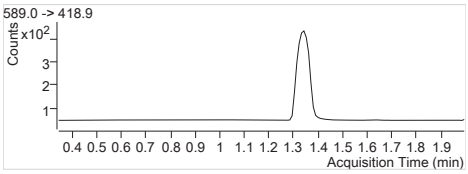
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1473	1.31	-	81.24 µg/L	-
D5-EtFOSAA	1381	1.34	-	83.62 µg/L	-
13C9-PFDA	20998	0.88	-	232.74 µg/L	-



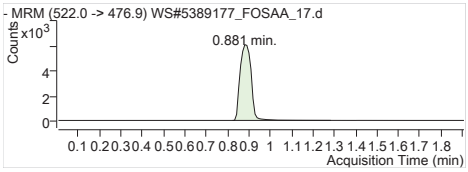


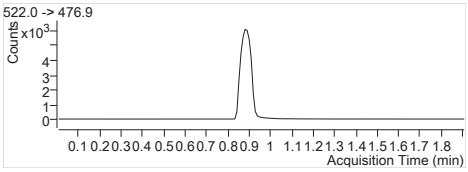
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.318)
Concentration: 1 µg/L
Sample type: Sample



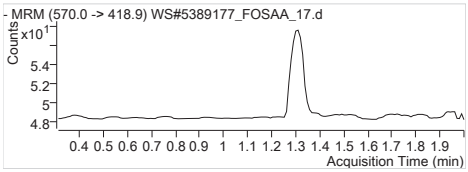


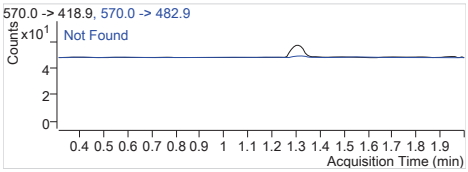
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



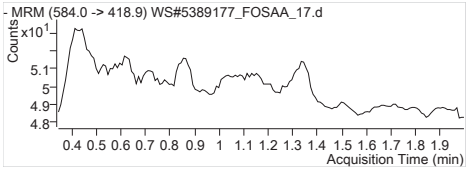


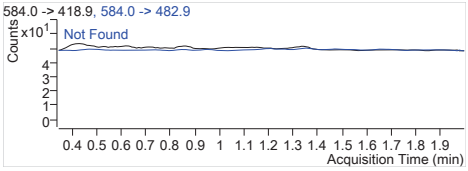
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.910)
Concentration: 1 µg/L
Sample type: Sample



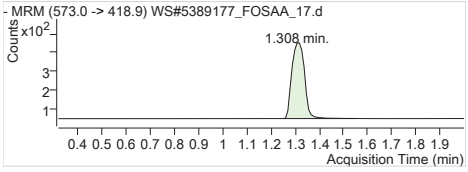


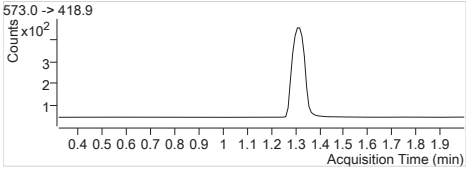
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



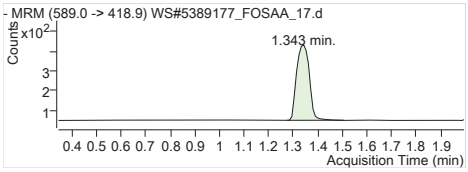


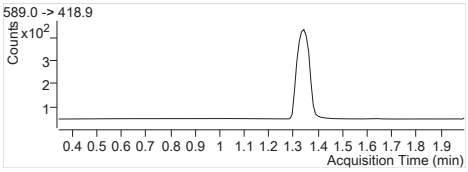
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



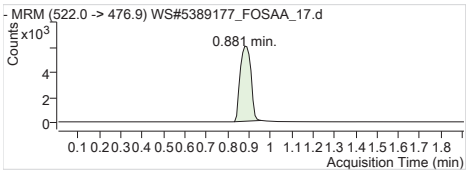


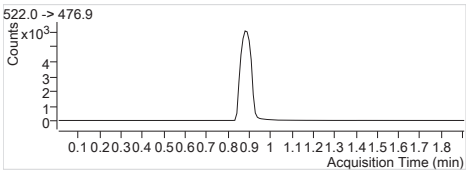
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.318)
Calc. conc. 81.24 µg/L
Area ratio: 0.06768
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	83.62 µg/L
Area ratio:	0.06346
Sample type:	Sample





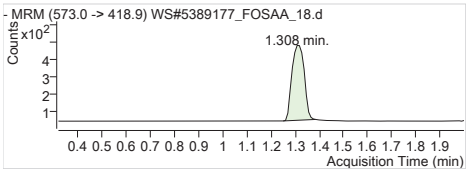
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.910)
Calc. conc.	232.74 µg/L
Area ratio:	0
Sample type:	Sample

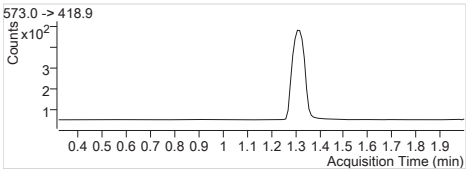
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**5389177:FZH324-01:10x**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_18.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-B8
Acq. Date	2018/02/08 6:42:29 PM	**Injection Volume**	Per Method
Sample Annotation	-		

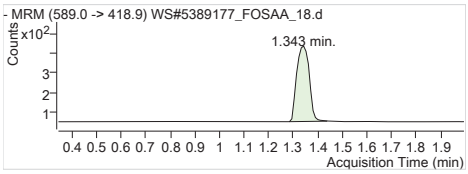
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1525	1.31	1 µg/L		
D5-EtFOSAA IS	1376	1.34	1 µg/L		
13C9-PFDA IS	21395	0.88	1 µg/L		

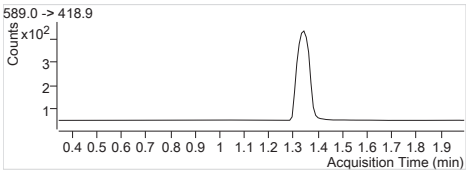
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1579	1.31	-	88.59 µg/L	-
D5-EtFOSAA	1383	1.34	-	85.18 µg/L	-
13C9-PFDA	20740	0.88	-	22.99 µg/L	-



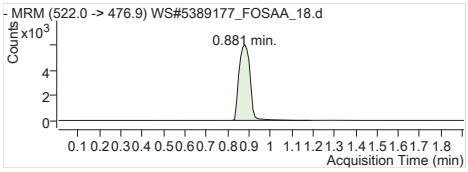


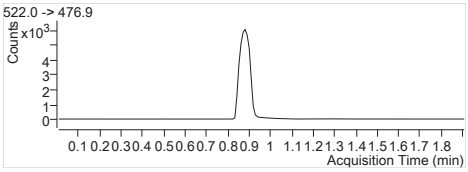
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.318)
Concentration: 1 µg/L
Sample type: Sample



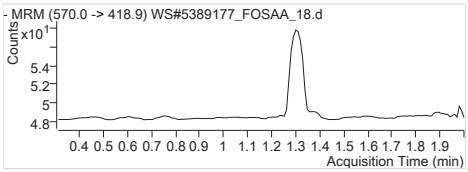


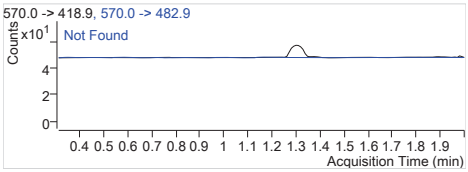
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



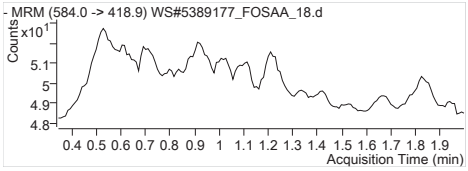


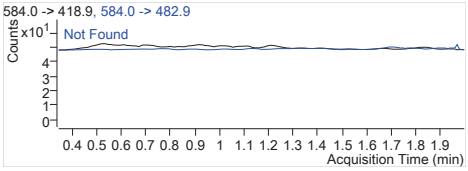
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.910)
Concentration: 1 µg/L
Sample type: Sample



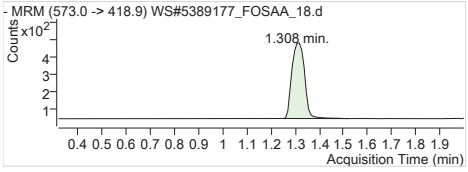


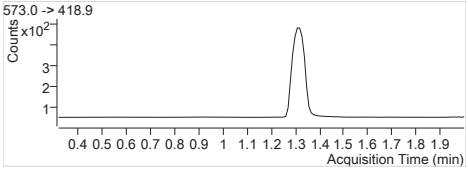
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



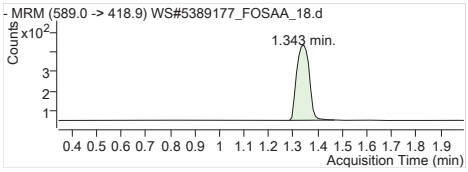


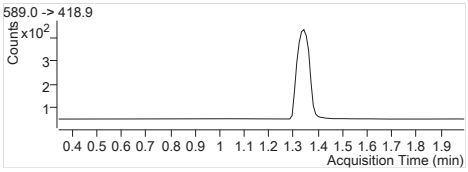
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



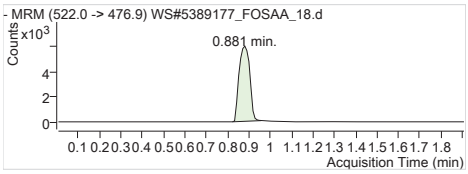


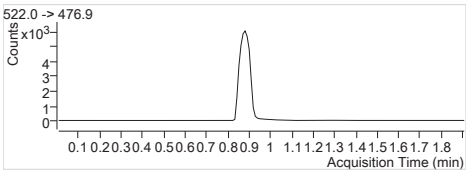
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.318)
Calc. conc. 88.59 µg/L
Area ratio: 0.07380
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	85.18 µg/L
Area ratio:	0.06464
Sample type:	Sample





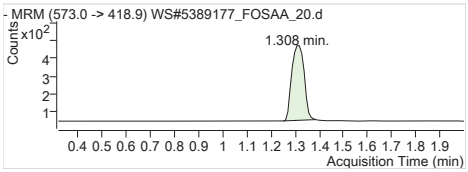
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.910)
Calc. conc.	22.99 µg/L
Area ratio:	0
Sample type:	Sample

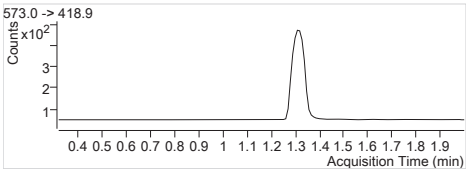
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**5389177:FZH325-01:100x**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_20.d	**Operator**	
Sample Type	Sample	**Dilution**	2.4
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-B9
Acq. Date	2018/02/08 6:47:19 PM	**Injection Volume**	Per Method
Sample Annotation	Not Used		

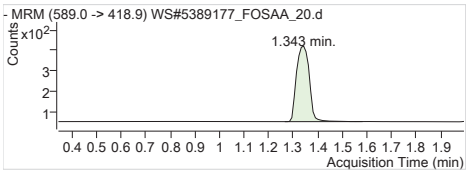
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1496	1.31	1 µg/L		
D5-EtFOSAA IS	1348	1.34	1 µg/L		
13C9-PFDA IS	22516	0.88	1 µg/L		

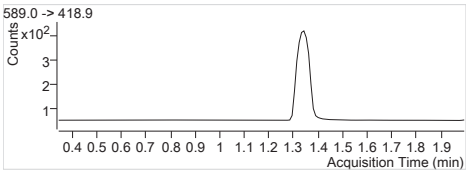
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1527	1.31	-	81.41 µg/L	-
D5-EtFOSAA	1347	1.34	-	78.83 µg/L	-
13C9-PFDA	21610	0.88	-	239.52 µg/L	-



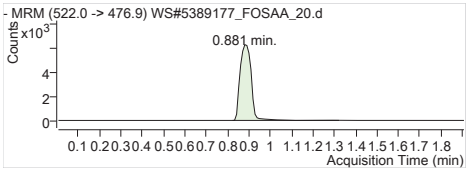


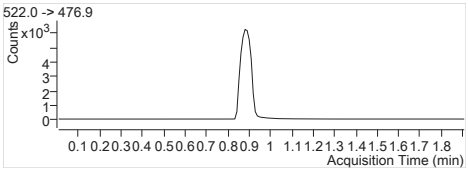
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.318)
Concentration: 1 µg/L
Sample type: Sample



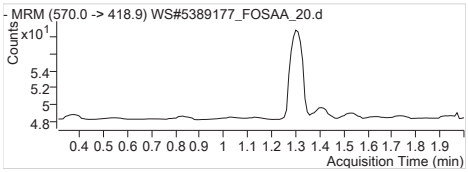


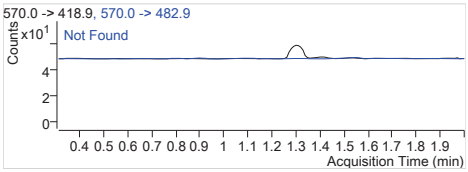
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



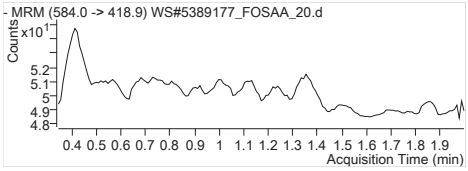


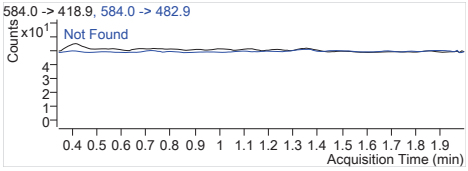
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.910)
Concentration: 1 µg/L
Sample type: Sample



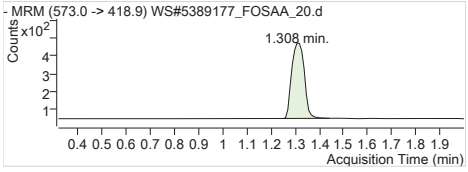


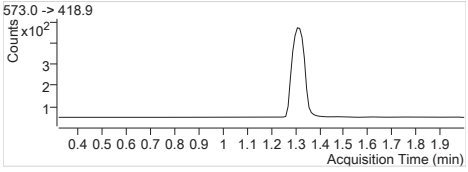
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



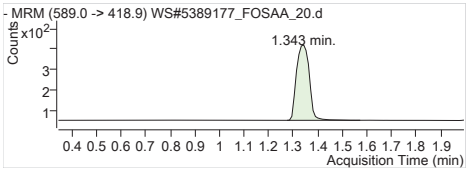


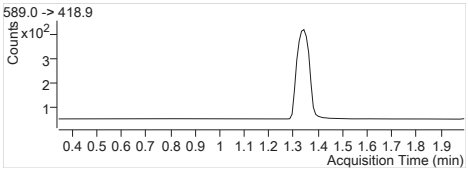
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



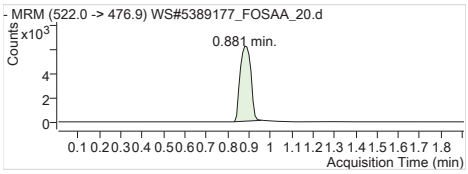


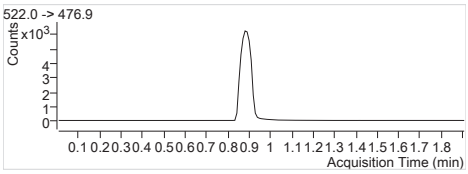
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.318)
Calc. conc. 81.41 µg/L
Area ratio: 0.06782
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	78.83 µg/L
Area ratio:	0.05982
Sample type:	Sample





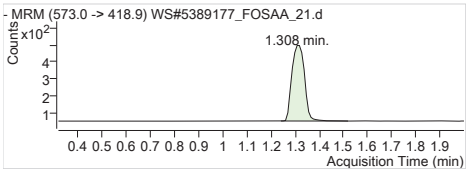
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.910)
Calc. conc.	239.52 µg/L
Area ratio:	0
Sample type:	Sample

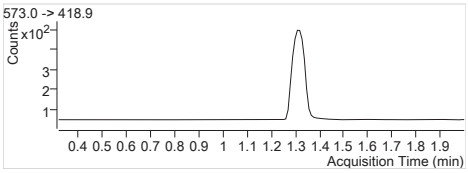
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**5389177:FZH325-01:10x**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_21.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-C1
Acq. Date	2018/02/08 6:49:44 PM	**Injection Volume**	Per Method
Sample Annotation	-		

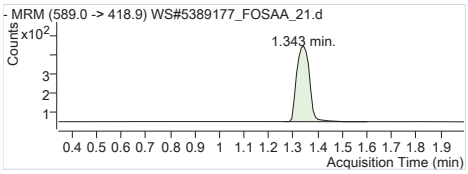
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1635	1.31	1 µg/L		
D5-EtFOSAA IS	1429	1.34	1 µg/L		
13C9-PFDA IS	22348	0.88	1 µg/L		

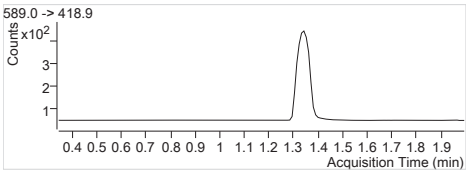
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1623	1.31	-	87.17 µg/L	-
D5-EtFOSAA	1429	1.34	-	84.26 µg/L	-
13C9-PFDA	21635	0.88	-	23.98 µg/L	-



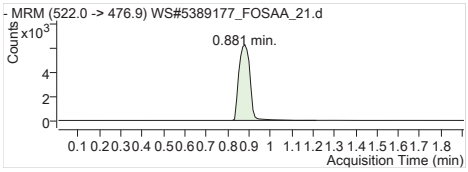


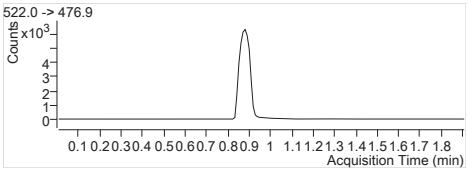
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.318)
Concentration: 1 µg/L
Sample type: Sample



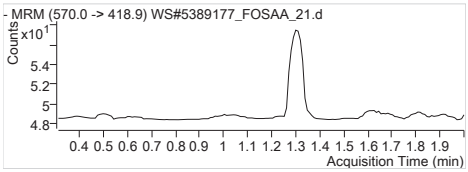


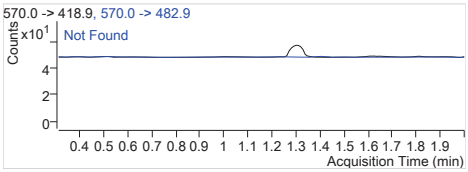
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



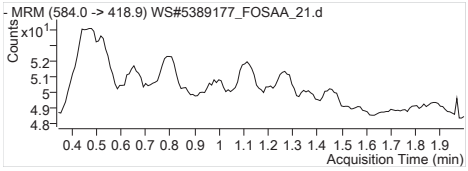


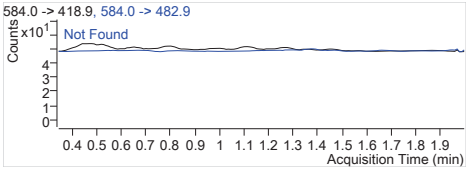
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.910)
Concentration: 1 µg/L
Sample type: Sample



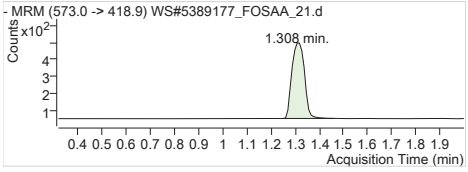


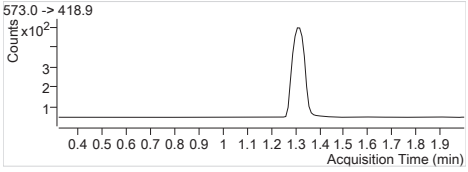
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



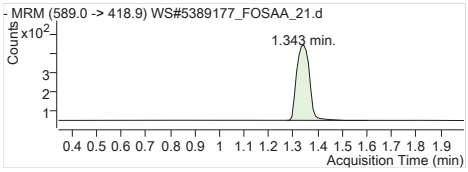


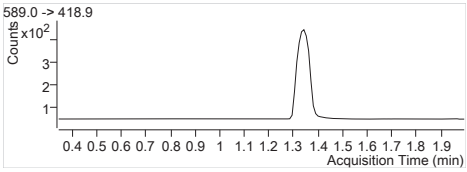
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



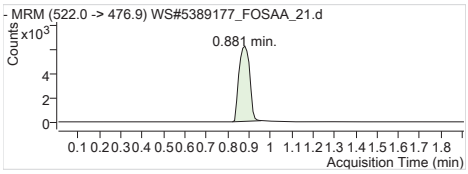


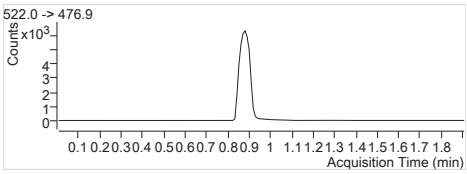
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.318)
Calc. conc. 87.17 µg/L
Area ratio: 0.07262
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	84.26 µg/L
Area ratio:	0.06394
Sample type:	Sample





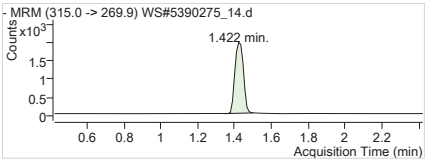
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.910)
Calc. conc.	23.98 µg/L
Area ratio:	0
Sample type:	Sample

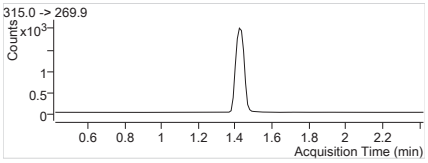
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**5390275:FZH306-01:10x**	**Instrument**	LCMS04
Data File	WS#5390275_14.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low.m	**Position**	P2-B4
Acq. Date	2018/02/09 5:38:22 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFOA only.		

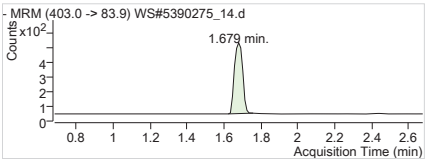
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6268	1.42	1 µg/L		
MPFHxS	1514	1.68	1 µg/L		
MPFHpA	8252	1.69	1 µg/L		
MPFOA	8441	1.87	1 µg/L		
MPFOS	1775	1.98	1 µg/L		
MPFNA	8074	2.01	1 µg/L		
MPFDA	6115	2.14	1 µg/L		
MPFUnA	7728	2.23	1 µg/L		
MPFDoA	10220	2.32	1 µg/L		
MPFTeDA	11455	2.47	1 µg/L		
13C6-PFHxA IS	25064	1.42	1 µg/L		
13C9-PFDA IS	32842	2.13	1 µg/L		

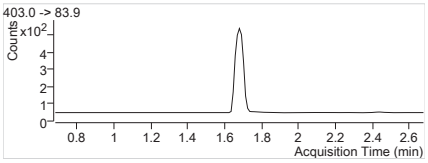
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	1558	1.42	-	0.15 µg/L	-
PFHxS 1	1577	1.68	-	0.58 µg/L	-
PFHpA 1			-	ND	-
PFOA 1	15873	1.87	-	1.10 µg/L	-
PFOS 1	306	1.98	-	0.12 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6268	1.42	-	100.20 µg/L	-
18O2-PFHxS	1514	1.68	-	96.62 µg/L	-
13C4-PFHpA	8252	1.69	-	101.22 µg/L	-
13C4-PFOA	8441	1.87	-	97.61 µg/L	-
13C4-PFOS	1775	1.98	-	90.28 µg/L	-
13C5-PFNA	8073	2.01	-	94.46 µg/L	-
13C2-PFDA	6076	2.14	-	88.79 µg/L	-
13C2-PFUnA	7728	2.23	-	89.30 µg/L	-
13C2-PFDoA	10220	2.32	-	91.29 µg/L	-
13C2-PFTeDA	11710	2.47	-	90.16 µg/L	-
13C6-PFHxA	25064	1.42	-	25.69 µg/L	-
13C9-PFDA	32842	2.13	-	25.47 µg/L	-



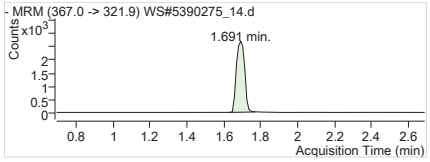


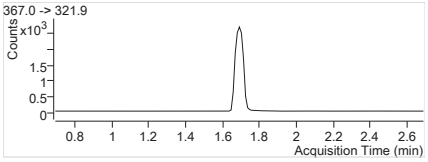
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



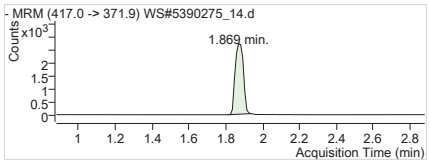


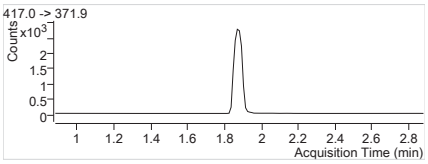
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



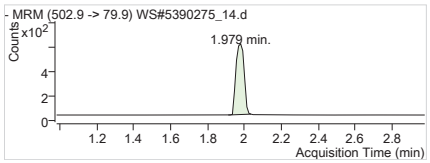


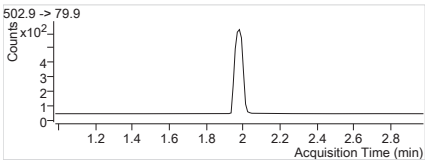
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



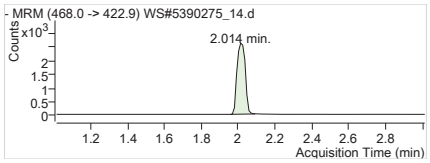


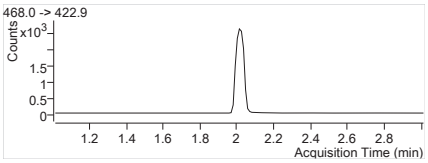
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



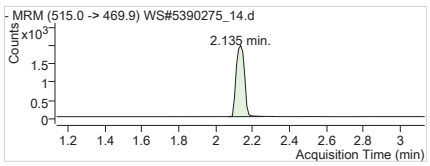


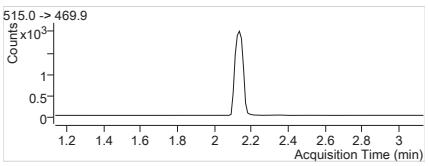
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



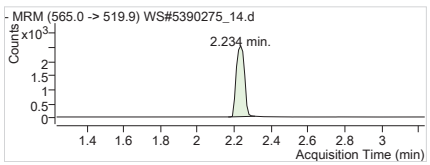


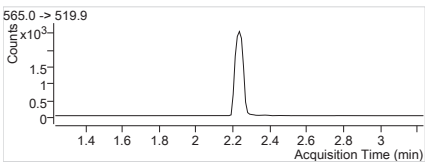
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



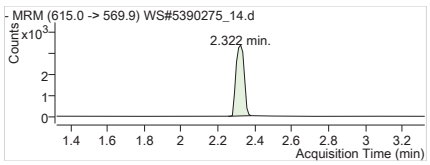


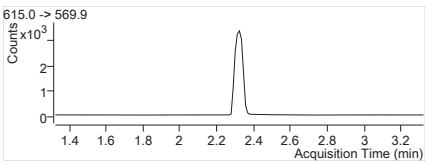
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



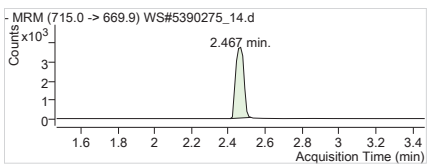


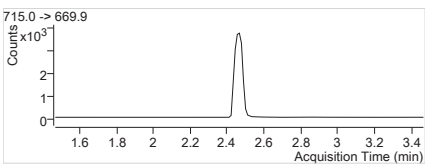
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



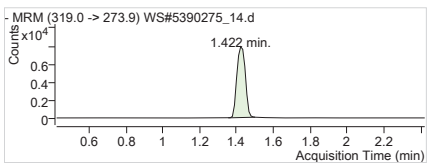


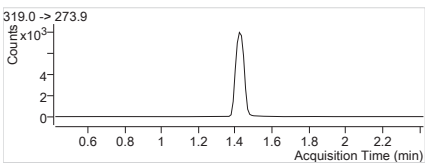
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



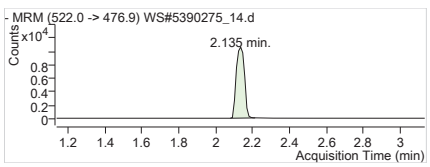


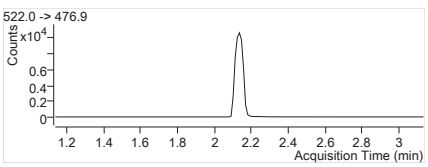
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



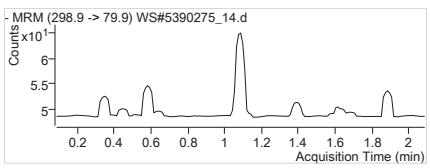


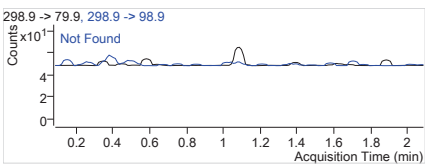
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



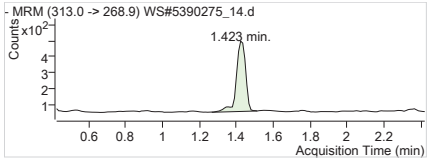


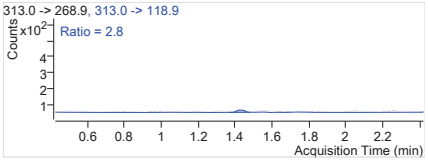
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



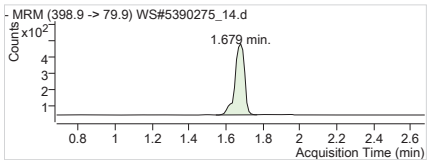


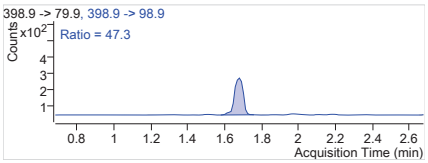
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



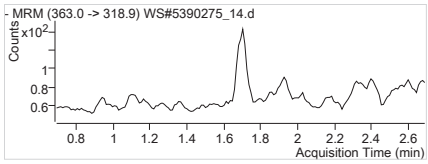


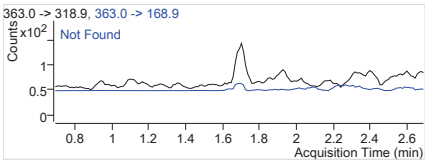
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.15 µg/L
Area ratio: 0.24856
Sample type: Sample



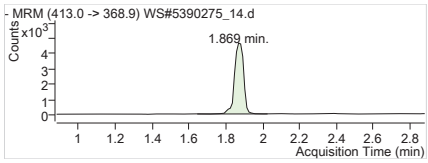


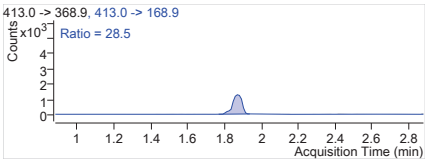
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.58 µg/L
Area ratio: 1.04161
Sample type: Sample



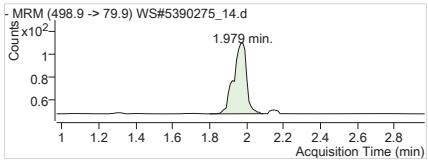


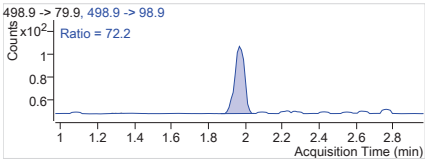
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



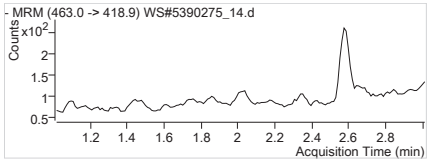


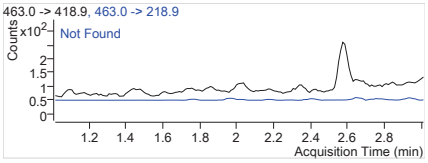
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 1.10 µg/L
Area ratio: 1.88046
Sample type: Sample



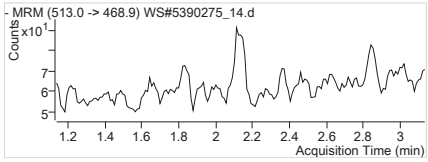


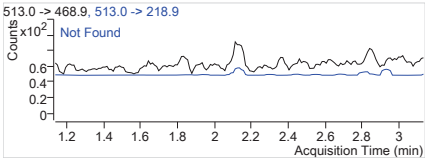
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.968)
Calc. conc. 0.12 µg/L
Area ratio: 0.17239
Sample type: Sample



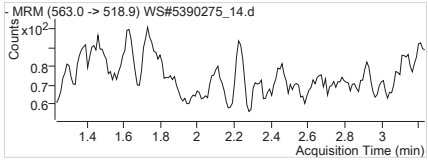


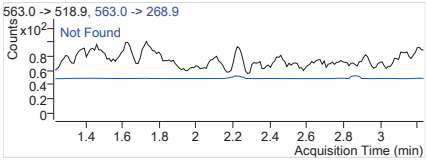
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



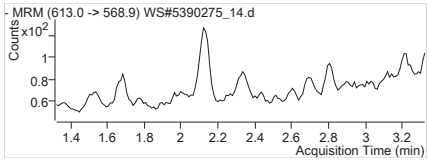


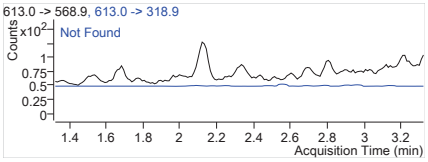
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



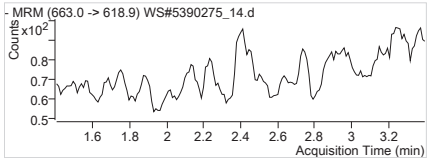


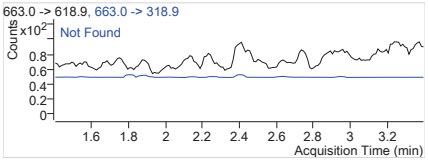
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



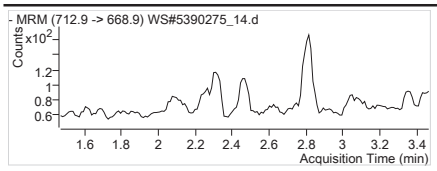


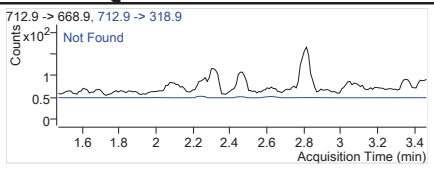
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



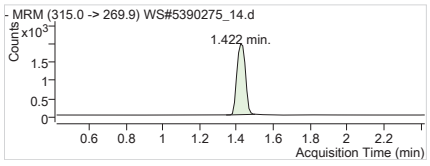


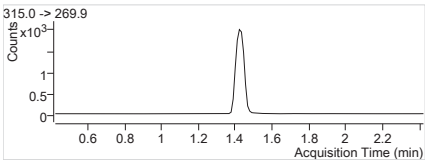
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



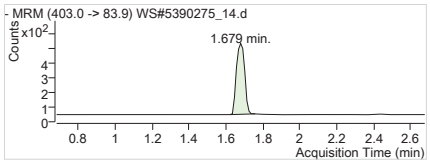


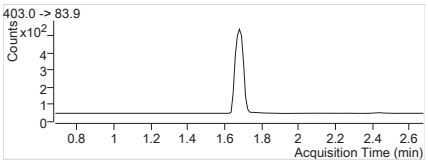
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



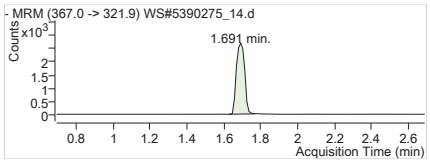


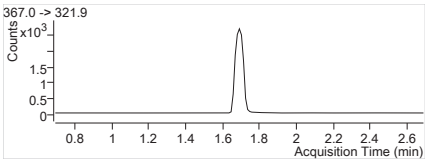
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 100.20 µg/L
Area ratio: 0.25008
Sample type: Sample



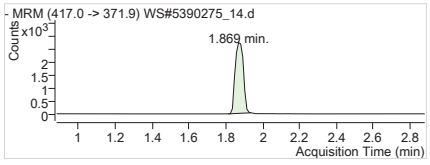


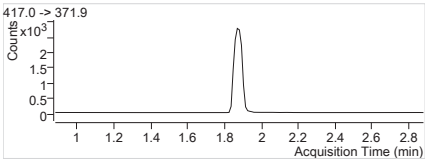
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 96.62 µg/L
Area ratio: 0.06041
Sample type: Sample



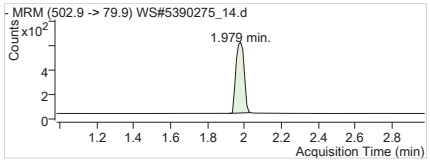


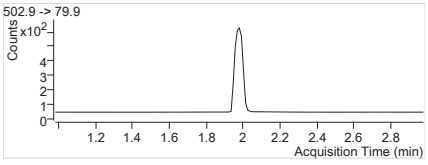
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 101.22 µg/L
Area ratio: 0.32924
Sample type: Sample



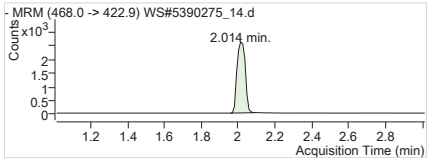


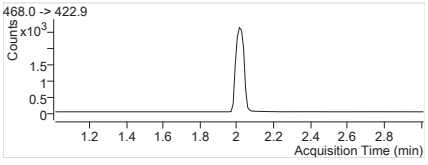
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 97.61 µg/L
Area ratio: 0.33678
Sample type: Sample



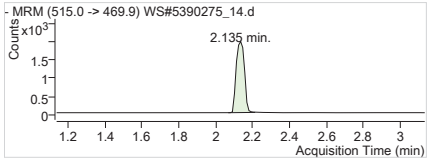


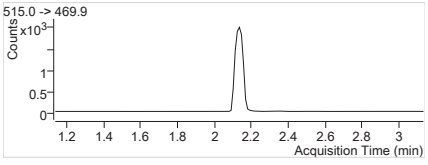
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 90.28 µg/L
Area ratio: 0.07082
Sample type: Sample



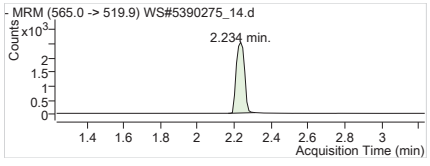


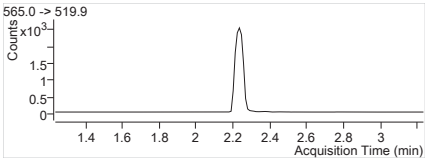
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 94.46 µg/L
Area ratio: 0.32210
Sample type: Sample



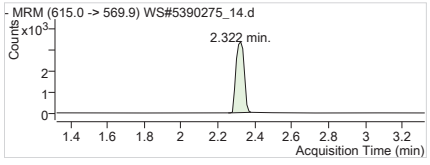


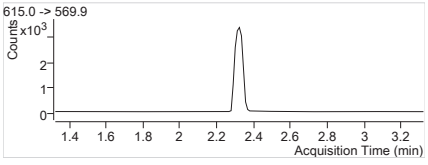
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 88.79 µg/L
Area ratio: 0.18501
Sample type: Sample



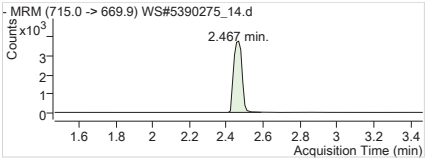


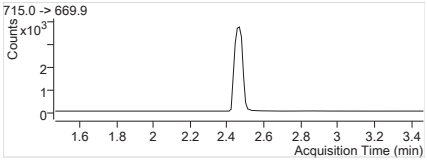
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 89.30 µg/L
Area ratio: 0.23531
Sample type: Sample



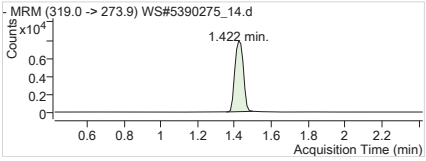


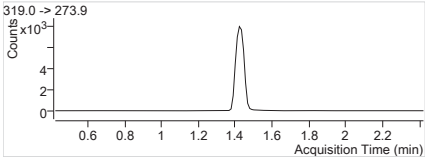
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 91.29 µg/L
Area ratio: 0.31119
Sample type: Sample



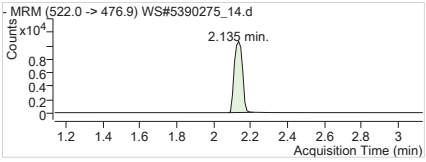


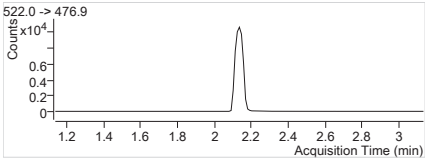
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	90.16 µg/L
Area ratio:	0.35656
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	25.69 µg/L
Area ratio:	0
Sample type:	Sample





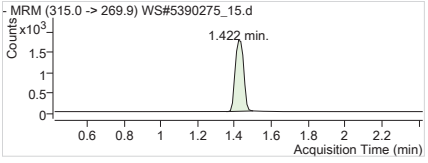
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	25.47 µg/L
Area ratio:	0
Sample type:	Sample

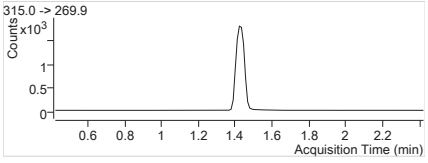
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**5390275:FZH306-01**	**Instrument**	LCMS04
Data File	WS#5390275_15.d	**Operator**	
Sample Type	Sample	**Dilution**	0.0261
Acq. Method	PFC_Water_Low.m	**Position**	P2-B5
Acq. Date	2018/02/09 5:43:18 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for all except PFOA.		

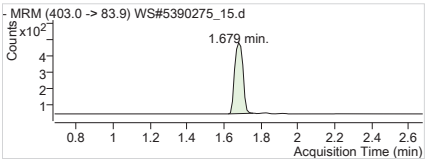
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5529	1.42	1 µg/L		
MPFHxS	1356	1.68	1 µg/L		
MPFHpA	7629	1.69	1 µg/L		
MPFOA	7565	1.88	1 µg/L		
MPFOS	1650	1.98	1 µg/L		
MPFNA	7896	2.01	1 µg/L		
MPFDA	6230	2.14	1 µg/L		
MPFUnA	7339	2.23	1 µg/L		
MPFDoA	8924	2.32	1 µg/L		
MPFTeDA	9327	2.47	1 µg/L		
13C6-PFHxA IS	21947	1.42	1 µg/L		
13C9-PFDA IS	29926	2.13	1 µg/L		

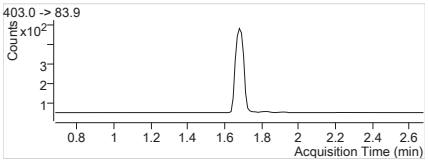
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	245	1.09	-	0.01 µg/L	-
PFHxA 1	13955	1.42	-	0.16 µg/L	-
PFHxS 1	14867	1.68	-	0.64 µg/L	-
PFHpA 1	1768	1.69	-	0.02 µg/L	-
PFOA 1	134371	1.87	-	1.12 µg/L	-
PFOS 1	2519	1.97	-	0.11 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5529	1.42	-	100.94 µg/L	-
18O2-PFHxS	1356	1.68	-	98.83 µg/L	-
13C4-PFHpA	7629	1.69	-	106.87 µg/L	-
13C4-PFOA	7565	1.88	-	99.91 µg/L	-
13C4-PFOS	1650	1.98	-	95.84 µg/L	-
13C5-PFNA	7896	2.01	-	105.51 µg/L	-
13C2-PFDA	6162	2.14	-	98.82 µg/L	-
13C2-PFUnA	7339	2.23	-	93.07 µg/L	-
13C2-PFDoA	8924	2.32	-	87.48 µg/L	-
13C2-PFTeDA	9550	2.47	-	80.69 µg/L	-
13C6-PFHxA	21947	1.42	-	2.45 µg/L	-
13C9-PFDA	29926	2.13	-	2.52 µg/L	-



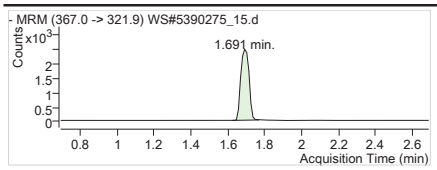


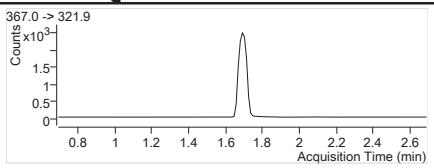
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



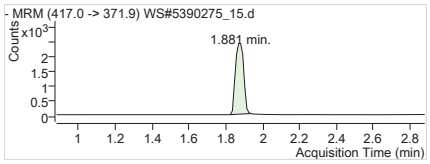


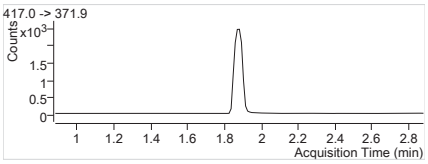
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



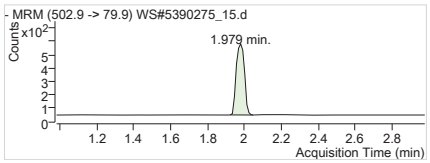


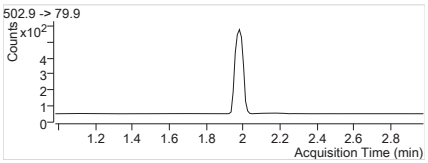
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



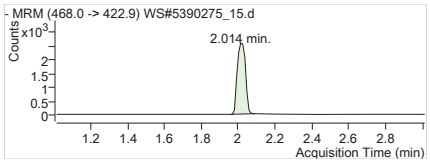


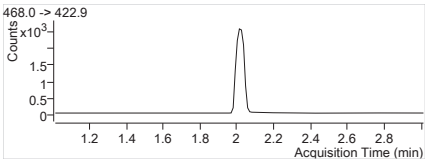
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



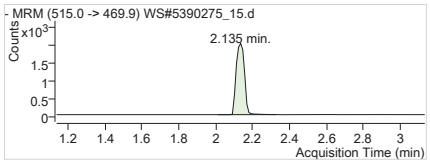


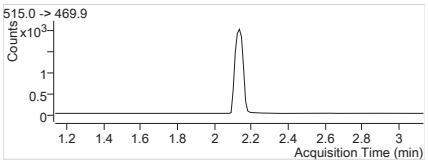
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



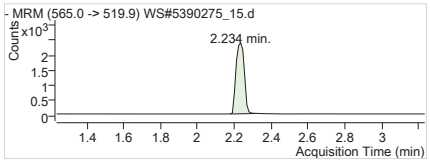


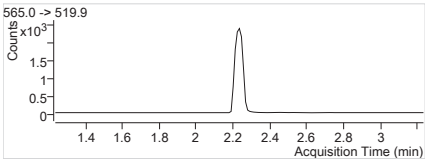
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



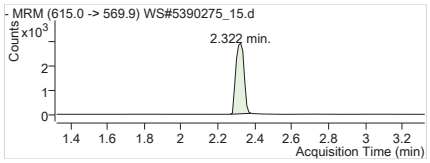


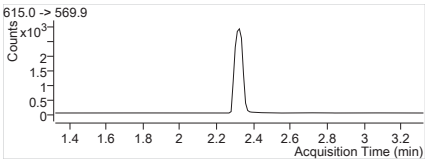
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



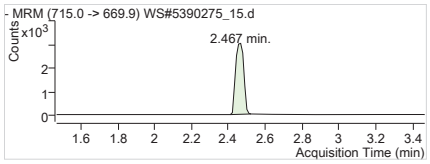


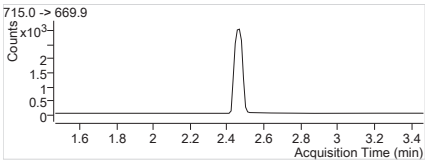
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



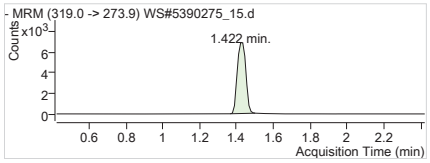


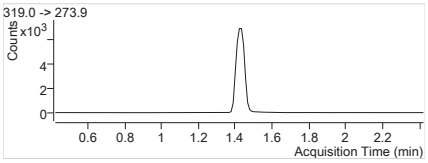
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



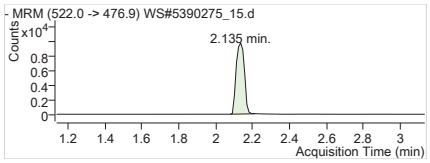


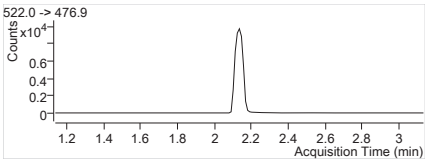
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



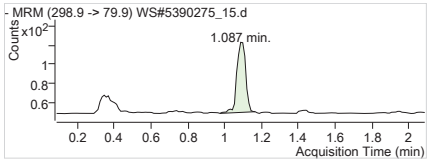


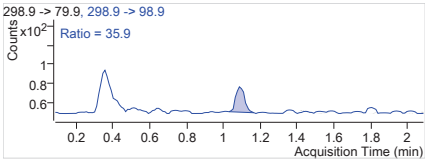
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



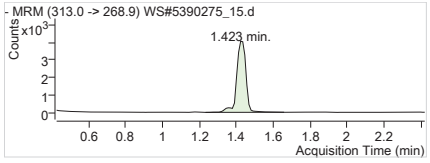


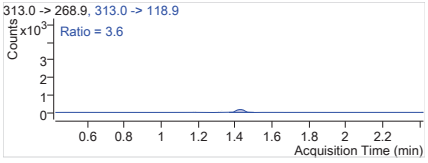
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



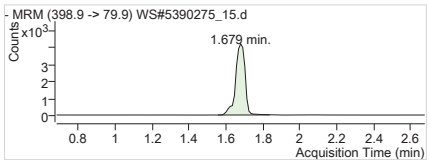


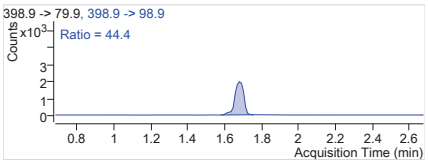
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.01 µg/L
Area ratio: 0.18068
Sample type: Sample



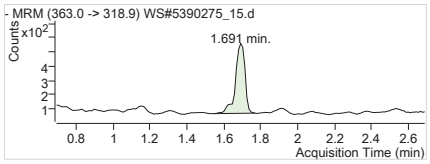


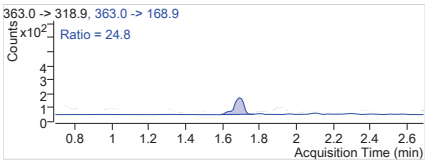
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.16 µg/L
Area ratio: 2.52396
Sample type: Sample



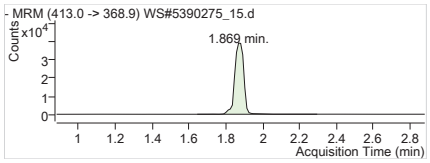


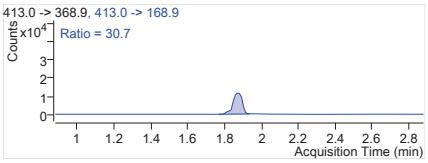
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.64 µg/L
Area ratio: 10.96386
Sample type: Sample



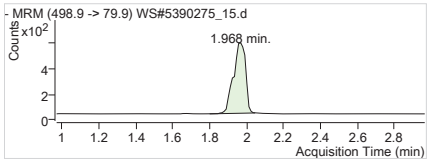


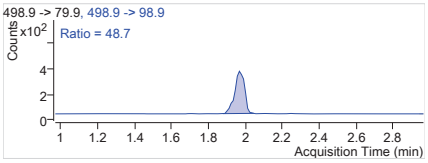
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.02 µg/L
Area ratio: 0.23175
Sample type: Sample



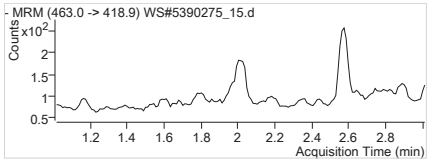


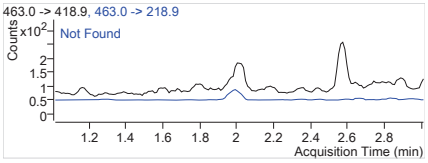
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 1.12 µg/L
Area ratio: 17.76219
Sample type: Sample



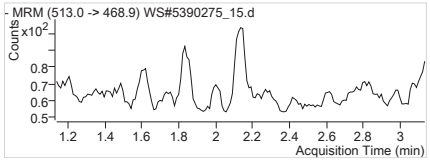


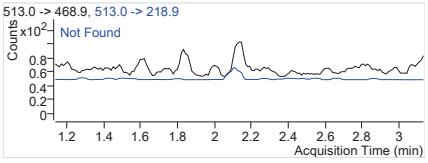
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 0.11 µg/L
Area ratio: 1.52667
Sample type: Sample



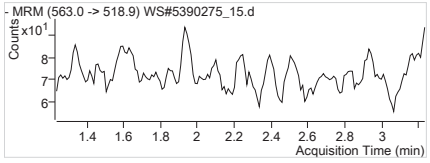


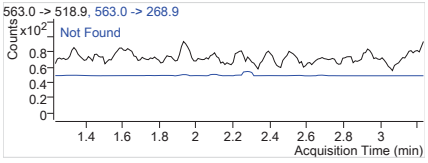
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



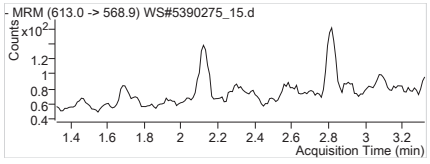


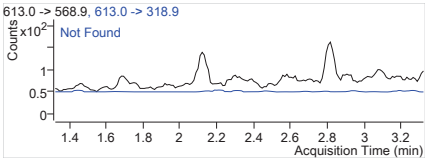
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



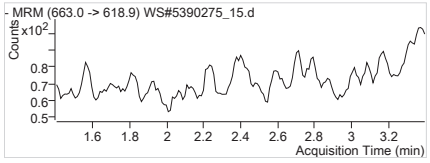


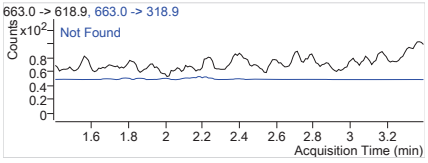
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



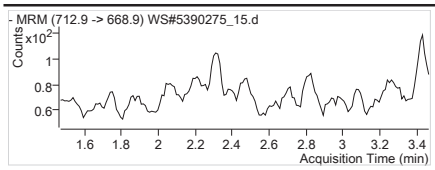


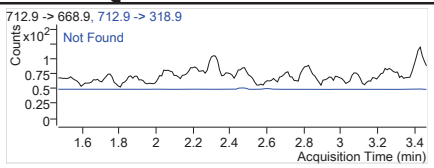
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



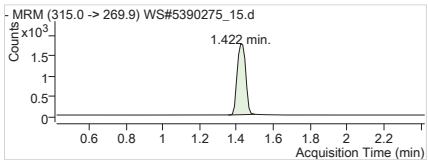


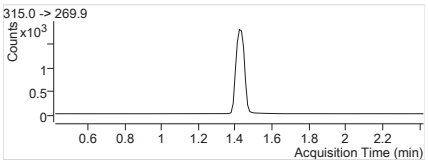
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



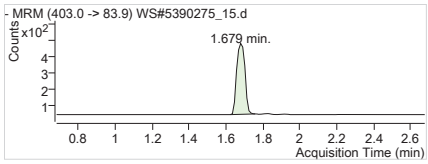


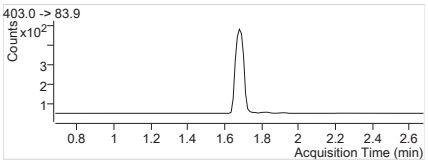
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



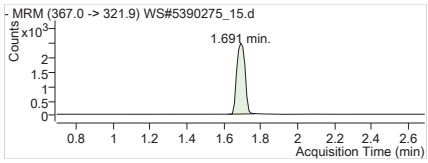


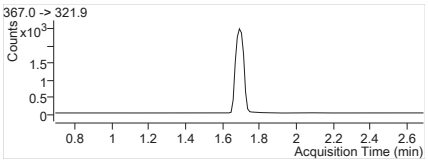
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 100.94 µg/L
Area ratio: 0.25193
Sample type: Sample



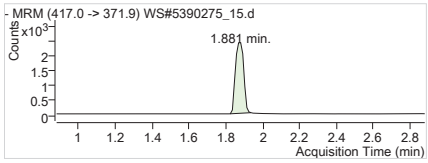


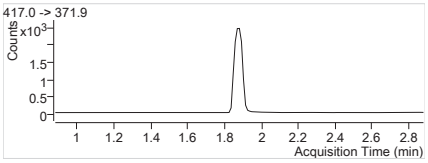
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 98.83 µg/L
Area ratio: 0.06179
Sample type: Sample



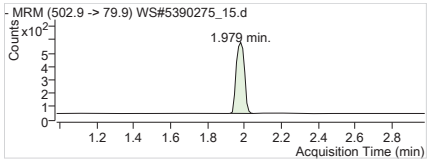


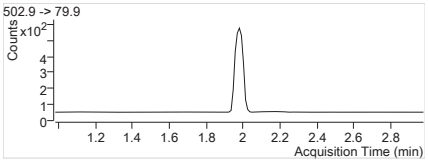
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 106.87 µg/L
Area ratio: 0.34761
Sample type: Sample



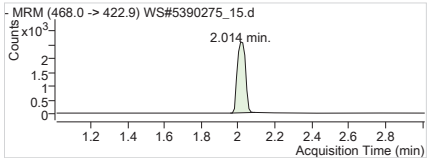


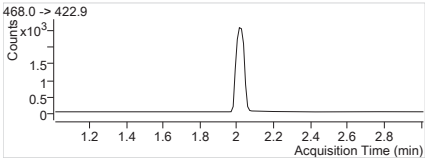
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 99.91 µg/L
Area ratio: 0.34469
Sample type: Sample



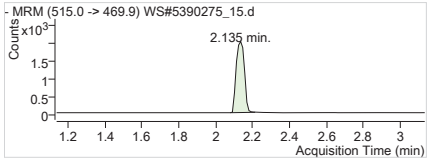


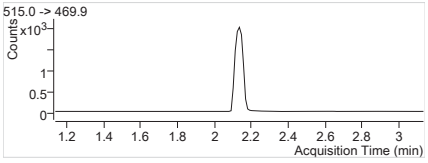
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 95.84 µg/L
Area ratio: 0.07518
Sample type: Sample



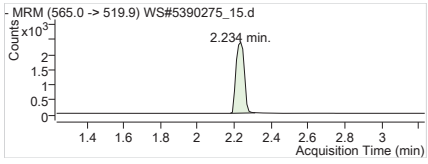


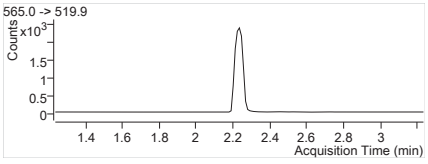
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 105.51 µg/L
Area ratio: 0.35978
Sample type: Sample



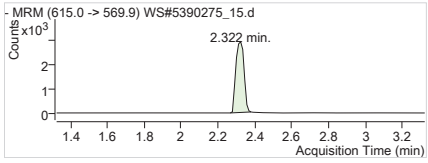


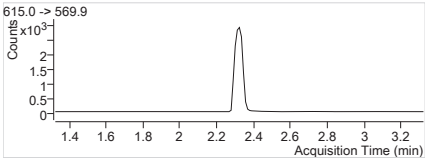
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 98.82 µg/L
Area ratio: 0.20591
Sample type: Sample



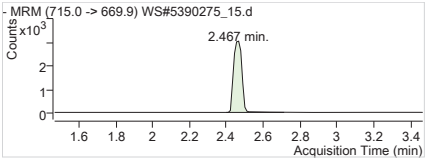


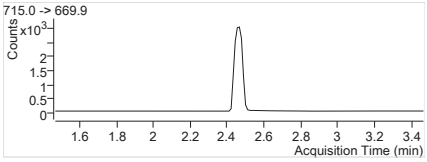
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 93.07 µg/L
Area ratio: 0.24524
Sample type: Sample



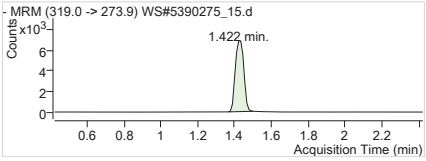


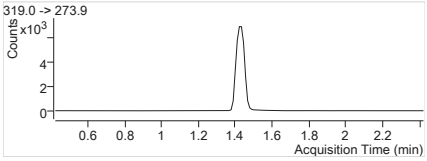
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 87.48 µg/L
Area ratio: 0.29820
Sample type: Sample



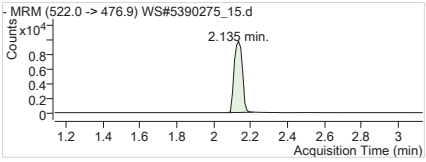


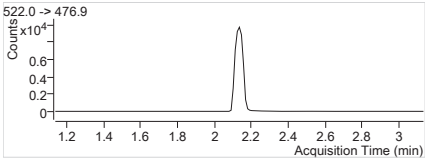
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	80.69 µg/L
Area ratio:	0.31912
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.45 µg/L
Area ratio:	0
Sample type:	Sample





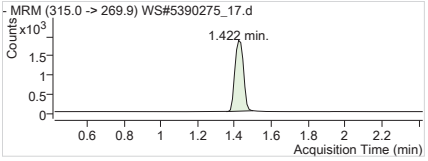
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.52 µg/L
Area ratio:	0
Sample type:	Sample

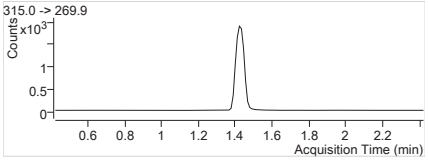
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**5390275:FZH307-01**	**Instrument**	LCMS04
Data File	WS#5390275_17.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B6
Acq. Date	2018/02/09 5:53:10 PM	**Injection Volume**	Per Method
Sample Annotation	-		

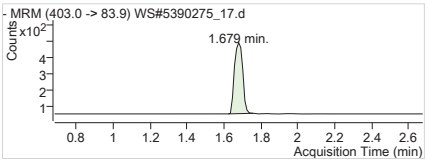
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5946	1.42	1 µg/L		
MPFHxS	1371	1.68	1 µg/L		
MPFHpA	7464	1.69	1 µg/L		
MPFOA	8108	1.87	1 µg/L		
MPFOS	1654	1.98	1 µg/L		
MPFNA	8156	2.01	1 µg/L		
MPFDA	6379	2.14	1 µg/L		
MPFUnA	7451	2.23	1 µg/L		
MPFDoA	8842	2.32	1 µg/L		
MPFTeDA	10549	2.47	1 µg/L		
13C6-PFHxA IS	24072	1.42	1 µg/L		
13C9-PFDA IS	31080	2.13	1 µg/L		

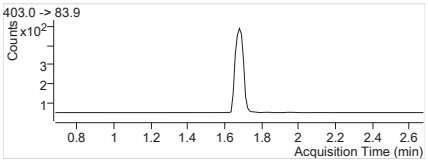
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5946	1.42	-	98.97 µg/L	-
18O2-PFHxS	1371	1.68	-	91.10 µg/L	-
13C4-PFHpA	7464	1.69	-	95.32 µg/L	-
13C4-PFOA	8108	1.87	-	97.62 µg/L	-
13C4-PFOS	1654	1.98	-	87.59 µg/L	-
13C5-PFNA	8155	2.01	-	99.35 µg/L	-
13C2-PFDA	6290	2.14	-	97.13 µg/L	-
13C2-PFUnA	7451	2.23	-	90.98 µg/L	-
13C2-PFDoA	8842	2.32	-	83.46 µg/L	-
13C2-PFTeDA	10825	2.47	-	88.07 µg/L	-
13C6-PFHxA	24072	1.42	-	2.47 µg/L	-
13C9-PFDA	31080	2.13	-	2.41 µg/L	-



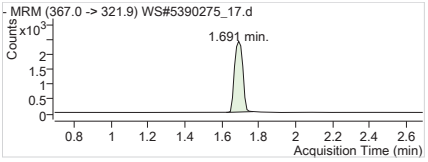


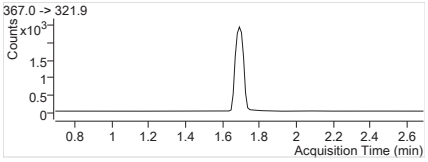
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



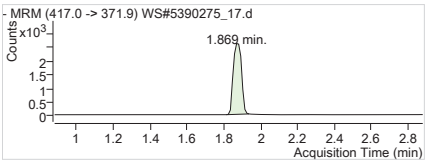


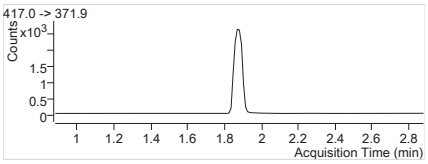
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



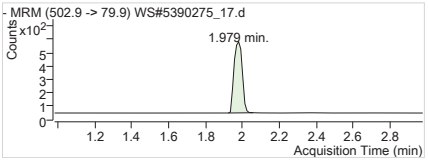


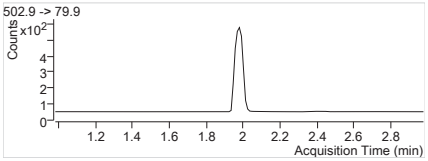
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



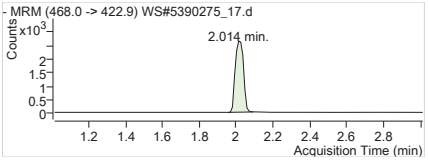


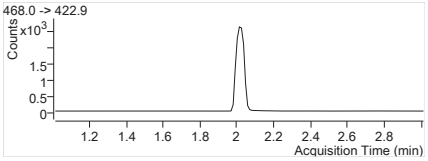
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



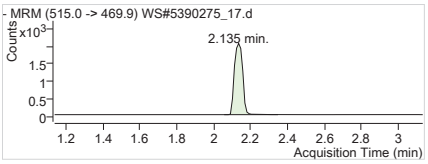


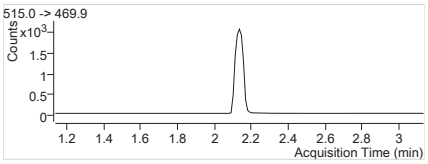
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



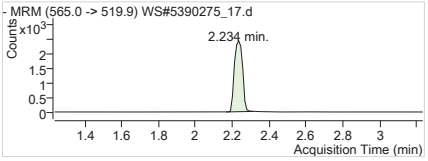


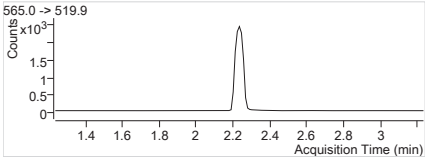
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



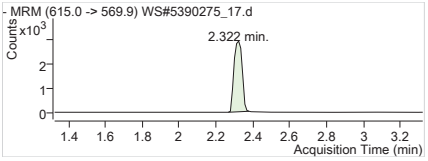


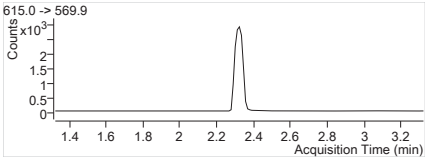
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



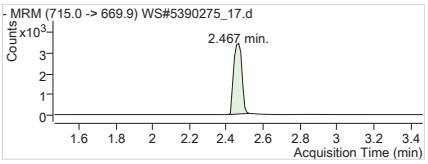


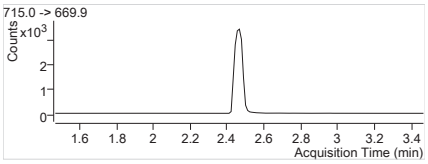
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



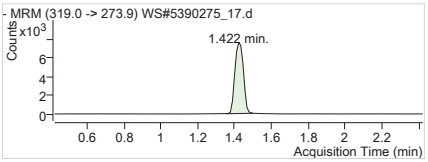


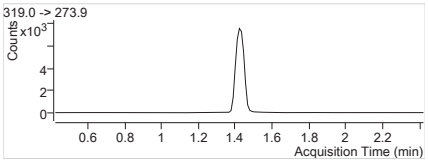
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



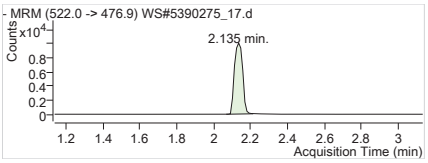


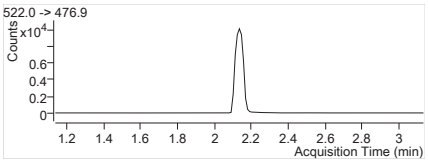
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



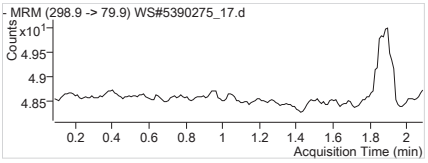


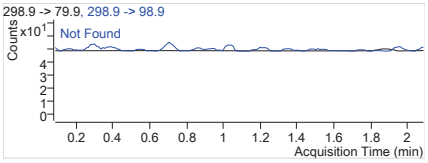
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



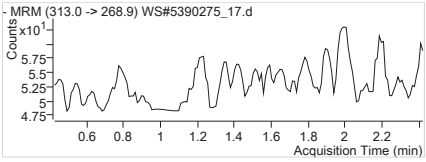


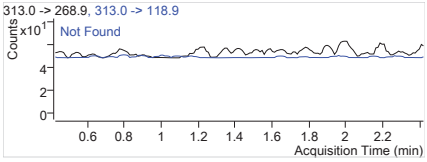
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



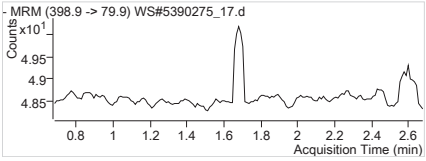


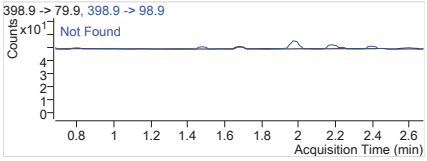
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



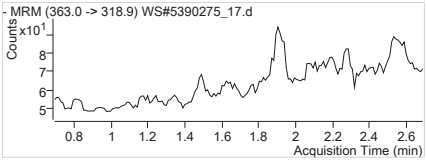


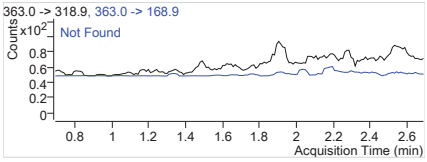
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



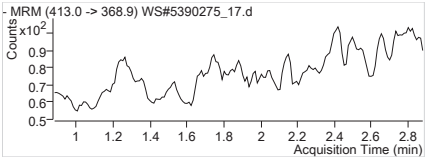


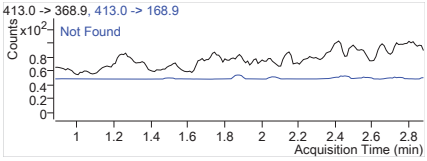
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



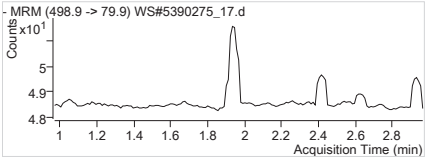


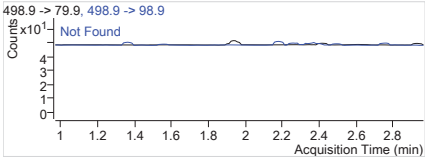
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



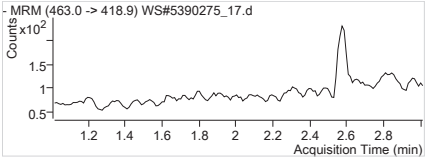


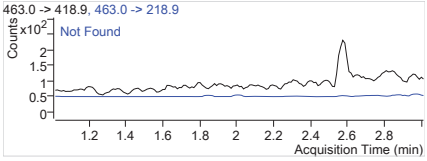
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



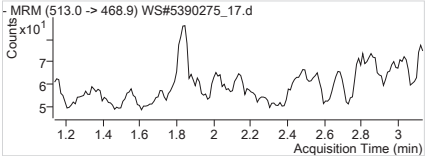


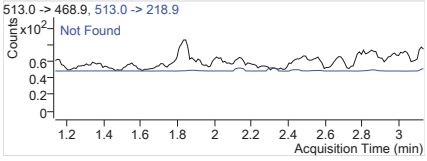
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



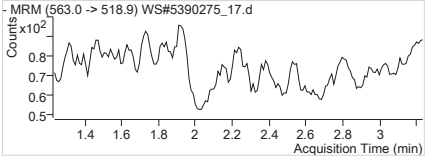


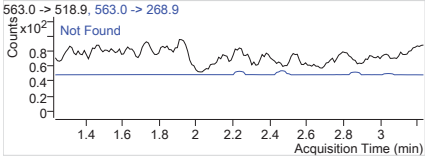
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



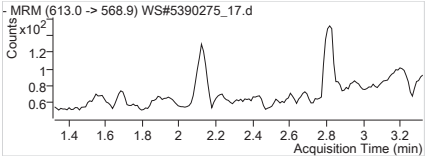


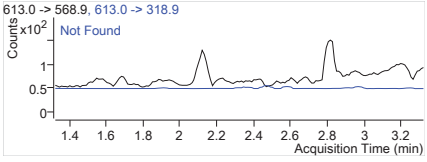
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



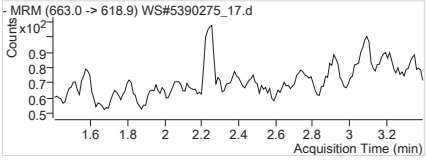


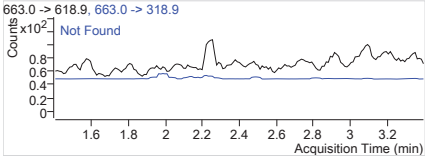
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



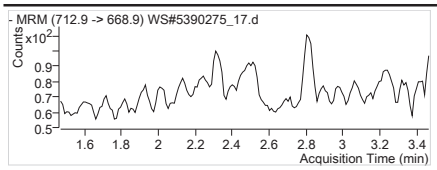


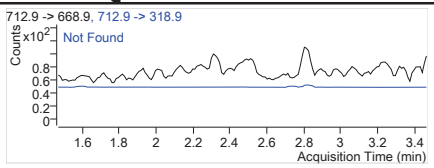
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



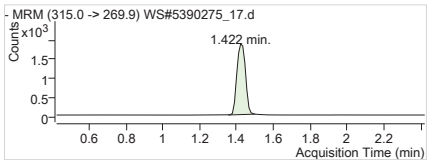


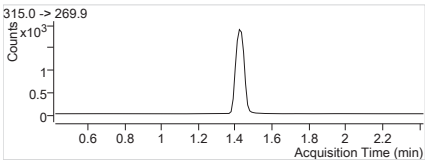
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



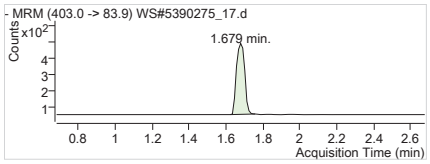


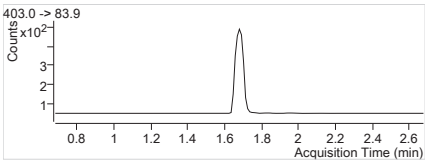
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



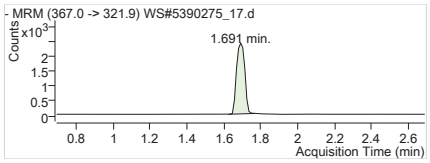


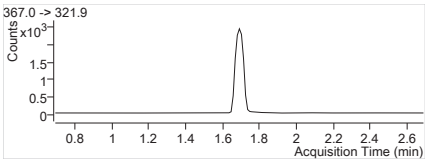
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	98.97 µg/L
Area ratio:	0.24701
Sample type:	Sample



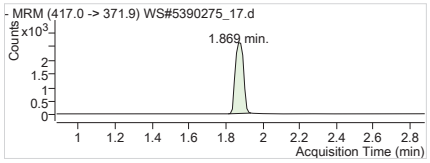


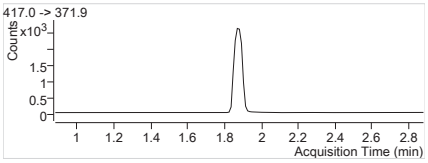
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	91.10 µg/L
Area ratio:	0.05695
Sample type:	Sample



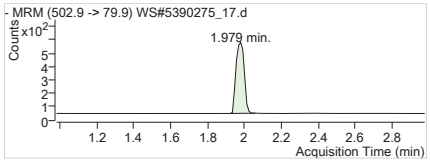


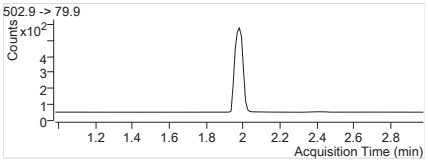
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	95.32 µg/L
Area ratio:	0.31007
Sample type:	Sample



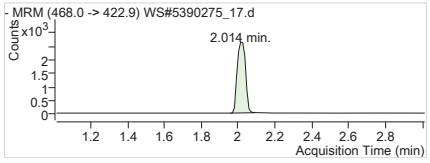


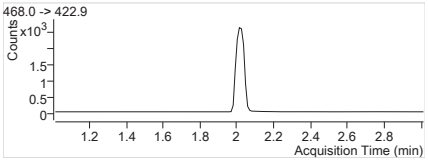
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.869 (1.881)
Calc. conc.	97.62 µg/L
Area ratio:	0.33682
Sample type:	Sample



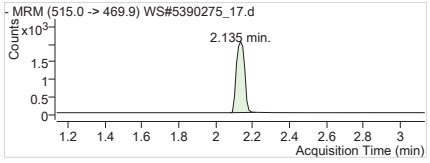


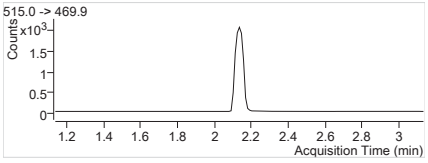
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	87.59 µg/L
Area ratio:	0.06871
Sample type:	Sample



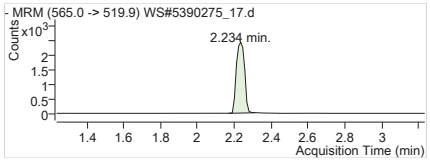


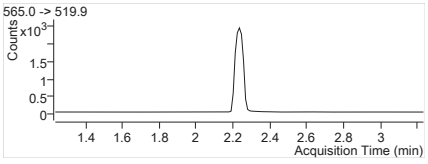
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	99.35 µg/L
Area ratio:	0.33878
Sample type:	Sample



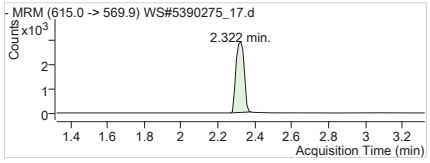


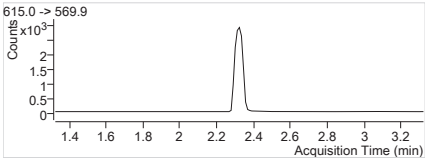
13C2-PFDA	515.0 -> 469.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	97.13 µg/L
Area ratio:	0.20238
Sample type:	Sample



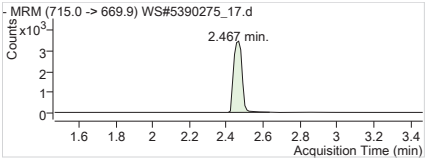


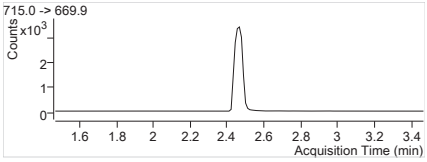
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.234 (2.234)
Calc. conc.	90.98 µg/L
Area ratio:	0.23974
Sample type:	Sample



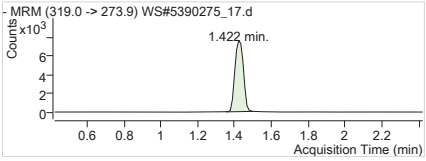


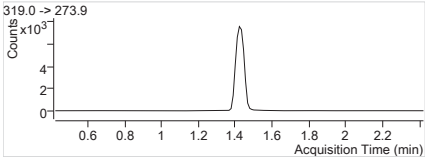
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.322 (2.322)
Calc. conc.	83.46 µg/L
Area ratio:	0.28449
Sample type:	Sample



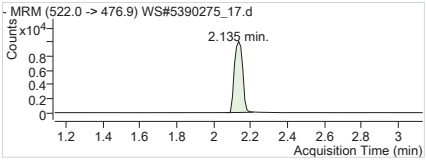


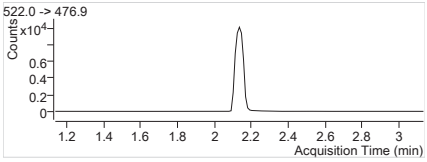
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	88.07 µg/L
Area ratio:	0.34829
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.47 µg/L
Area ratio:	0
Sample type:	Sample





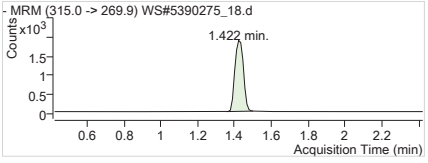
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.41 µg/L
Area ratio:	0
Sample type:	Sample

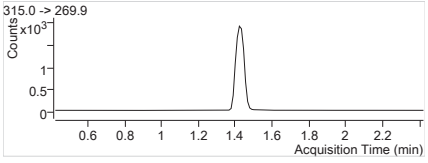
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**5390275:FZH308-01**	**Instrument**	LCMS04
Data File	WS#5390275_18.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B7
Acq. Date	2018/02/09 5:58:06 PM	**Injection Volume**	Per Method
Sample Annotation	-		

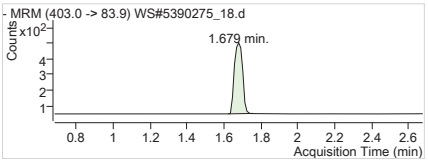
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6003	1.42	1 µg/L		
MPFHxS	1406	1.68	1 µg/L		
MPFHpA	7968	1.69	1 µg/L		
MPFOA	8096	1.87	1 µg/L		
MPFOS	1656	1.98	1 µg/L		
MPFNA	8324	2.01	1 µg/L		
MPFDA	6711	2.14	1 µg/L		
MPFUnA	7605	2.23	1 µg/L		
MPFDoA	9719	2.32	1 µg/L		
MPFTeDA	10758	2.47	1 µg/L		
13C6-PFHxA IS	23890	1.42	1 µg/L		
13C9-PFDA IS	32295	2.13	1 µg/L		

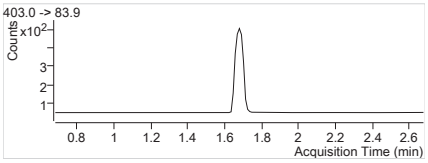
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6003	1.42	-	100.68 µg/L	-
18O2-PFHxS	1406	1.68	-	94.14 µg/L	-
13C4-PFHpA	7968	1.69	-	102.54 µg/L	-
13C4-PFOA	8096	1.87	-	98.22 µg/L	-
13C4-PFOS	1656	1.98	-	88.36 µg/L	-
13C5-PFNA	8322	2.01	-	102.15 µg/L	-
13C2-PFDA	6597	2.14	-	98.03 µg/L	-
13C2-PFUnA	7605	2.23	-	89.36 µg/L	-
13C2-PFDoA	9719	2.32	-	88.29 µg/L	-
13C2-PFTeDA	11094	2.47	-	86.86 µg/L	-
13C6-PFHxA	23890	1.42	-	2.45 µg/L	-
13C9-PFDA	32295	2.13	-	2.50 µg/L	-



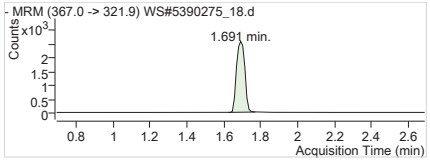


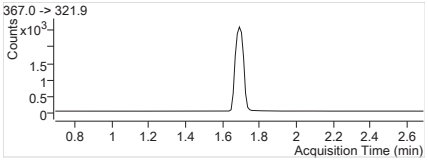
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



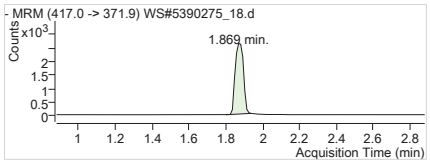


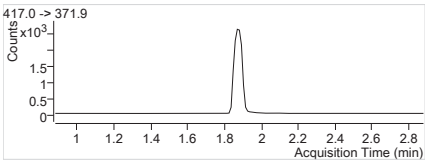
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



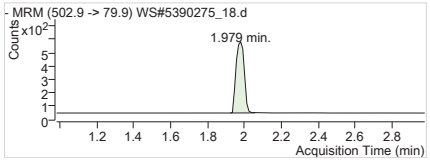


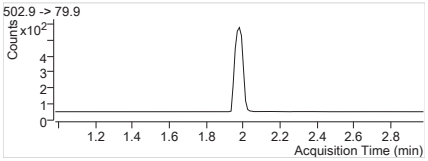
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



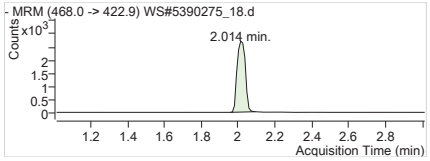


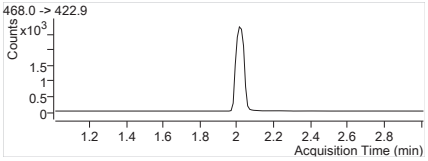
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



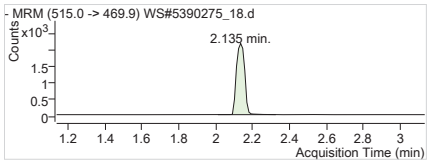


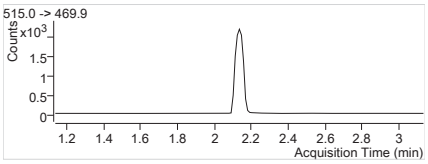
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



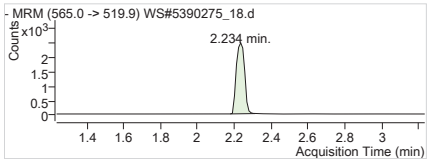


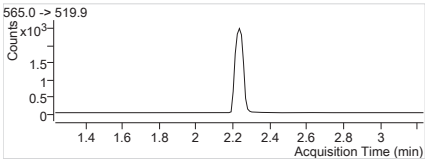
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



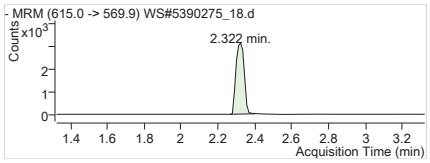


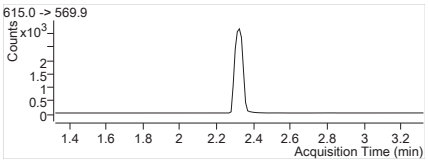
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



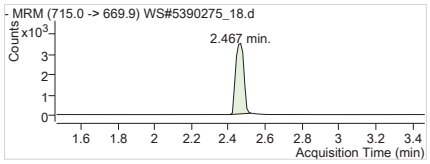


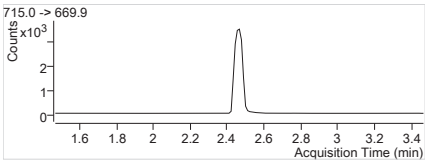
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



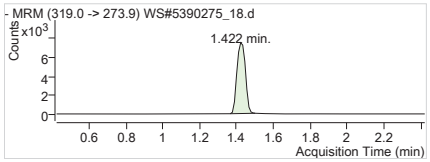


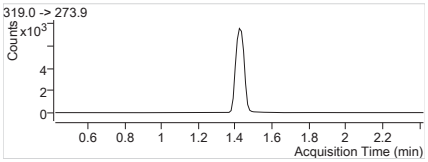
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



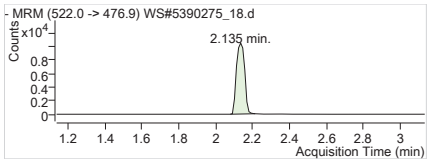


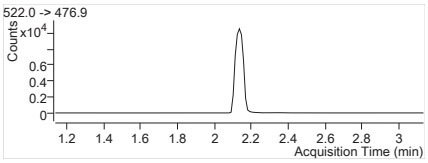
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



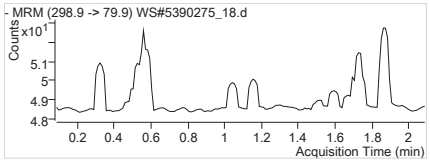


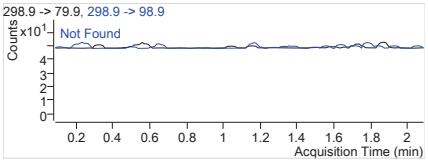
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



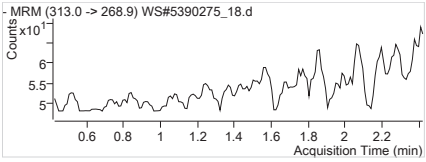


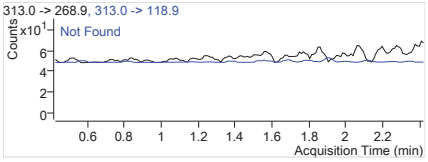
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



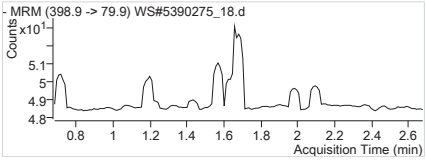


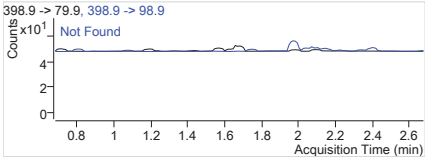
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



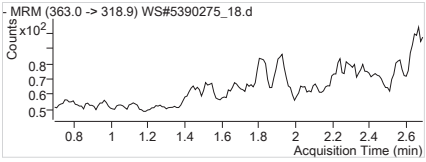


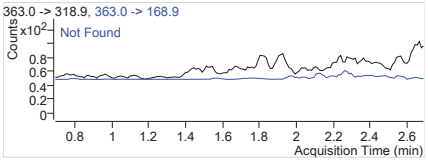
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



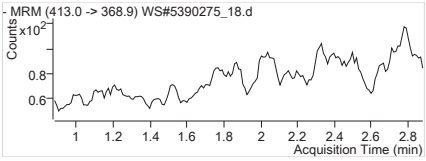


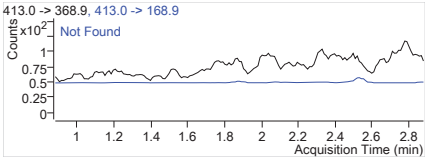
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



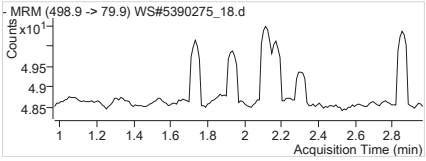


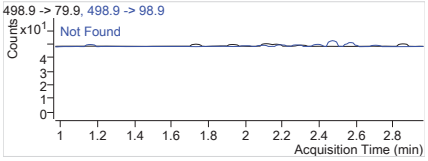
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



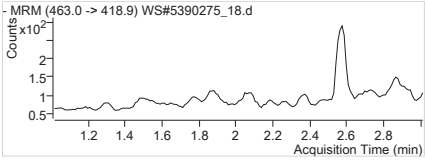


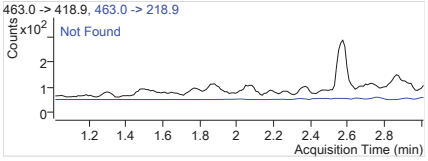
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



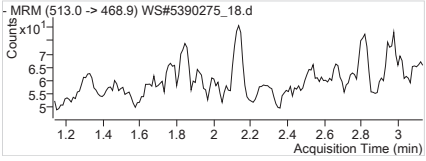


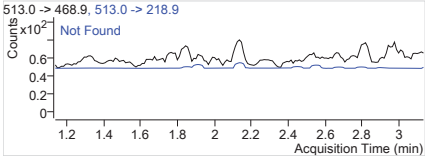
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



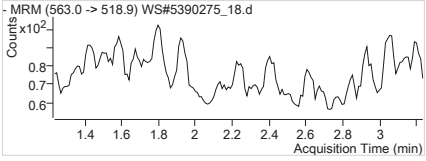


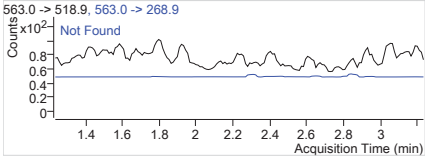
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



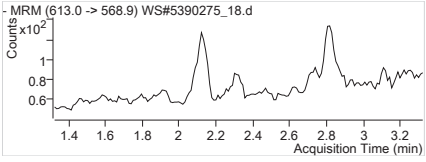


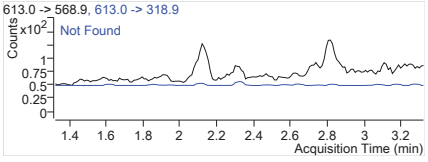
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



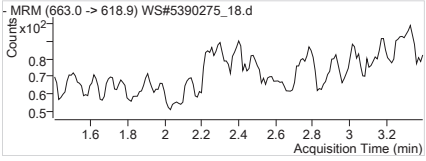


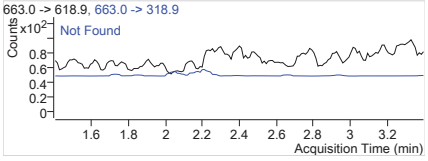
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



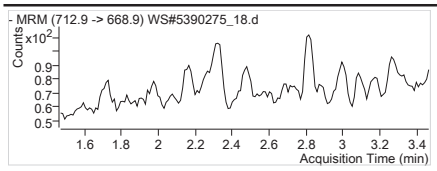


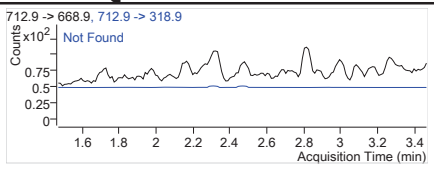
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



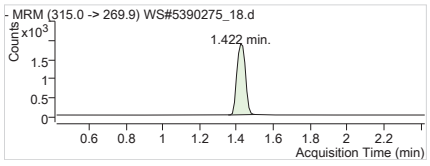


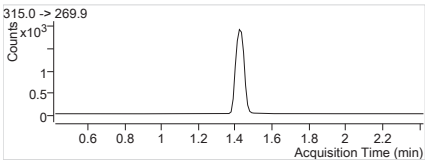
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



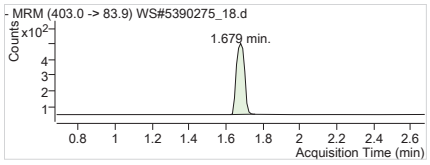


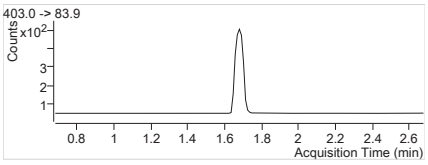
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



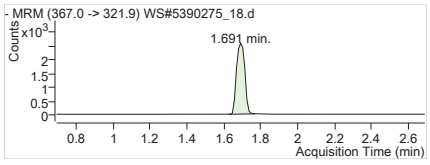


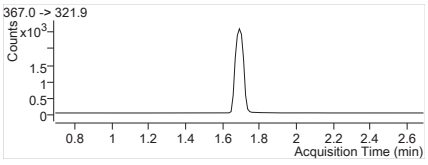
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 100.68 µg/L
Area ratio: 0.25128
Sample type: Sample



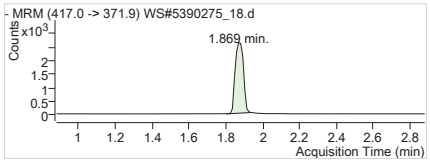


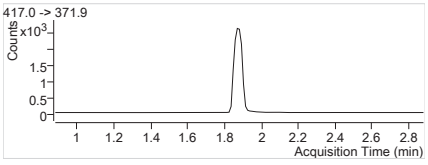
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 94.14 µg/L
Area ratio: 0.05885
Sample type: Sample



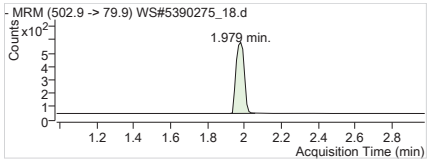


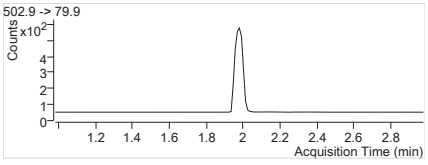
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 102.54 µg/L
Area ratio: 0.33353
Sample type: Sample



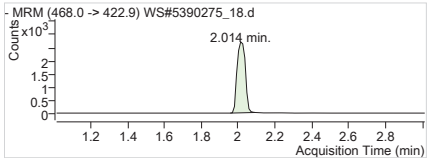


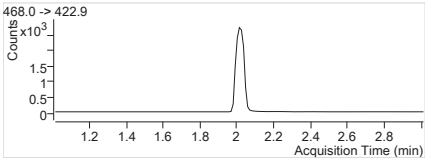
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 98.22 µg/L
Area ratio: 0.33889
Sample type: Sample



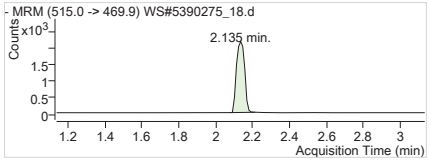


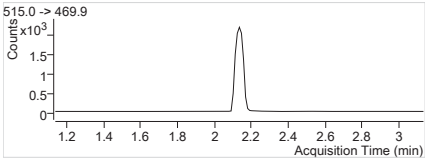
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 88.36 µg/L
Area ratio: 0.06932
Sample type: Sample



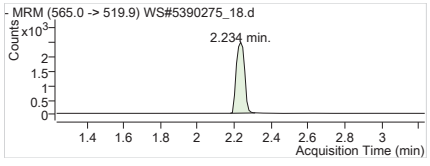


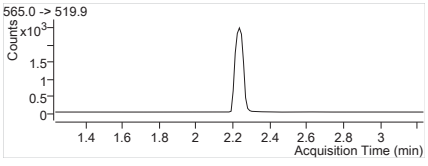
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 102.15 µg/L
Area ratio: 0.34835
Sample type: Sample



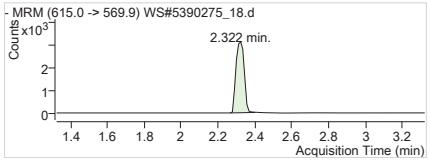


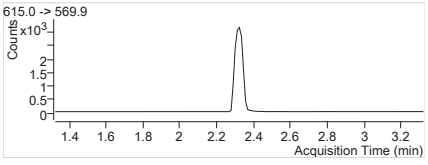
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 98.03 µg/L
Area ratio: 0.20427
Sample type: Sample



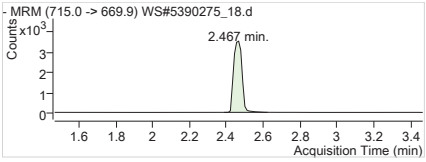


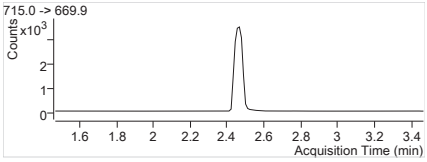
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 89.36 µg/L
Area ratio: 0.23549
Sample type: Sample



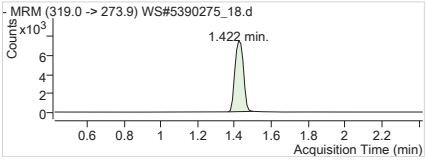


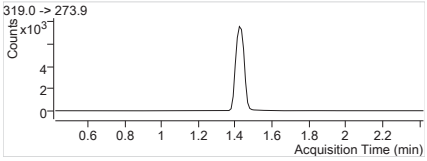
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 88.29 µg/L
Area ratio: 0.30094
Sample type: Sample



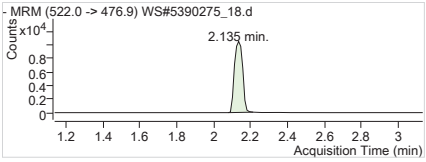


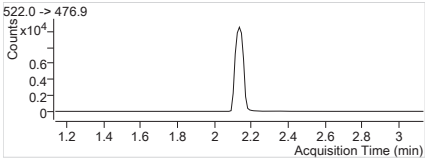
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	86.86 µg/L
Area ratio:	0.34352
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.45 µg/L
Area ratio:	0
Sample type:	Sample





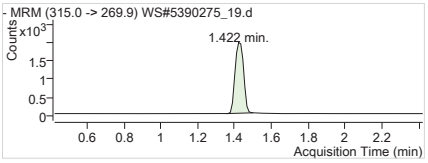
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.50 µg/L
Area ratio:	0
Sample type:	Sample

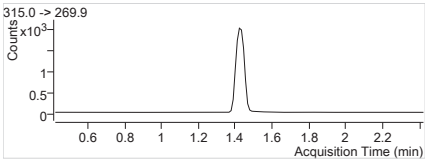
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**5390275:FZH309-01**	**Instrument**	LCMS04
Data File	WS#5390275_19.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B8
Acq. Date	2018/02/09 6:03:02 PM	**Injection Volume**	Per Method
Sample Annotation	-		

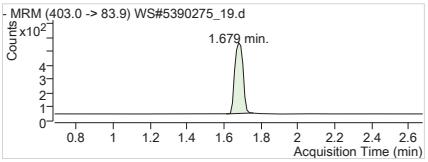
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6267	1.42	1 µg/L		
MPFHxS	1596	1.68	1 µg/L		
MPFHpA	8180	1.69	1 µg/L		
MPFOA	8621	1.87	1 µg/L		
MPFOS	1821	1.98	1 µg/L		
MPFNA	8455	2.01	1 µg/L		
MPFDA	6621	2.14	1 µg/L		
MPFUnA	7906	2.23	1 µg/L		
MPFDoA	9681	2.32	1 µg/L		
MPFTeDA	11339	2.47	1 µg/L		
13C6-PFHxA IS	24803	1.42	1 µg/L		
13C9-PFDA IS	32633	2.13	1 µg/L		

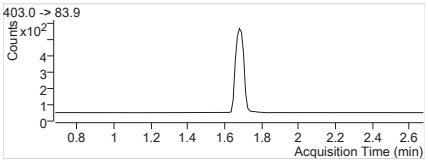
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6267	1.42	-	101.24 µg/L	-
18O2-PFHxS	1596	1.68	-	102.93 µg/L	-
13C4-PFHpA	8180	1.69	-	101.39 µg/L	-
13C4-PFOA	8621	1.87	-	100.74 µg/L	-
13C4-PFOS	1821	1.98	-	93.59 µg/L	-
13C5-PFNA	8456	2.01	-	99.98 µg/L	-
13C2-PFDA	6582	2.14	-	96.80 µg/L	-
13C2-PFUnA	7906	2.23	-	91.94 µg/L	-
13C2-PFDoA	9681	2.32	-	87.03 µg/L	-
13C2-PFTeDA	11343	2.47	-	87.89 µg/L	-
13C6-PFHxA	24803	1.42	-	2.54 µg/L	-
13C9-PFDA	32633	2.13	-	2.53 µg/L	-



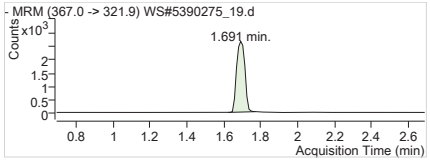


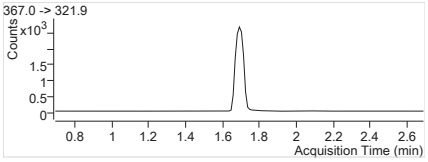
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



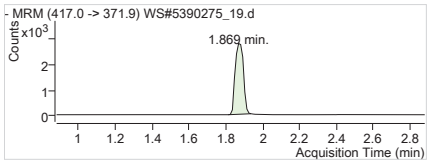


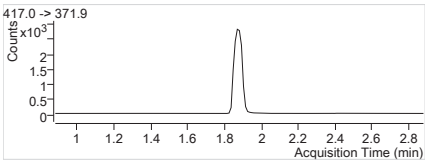
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



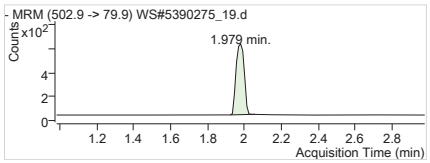


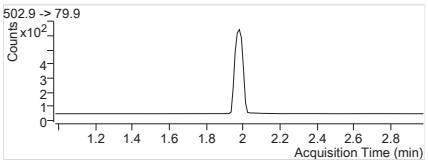
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



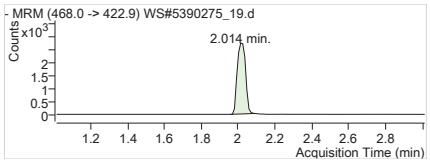


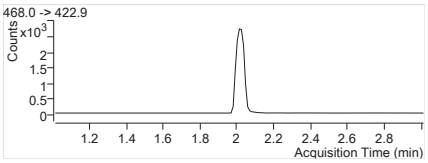
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



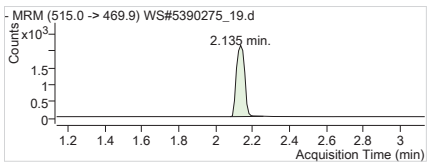


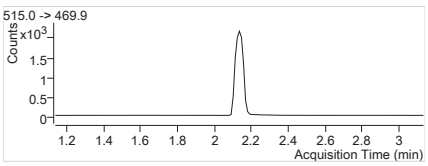
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



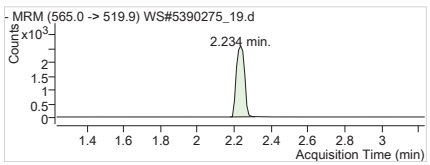


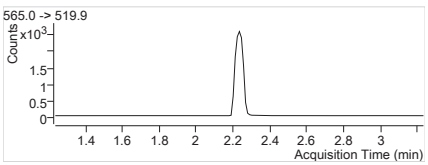
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



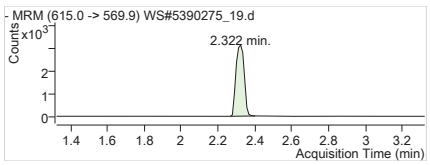


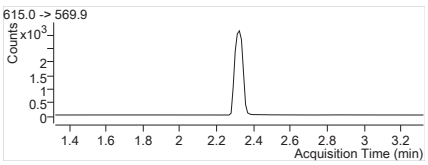
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



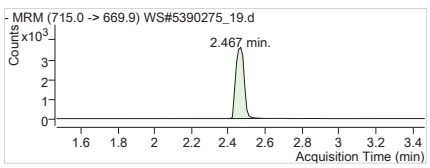


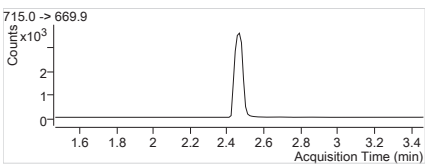
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



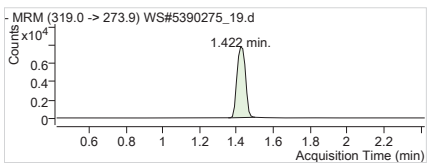


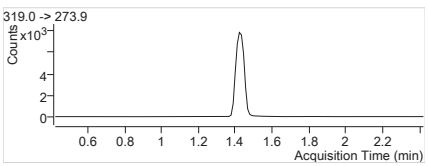
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



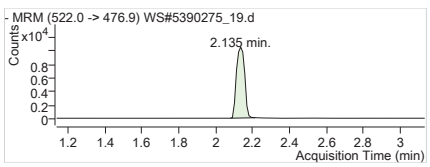


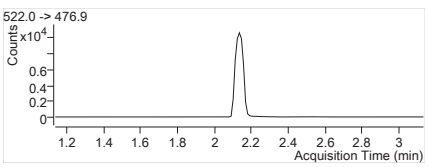
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



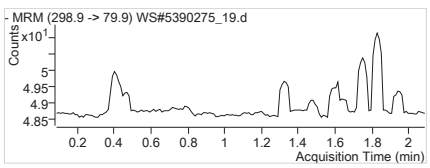


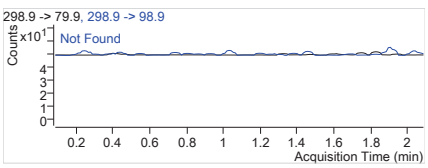
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



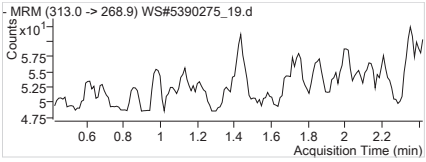


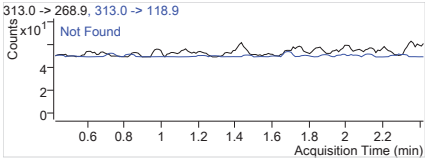
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



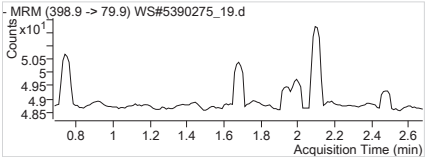


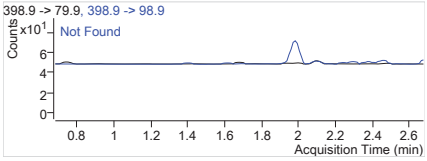
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



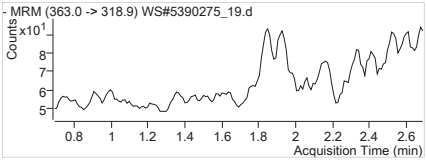


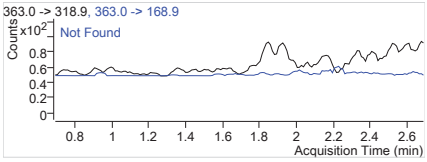
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



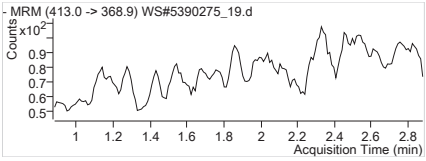


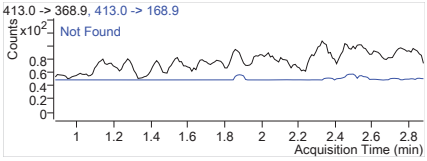
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



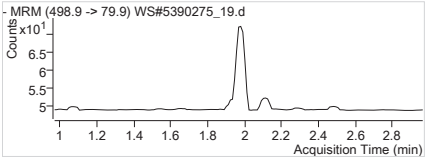


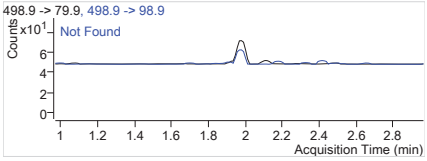
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



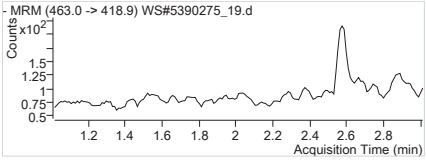


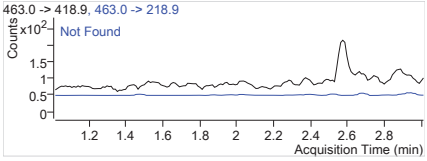
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



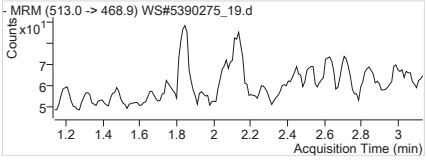


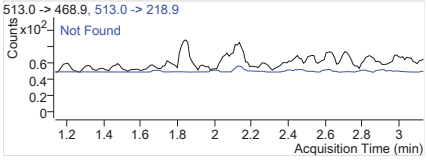
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



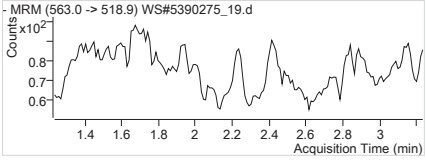


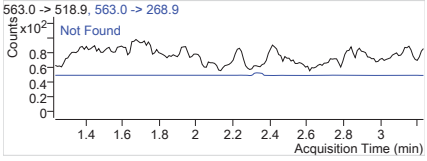
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



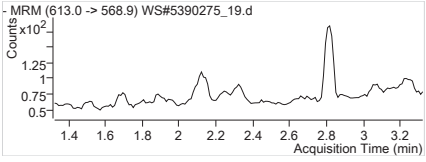


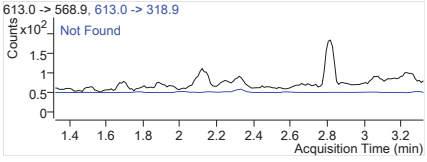
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



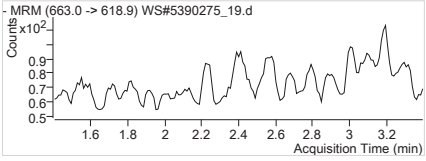


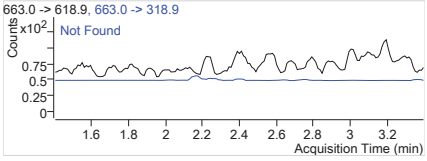
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



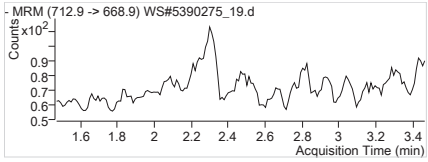


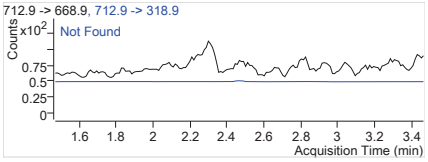
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



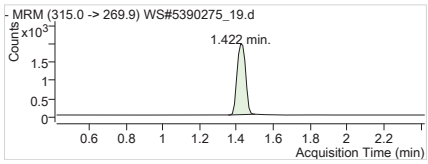


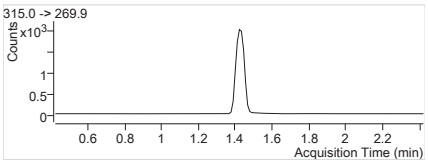
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



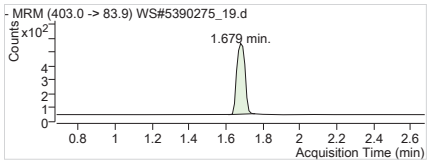


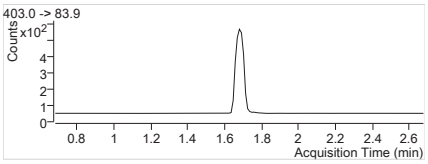
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



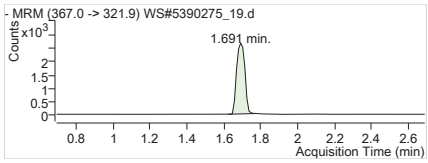


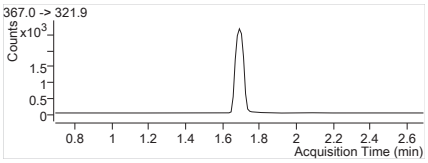
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 101.24 µg/L
Area ratio: 0.25267
Sample type: Sample



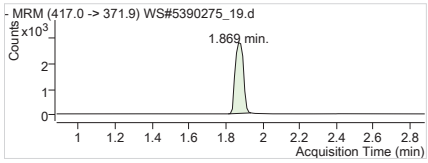


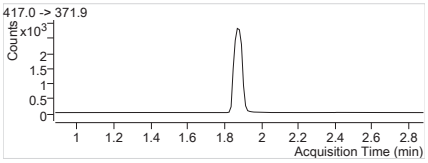
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 102.93 µg/L
Area ratio: 0.06435
Sample type: Sample



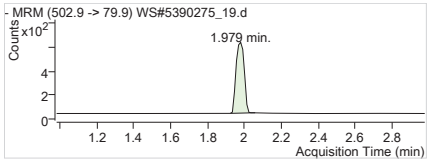


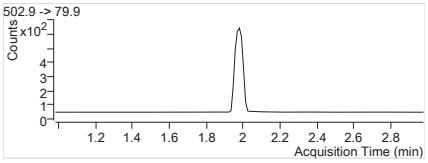
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 101.39 µg/L
Area ratio: 0.32980
Sample type: Sample



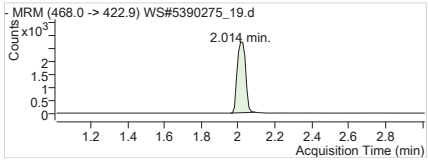


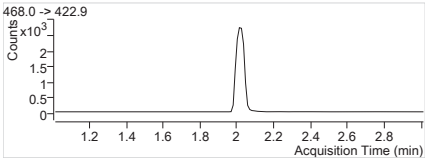
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 100.74 µg/L
Area ratio: 0.34758
Sample type: Sample



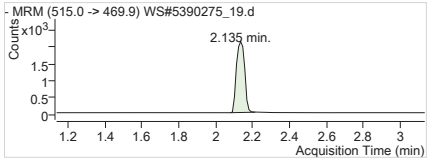


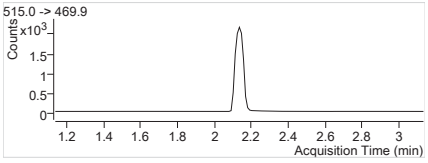
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 93.59 µg/L
Area ratio: 0.07342
Sample type: Sample



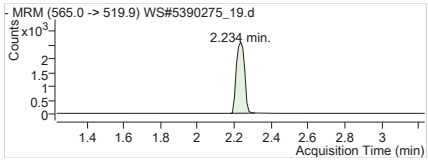


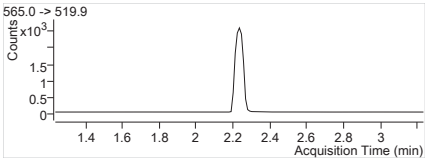
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 99.98 µg/L
Area ratio: 0.34093
Sample type: Sample



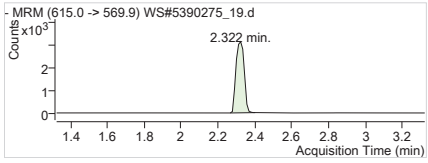


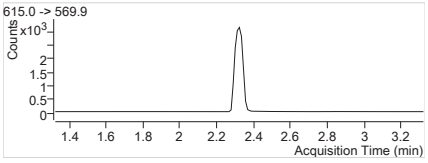
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 96.80 µg/L
Area ratio: 0.20170
Sample type: Sample



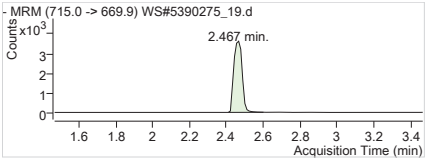


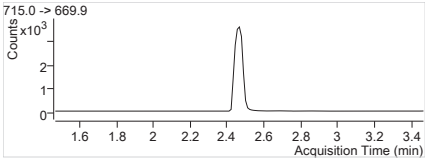
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 91.94 µg/L
Area ratio: 0.24227
Sample type: Sample



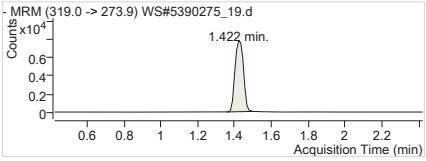


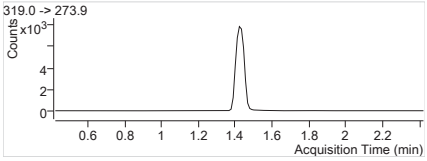
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 87.03 µg/L
Area ratio: 0.29666
Sample type: Sample



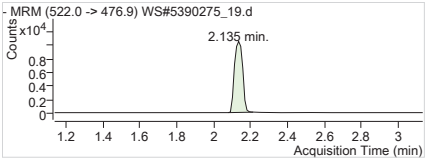


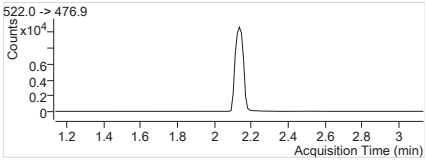
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	87.89 µg/L
Area ratio:	0.34759
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.54 µg/L
Area ratio:	0
Sample type:	Sample





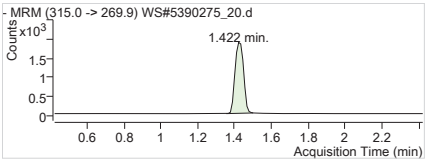
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.53 µg/L
Area ratio:	0
Sample type:	Sample

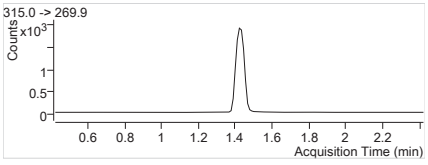
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**5390275:FZH310-01**	**Instrument**	LCMS04
Data File	WS#5390275_20.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B9
Acq. Date	2018/02/09 6:07:58 PM	**Injection Volume**	Per Method
Sample Annotation	-		

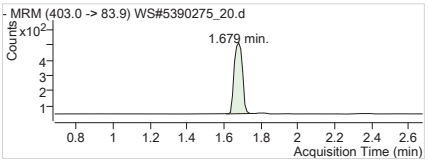
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6019	1.42	1 µg/L		
MPFHxS	1441	1.68	1 µg/L		
MPFHpA	7723	1.69	1 µg/L		
MPFOA	8087	1.87	1 µg/L		
MPFOS	1837	1.98	1 µg/L		
MPFNA	7987	2.01	1 µg/L		
MPFDA	5837	2.14	1 µg/L		
MPFUnA	7450	2.23	1 µg/L		
MPFDoA	9002	2.32	1 µg/L		
MPFTeDA	10102	2.47	1 µg/L		
13C6-PFHxA IS	25338	1.42	1 µg/L		
13C9-PFDA IS	32529	2.13	1 µg/L		

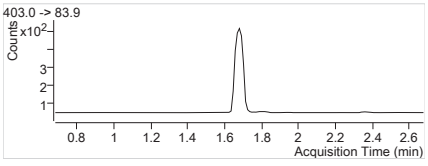
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6019	1.42	-	95.18 µg/L	-
18O2-PFHxS	1441	1.68	-	90.97 µg/L	-
13C4-PFHpA	7723	1.69	-	93.70 µg/L	-
13C4-PFOA	8087	1.87	-	92.51 µg/L	-
13C4-PFOS	1837	1.98	-	92.42 µg/L	-
13C5-PFNA	7987	2.01	-	92.44 µg/L	-
13C2-PFDA	5855	2.14	-	86.38 µg/L	-
13C2-PFUnA	7450	2.23	-	86.91 µg/L	-
13C2-PFDoA	9002	2.32	-	81.18 µg/L	-
13C2-PFTeDA	10318	2.47	-	80.20 µg/L	-
13C6-PFHxA	25338	1.42	-	2.60 µg/L	-
13C9-PFDA	32529	2.13	-	2.52 µg/L	-



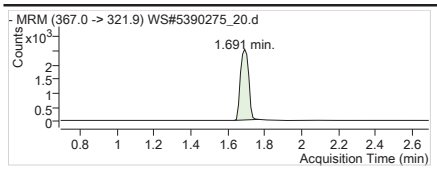


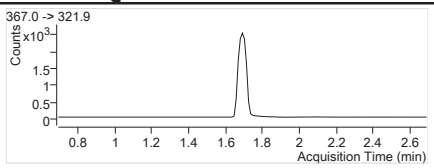
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



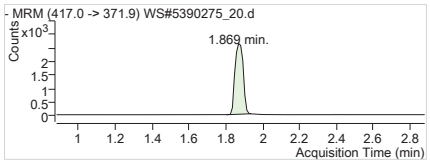


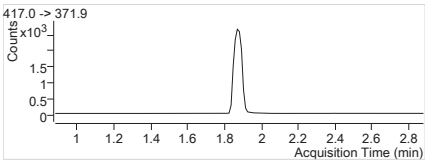
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



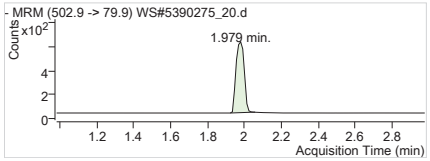


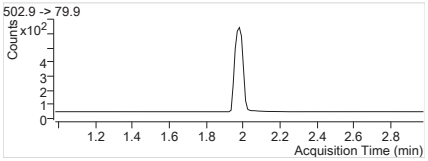
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



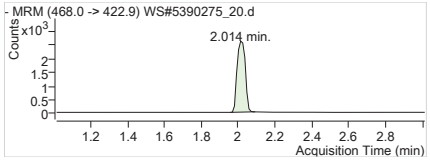


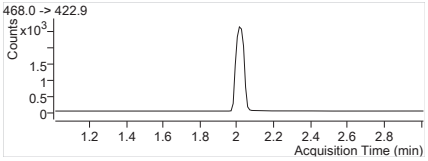
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



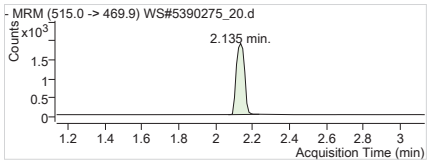


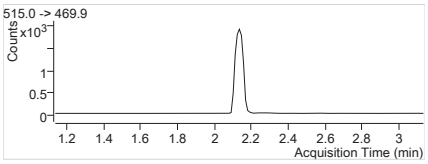
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



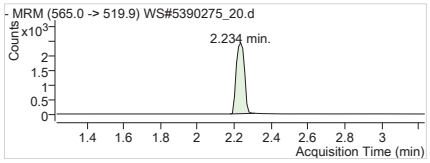


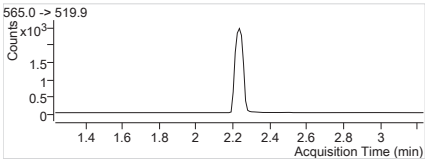
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



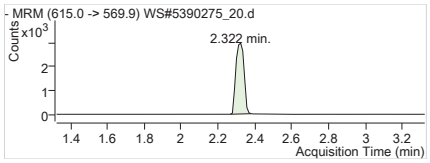


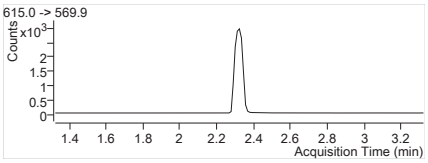
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



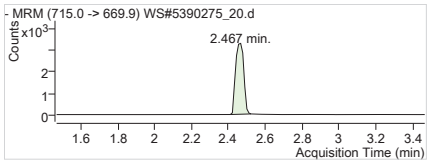


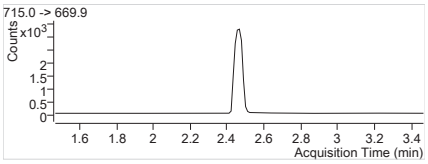
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



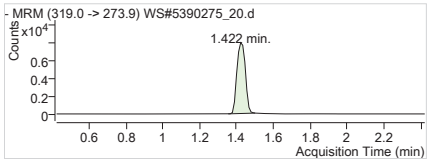


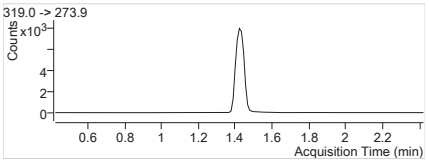
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



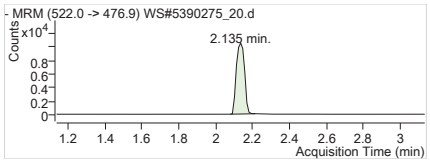


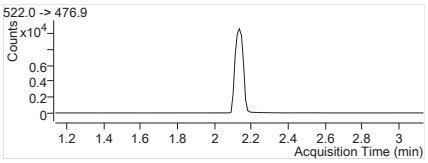
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



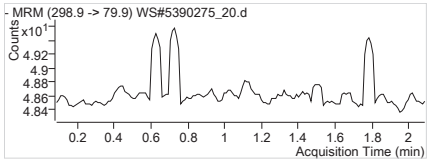


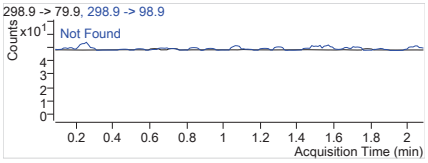
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



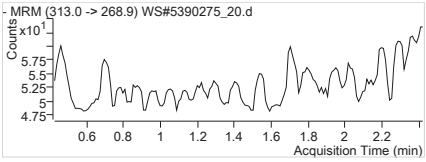


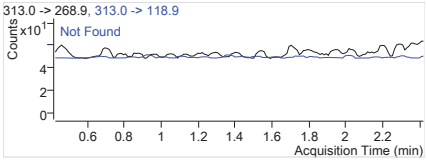
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



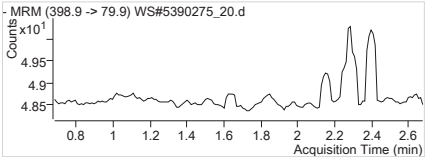


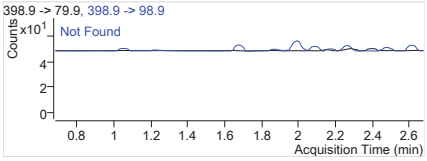
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



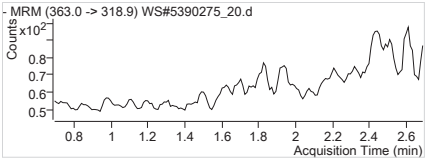


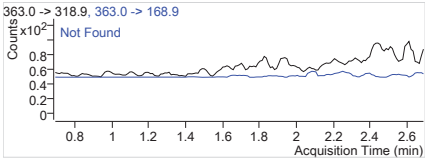
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



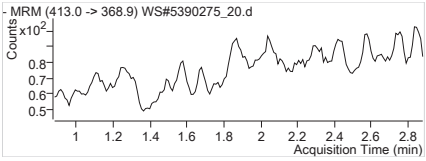


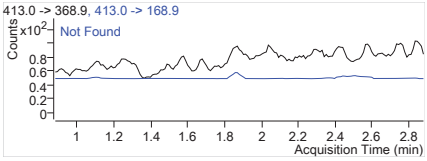
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



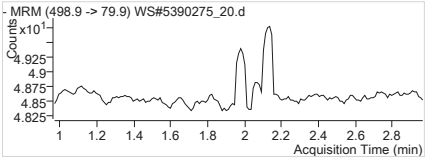


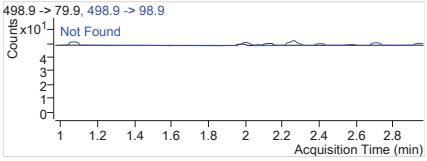
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



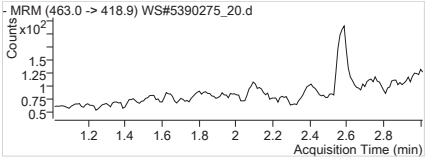


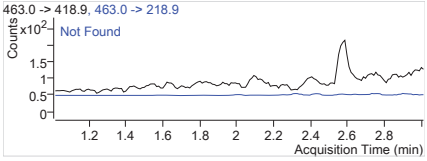
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



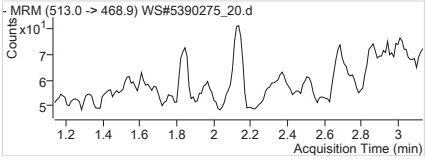


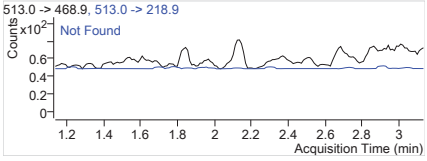
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



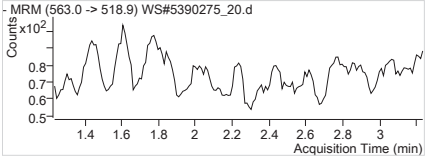


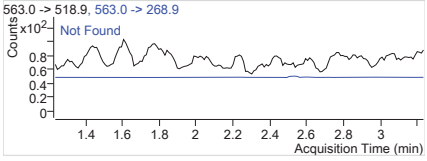
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



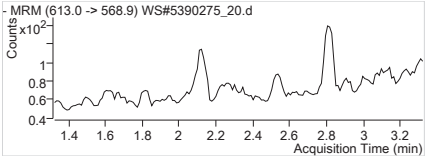


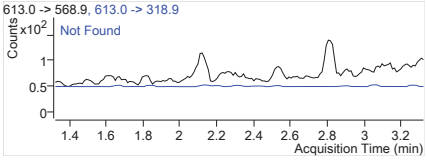
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



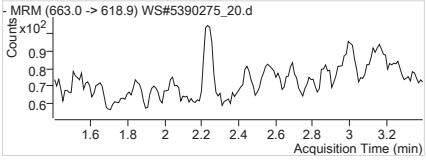


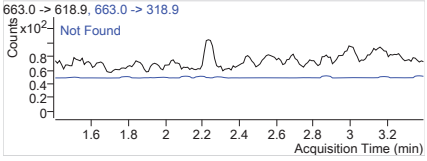
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



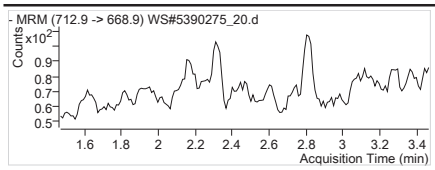


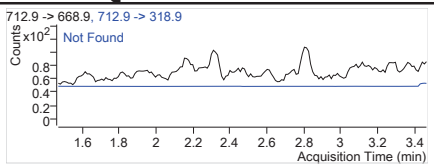
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



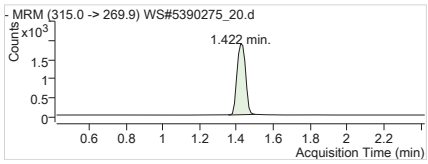


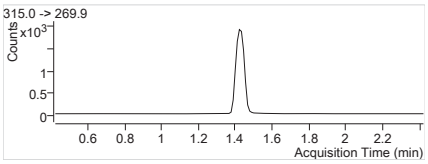
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



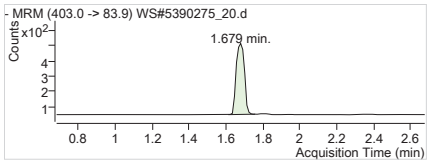


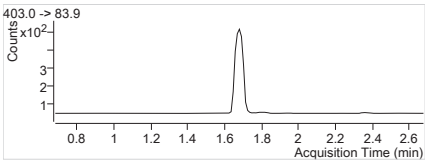
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



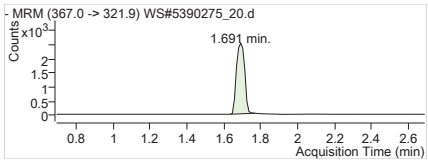


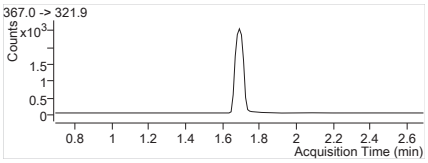
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 95.18 µg/L
Area ratio: 0.23755
Sample type: Sample



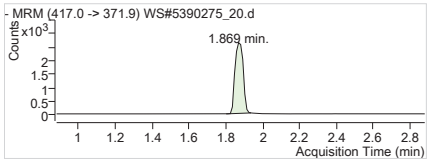


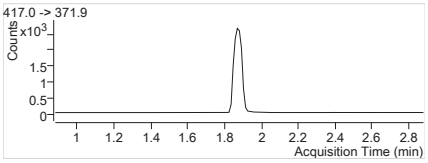
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 90.97 µg/L
Area ratio: 0.05687
Sample type: Sample



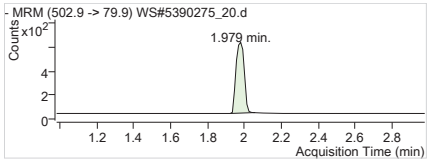


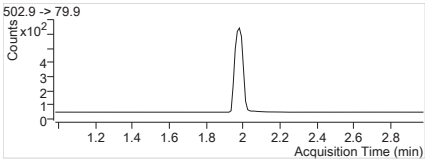
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 93.70 µg/L
Area ratio: 0.30480
Sample type: Sample



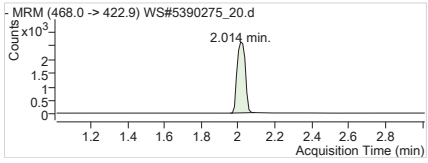


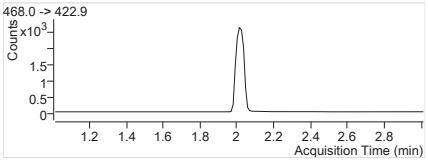
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 92.51 µg/L
Area ratio: 0.31916
Sample type: Sample



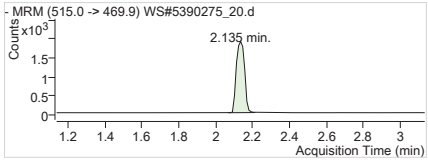


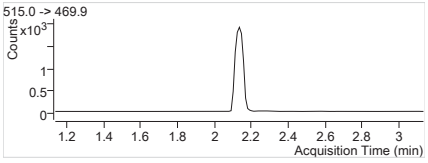
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 92.42 µg/L
Area ratio: 0.07250
Sample type: Sample



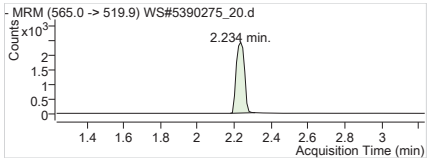


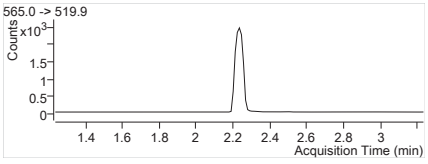
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 92.44 µg/L
Area ratio: 0.31522
Sample type: Sample



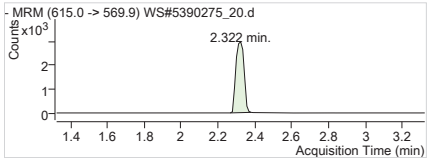


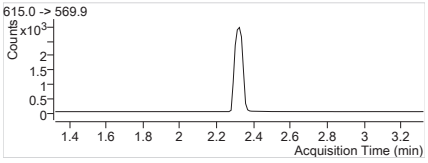
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 86.38 µg/L
Area ratio: 0.17999
Sample type: Sample



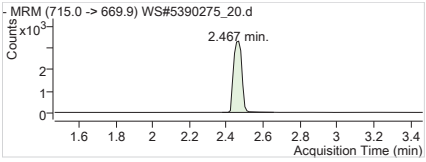


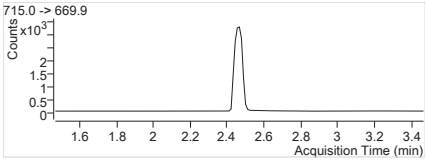
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 86.91 µg/L
Area ratio: 0.22903
Sample type: Sample



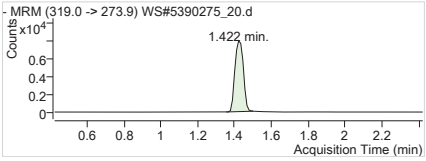


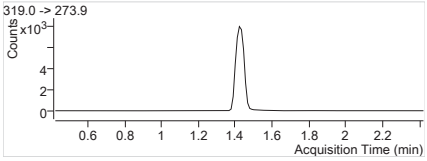
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 81.18 µg/L
Area ratio: 0.27674
Sample type: Sample



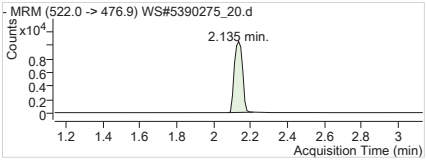


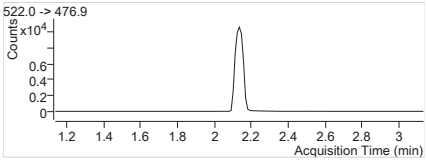
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	80.20 µg/L
Area ratio:	0.31719
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.60 µg/L
Area ratio:	0
Sample type:	Sample





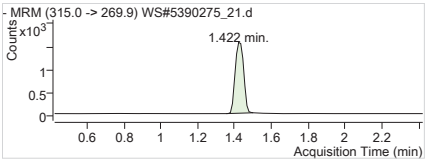
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.52 µg/L
Area ratio:	0
Sample type:	Sample

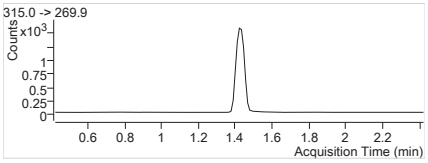
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**5390275:FZH311-01**	**Instrument**	LCMS04
Data File	WS#5390275_21.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-C1
Acq. Date	2018/02/09 6:12:53 PM	**Injection Volume**	Per Method
Sample Annotation	-		

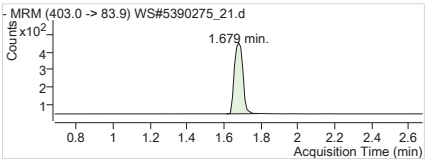
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4919	1.42	1 µg/L		
MPFHxS	1290	1.68	1 µg/L		
MPFHpA	7146	1.69	1 µg/L		
MPFOA	7345	1.87	1 µg/L		
MPFOS	1701	1.98	1 µg/L		
MPFNA	7554	2.01	1 µg/L		
MPFDA	6056	2.14	1 µg/L		
MPFUnA	6915	2.23	1 µg/L		
MPFDoA	8597	2.32	1 µg/L		
MPFTeDA	6917	2.47	1 µg/L		
13C6-PFHxA IS	23258	1.42	1 µg/L		
13C9-PFDA IS	30398	2.13	1 µg/L		

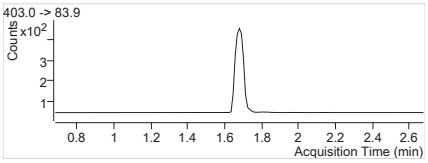
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	681	1.09	-	0.03 µg/L	-
PFHxA 1	5404	1.42	-	0.07 µg/L	-
PFHxS 1	7071	1.68	-	0.30 µg/L	-
PFHpA 1	1140	1.69	-	0.01 µg/L	-
PFOA 1	9653	1.87	-	0.08 µg/L	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	4919	1.42	-	84.74 µg/L	-
18O2-PFHxS	1290	1.68	-	88.72 µg/L	-
13C4-PFHpA	7146	1.69	-	94.46 µg/L	-
13C4-PFOA	7345	1.87	-	91.53 µg/L	-
13C4-PFOS	1701	1.98	-	93.23 µg/L	-
13C5-PFNA	7555	2.01	-	95.26 µg/L	-
13C2-PFDA	5958	2.14	-	94.06 µg/L	-
13C2-PFUnA	6915	2.23	-	86.33 µg/L	-
13C2-PFDoA	8597	2.32	-	82.97 µg/L	-
13C2-PFTeDA	7096	2.47	-	59.03 µg/L	-
13C6-PFHxA	23258	1.42	-	2.38 µg/L	-
13C9-PFDA	30398	2.13	-	2.36 µg/L	-



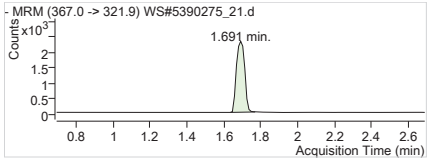


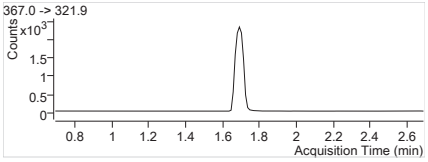
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



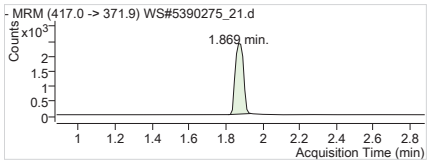


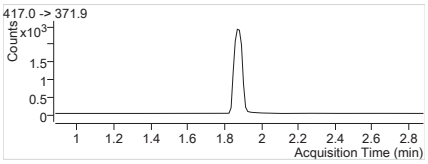
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



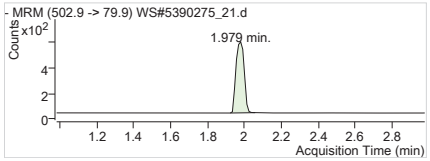


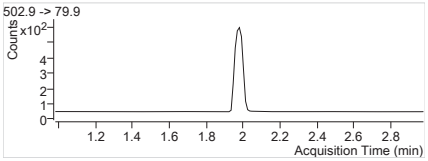
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



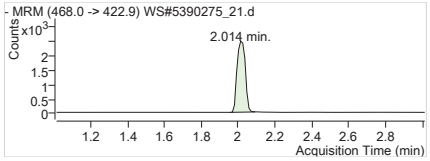


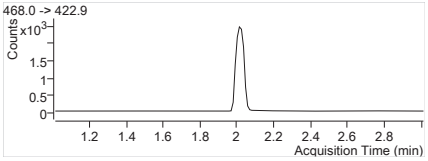
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



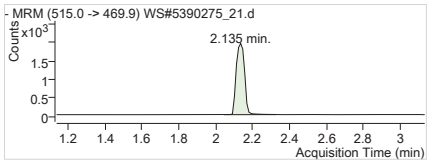


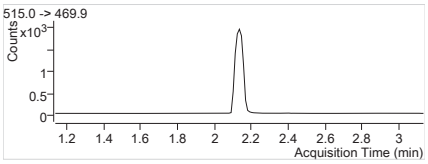
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



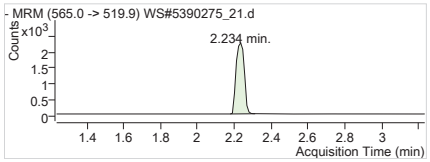


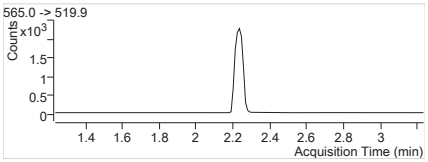
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



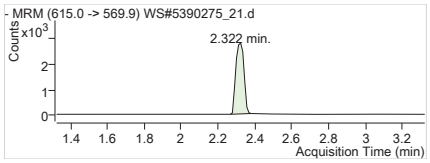


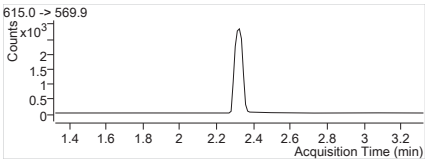
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



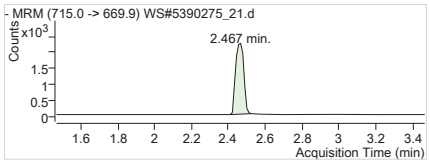


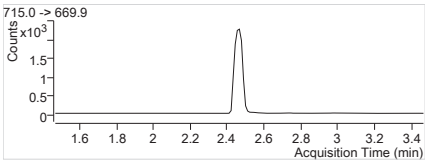
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



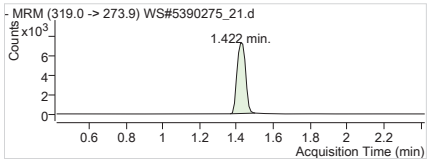


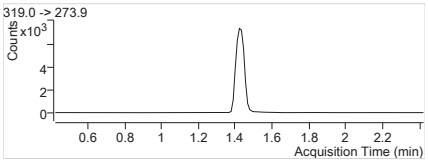
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



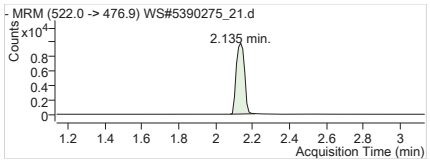


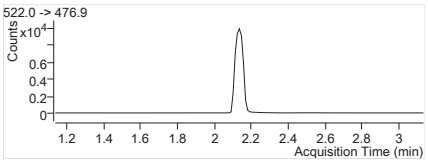
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



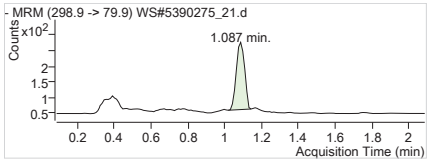


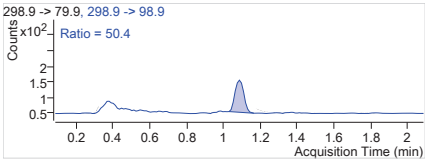
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



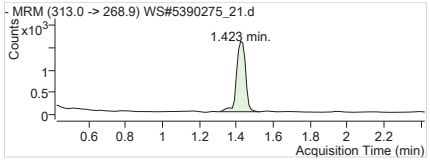


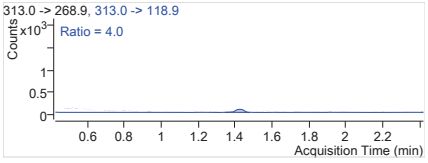
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



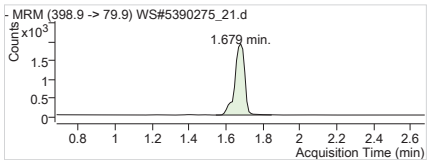


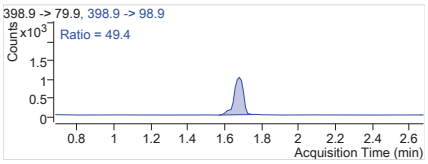
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.03 µg/L
Area ratio: 0.52791
Sample type: Sample



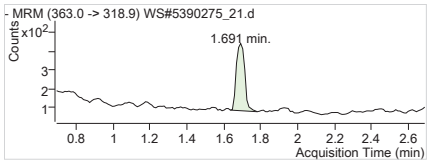


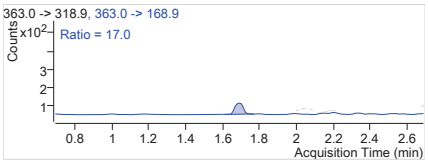
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.07 µg/L
Area ratio: 1.09860
Sample type: Sample



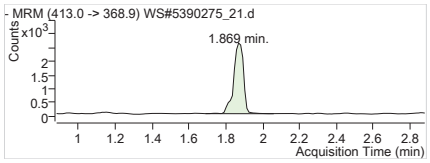


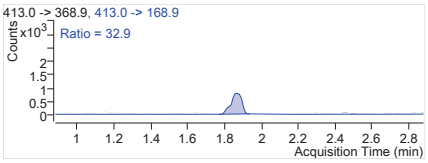
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.30 µg/L
Area ratio: 5.48140
Sample type: Sample



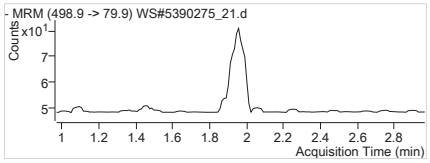


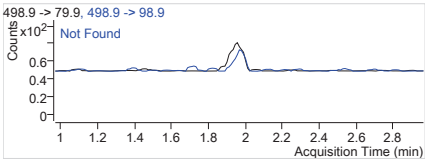
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.01 µg/L
Area ratio: 0.15953
Sample type: Sample



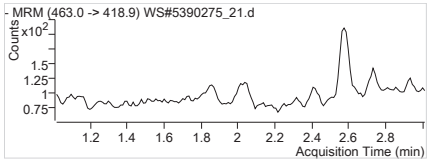


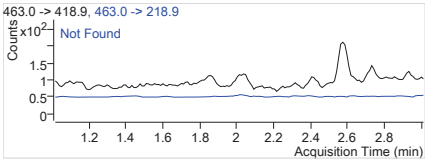
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 0.08 µg/L
Area ratio: 1.31423
Sample type: Sample



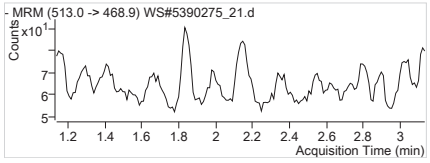


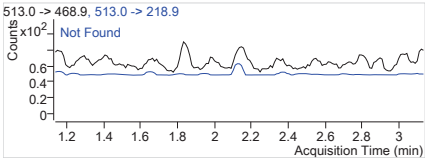
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



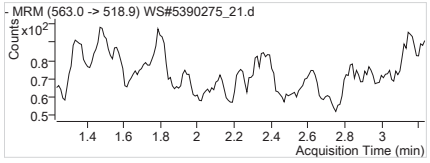


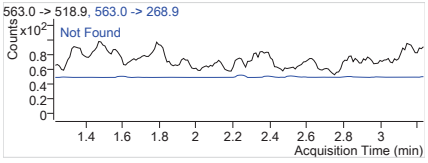
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



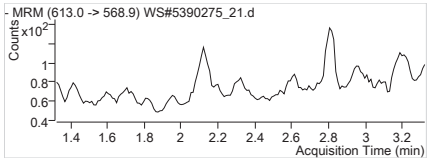


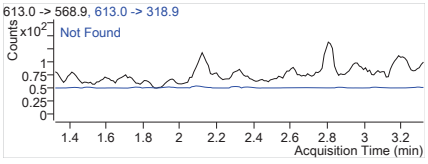
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



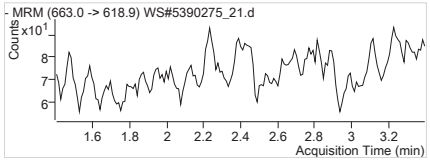


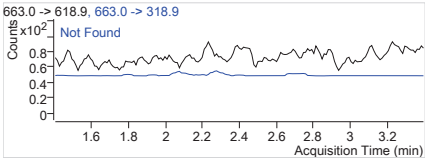
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



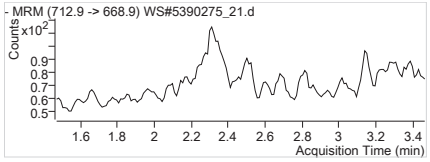


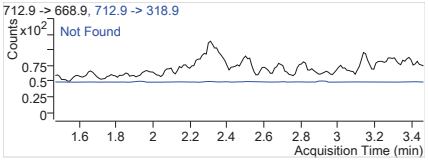
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



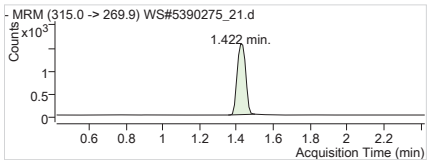


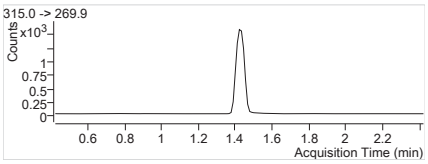
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



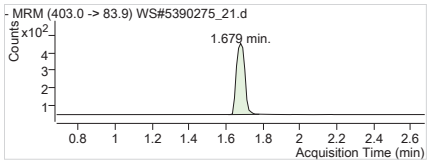


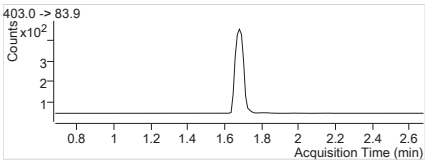
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



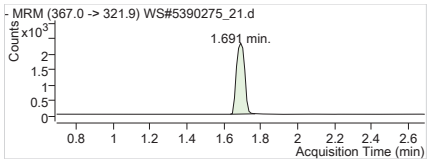


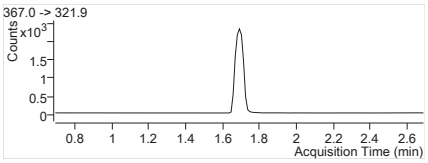
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 84.74 µg/L
Area ratio: 0.21150
Sample type: Sample



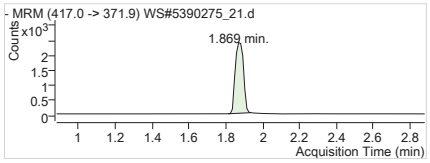


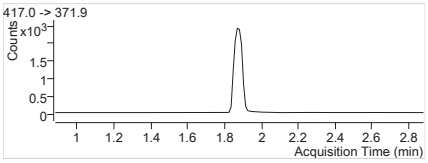
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 88.72 µg/L
Area ratio: 0.05546
Sample type: Sample



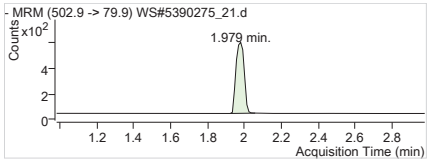


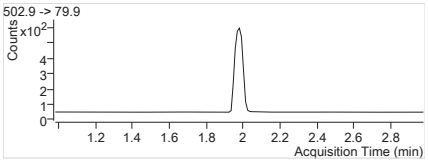
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 94.46 µg/L
Area ratio: 0.30725
Sample type: Sample



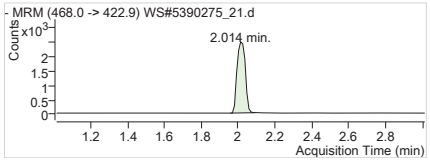


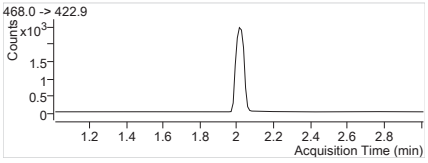
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 91.53 µg/L
Area ratio: 0.31581
Sample type: Sample



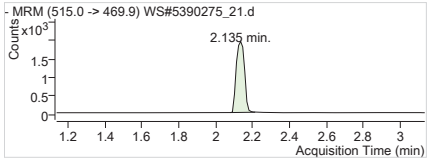


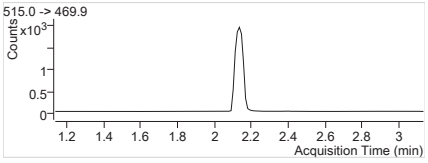
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 93.23 µg/L
Area ratio: 0.07314
Sample type: Sample



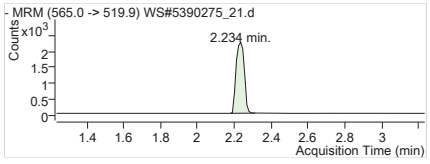


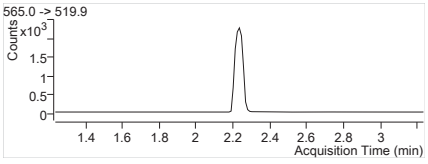
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 95.26 µg/L
Area ratio: 0.32483
Sample type: Sample



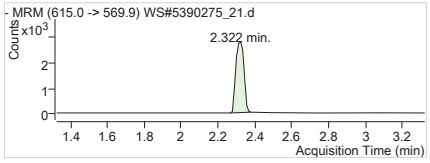


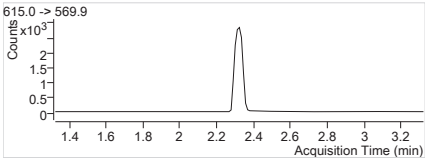
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 94.06 µg/L
Area ratio: 0.19600
Sample type: Sample



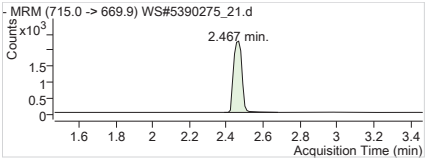


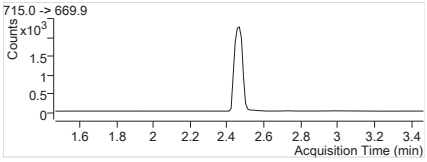
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 86.33 µg/L
Area ratio: 0.22748
Sample type: Sample



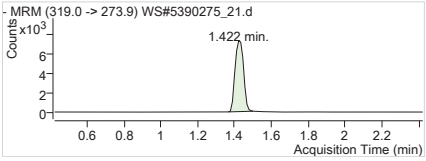


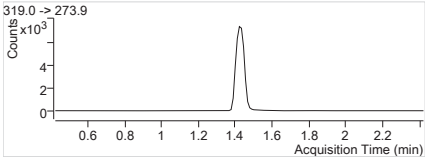
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 82.97 µg/L
Area ratio: 0.28281
Sample type: Sample



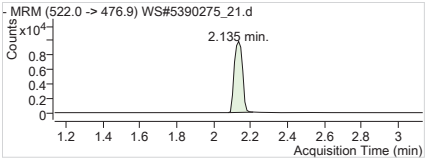


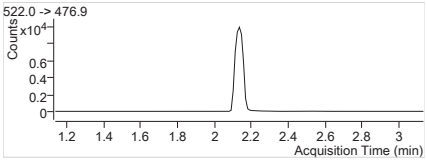
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	59.03 µg/L
Area ratio:	0.23344
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.38 µg/L
Area ratio:	0
Sample type:	Sample





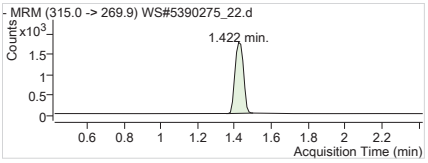
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.36 µg/L
Area ratio:	0
Sample type:	Sample

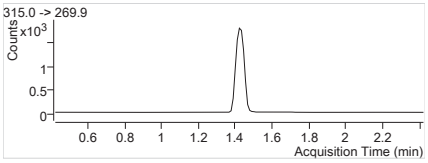
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**5390275:FZH312-01**	**Instrument**	LCMS04
Data File	WS#5390275_22.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-C2
Acq. Date	2018/02/09 6:17:50 PM	**Injection Volume**	Per Method
Sample Annotation	-		

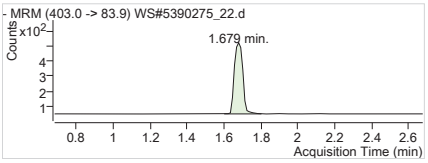
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5551	1.42	1 µg/L		
MPFHxS	1515	1.68	1 µg/L		
MPFHpA	7285	1.69	1 µg/L		
MPFOA	7297	1.87	1 µg/L		
MPFOS	1693	1.98	1 µg/L		
MPFNA	7544	2.01	1 µg/L		
MPFDA	5882	2.14	1 µg/L		
MPFUnA	6877	2.23	1 µg/L		
MPFDoA	8419	2.32	1 µg/L		
MPFTeDA	7319	2.47	1 µg/L		
13C6-PFHxA IS	22201	1.42	1 µg/L		
13C9-PFDA IS	31529	2.13	1 µg/L		

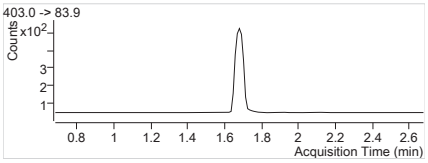
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	734	1.09	-	0.03 µg/L	-
PFHxA 1	5109	1.42	-	0.05 µg/L	-
PFHxS 1	6981	1.68	-	0.25 µg/L	-
PFHpA 1	1141	1.69	-	0.01 µg/L	-
PFOA 1	9003	1.87	-	0.07 µg/L	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5551	1.42	-	100.18 µg/L	-
18O2-PFHxS	1515	1.68	-	109.15 µg/L	-
13C4-PFHpA	7285	1.69	-	100.88 µg/L	-
13C4-PFOA	7297	1.87	-	95.26 µg/L	-
13C4-PFOS	1693	1.98	-	97.21 µg/L	-
13C5-PFNA	7545	2.01	-	99.66 µg/L	-
13C2-PFDA	5811	2.14	-	88.45 µg/L	-
13C2-PFUnA	6877	2.23	-	82.77 µg/L	-
13C2-PFDoA	8419	2.32	-	78.33 µg/L	-
13C2-PFTeDA	7495	2.47	-	60.11 µg/L	-
13C6-PFHxA	22201	1.42	-	2.28 µg/L	-
13C9-PFDA	31529	2.13	-	2.44 µg/L	-



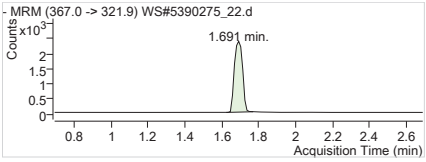


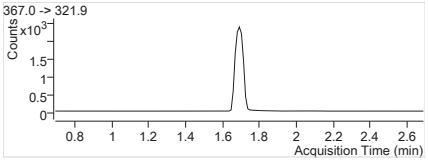
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



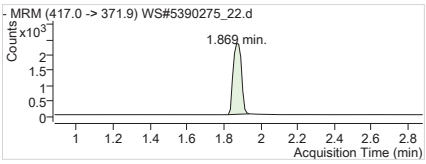


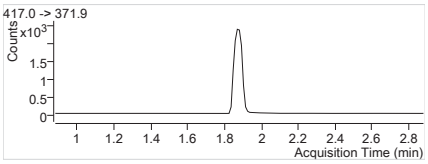
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



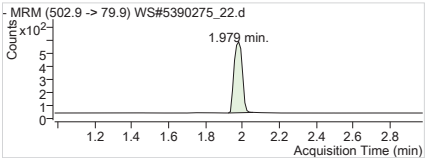


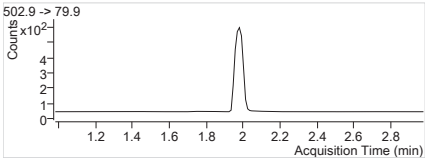
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



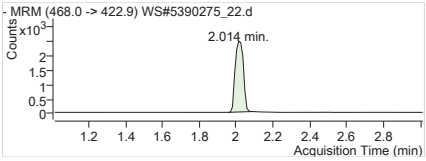


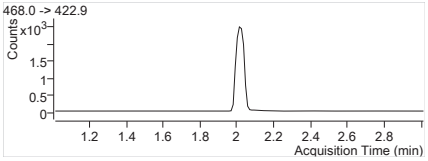
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



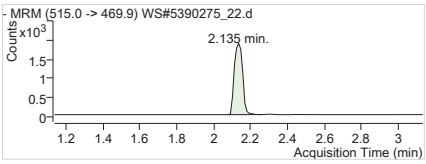


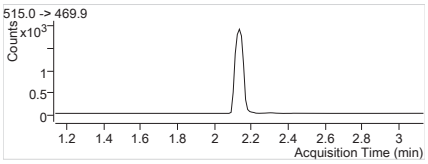
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



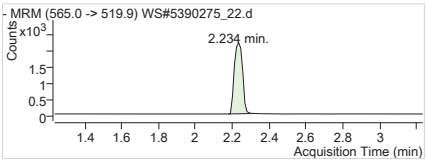


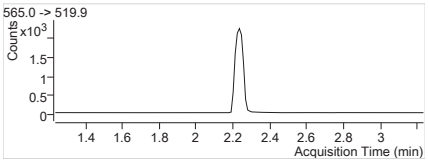
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



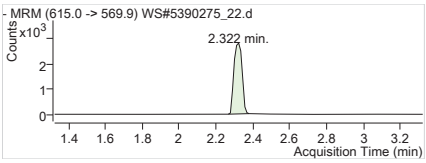


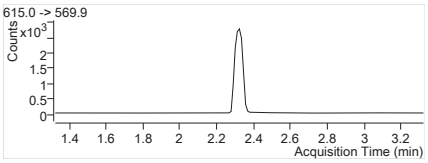
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



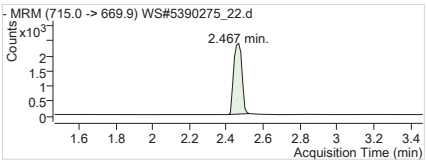


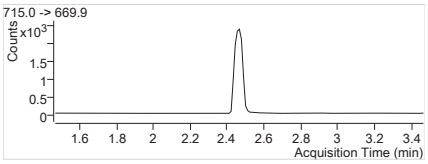
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



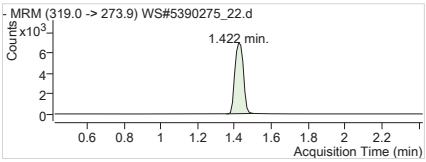


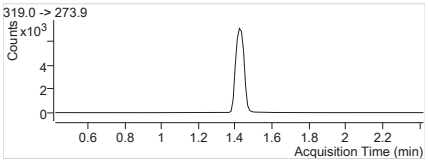
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



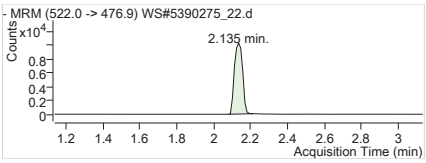


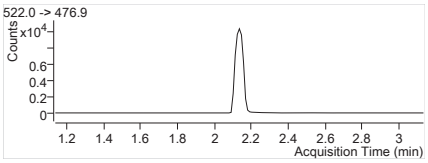
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



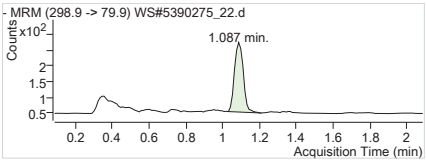


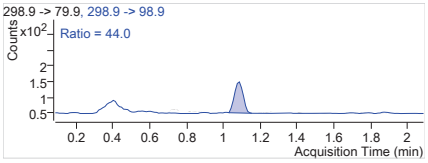
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



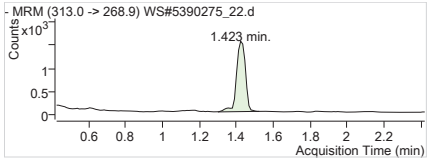


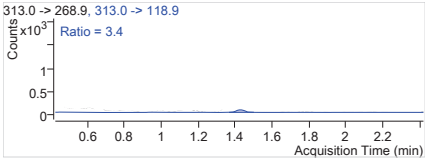
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



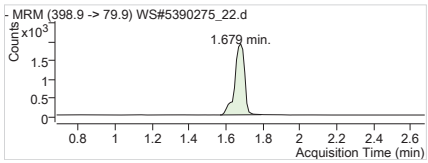


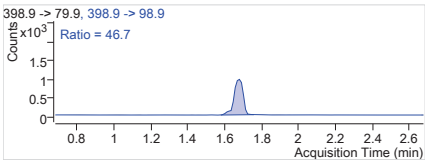
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.03 µg/L
Area ratio: 0.48449
Sample type: Sample



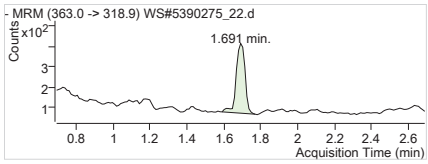


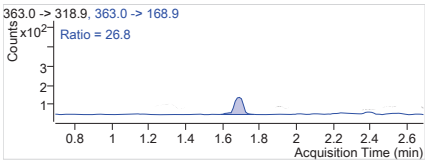
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.05 µg/L
Area ratio: 0.92037
Sample type: Sample



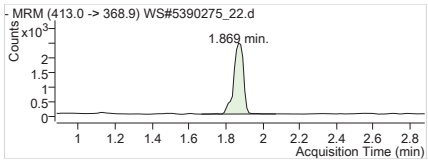


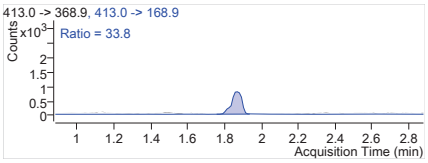
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.25 µg/L
Area ratio: 4.60792
Sample type: Sample



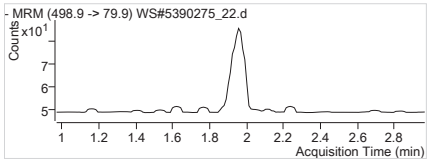


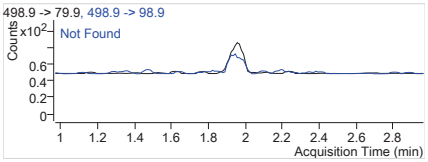
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.01 µg/L
Area ratio: 0.15662
Sample type: Sample



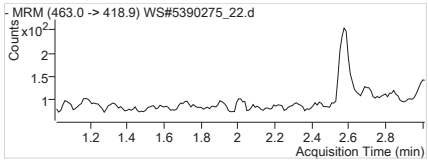


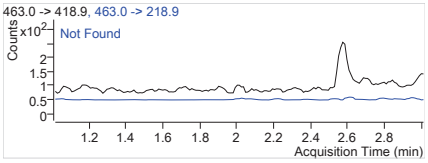
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 0.07 µg/L
Area ratio: 1.23379
Sample type: Sample



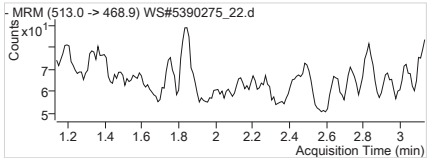


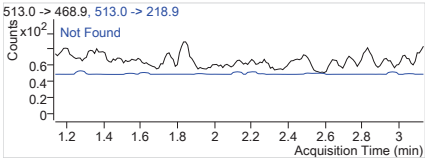
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



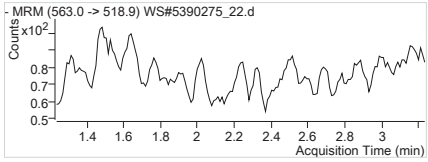


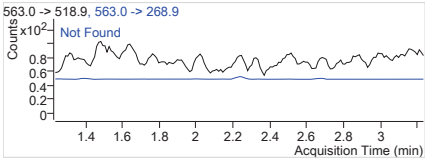
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



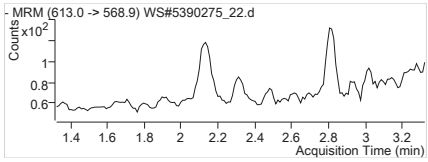


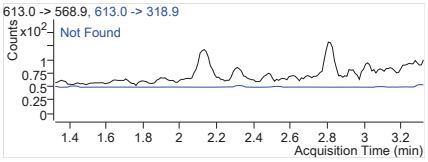
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



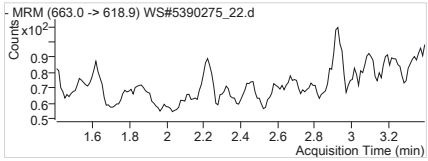


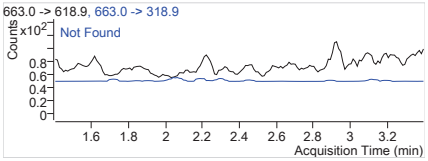
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



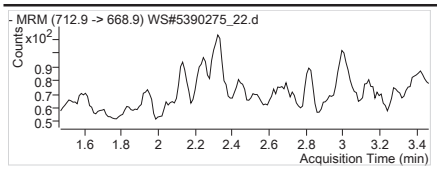


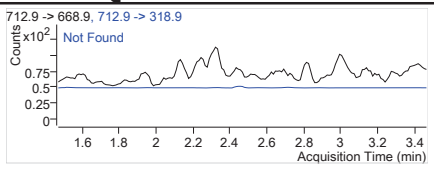
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



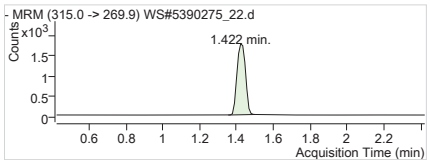


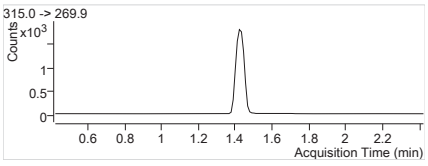
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



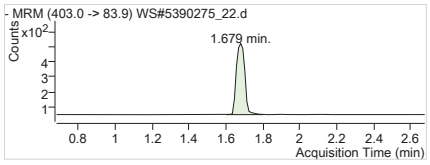


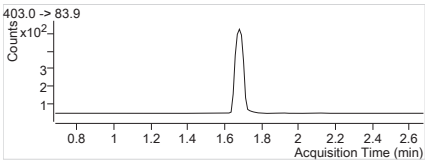
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



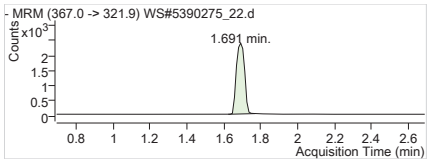


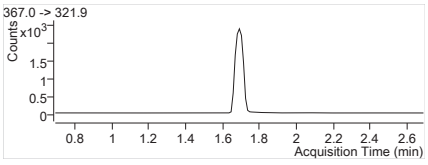
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 100.18 µg/L
Area ratio: 0.25003
Sample type: Sample



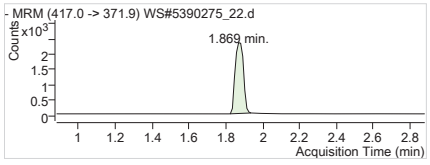


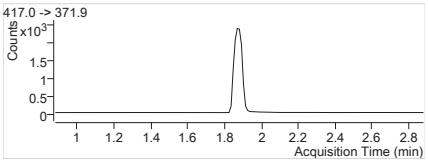
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 109.15 µg/L
Area ratio: 0.06824
Sample type: Sample



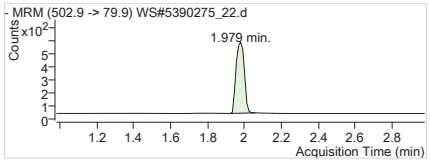


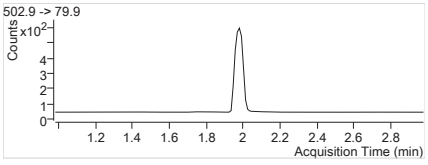
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 100.88 µg/L
Area ratio: 0.32814
Sample type: Sample



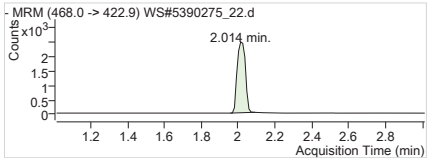


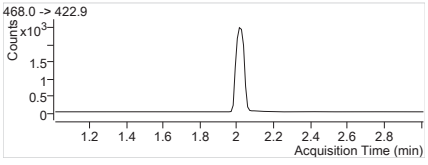
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 95.26 µg/L
Area ratio: 0.32868
Sample type: Sample



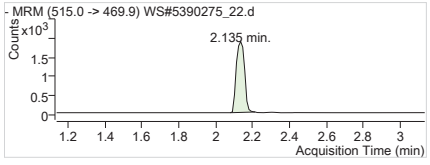


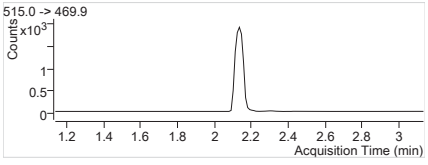
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 97.21 µg/L
Area ratio: 0.07626
Sample type: Sample



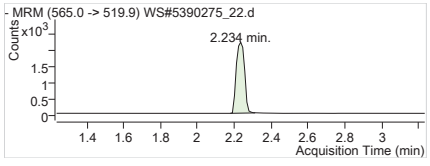


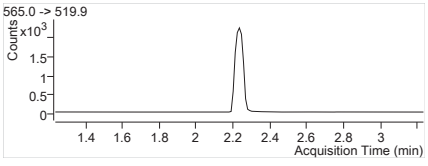
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 99.66 µg/L
Area ratio: 0.33985
Sample type: Sample



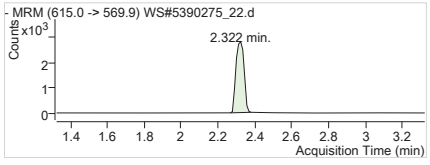


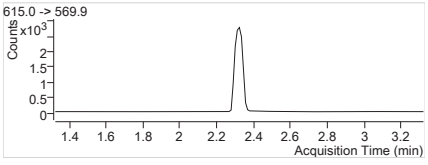
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 88.45 µg/L
Area ratio: 0.18431
Sample type: Sample



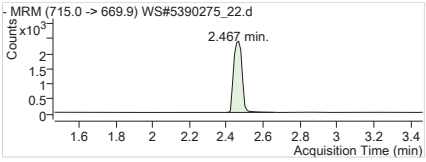


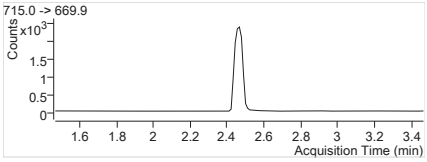
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 82.77 µg/L
Area ratio: 0.21812
Sample type: Sample



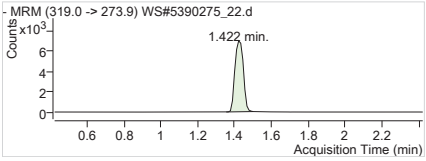


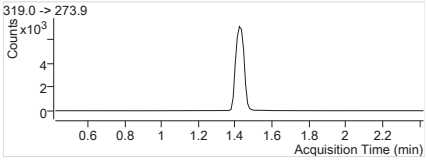
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 78.33 µg/L
Area ratio: 0.26702
Sample type: Sample



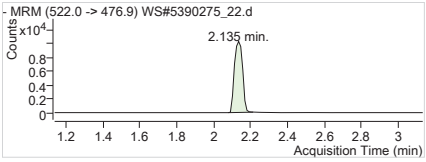


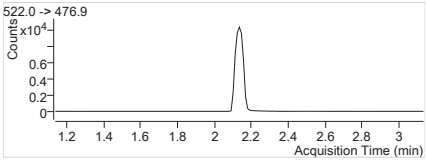
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	60.11 µg/L
Area ratio:	0.23772
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.28 µg/L
Area ratio:	0
Sample type:	Sample





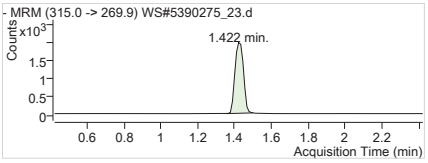
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.44 µg/L
Area ratio:	0
Sample type:	Sample

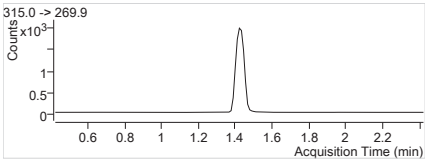
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**5390275:FZH313-01**	**Instrument**	LCMS04
Data File	WS#5390275_23.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-C3
Acq. Date	2018/02/09 6:22:46 PM	**Injection Volume**	Per Method
Sample Annotation	-		

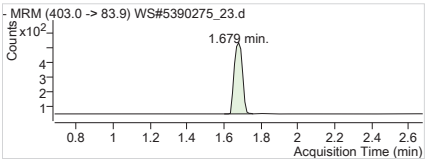
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6223	1.42	1 µg/L		
MPFHxS	1502	1.68	1 µg/L		
MPFHpA	7999	1.69	1 µg/L		
MPFOA	7895	1.87	1 µg/L		
MPFOS	1757	1.98	1 µg/L		
MPFNA	7831	2.01	1 µg/L		
MPFDA	6296	2.14	1 µg/L		
MPFUnA	7457	2.23	1 µg/L		
MPFDoA	9506	2.32	1 µg/L		
MPFTeDA	10422	2.47	1 µg/L		
13C6-PFHxA IS	22997	1.42	1 µg/L		
13C9-PFDA IS	30369	2.13	1 µg/L		

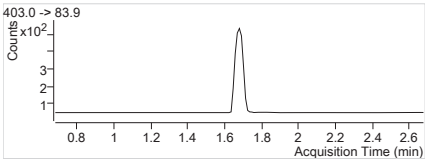
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6223	1.42	-	108.42 µg/L	-
18O2-PFHxS	1502	1.68	-	104.47 µg/L	-
13C4-PFHpA	7999	1.69	-	106.93 µg/L	-
13C4-PFOA	7895	1.87	-	99.50 µg/L	-
13C4-PFOS	1757	1.98	-	97.39 µg/L	-
13C5-PFNA	7830	2.01	-	99.85 µg/L	-
13C2-PFDA	6192	2.14	-	97.85 µg/L	-
13C2-PFUnA	7457	2.23	-	93.18 µg/L	-
13C2-PFDoA	9506	2.32	-	91.83 µg/L	-
13C2-PFTeDA	10710	2.47	-	89.17 µg/L	-
13C6-PFHxA	22997	1.42	-	2.36 µg/L	-
13C9-PFDA	30369	2.13	-	2.36 µg/L	-



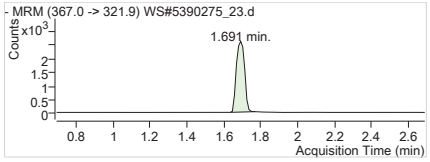


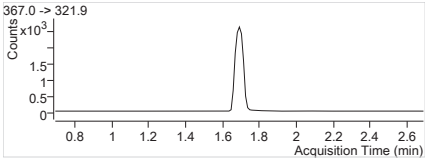
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



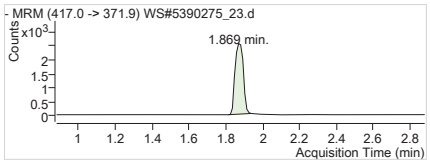


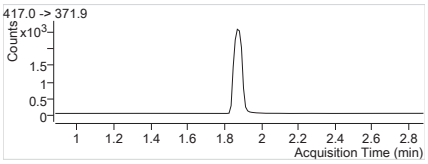
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



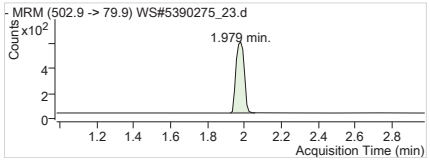


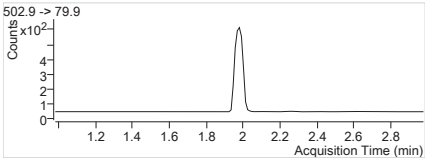
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



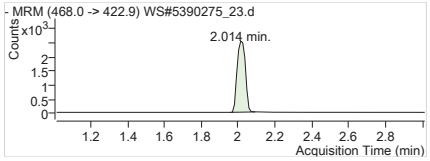


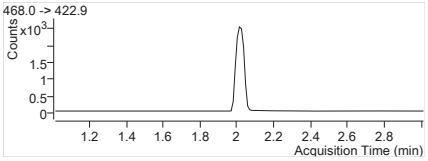
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



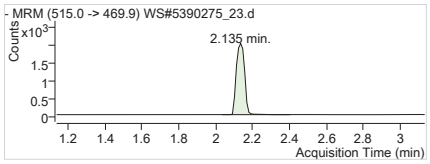


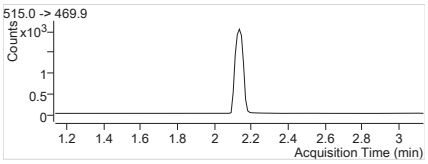
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



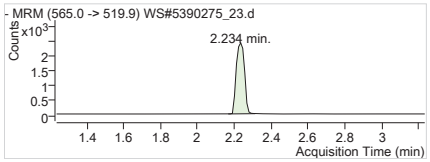


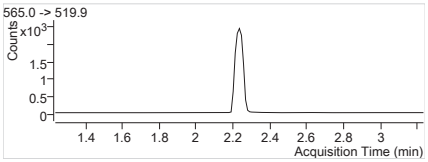
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



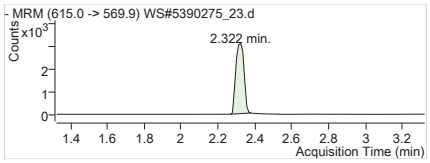


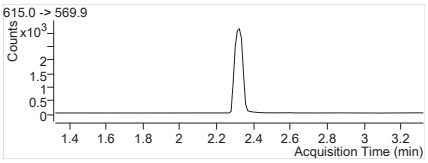
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



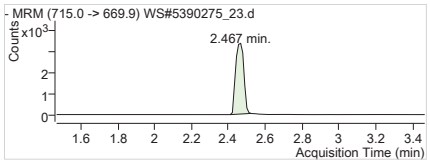


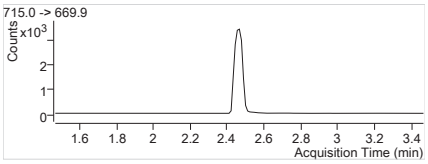
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



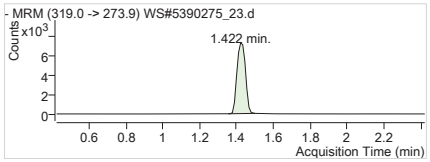


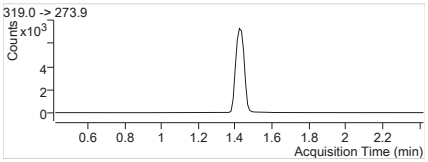
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



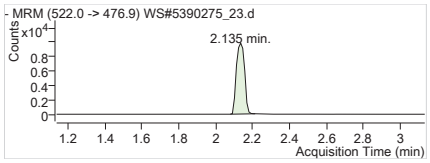


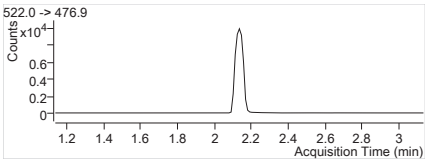
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



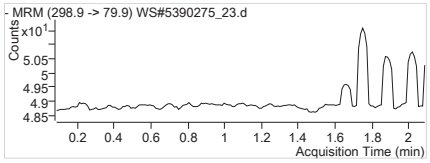


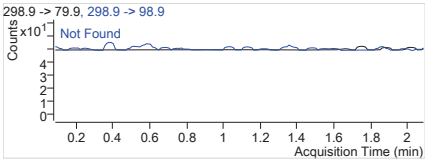
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



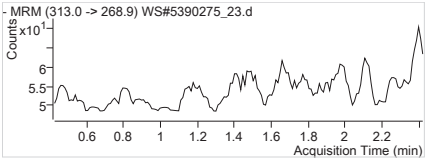


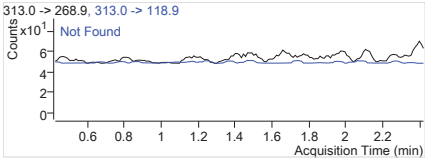
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



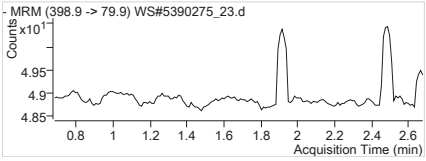


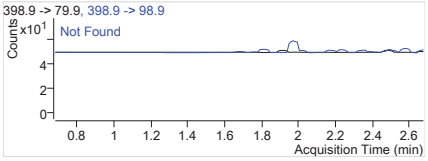
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



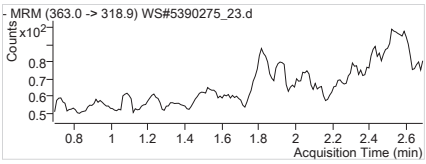


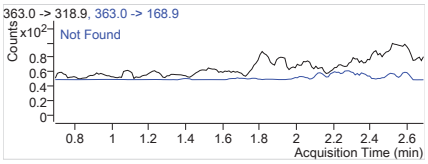
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



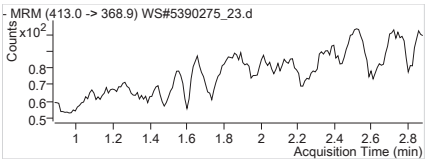


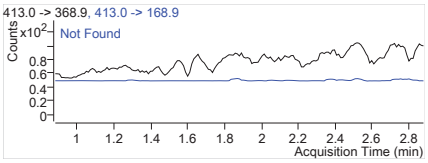
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



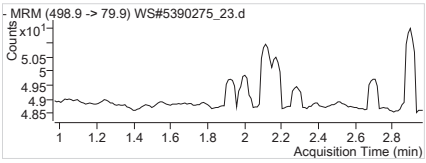


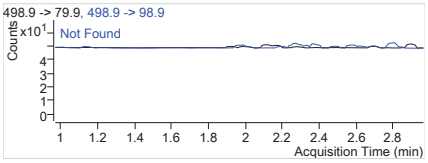
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



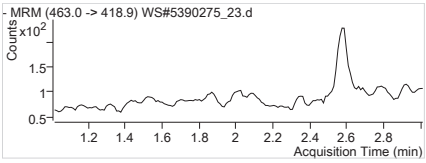


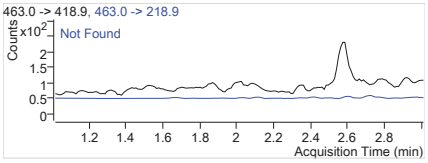
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



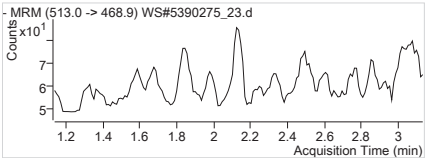


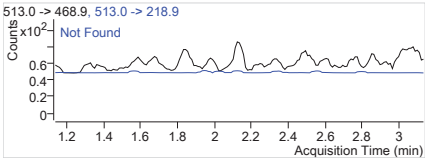
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



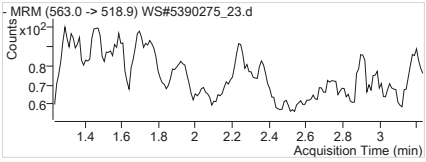


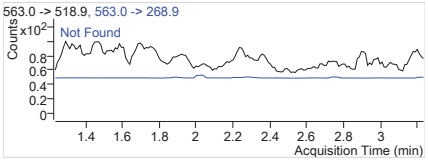
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



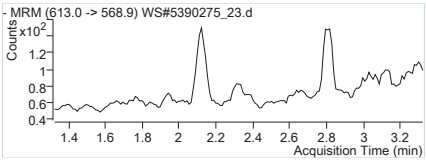


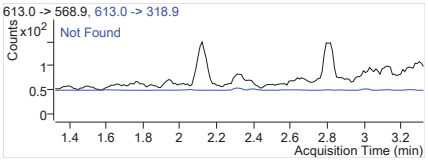
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



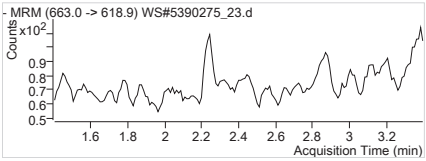


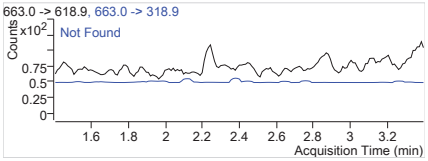
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



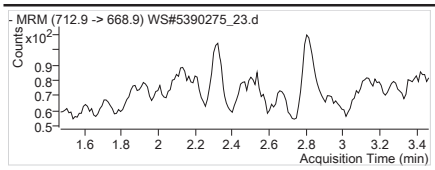


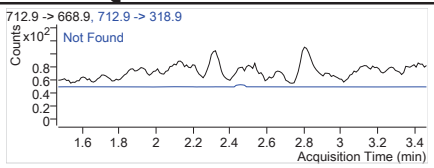
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



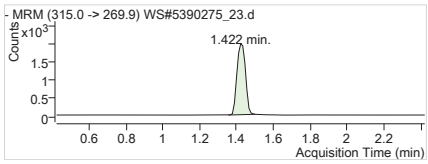


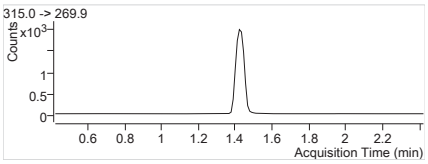
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



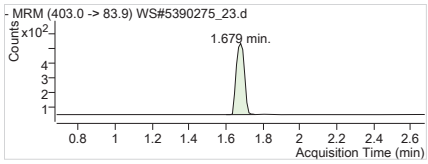


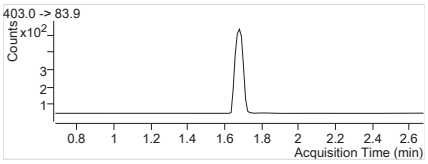
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



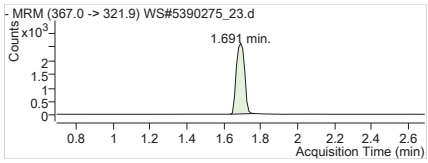


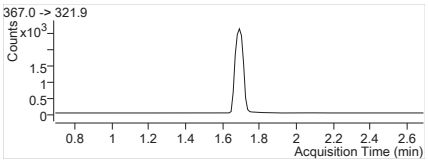
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 108.42 µg/L
Area ratio: 0.27060
Sample type: Sample



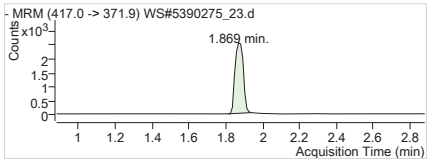


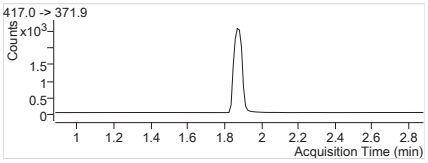
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 104.47 µg/L
Area ratio: 0.06531
Sample type: Sample



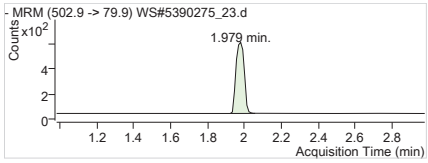


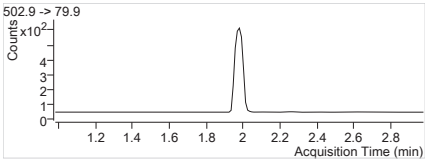
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 106.93 µg/L
Area ratio: 0.34783
Sample type: Sample



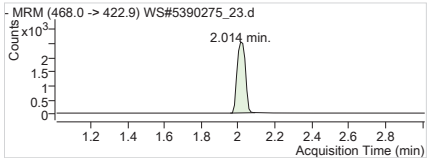


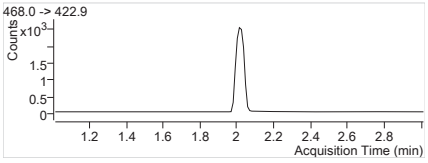
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 99.50 µg/L
Area ratio: 0.34331
Sample type: Sample



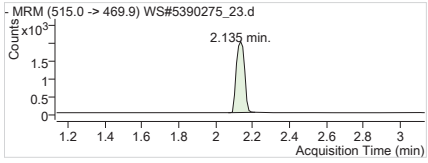


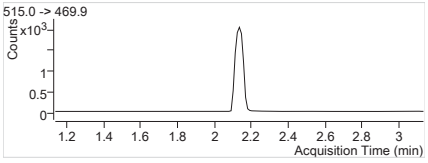
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 97.39 µg/L
Area ratio: 0.07640
Sample type: Sample



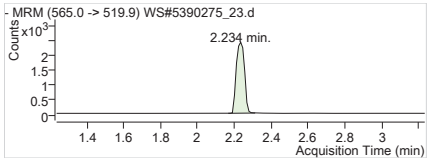


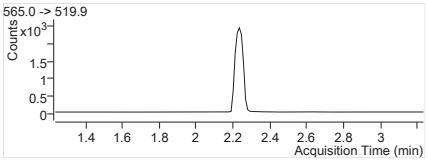
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 99.85 µg/L
Area ratio: 0.34048
Sample type: Sample



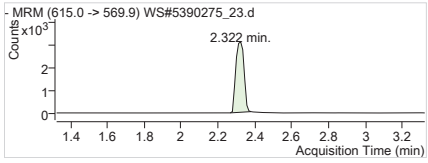


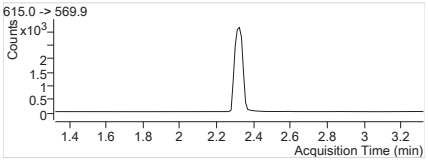
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 97.85 µg/L
Area ratio: 0.20389
Sample type: Sample



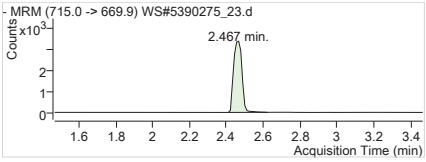


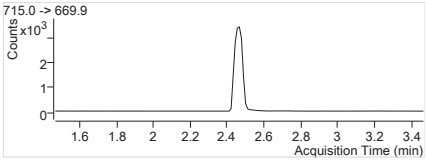
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 93.18 µg/L
Area ratio: 0.24555
Sample type: Sample



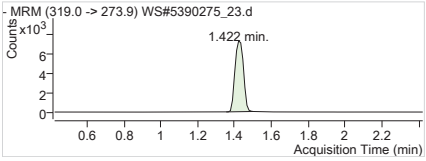


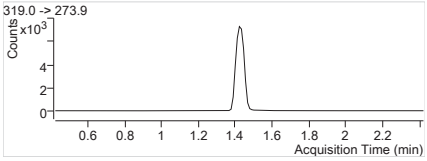
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 91.83 µg/L
Area ratio: 0.31302
Sample type: Sample



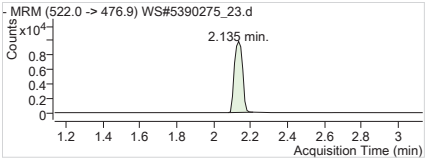


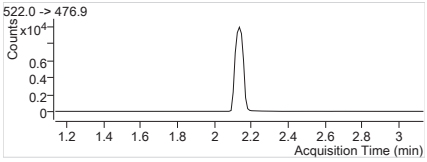
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	89.17 µg/L
Area ratio:	0.35266
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.36 µg/L
Area ratio:	0
Sample type:	Sample





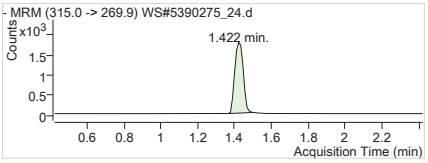
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.36 µg/L
Area ratio:	0
Sample type:	Sample

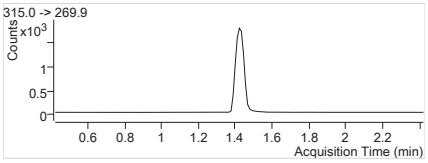
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**5390275:FZH314-01**	**Instrument**	LCMS04
Data File	WS#5390275_24.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-C4
Acq. Date	2018/02/09 6:27:42 PM	**Injection Volume**	Per Method
Sample Annotation	-		

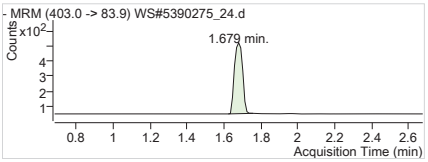
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5643	1.42	1 µg/L		
MPFHxS	1451	1.68	1 µg/L		
MPFHpA	7760	1.69	1 µg/L		
MPFOA	7853	1.87	1 µg/L		
MPFOS	1714	1.98	1 µg/L		
MPFNA	8046	2.01	1 µg/L		
MPFDA	6355	2.14	1 µg/L		
MPFUnA	6666	2.23	1 µg/L		
MPFDoA	9164	2.32	1 µg/L		
MPFTeDA	9537	2.47	1 µg/L		
13C6-PFHxA IS	24707	1.42	1 µg/L		
13C9-PFDA IS	31608	2.13	1 µg/L		

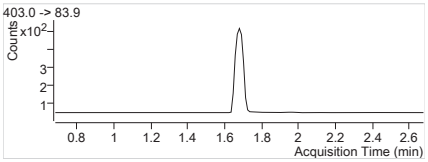
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5643	1.42	-	91.51 µg/L	-
18O2-PFHxS	1451	1.68	-	93.94 µg/L	-
13C4-PFHpA	7760	1.69	-	96.56 µg/L	-
13C4-PFOA	7853	1.87	-	92.12 µg/L	-
13C4-PFOS	1714	1.98	-	88.43 µg/L	-
13C5-PFNA	8045	2.01	-	95.49 µg/L	-
13C2-PFDA	6277	2.14	-	95.31 µg/L	-
13C2-PFUnA	6666	2.23	-	80.03 µg/L	-
13C2-PFDoA	9164	2.32	-	85.05 µg/L	-
13C2-PFTeDA	9845	2.47	-	78.76 µg/L	-
13C6-PFHxA	24707	1.42	-	2.53 µg/L	-
13C9-PFDA	31608	2.13	-	2.45 µg/L	-



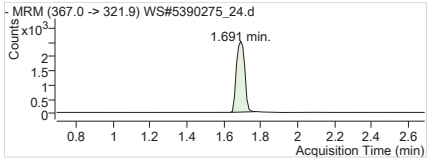


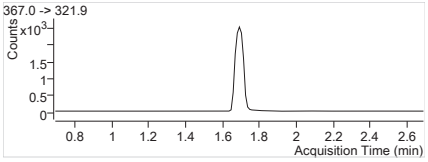
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



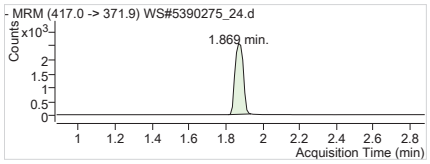


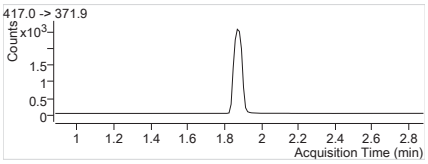
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



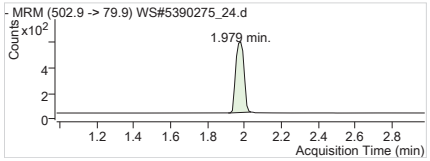


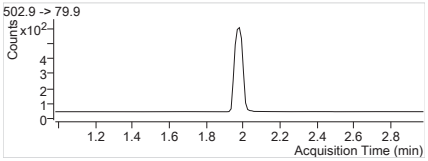
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



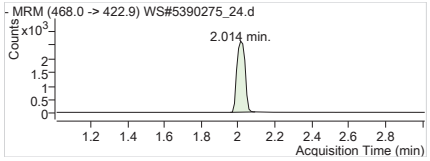


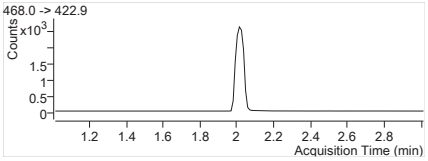
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



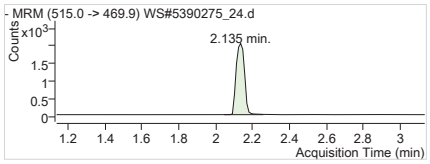


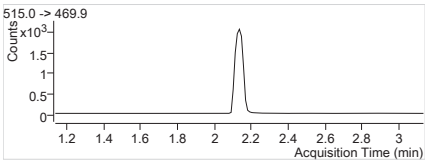
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



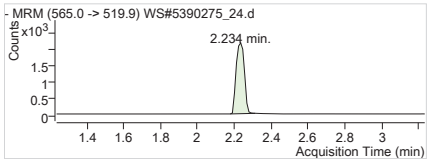


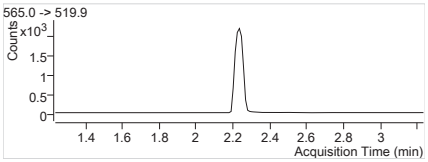
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



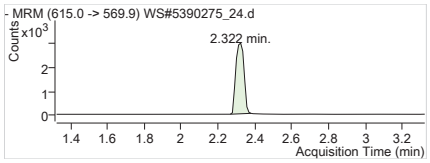


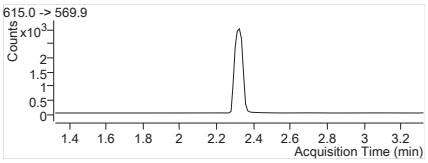
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



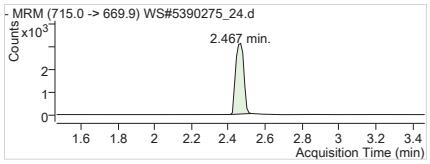


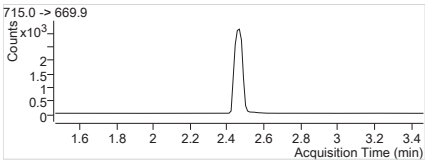
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



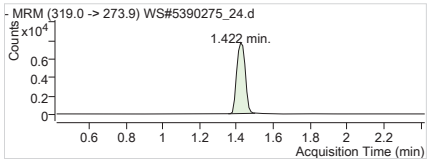


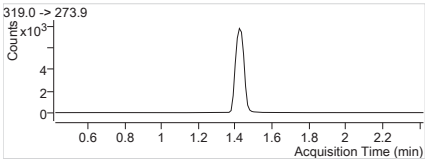
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



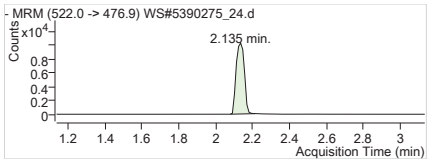


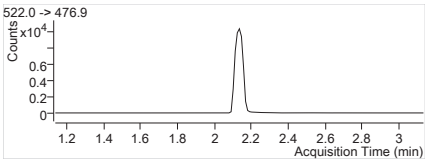
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



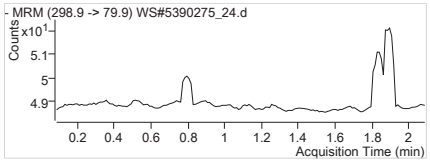


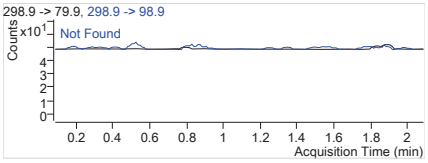
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



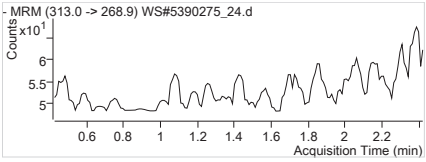


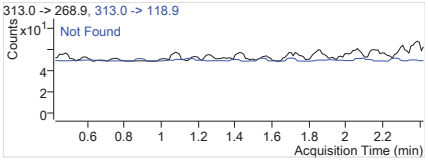
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



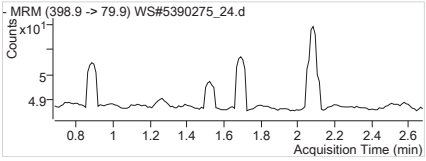


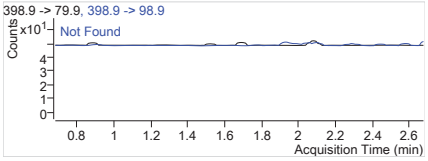
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



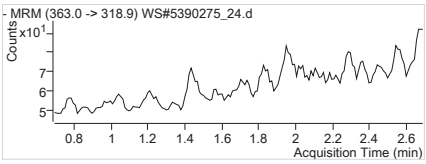


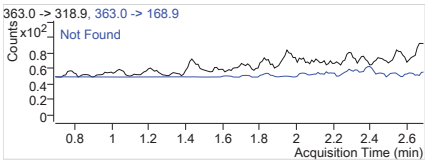
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



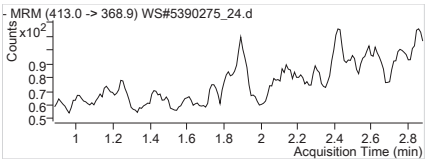


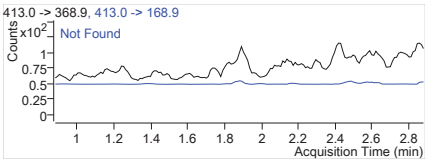
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



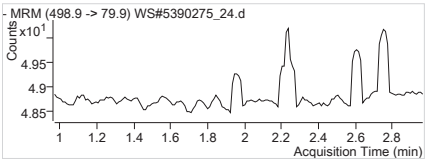


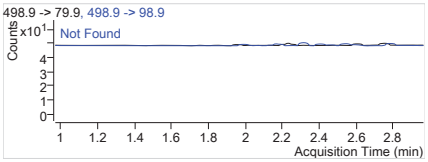
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



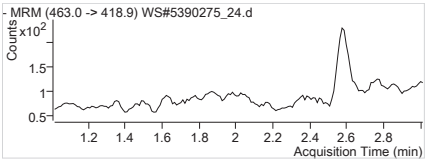


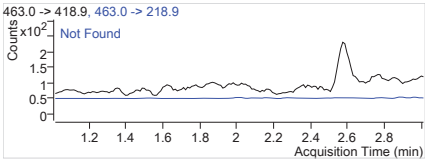
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



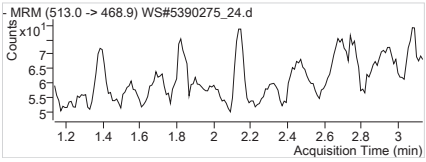


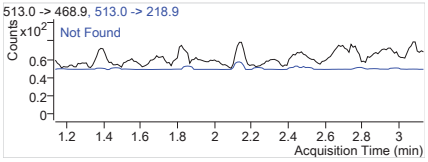
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



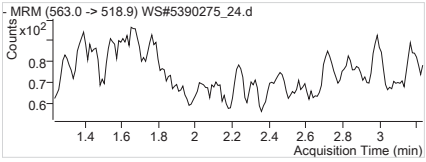


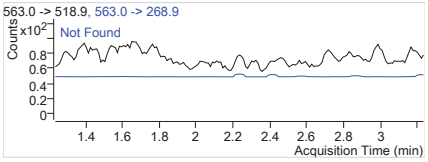
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



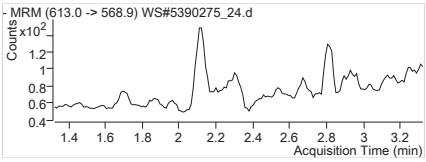


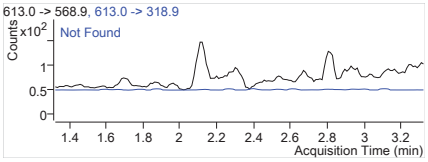
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



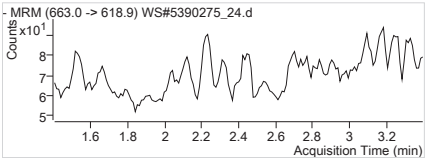


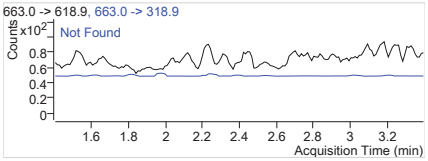
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



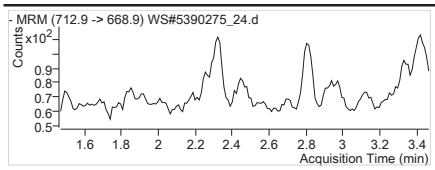


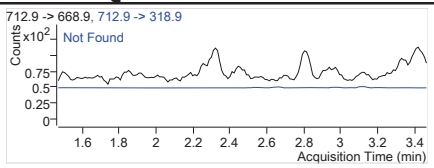
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



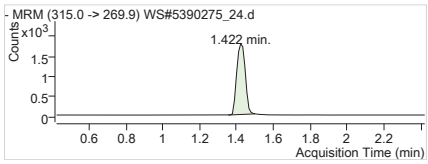


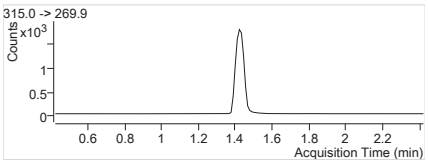
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



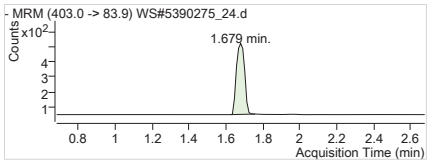


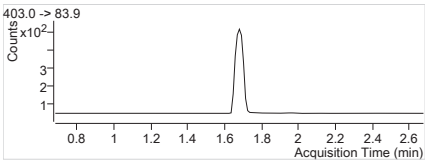
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



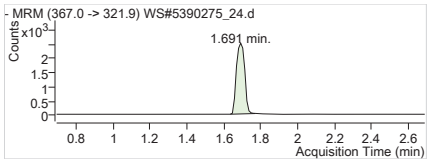


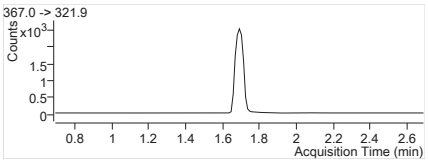
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 91.51 µg/L
Area ratio: 0.22840
Sample type: Sample



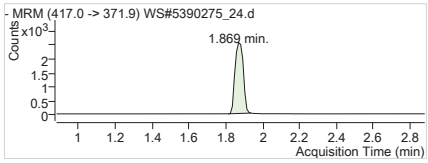


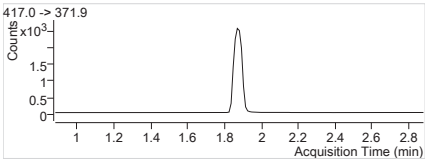
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 93.94 µg/L
Area ratio: 0.05873
Sample type: Sample



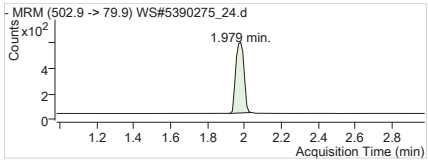


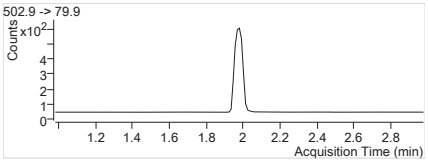
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 96.56 µg/L
Area ratio: 0.31408
Sample type: Sample



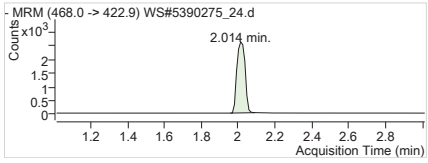


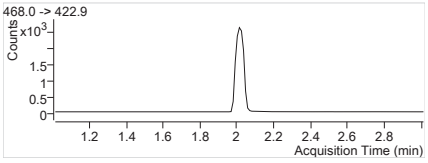
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 92.12 µg/L
Area ratio: 0.31785
Sample type: Sample



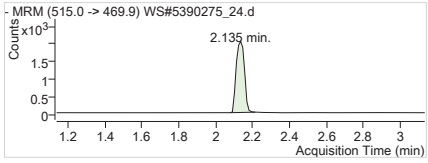


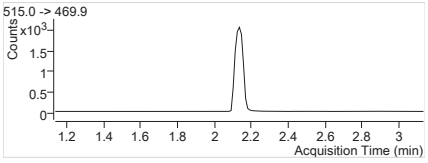
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 88.43 µg/L
Area ratio: 0.06937
Sample type: Sample



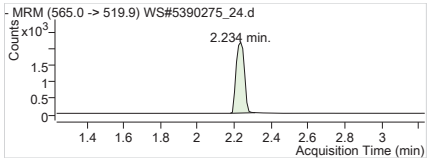


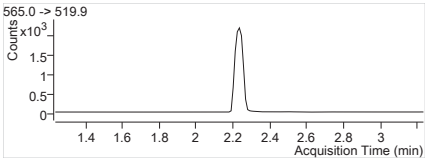
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 95.49 µg/L
Area ratio: 0.32562
Sample type: Sample



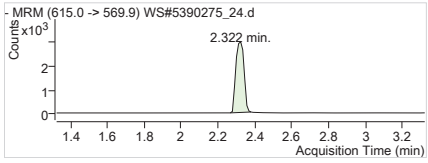


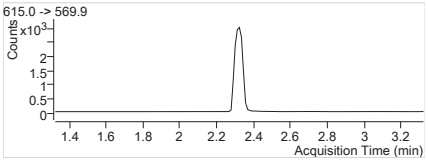
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 95.31 µg/L
Area ratio: 0.19859
Sample type: Sample



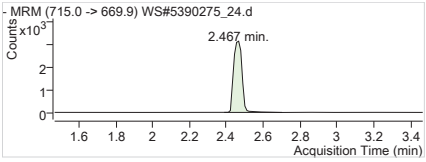


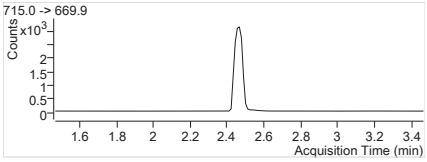
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 80.03 µg/L
Area ratio: 0.21090
Sample type: Sample



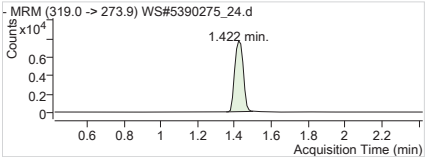


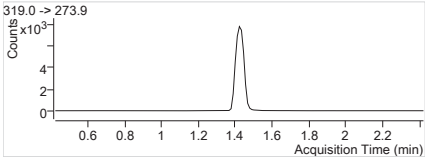
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 85.05 µg/L
Area ratio: 0.28993
Sample type: Sample



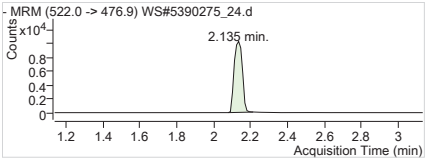


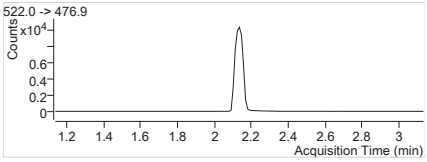
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	78.76 µg/L
Area ratio:	0.31147
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.53 µg/L
Area ratio:	0
Sample type:	Sample





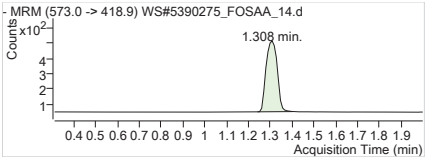
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.45 µg/L
Area ratio:	0
Sample type:	Sample

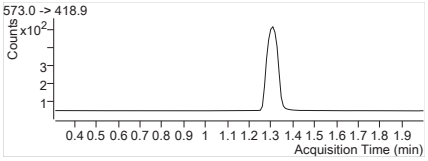
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**5390275:FZH306-01:10x**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_14.d	**Operator**	
Sample Type	Sample	**Dilution**	0.04
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B4
Acq. Date	2018/02/10 12:59:16 AM	**Injection Volume**	Per Method
Sample Annotation	not used.		

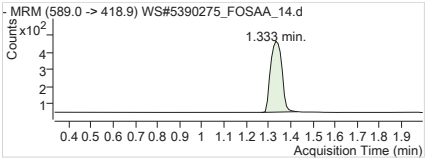
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1650	1.31	1 µg/L		
D5-EtFOSAA IS	1469	1.33	1 µg/L		
13C9-PFDA IS	25178	0.89	1 µg/L		

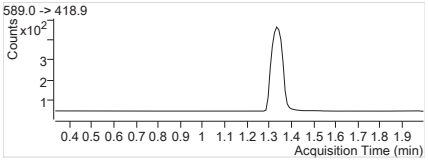
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1660	1.31	-	89.91 µg/L	-
D5-EtFOSAA	1481	1.33	-	90.20 µg/L	-
13C9-PFDA	24949	0.89	-	4.21 µg/L	-



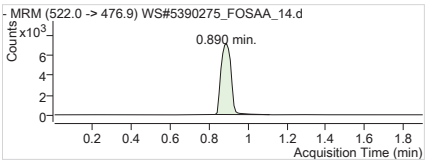


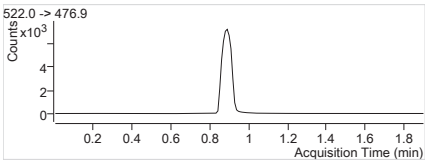
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



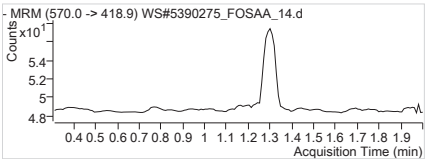


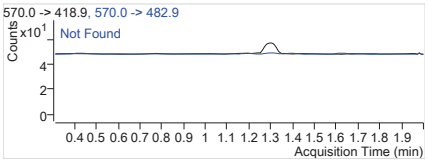
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



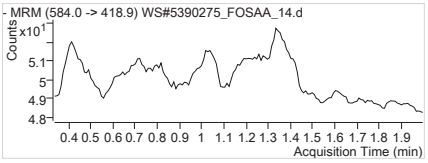


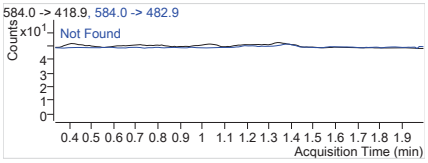
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: Sample



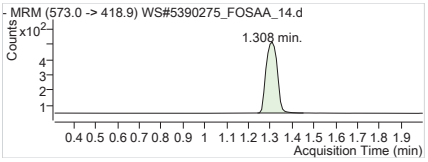


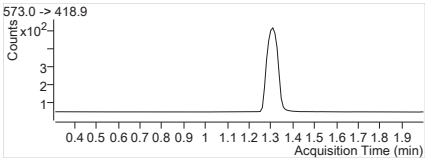
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



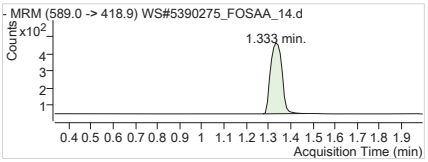


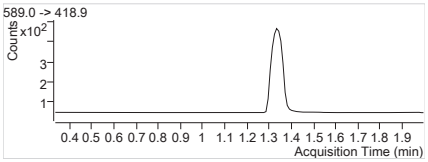
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



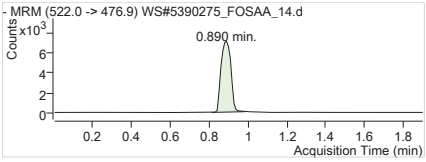


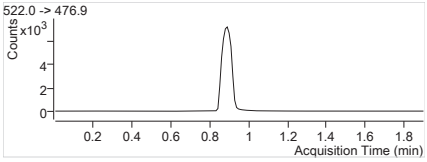
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 89.91 µg/L
Area ratio: 0.06593
Sample type: Sample





D5-EtFOSAA 589.0 -> 418.9
RT (Exp. RT): 1.333 (1.333)
Calc. conc. 90.20 µg/L
Area ratio: 0.05882
Sample type: Sample





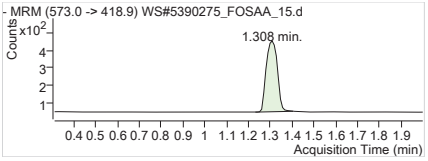
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	4.21 µg/L
Area ratio:	0
Sample type:	Sample

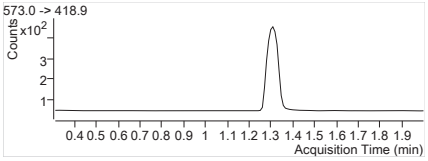
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**5390275:FZH306-01**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_15.d	**Operator**	
Sample Type	Sample	**Dilution**	0.0261
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B5
Acq. Date	2018/02/10 1:01:41 AM	**Injection Volume**	Per Method
Sample Annotation	Reported for all.		

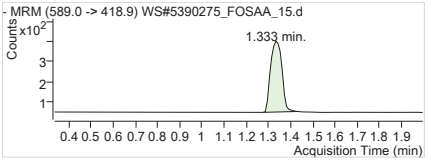
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1432	1.31	1 µg/L		
D5-EtFOSAA IS	1250	1.33	1 µg/L		
13C9-PFDA IS	22234	0.89	1 µg/L		

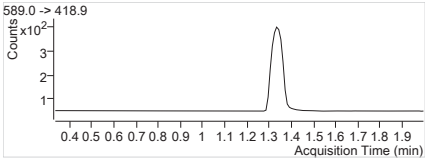
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1461	1.31	-	89.60 µg/L	-
D5-EtFOSAA	1281	1.33	-	88.35 µg/L	-
13C9-PFDA	21777	0.89	-	2.40 µg/L	-



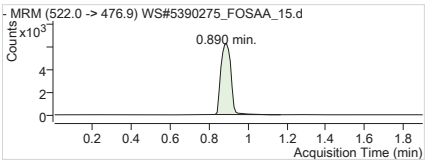


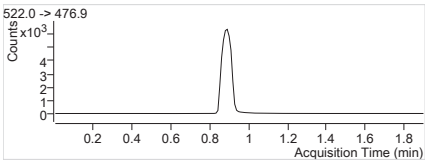
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



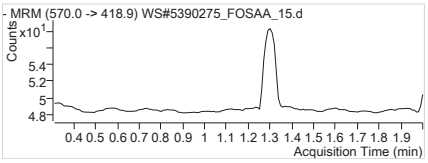


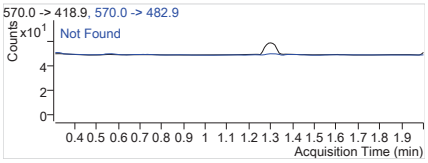
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



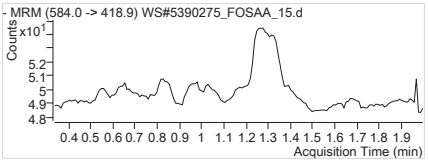


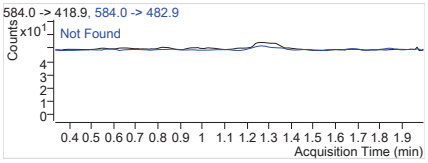
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: Sample



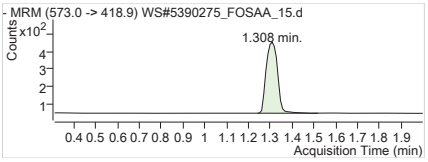


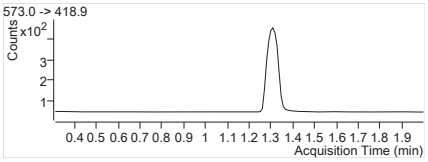
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



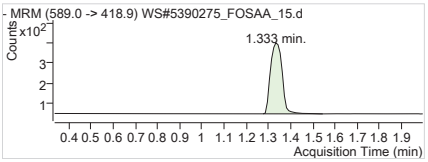


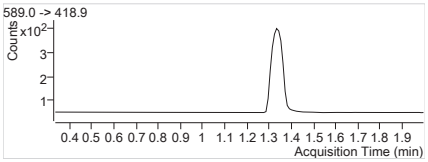
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



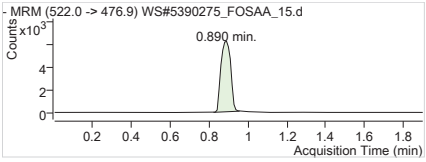


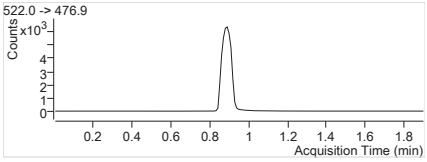
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 89.60 µg/L
Area ratio: 0.06571
Sample type: Sample





D5-EtFOSAA 589.0 -> 418.9
RT (Exp. RT): 1.333 (1.333)
Calc. conc. 88.35 µg/L
Area ratio: 0.05761
Sample type: Sample





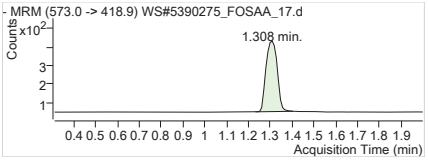
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	2.40 µg/L
Area ratio:	0
Sample type:	Sample

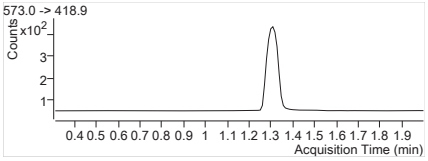
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**5390275:FZH307-01**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_17.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B6
Acq. Date	2018/02/10 1:06:31 AM	**Injection Volume**	Per Method
Sample Annotation	-		

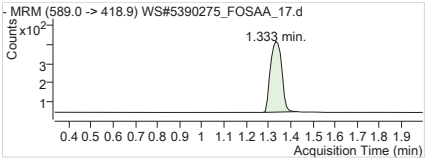
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1370	1.31	1 µg/L		
D5-EtFOSAA IS	1286	1.33	1 µg/L		
13C9-PFDA IS	24082	0.88	1 µg/L		

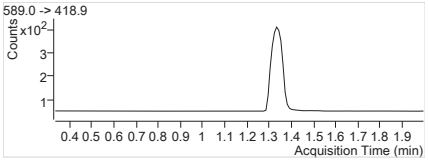
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1375	1.31	-	77.86 µg/L	-
D5-EtFOSAA	1299	1.33	-	82.72 µg/L	-
13C9-PFDA	23419	0.88	-	2.37 µg/L	-



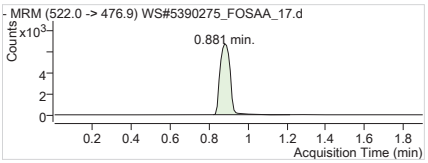


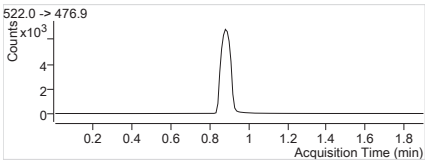
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



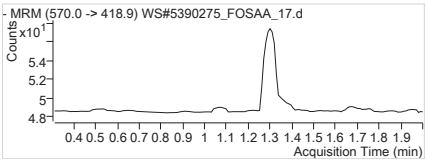


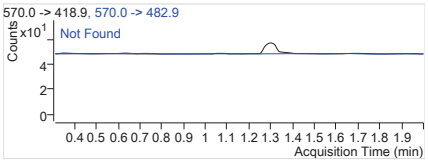
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



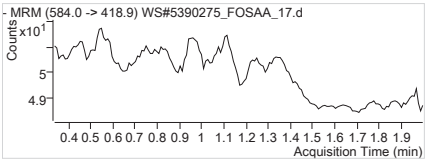


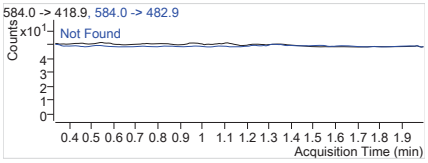
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.900)
Concentration: 1 µg/L
Sample type: Sample



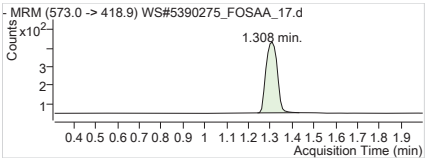


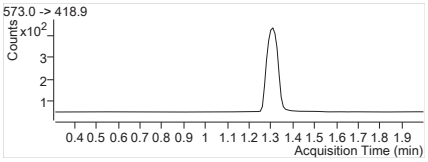
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



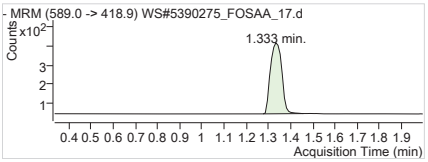


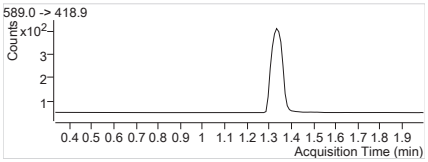
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



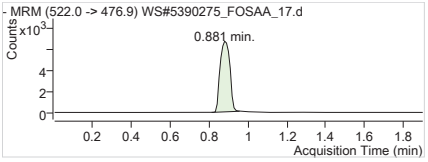


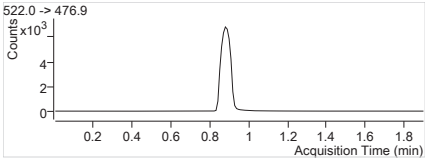
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 77.86 µg/L
Area ratio: 0.05710
Sample type: Sample





D5-EtFOSAA 589.0 -> 418.9
RT (Exp. RT): 1.333 (1.333)
Calc. conc. 82.72 µg/L
Area ratio: 0.05394
Sample type: Sample





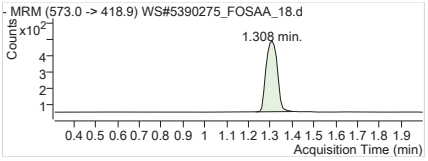
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.900)
Calc. conc.	2.37 µg/L
Area ratio:	0
Sample type:	Sample

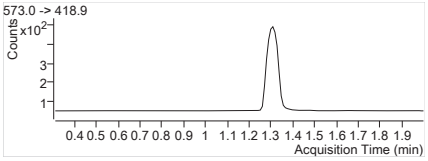
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**5390275:FZH308-01**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_18.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B7
Acq. Date	2018/02/10 1:08:56 AM	**Injection Volume**	Per Method
Sample Annotation	-		

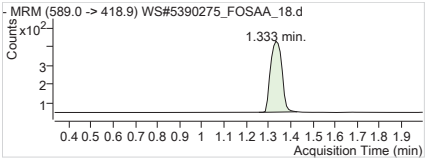
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1583	1.31	1 µg/L		
D5-EtFOSAA IS	1357	1.33	1 µg/L		
13C9-PFDA IS	25352	0.89	1 µg/L		

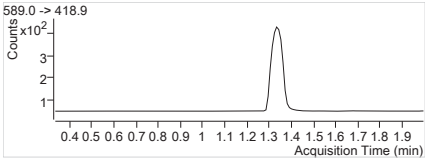
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1585	1.31	-	85.25 µg/L	-
D5-EtFOSAA	1370	1.33	-	82.87 µg/L	-
13C9-PFDA	24603	0.89	-	2.49 µg/L	-



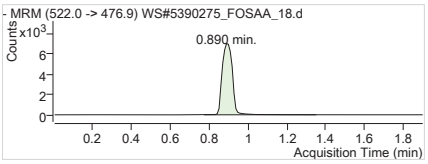


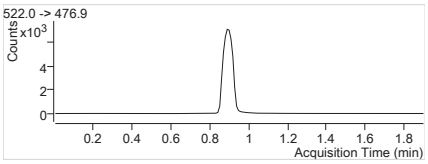
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



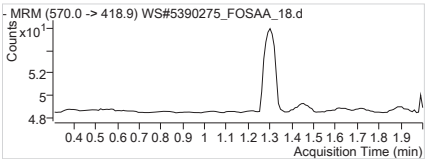


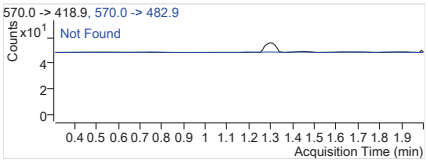
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



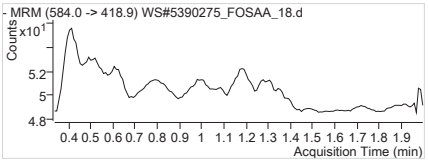


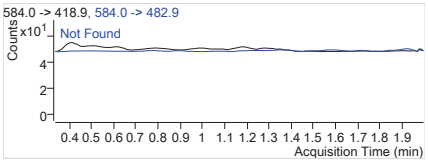
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: Sample



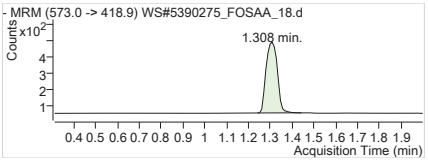


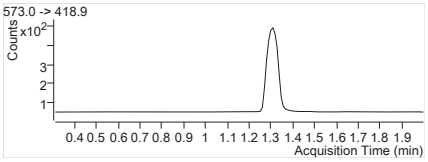
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



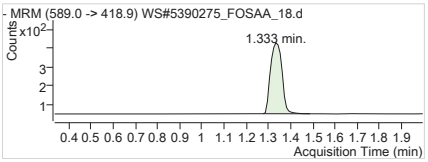


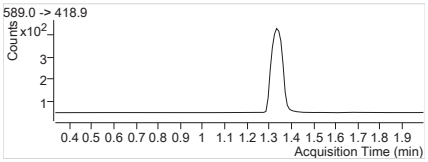
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



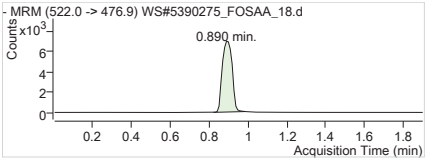


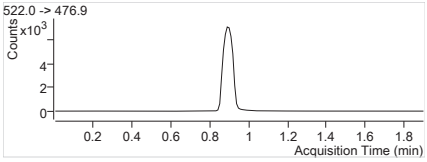
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 85.25 µg/L
Area ratio: 0.06252
Sample type: Sample





D5-EtFOSAA 589.0 -> 418.9
RT (Exp. RT): 1.333 (1.333)
Calc. conc. 82.87 µg/L
Area ratio: 0.05404
Sample type: Sample





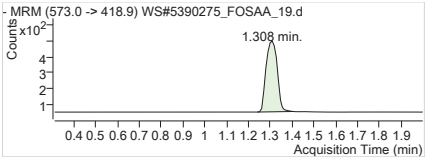
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	2.49 µg/L
Area ratio:	0
Sample type:	Sample

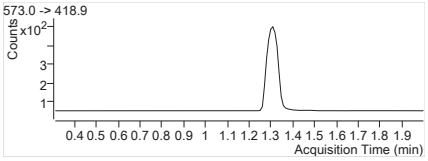
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**5390275:FZH309-01**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_19.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B8
Acq. Date	2018/02/10 1:11:21 AM	**Injection Volume**	Per Method
Sample Annotation	-		

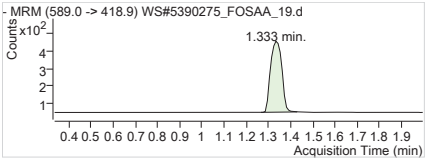
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1611	1.31	1 µg/L		
D5-EtFOSAA IS	1441	1.33	1 µg/L		
13C9-PFDA IS	24562	0.89	1 µg/L		

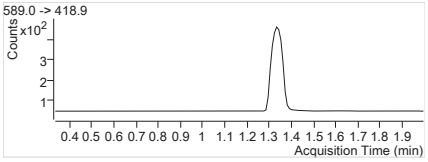
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1621	1.31	-	89.99 µg/L	-
D5-EtFOSAA	1445	1.33	-	90.22 µg/L	-
13C9-PFDA	24269	0.89	-	2.46 µg/L	-



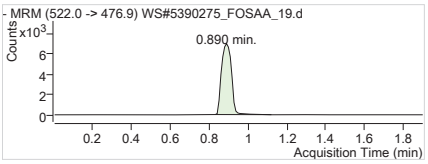


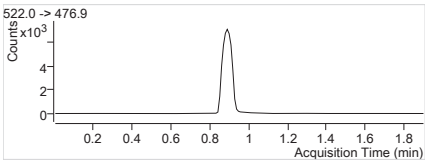
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



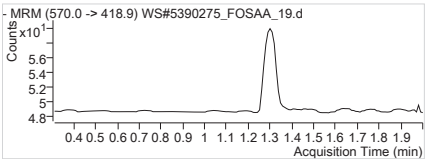


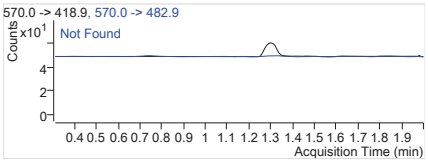
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



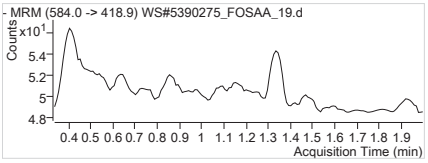


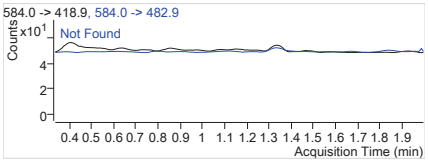
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: Sample



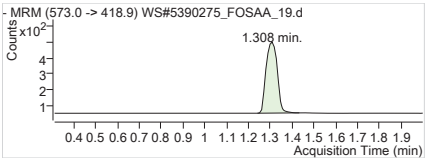


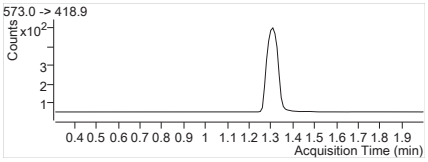
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



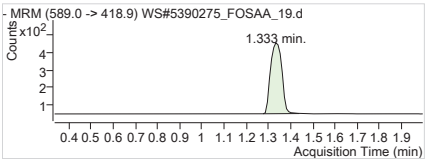


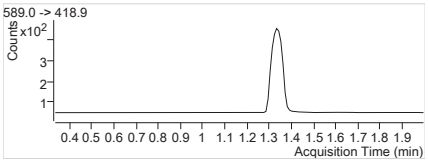
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



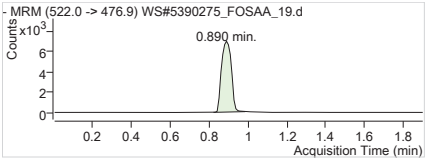


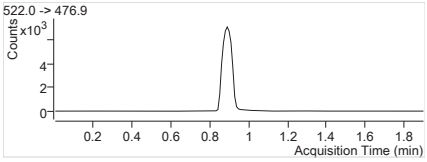
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 89.99 µg/L
Area ratio: 0.06600
Sample type: Sample





D5-EtFOSAA 589.0 -> 418.9
RT (Exp. RT): 1.333 (1.333)
Calc. conc. 90.22 µg/L
Area ratio: 0.05883
Sample type: Sample





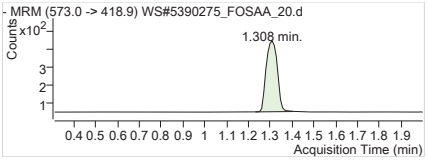
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	2.46 µg/L
Area ratio:	0
Sample type:	Sample

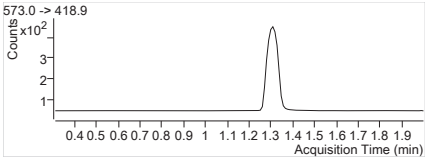
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**5390275:FZH310-01**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_20.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B9
Acq. Date	2018/02/10 1:13:46 AM	**Injection Volume**	Per Method
Sample Annotation	-		

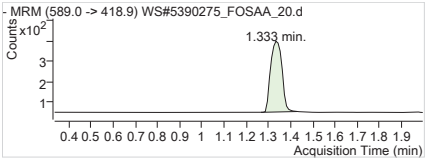
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1420	1.31	1 µg/L		
D5-EtFOSAA IS	1240	1.33	1 µg/L		
13C9-PFDA IS	25998	0.90	1 µg/L		

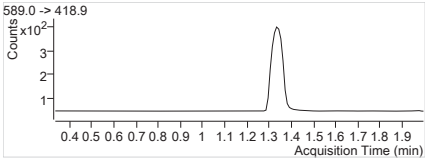
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1437	1.31	-	75.37 µg/L	-
D5-EtFOSAA	1267	1.33	-	74.74 µg/L	-
13C9-PFDA	25408	0.90	-	2.57 µg/L	-



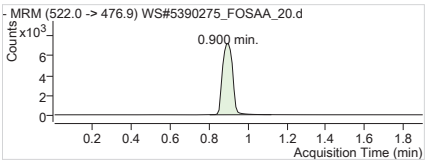


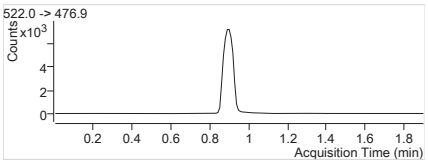
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



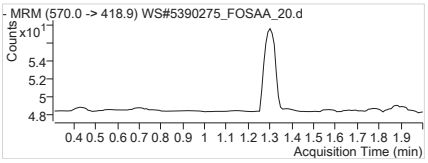


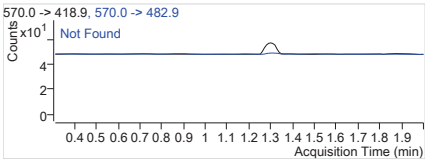
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



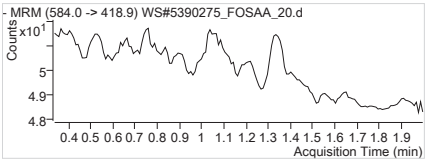


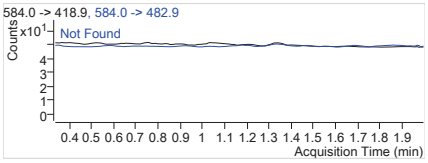
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



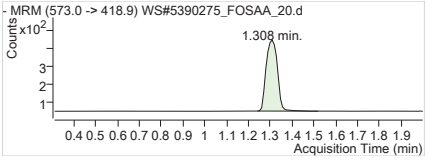


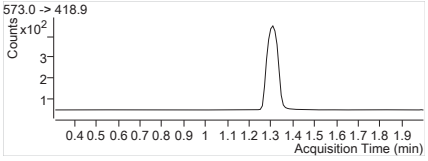
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



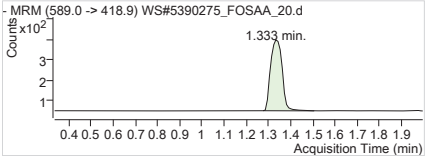


EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



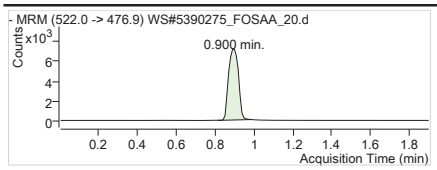


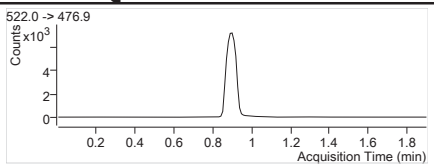
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 75.37 µg/L
Area ratio: 0.05527
Sample type: Sample





D5-EtFOSAA 589.0 -> 418.9
RT (Exp. RT): 1.333 (1.333)
Calc. conc. 74.74 µg/L
Area ratio: 0.04873
Sample type: Sample





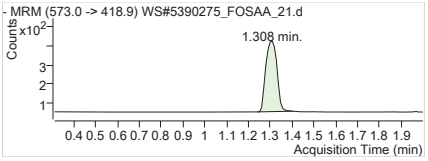
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.57 µg/L
Area ratio:	0
Sample type:	Sample

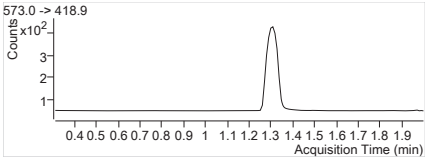
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**5390275:FZH311-01**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_21.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-C1
Acq. Date	2018/02/10 1:16:10 AM	**Injection Volume**	Per Method
Sample Annotation	-		

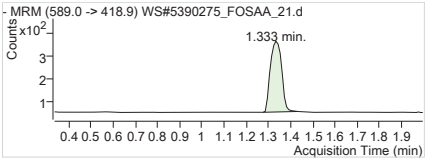
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1342	1.31	1 µg/L		
D5-EtFOSAA IS	1118	1.33	1 µg/L		
13C9-PFDA IS	22685	0.88	1 µg/L		

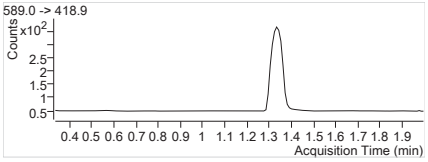
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1361	1.31	-	81.81 µg/L	-
D5-EtFOSAA	1140	1.33	-	77.07 µg/L	-
13C9-PFDA	22047	0.88	-	2.23 µg/L	-



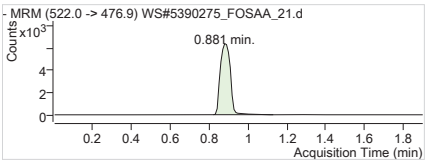


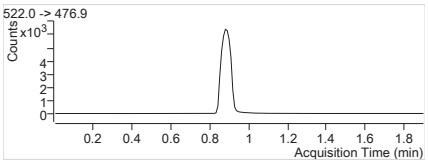
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



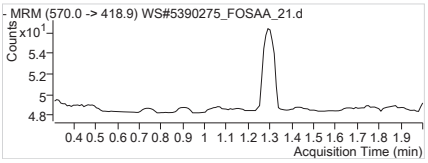


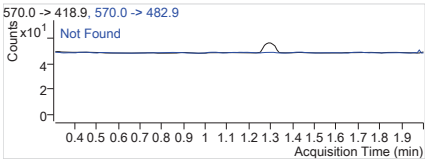
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



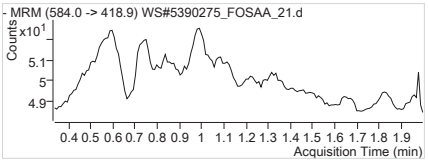


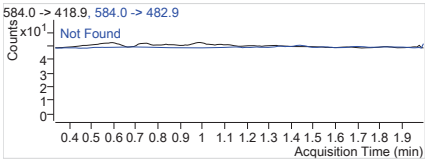
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.900)
Concentration: 1 µg/L
Sample type: Sample



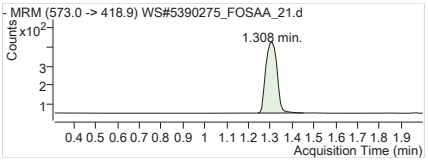


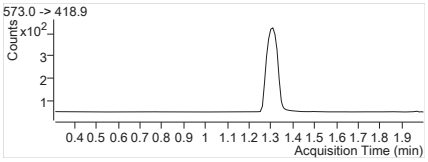
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



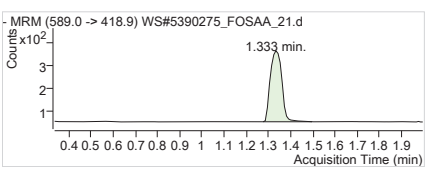


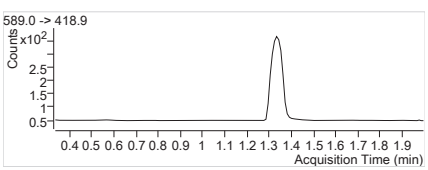
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



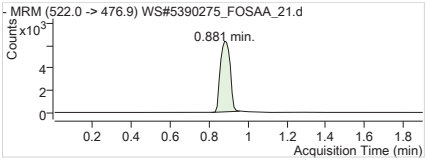


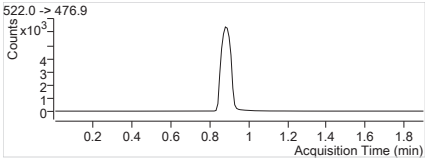
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 81.81 µg/L
Area ratio: 0.06000
Sample type: Sample





D5-EtFOSAA 589.0 -> 418.9
RT (Exp. RT): 1.333 (1.333)
Calc. conc. 77.07 µg/L
Area ratio: 0.05025
Sample type: Sample





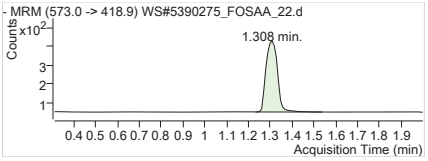
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.900)
Calc. conc.	2.23 µg/L
Area ratio:	0
Sample type:	Sample

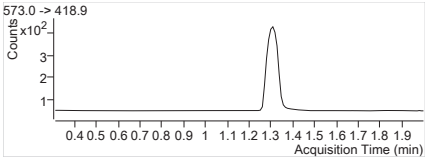
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**5390275:FZH312-01**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_22.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-C2
Acq. Date	2018/02/10 1:18:35 AM	**Injection Volume**	Per Method
Sample Annotation	-		

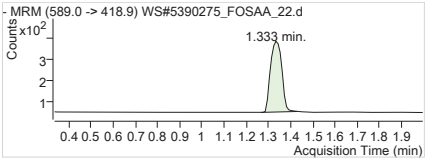
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1388	1.31	1 µg/L		
D5-EtFOSAA IS	1195	1.33	1 µg/L		
13C9-PFDA IS	23193	0.89	1 µg/L		

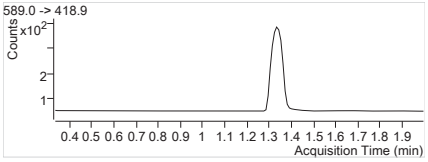
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1383	1.31	-	81.31 µg/L	-
D5-EtFOSAA	1211	1.33	-	80.07 µg/L	-
13C9-PFDA	22513	0.89	-	2.28 µg/L	-



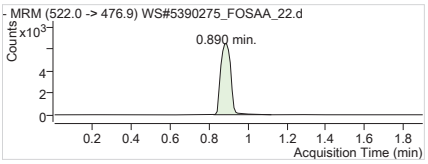


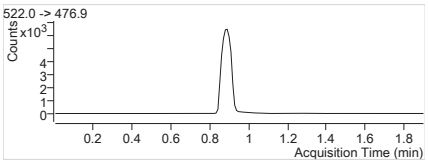
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



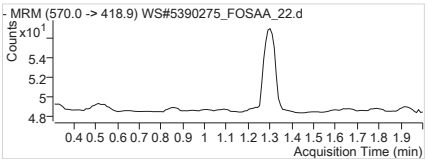


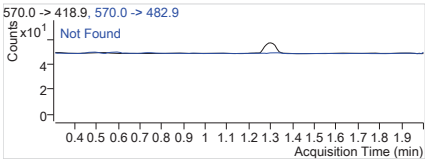
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



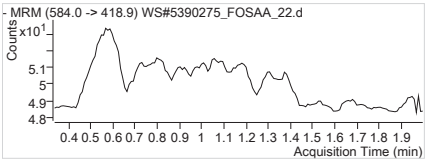


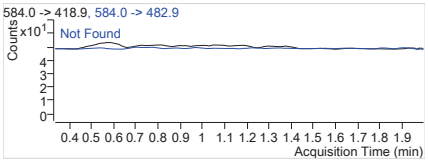
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: Sample



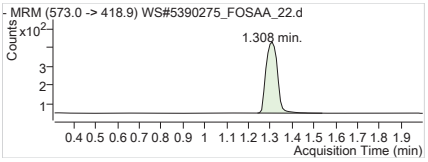


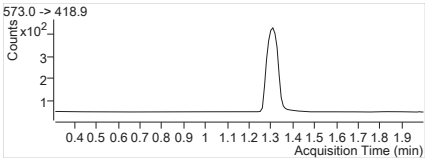
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



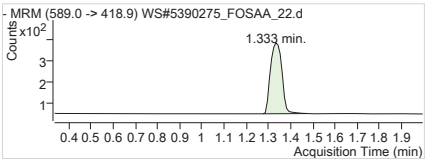


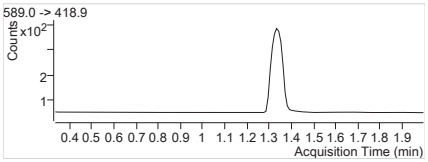
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



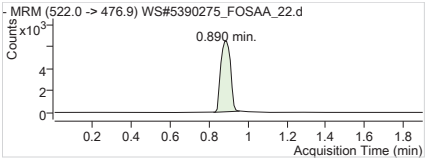


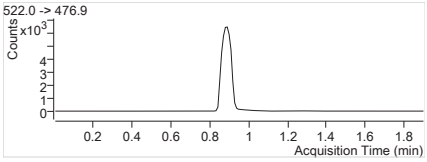
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 81.31 µg/L
Area ratio: 0.05963
Sample type: Sample





D5-EtFOSAA 589.0 -> 418.9
RT (Exp. RT): 1.333 (1.333)
Calc. conc. 80.07 µg/L
Area ratio: 0.05221
Sample type: Sample





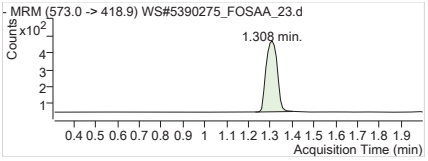
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	2.28 µg/L
Area ratio:	0
Sample type:	Sample

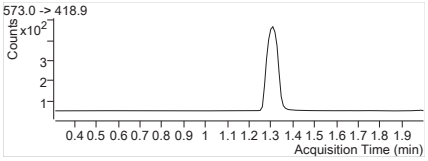
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**5390275:FZH313-01**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_23.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-C3
Acq. Date	2018/02/10 1:20:59 AM	**Injection Volume**	Per Method
Sample Annotation	-		

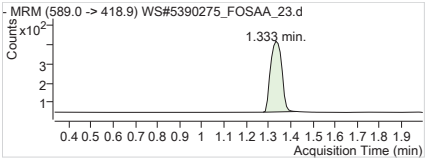
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1496	1.31	1 µg/L		
D5-EtFOSAA IS	1296	1.33	1 µg/L		
13C9-PFDA IS	24051	0.89	1 µg/L		

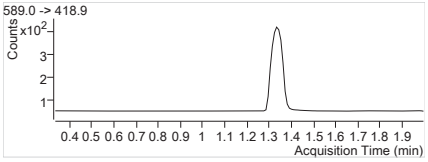
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1509	1.31	-	85.56 µg/L	-
D5-EtFOSAA	1320	1.33	-	84.17 µg/L	-
13C9-PFDA	23742	0.89	-	2.40 µg/L	-



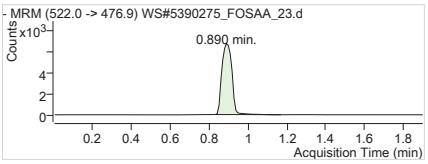


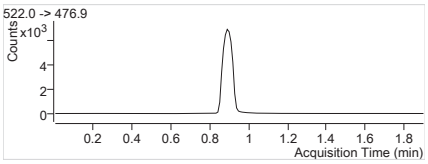
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



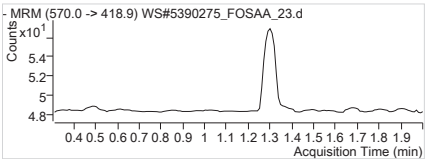


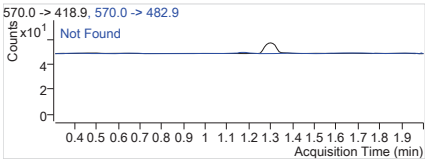
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



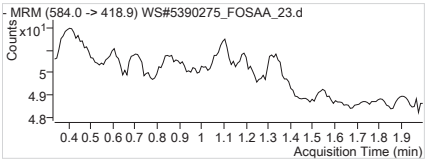


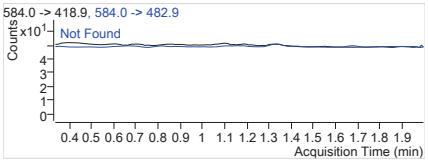
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: Sample



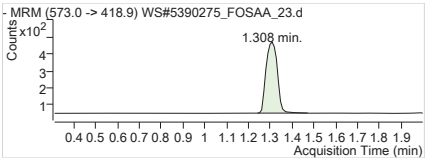


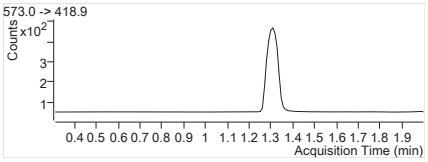
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



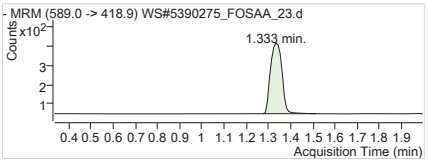


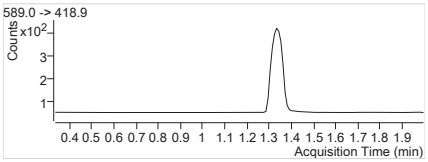
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



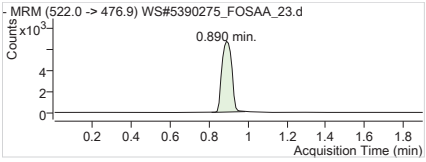


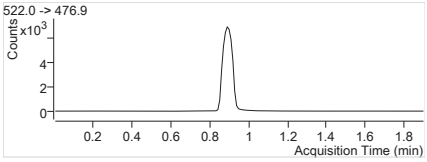
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 85.56 µg/L
Area ratio: 0.06274
Sample type: Sample





D5-EtFOSAA 589.0 -> 418.9
RT (Exp. RT): 1.333 (1.333)
Calc. conc. 84.17 µg/L
Area ratio: 0.05488
Sample type: Sample





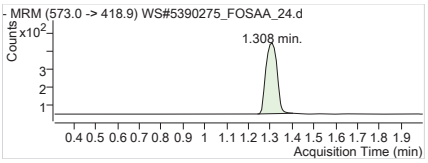
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	2.40 µg/L
Area ratio:	0
Sample type:	Sample

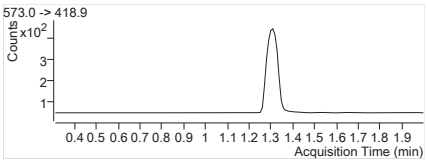
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**5390275:FZH314-01**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_24.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-C4
Acq. Date	2018/02/10 1:23:25 AM	**Injection Volume**	Per Method
Sample Annotation	-		

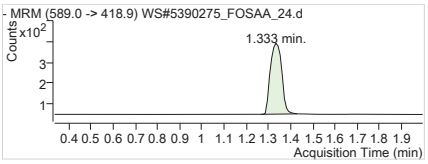
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1406	1.31	1 µg/L		
D5-EtFOSAA IS	1226	1.33	1 µg/L		
13C9-PFDA IS	24450	0.89	1 µg/L		

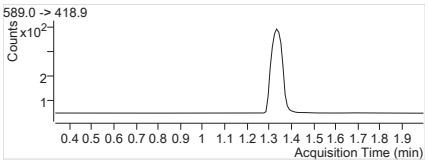
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1435	1.31	-	80.03 µg/L	-
D5-EtFOSAA	1242	1.33	-	77.90 µg/L	-
13C9-PFDA	24382	0.89	-	2.47 µg/L	-



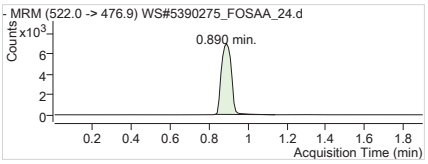


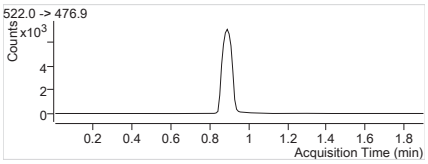
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



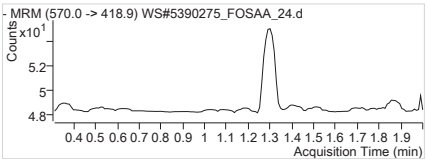


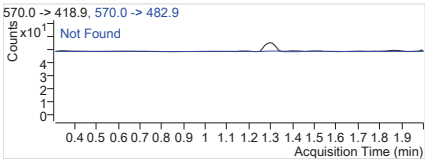
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



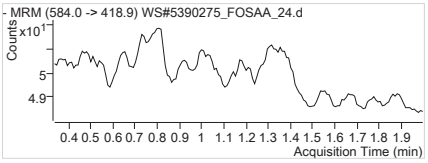


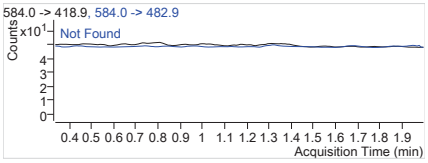
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: Sample



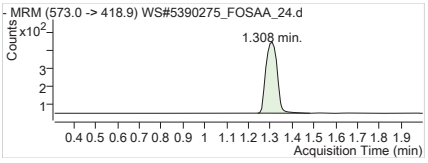


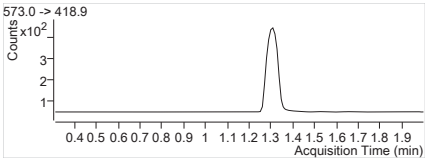
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



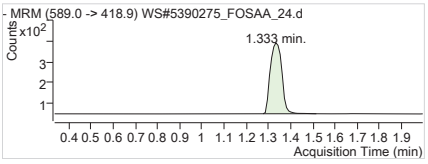


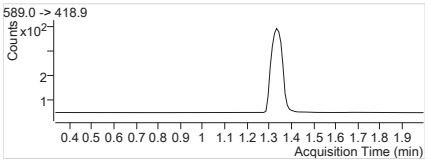
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



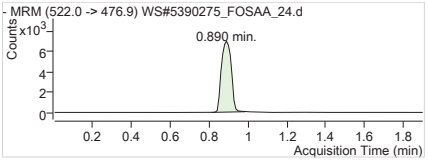


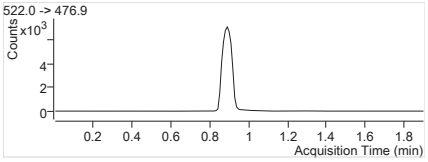
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 80.03 µg/L
Area ratio: 0.05869
Sample type: Sample





D5-EtFOSAA 589.0 -> 418.9
RT (Exp. RT): 1.333 (1.333)
Calc. conc. 77.90 µg/L
Area ratio: 0.05080
Sample type: Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	2.47 µg/L
Area ratio:	0
Sample type:	Sample

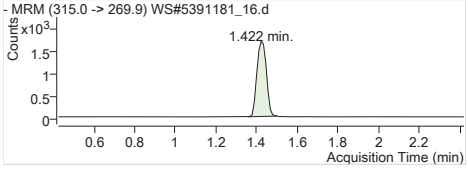
Quantitation Results

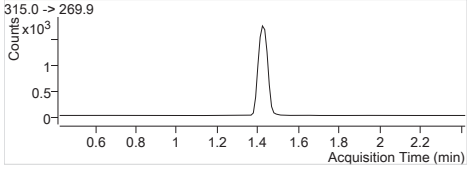
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics		
Sample Name	**5391181:FZH326-01:10x**	**Instrument**	LCMS04
Data File	WS#5391181_16.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low.m	**Position**	P1-D4
Acq. Date	2018/02/09 1:41:18 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFHxS, PFOA, and PFOS only.		

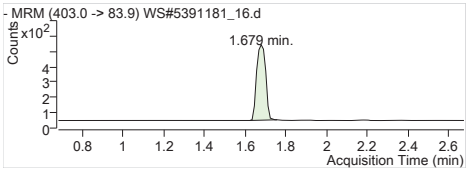
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5443	1.42	1 µg/L		
MPFHxS	1535	1.68	1 µg/L		
MPFHpA	7213	1.69	1 µg/L		
MPFOA	7081	1.88	1 µg/L		
MPFOS	1639	1.98	1 µg/L		
MPFNA	7138	2.01	1 µg/L		
MPFDA	5645	2.14	1 µg/L		
MPFUnA	6697	2.23	1 µg/L		
MPFDoA	8091	2.32	1 µg/L		
MPFTeDA	6269	2.47	1 µg/L		
13C6-PFHxA IS	22457	1.42	1 µg/L		
13C9-PFDA IS	29038	2.13	1 µg/L		

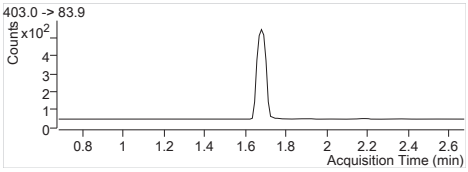
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	2246	1.42	-	0.27 µg/L	-
PFHxS 1	4766	1.68	-	1.61 µg/L	-
PFHpA 1			-	ND	-
PFOA 1	29086	1.87	-	2.25 µg/L	-
PFOS 1	2733	1.97	-	1.02 µg/L	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5443	1.42	-	93.07 µg/L	-
18O2-PFHxS	1535	1.68	-	105.14 µg/L	-
13C4-PFHpA	7213	1.69	-	96.58 µg/L	-
13C4-PFOA	7081	1.88	-	89.99 µg/L	-
13C4-PFOS	1639	1.98	-	93.61 µg/L	-
13C5-PFNA	7138	2.01	-	89.83 µg/L	-
13C2-PFDA	5594	2.14	-	88.61 µg/L	-
13C2-PFUnA	6697	2.23	-	88.26 µg/L	-
13C2-PFDoA	8091	2.32	-	77.91 µg/L	-
13C2-PFTeDA	6441	2.47	-	52.67 µg/L	-
13C6-PFHxA	22457	1.42	-	25.11 µg/L	-
13C9-PFDA	29038	2.13	-	24.79 µg/L	-



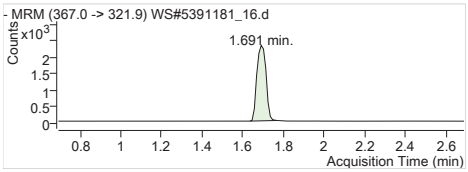


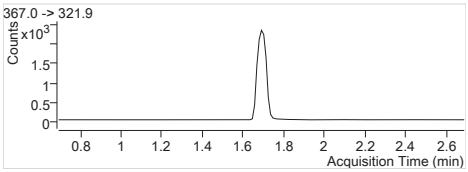
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



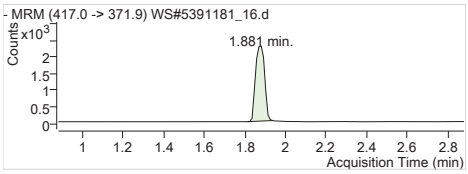


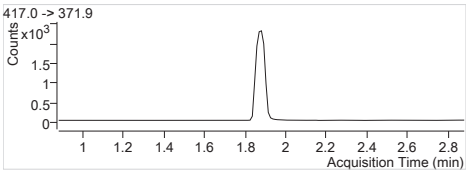
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



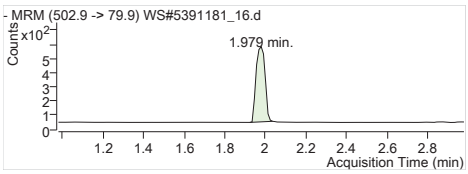


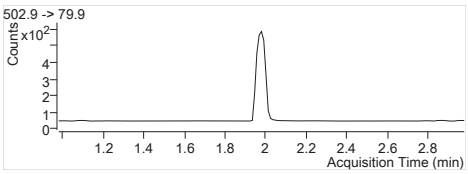
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



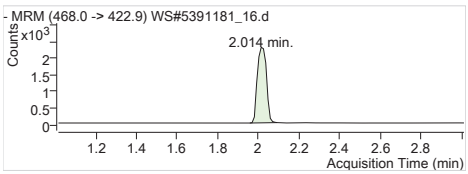


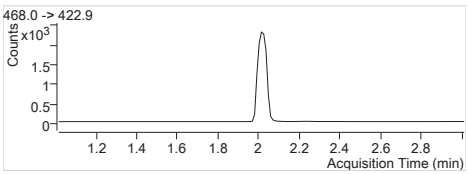
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



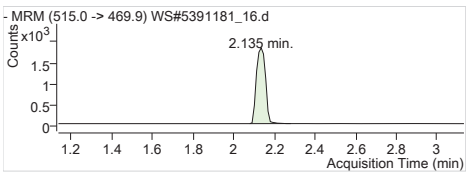


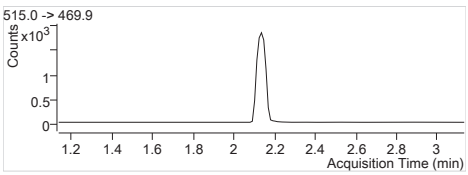
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



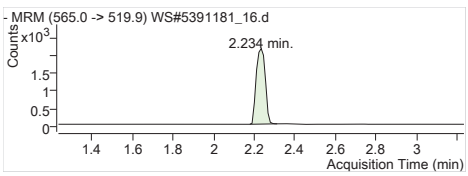


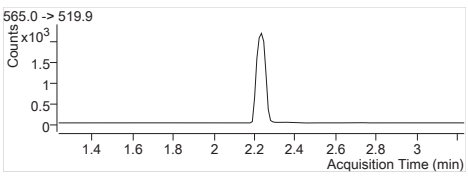
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



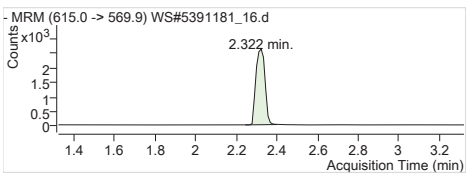


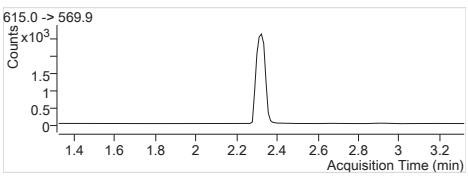
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



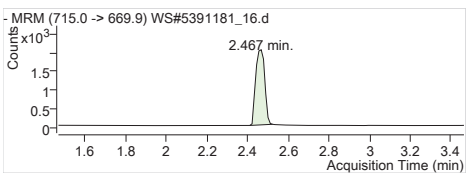


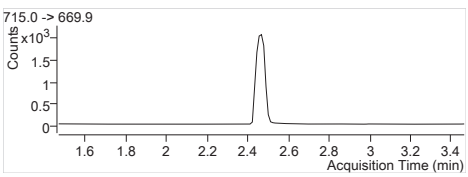
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



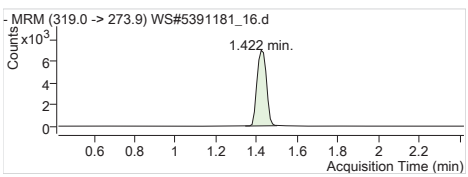


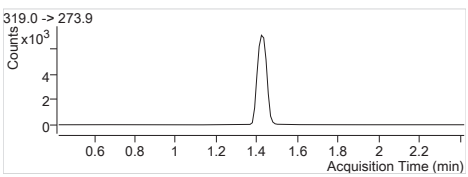
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



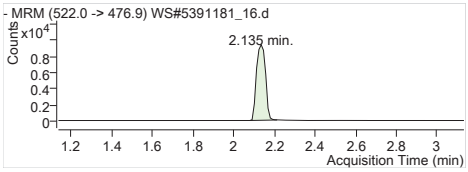


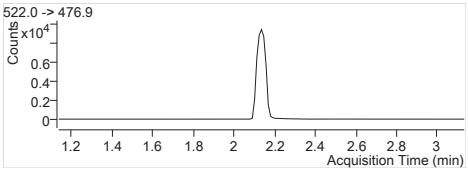
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



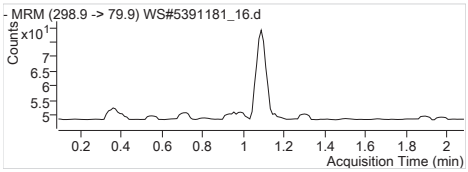


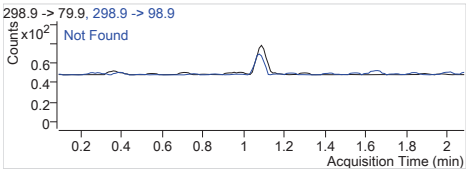
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



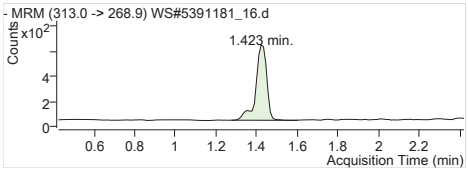


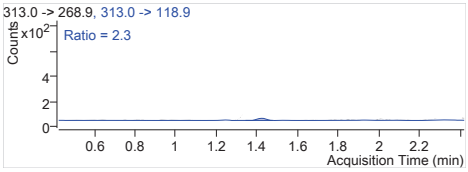
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



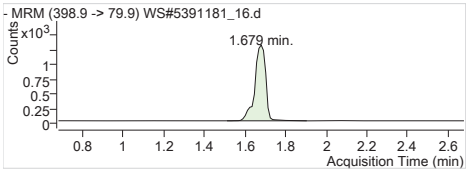


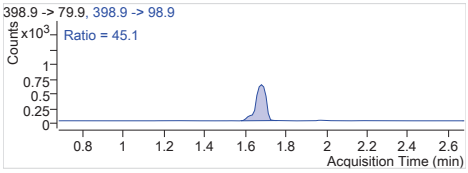
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



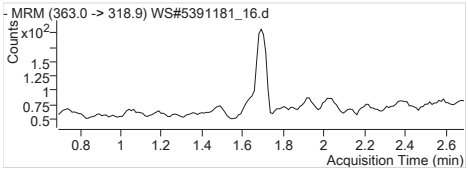


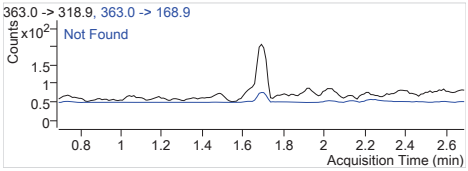
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.27 µg/L
Area ratio: 0.41264
Sample type: Sample



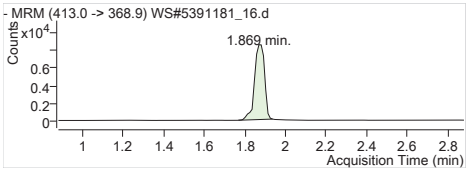


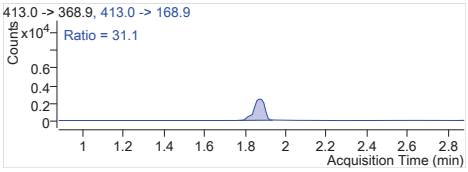
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 1.61 µg/L
Area ratio: 3.10489
Sample type: Sample



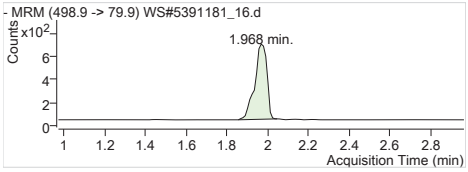


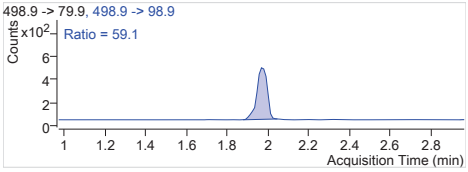
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



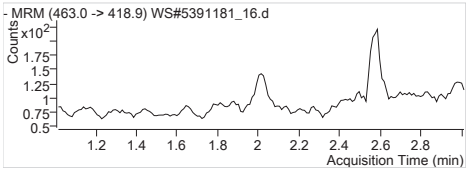


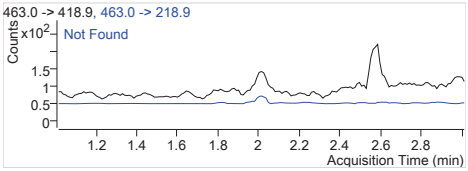
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 2.25 µg/L
Area ratio: 4.10761
Sample type: Sample



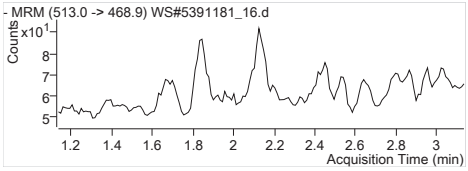


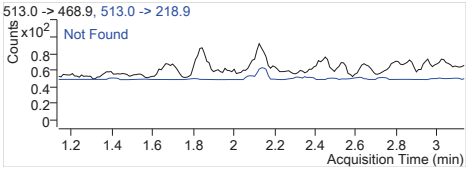
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 1.02 µg/L
Area ratio: 1.66748
Sample type: Sample



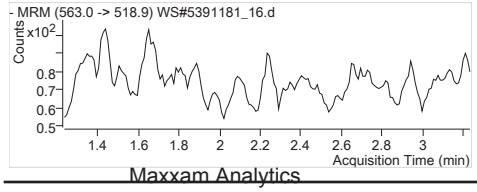


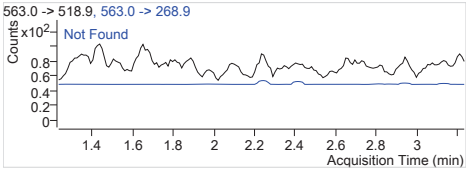
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



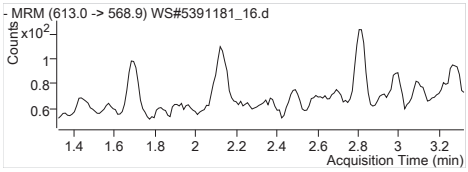


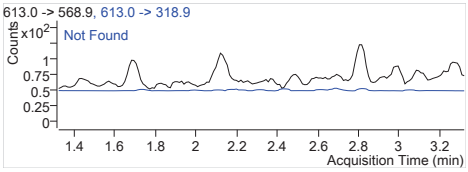
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



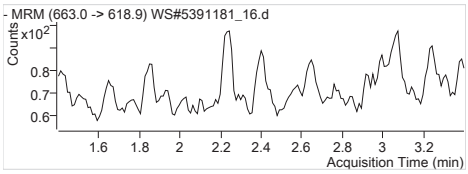


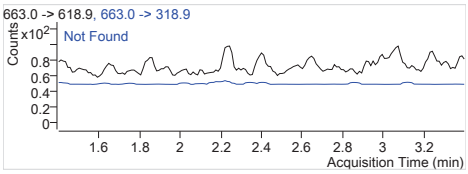
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



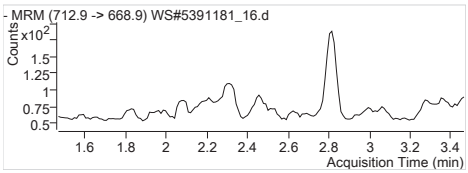


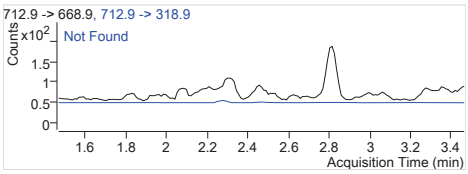
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



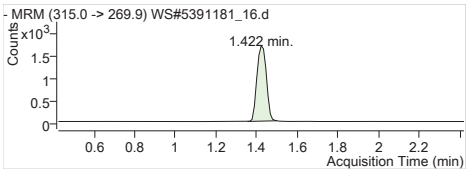


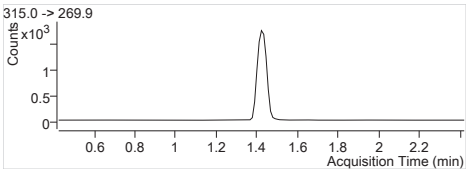
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



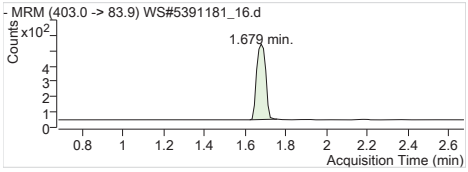


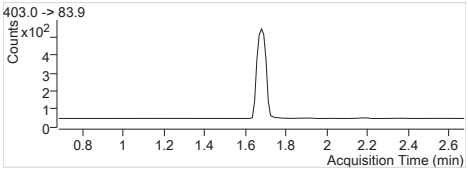
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



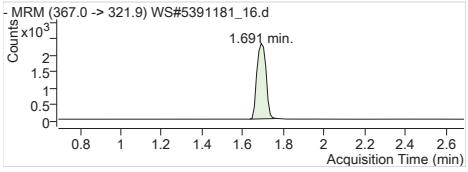


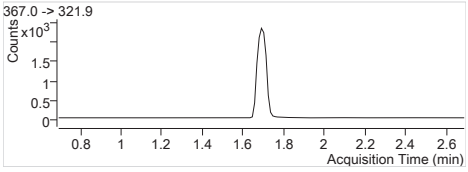
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	93.07 µg/L
Area ratio:	0.24237
Sample type:	Sample



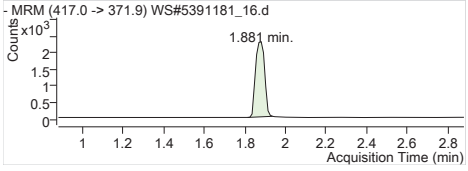


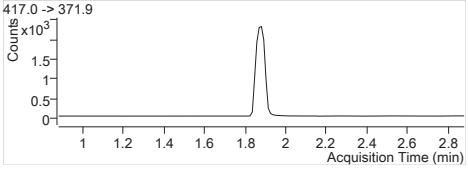
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	105.14 µg/L
Area ratio:	0.06835
Sample type:	Sample



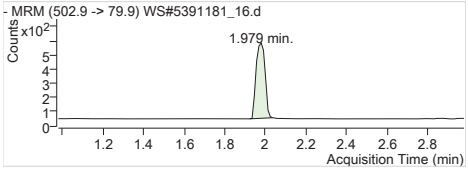


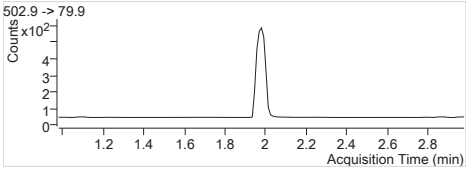
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	96.58 µg/L
Area ratio:	0.32119
Sample type:	Sample



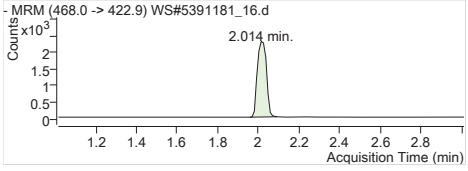


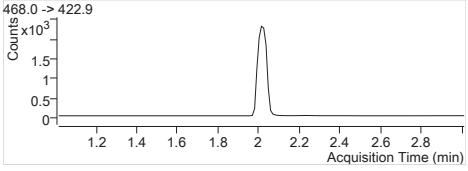
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	89.99 µg/L
Area ratio:	0.31531
Sample type:	Sample



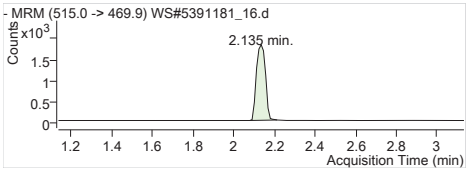


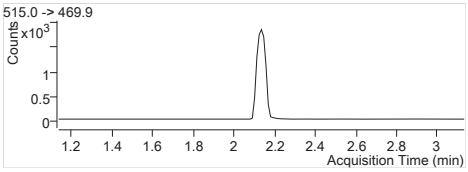
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	93.61 µg/L
Area ratio:	0.07298
Sample type:	Sample



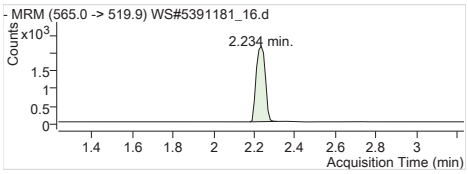


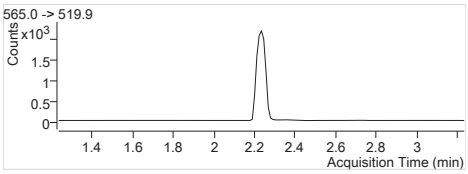
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	89.83 µg/L
Area ratio:	0.31785
Sample type:	Sample



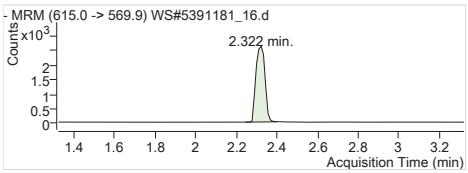


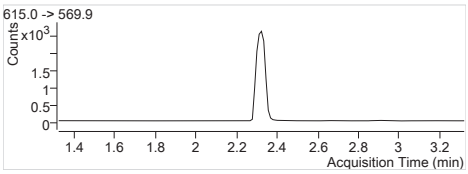
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 88.61 µg/L
Area ratio: 0.19264
Sample type: Sample



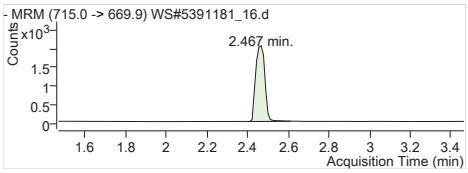


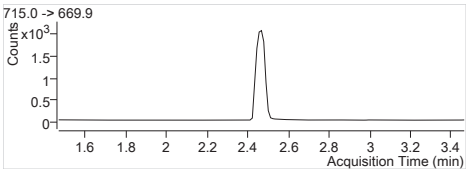
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 88.26 µg/L
Area ratio: 0.23063
Sample type: Sample



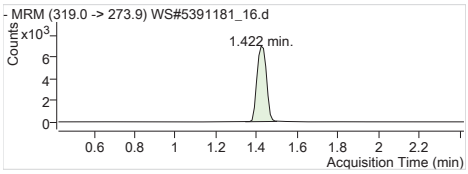


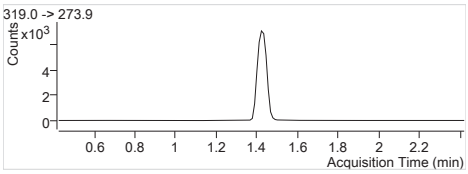
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 77.91 µg/L
Area ratio: 0.27863
Sample type: Sample



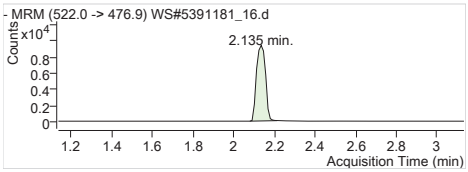


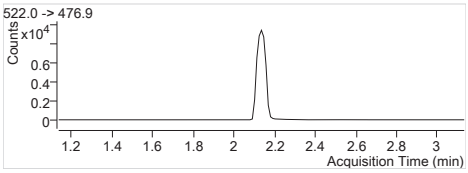
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 52.67 µg/L
Area ratio: 0.22181
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 25.11 µg/L
Area ratio: 0
Sample type: Sample





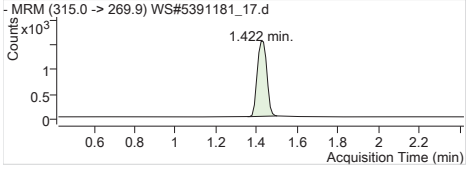
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 24.79 µg/L
Area ratio: 0
Sample type: Sample

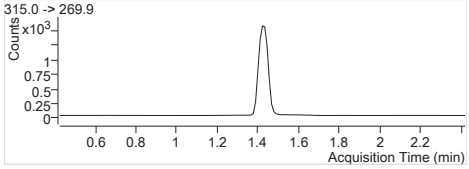
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**5391181:FZH326-01**	**Instrument**	LCMS04
Data File	WS#5391181_17.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-D5
Acq. Date	2018/02/09 1:46:14 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for all except PFHxS, PFOA, and PFOS.		

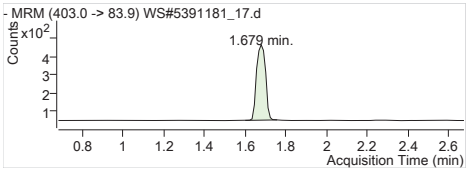
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4961	1.42	1 µg/L		
MPFHxS	1286	1.68	1 µg/L		
MPFHpA	6629	1.69	1 µg/L		
MPFOA	6594	1.88	1 µg/L		
MPFOS	1391	1.98	1 µg/L		
MPFNA	6284	2.01	1 µg/L		
MPFDA	5125	2.14	1 µg/L		
MPFUnA	5177	2.23	1 µg/L		
MPFDoA	8104	2.32	1 µg/L		
MPFTeDA	7184	2.47	1 µg/L		
13C6-PFHxA IS	20728	1.42	1 µg/L		
13C9-PFDA IS	27366	2.13	1 µg/L		

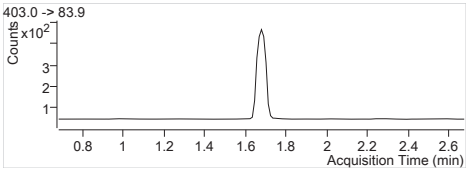
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	957	1.08	-	0.04 µg/L	-
PFHxA 1	20317	1.42	-	0.22 µg/L	-
PFHxS 1	43878	1.68	-	1.75 µg/L	-
PFHpA 1	4080	1.69	-	0.04 µg/L	-
PFOA 1	284696	1.87	-	2.37 µg/L	-
PFOS 1	28883	1.97	-	1.26 µg/L	-
PFNA 1	1431	2.01	-	0.02 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	4961	1.42	-	91.91 µg/L	-
18O2-PFHxS	1286	1.68	-	95.43 µg/L	-
13C4-PFHpA	6629	1.69	-	96.16 µg/L	-
13C4-PFOA	6594	1.88	-	90.79 µg/L	-
13C4-PFOS	1391	1.98	-	86.07 µg/L	-
13C5-PFNA	6284	2.01	-	85.68 µg/L	-
13C2-PFDA	5089	2.14	-	85.53 µg/L	-
13C2-PFUnA	5177	2.23	-	72.40 µg/L	-
13C2-PFDoA	8104	2.32	-	82.80 µg/L	-
13C2-PFTeDA	7350	2.47	-	63.77 µg/L	-
13C6-PFHxA	20728	1.42	-	2.32 µg/L	-
13C9-PFDA	27366	2.13	-	2.34 µg/L	-



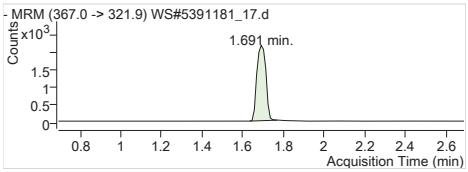


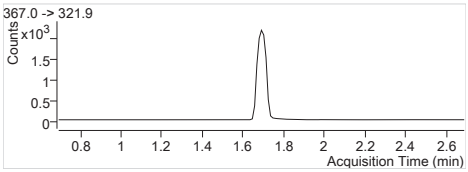
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



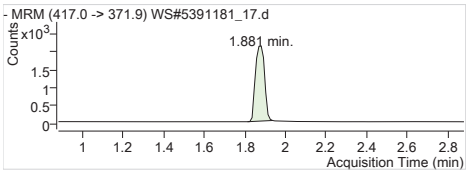


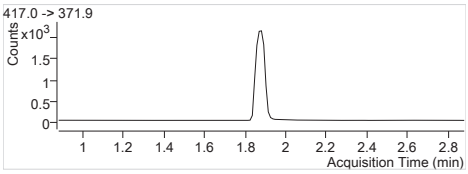
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



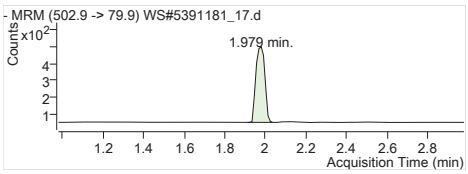


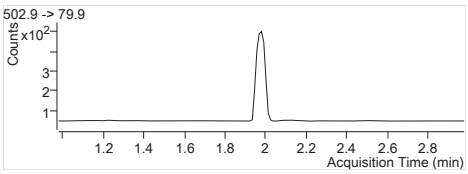
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



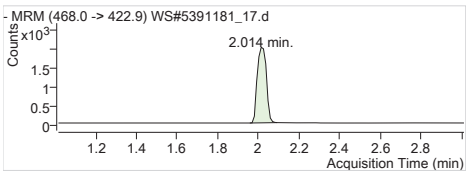


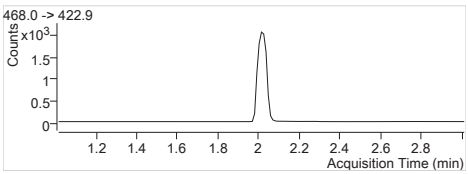
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



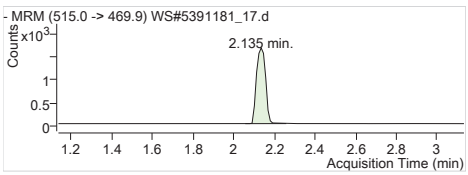


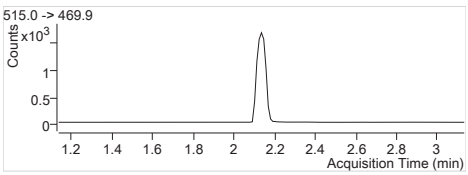
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



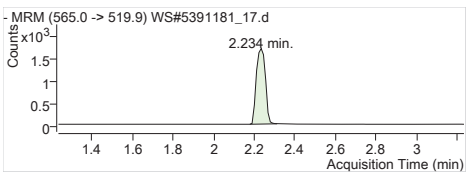


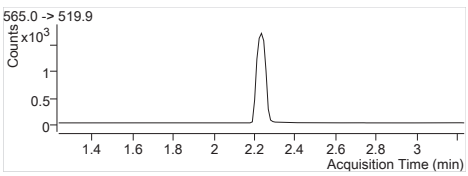
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



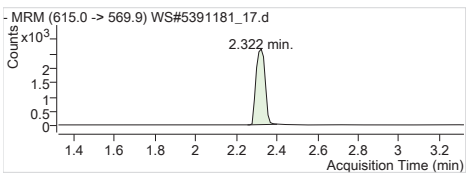


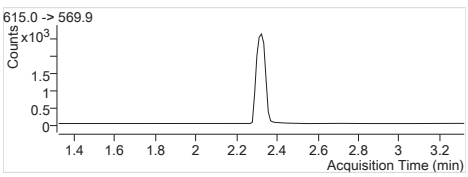
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



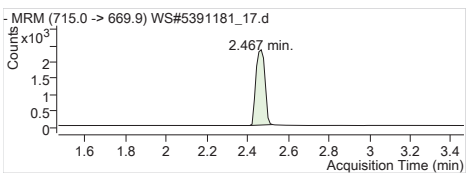


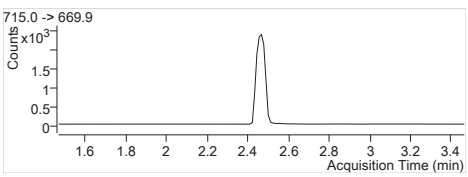
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



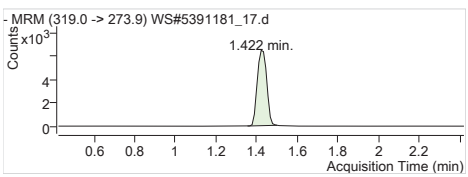


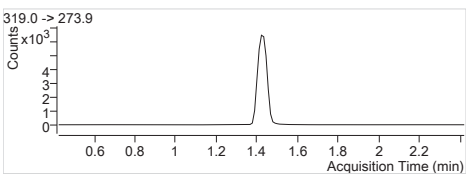
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



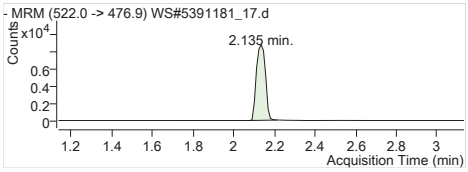


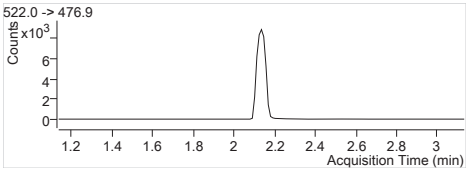
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



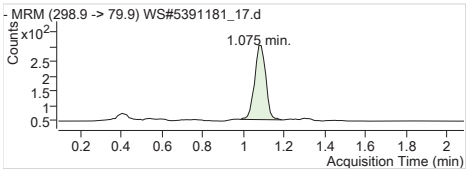


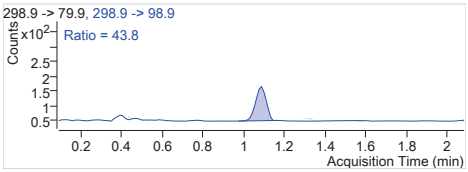
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



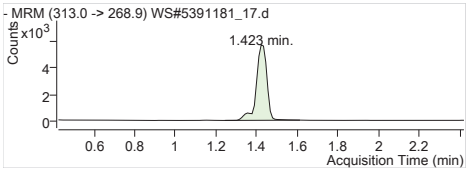


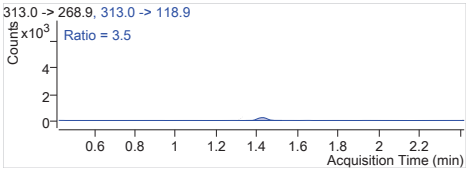
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



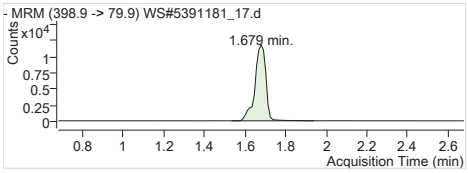


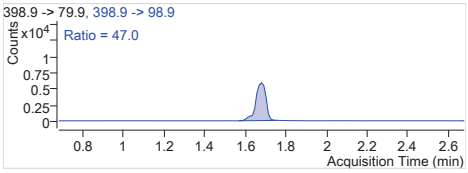
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.075 (1.087)
Calc. conc. 0.04 µg/L
Area ratio: 0.74417
Sample type: Sample



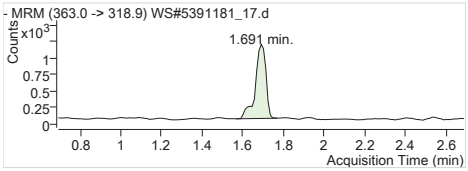


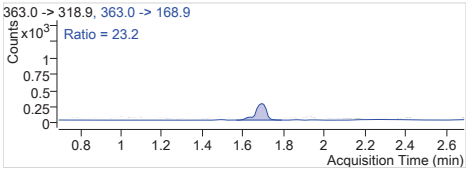
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.22 µg/L
Area ratio: 4.09534
Sample type: Sample



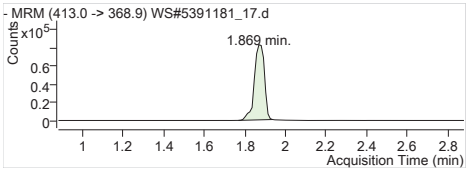


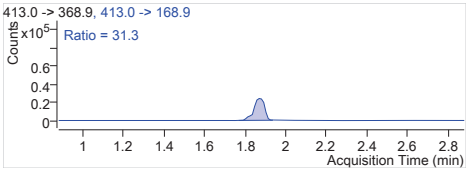
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 1.75 µg/L
Area ratio: 34.11975
Sample type: Sample



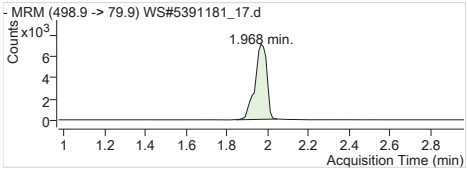


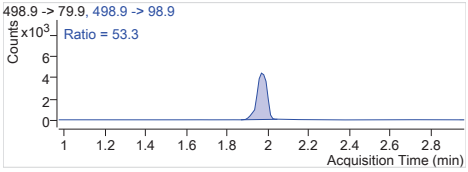
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.04 µg/L
Area ratio: 0.61548
Sample type: Sample



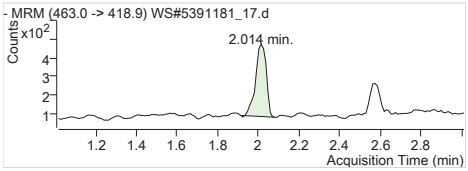


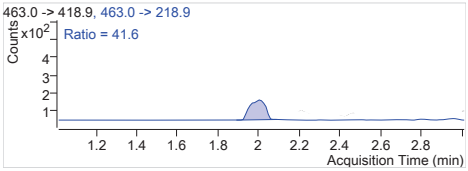
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 2.37 µg/L
Area ratio: 43.17501
Sample type: Sample



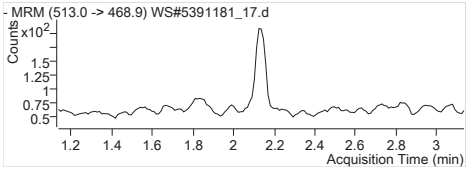


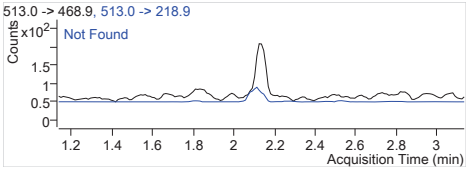
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 1.26 µg/L
Area ratio: 20.76420
Sample type: Sample



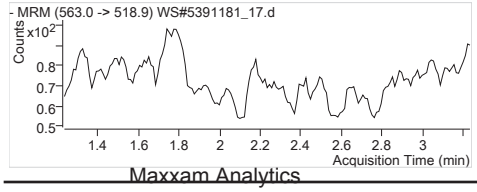


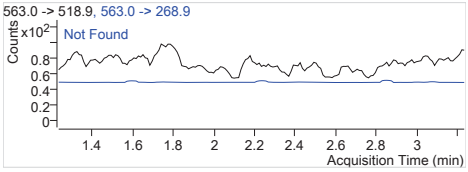
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.02 µg/L
Area ratio: 0.22772
Sample type: Sample



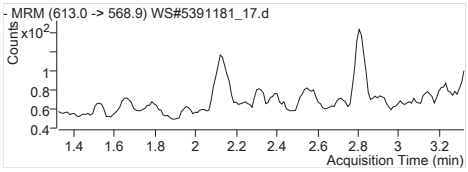


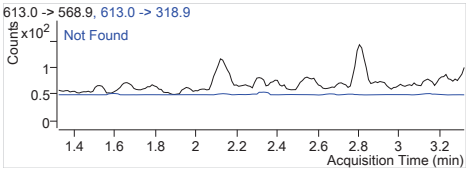
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



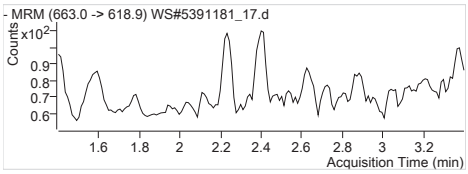


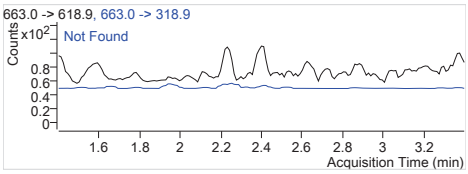
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



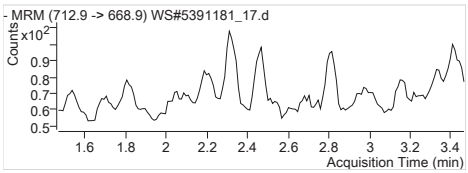


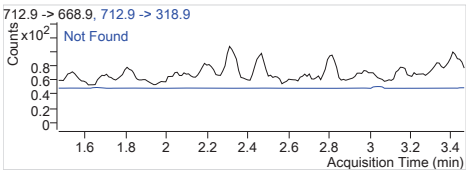
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



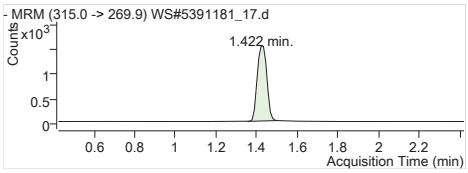


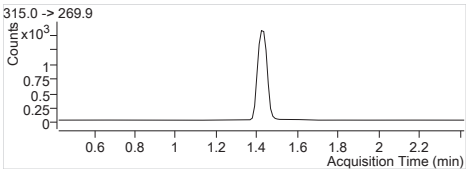
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



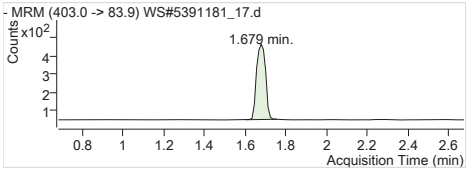


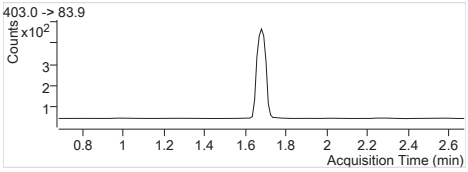
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



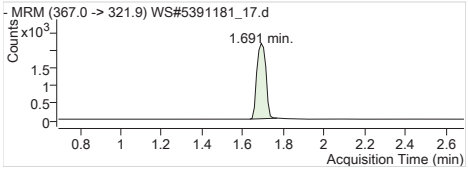


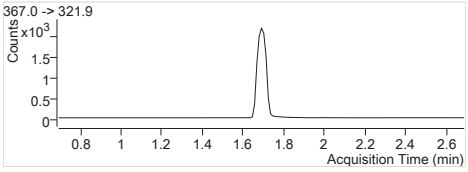
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 91.91 µg/L
Area ratio: 0.23934
Sample type: Sample



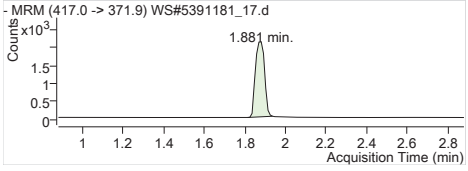


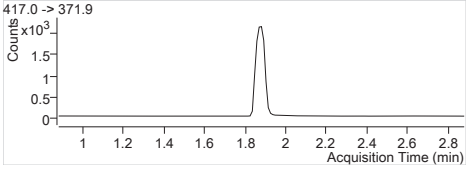
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 95.43 µg/L
Area ratio: 0.06204
Sample type: Sample



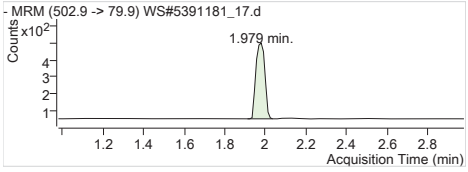


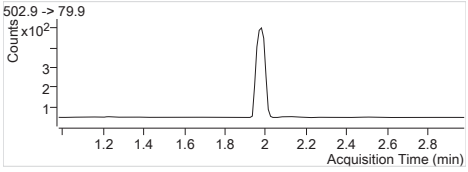
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 96.16 µg/L
Area ratio: 0.31981
Sample type: Sample



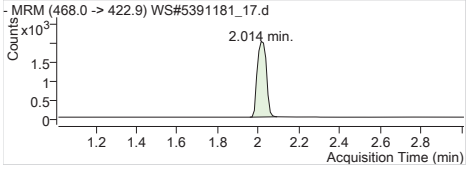


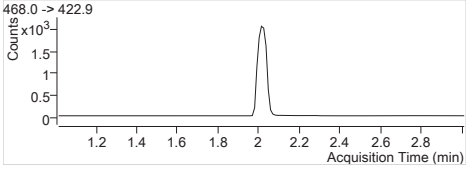
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 90.79 µg/L
Area ratio: 0.31812
Sample type: Sample



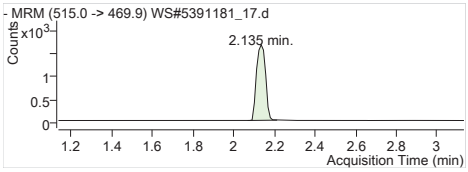


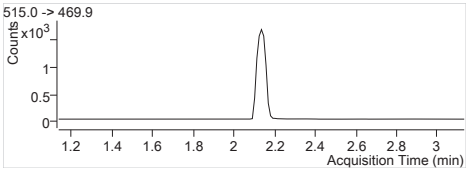
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 86.07 µg/L
Area ratio: 0.06711
Sample type: Sample



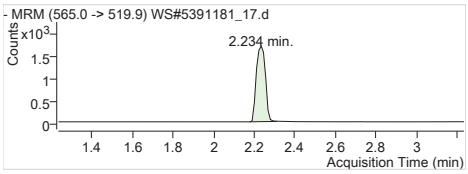


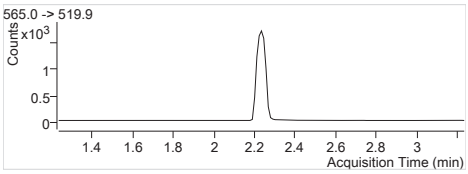
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 85.68 µg/L
Area ratio: 0.30316
Sample type: Sample



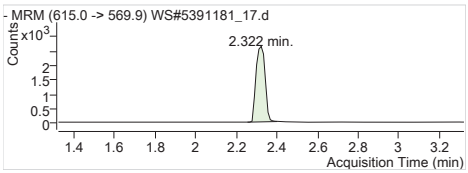


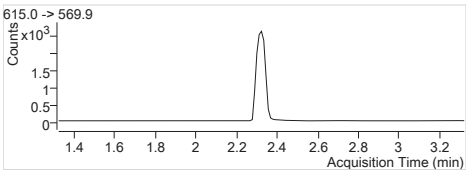
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 85.53 µg/L
Area ratio: 0.18596
Sample type: Sample



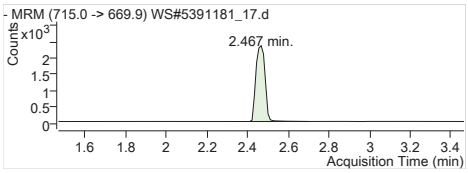


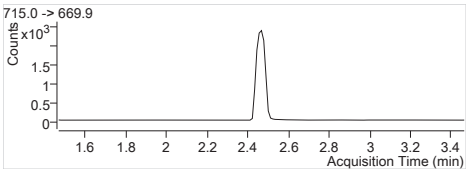
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 72.40 µg/L
Area ratio: 0.18918
Sample type: Sample



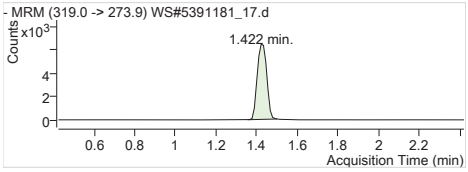


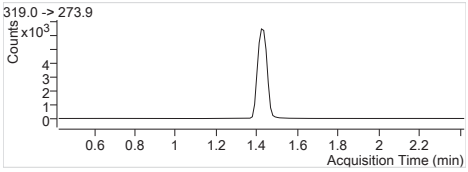
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 82.80 µg/L
Area ratio: 0.29613
Sample type: Sample



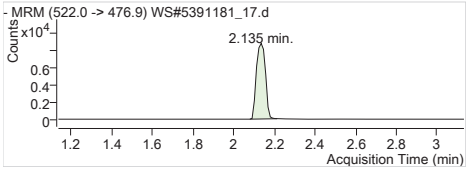


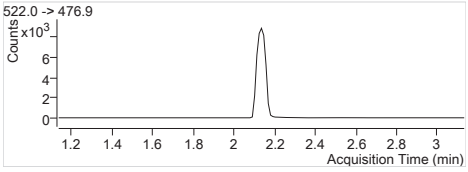
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 63.77 µg/L
Area ratio: 0.26858
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.32 µg/L
Area ratio: 0
Sample type: Sample





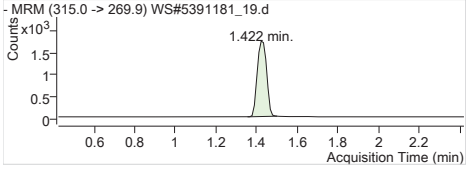
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.34 µg/L
Area ratio: 0
Sample type: Sample

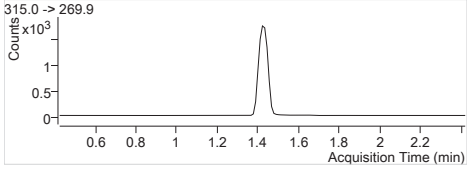
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**5391181:FZH327-01:10x**	**Instrument**	LCMS04
Data File	WS#5391181_19.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low.m	**Position**	P1-D6
Acq. Date	2018/02/09 1:56:06 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFHxS, PFOA, and PFOS only.		

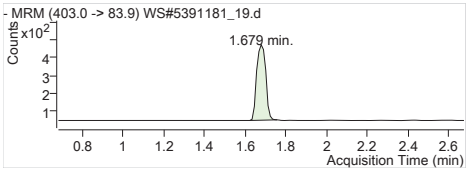
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5471	1.42	1 µg/L		
MPFHxS	1318	1.68	1 µg/L		
MPFHpA	7054	1.69	1 µg/L		
MPFOA	7604	1.87	1 µg/L		
MPFOS	1632	1.98	1 µg/L		
MPFNA	7136	2.01	1 µg/L		
MPFDA	6020	2.14	1 µg/L		
MPFUnA	6873	2.23	1 µg/L		
MPFDoA	8342	2.32	1 µg/L		
MPFTeDA	6790	2.47	1 µg/L		
13C6-PFHxA IS	22045	1.42	1 µg/L		
13C9-PFDA IS	27838	2.13	1 µg/L		

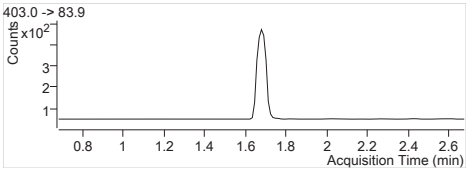
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	282	1.09	-	0.12 µg/L	-
PFHxA 1	8137	1.42	-	0.83 µg/L	-
PFHxS 1	8754	1.68	-	3.43 µg/L	-
PFHpA 1	2059	1.69	-	0.18 µg/L	-
PFOA 1	57769	1.87	-	4.17 µg/L	-
PFOS 1	6148	1.97	-	2.29 µg/L	-
PFNA 1			-	ND	-
PFDA 1	977	2.14	-	0.11 µg/L	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5471	1.42	-	95.30 µg/L	-
18O2-PFHxS	1318	1.68	-	91.96 µg/L	-
13C4-PFHpA	7054	1.69	-	96.22 µg/L	-
13C4-PFOA	7604	1.87	-	98.44 µg/L	-
13C4-PFOS	1632	1.98	-	94.95 µg/L	-
13C5-PFNA	7137	2.01	-	91.50 µg/L	-
13C2-PFDA	5912	2.14	-	97.68 µg/L	-
13C2-PFUnA	6873	2.23	-	94.49 µg/L	-
13C2-PFDoA	8342	2.32	-	83.78 µg/L	-
13C2-PFTeDA	6928	2.47	-	59.09 µg/L	-
13C6-PFHxA	22045	1.42	-	24.65 µg/L	-
13C9-PFDA	27838	2.13	-	23.77 µg/L	-



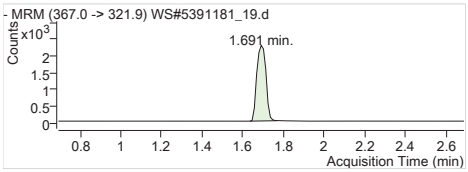


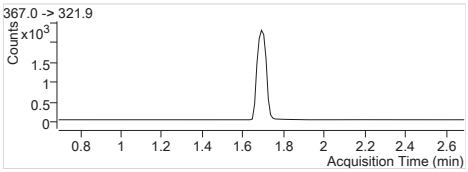
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



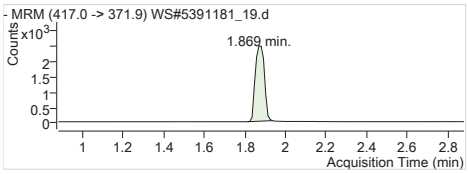


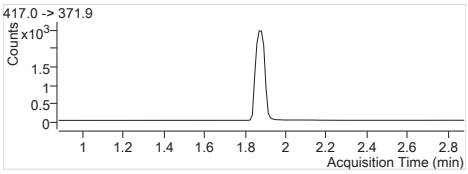
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



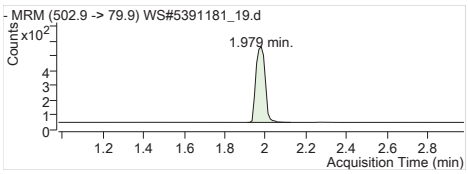


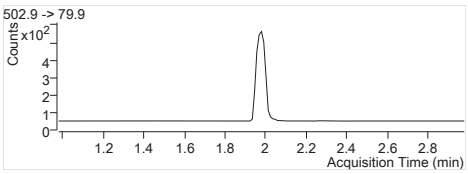
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



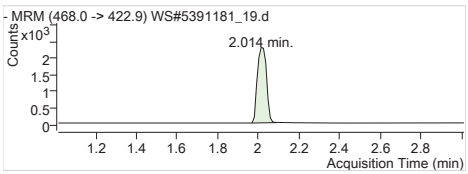


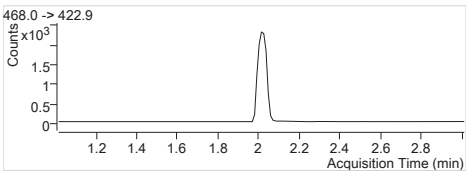
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



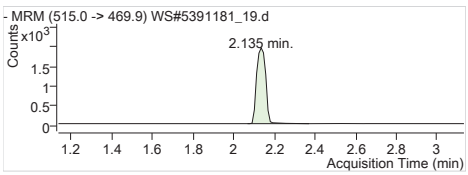


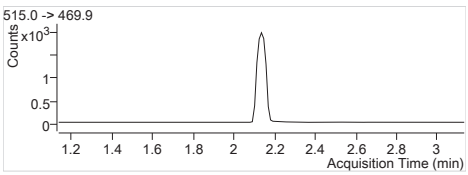
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



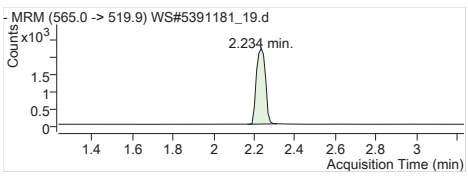


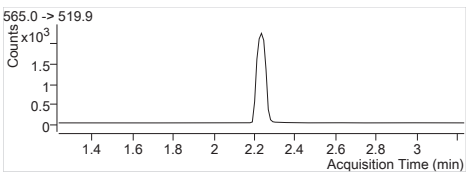
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



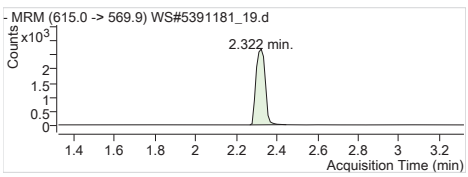


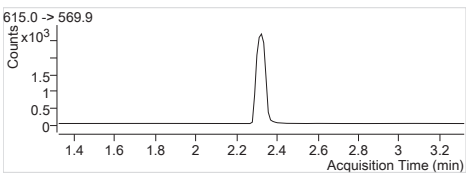
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



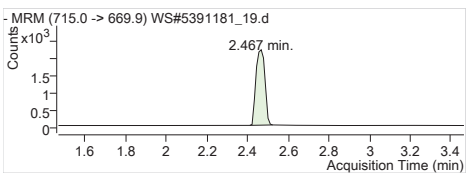


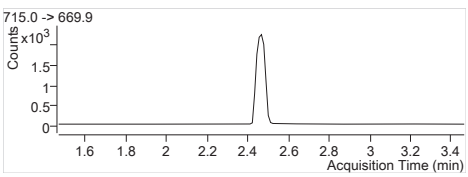
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



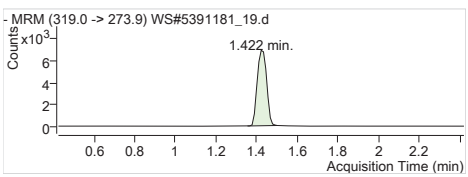


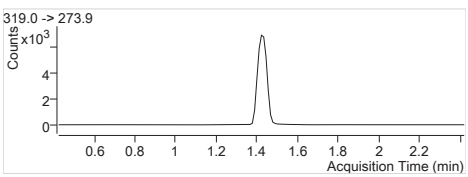
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



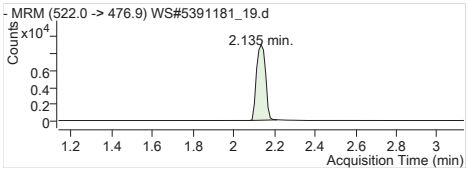


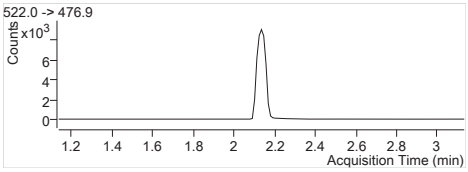
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



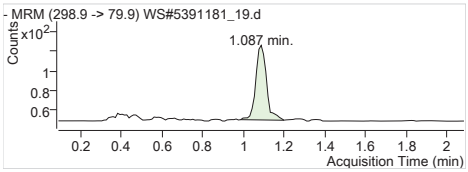


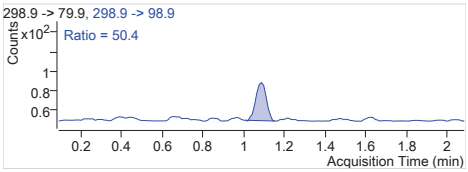
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



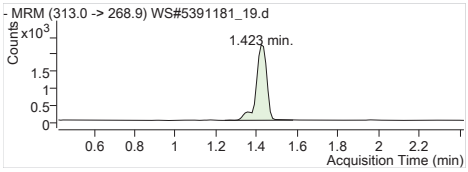


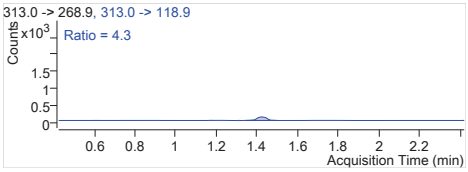
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



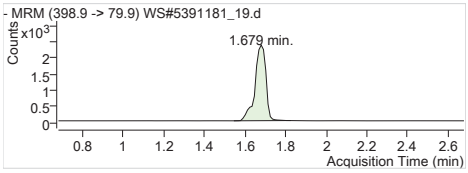


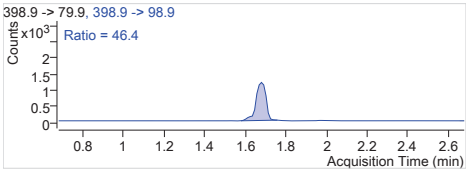
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.12 µg/L
Area ratio: 0.21396
Sample type: Sample



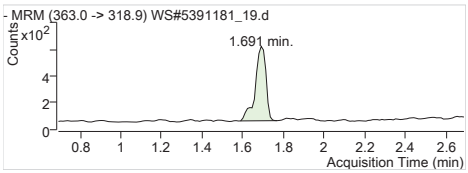


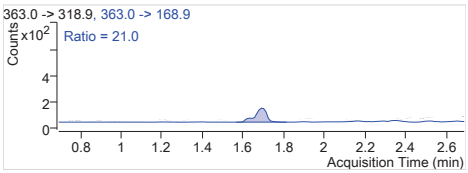
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.83 µg/L
Area ratio: 1.48730
Sample type: Sample



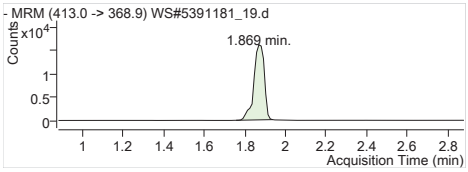


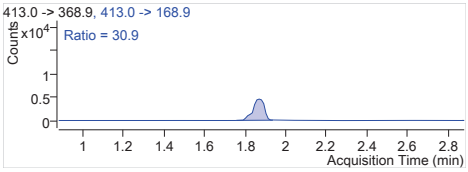
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 3.43 µg/L
Area ratio: 6.64188
Sample type: Sample



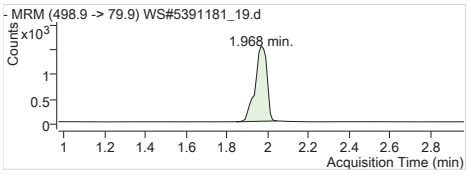


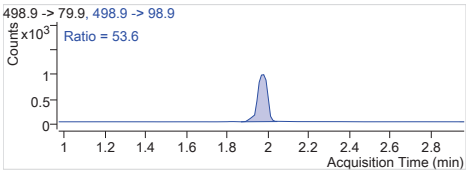
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.18 µg/L
Area ratio: 0.29189
Sample type: Sample



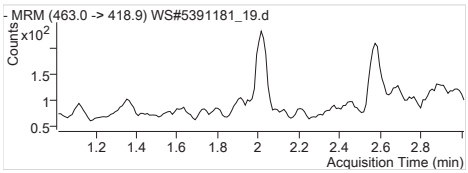


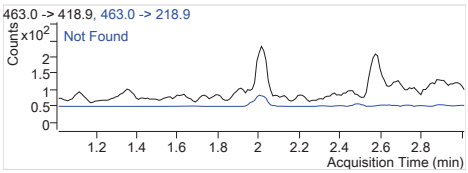
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 4.17 µg/L
Area ratio: 7.59719
Sample type: Sample



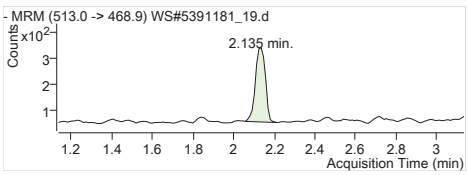


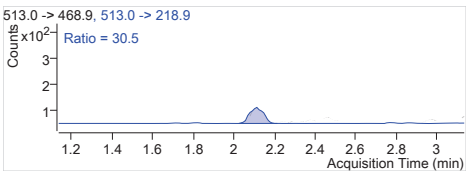
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 2.29 µg/L
Area ratio: 3.76716
Sample type: Sample



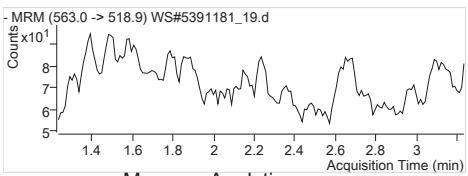


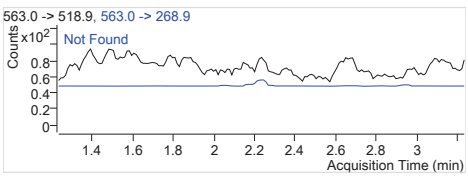
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



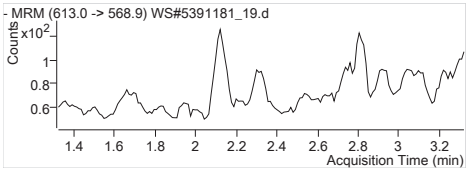


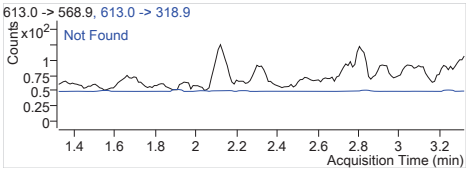
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.11 µg/L
Area ratio: 0.16229
Sample type: Sample



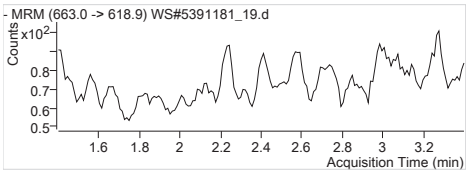


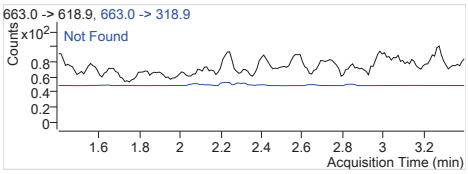
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



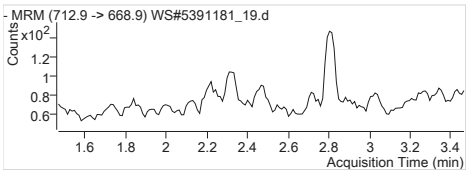


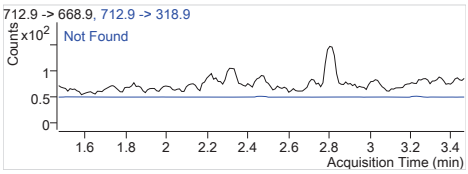
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



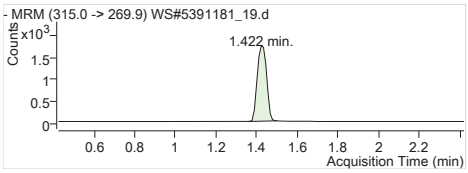


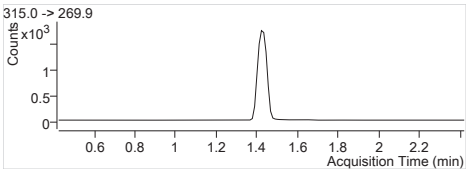
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



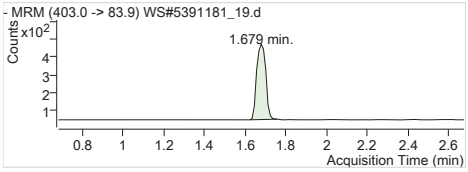


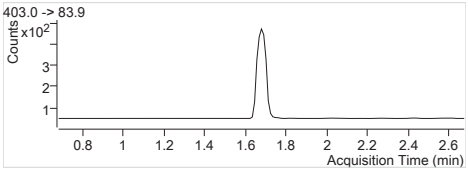
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



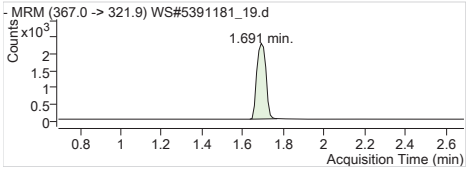


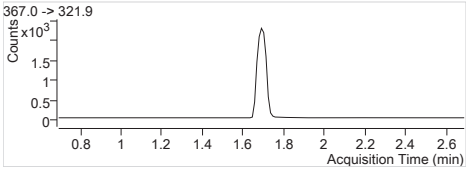
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 95.30 µg/L
Area ratio: 0.24817
Sample type: Sample



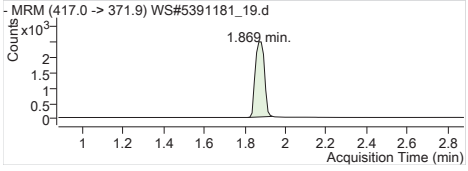


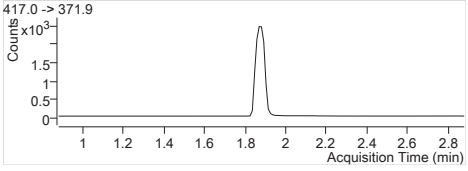
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 91.96 µg/L
Area ratio: 0.05979
Sample type: Sample



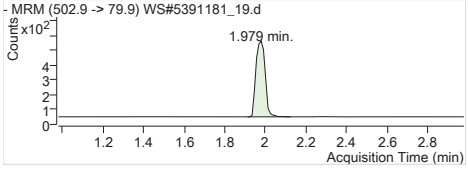


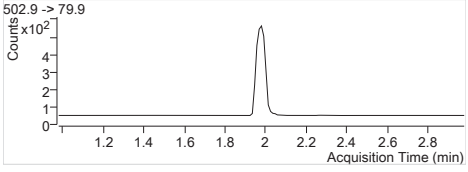
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 96.22 µg/L
Area ratio: 0.31998
Sample type: Sample



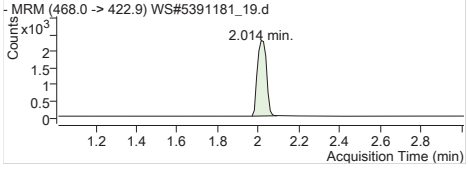


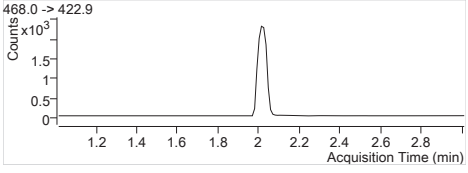
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 98.44 µg/L
Area ratio: 0.34493
Sample type: Sample



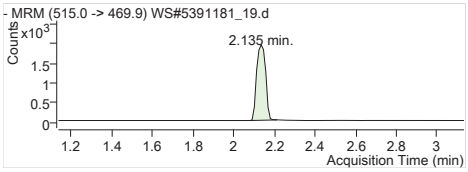


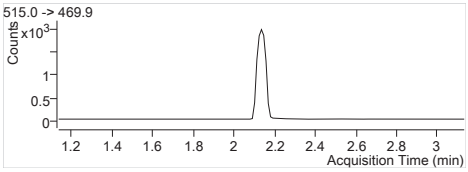
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 94.95 µg/L
Area ratio: 0.07403
Sample type: Sample



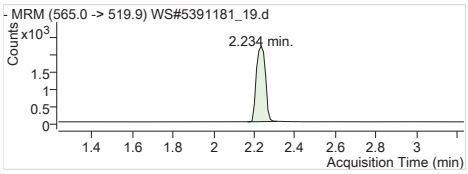


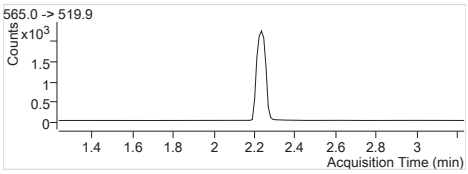
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 91.50 µg/L
Area ratio: 0.32375
Sample type: Sample



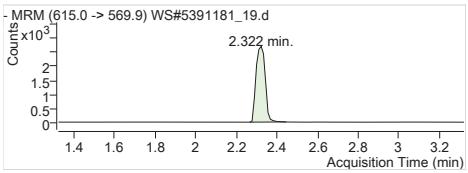


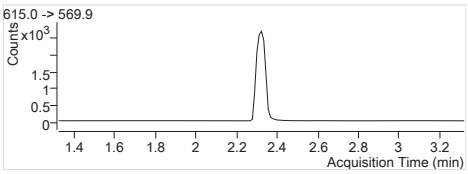
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 97.68 µg/L
Area ratio: 0.21237
Sample type: Sample



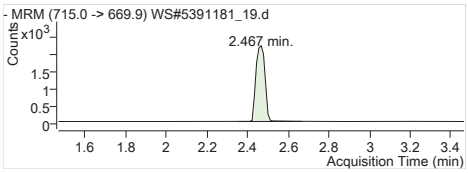


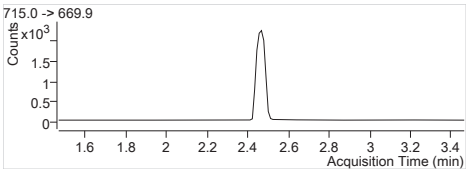
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 94.49 µg/L
Area ratio: 0.24689
Sample type: Sample



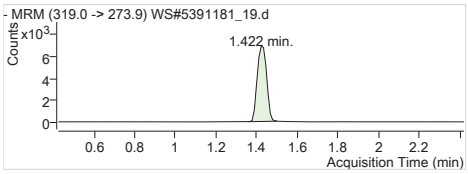


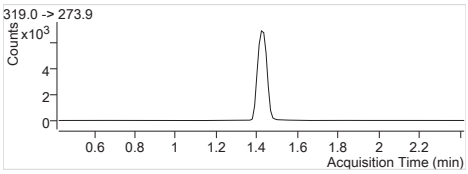
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 83.78 µg/L
Area ratio: 0.29966
Sample type: Sample



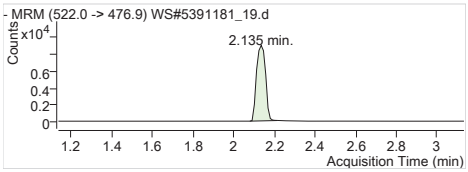


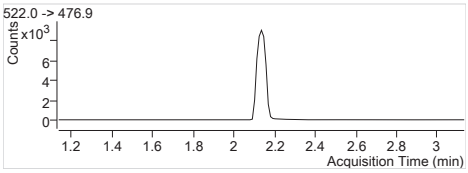
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 59.09 µg/L
Area ratio: 0.24887
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 24.65 µg/L
Area ratio: 0
Sample type: Sample





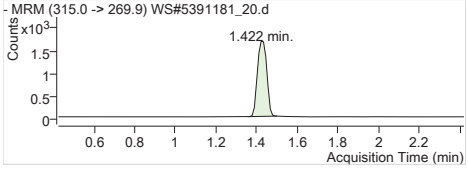
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 23.77 µg/L
Area ratio: 0
Sample type: Sample

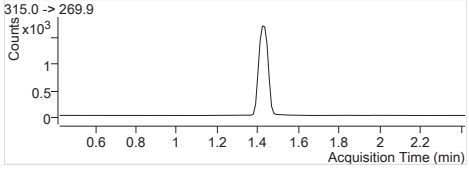
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**5391181:FZH327-01**	**Instrument**	LCMS04
Data File	WS#5391181_20.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-D7
Acq. Date	2018/02/09 2:01:02 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for all except PFHxS, PFOA, and PFOS.		

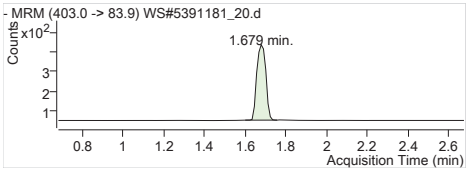
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5303	1.42	1 µg/L		
MPFHxS	1201	1.68	1 µg/L		
MPFHpA	6668	1.69	1 µg/L		
MPFOA	6550	1.88	1 µg/L		
MPFOS	1586	1.98	1 µg/L		
MPFNA	7245	2.01	1 µg/L		
MPFDA	5607	2.14	1 µg/L		
MPFUnA	6379	2.23	1 µg/L		
MPFDoA	8124	2.32	1 µg/L		
MPFTeDA	6804	2.47	1 µg/L		
13C6-PFHxA IS	20209	1.42	1 µg/L		
13C9-PFDA IS	26670	2.13	1 µg/L		

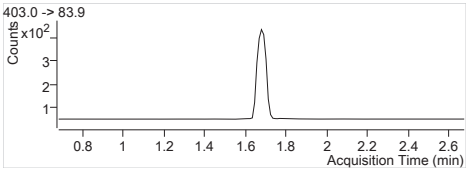
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	2202	1.09	-	0.09 µg/L	-
PFHxA 1	75048	1.42	-	0.75 µg/L	-
PFHxS 1	79206	1.68	-	3.39 µg/L	-
PFHpA 1	17760	1.69	-	0.15 µg/L	-
PFOA 1	516134	1.87	-	4.33 µg/L	-
PFOS 1	59374	1.97	-	2.28 µg/L	-
PFNA 1	4189	2.01	-	0.04 µg/L	-
PFDA 1	8832	2.14	-	0.07 µg/L	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5303	1.42	-	100.77 µg/L	-
18O2-PFHxS	1201	1.68	-	91.41 µg/L	-
13C4-PFHpA	6668	1.69	-	99.21 µg/L	-
13C4-PFOA	6550	1.88	-	92.50 µg/L	-
13C4-PFOS	1586	1.98	-	100.66 µg/L	-
13C5-PFNA	7246	2.01	-	101.34 µg/L	-
13C2-PFDA	5565	2.14	-	95.98 µg/L	-
13C2-PFUnA	6379	2.23	-	91.54 µg/L	-
13C2-PFDoA	8124	2.32	-	85.17 µg/L	-
13C2-PFTeDA	7045	2.47	-	62.72 µg/L	-
13C6-PFHxA	20209	1.42	-	2.26 µg/L	-
13C9-PFDA	26670	2.13	-	2.28 µg/L	-



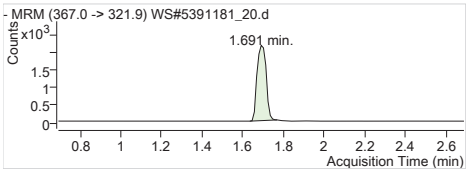


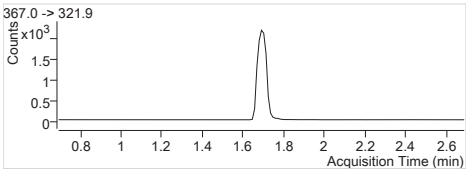
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



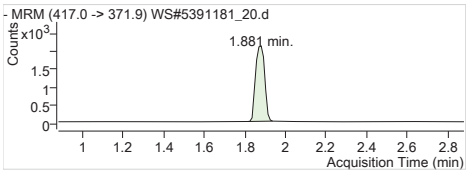


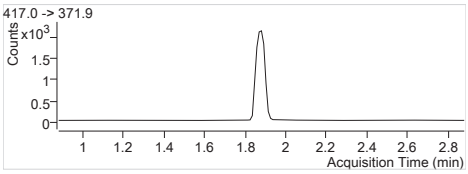
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



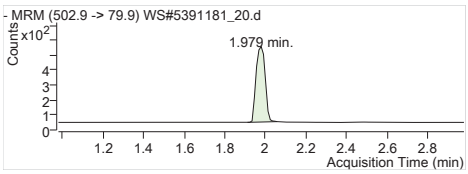


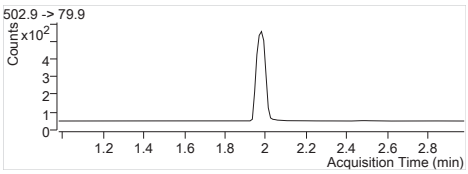
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



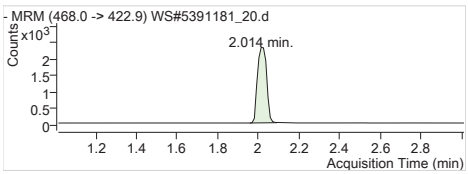


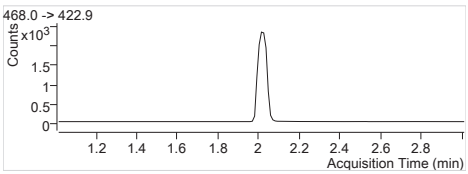
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



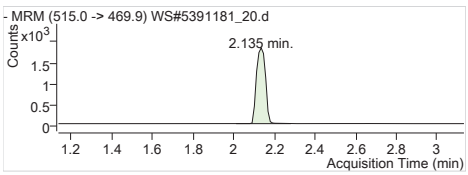


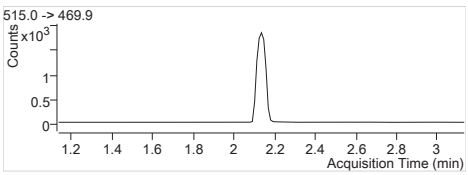
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



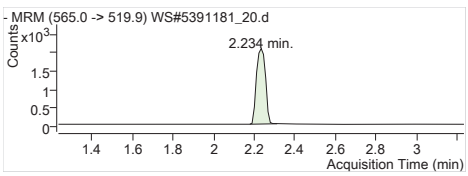


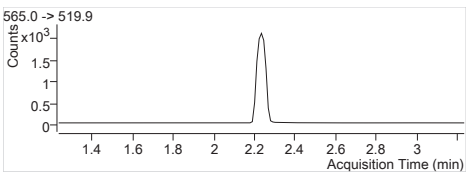
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



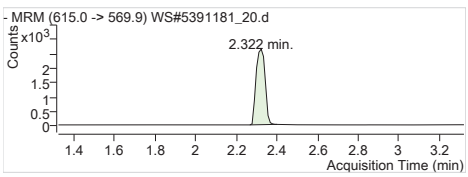


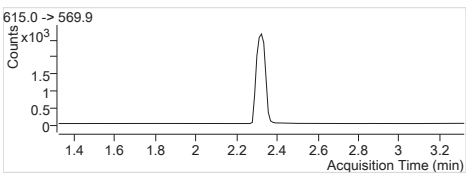
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



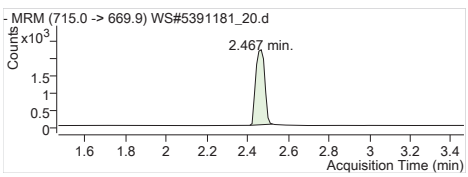


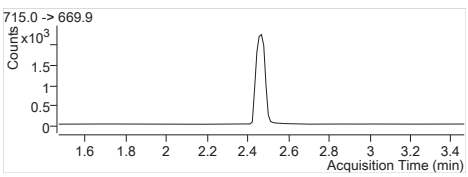
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



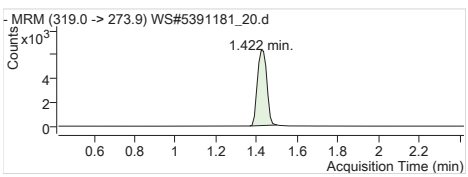


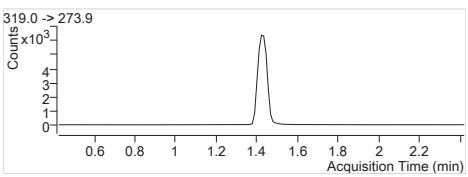
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



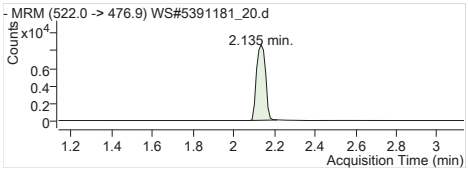


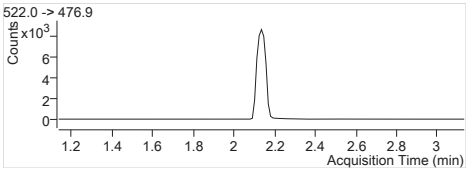
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



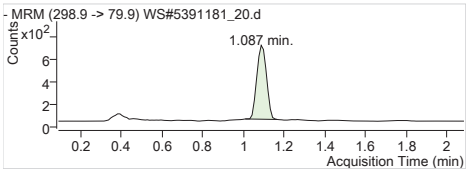


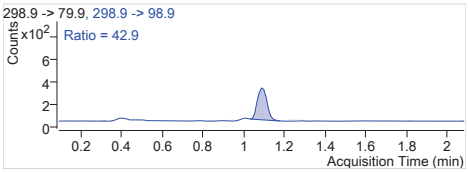
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



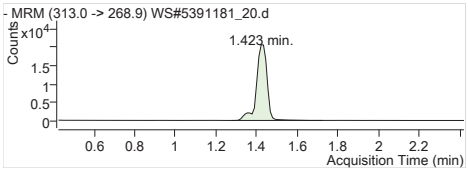


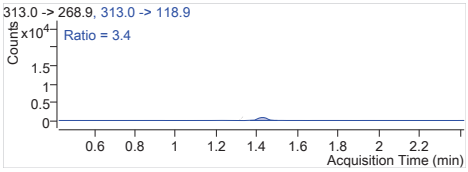
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



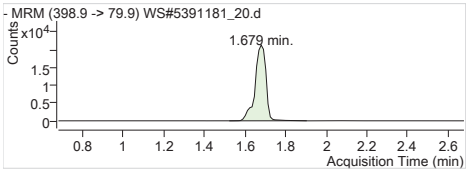


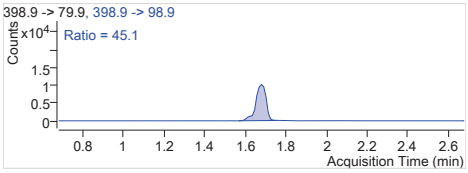
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.09 µg/L
Area ratio: 1.83347
Sample type: Sample



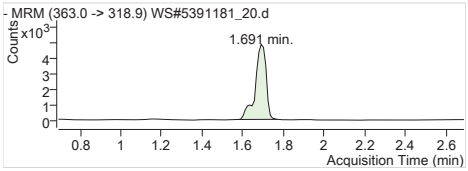


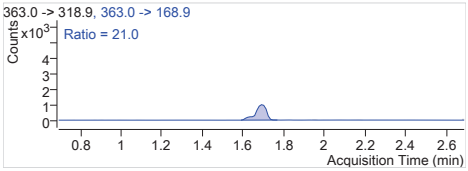
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.75 µg/L
Area ratio: 14.15199
Sample type: Sample



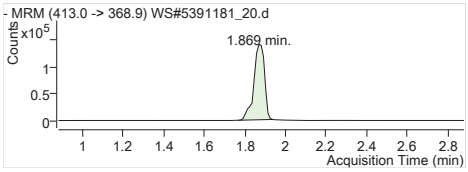


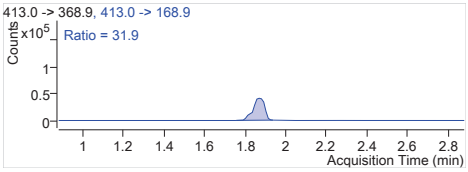
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 3.39 µg/L
Area ratio: 65.95004
Sample type: Sample



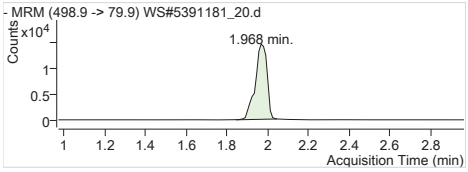


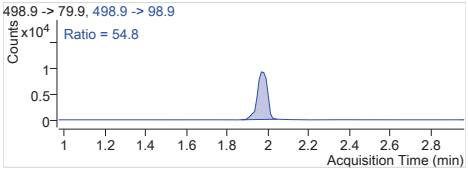
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.15 µg/L
Area ratio: 2.66347
Sample type: Sample



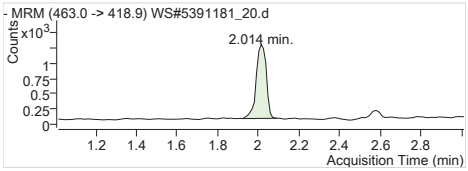


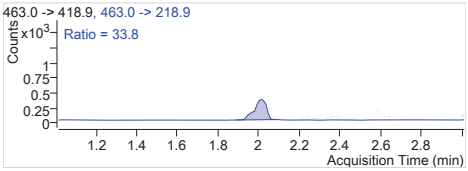
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 4.33 µg/L
Area ratio: 78.79908
Sample type: Sample



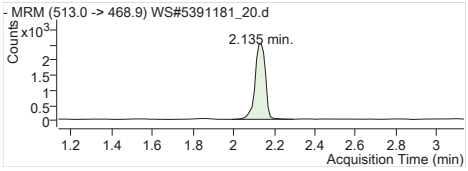


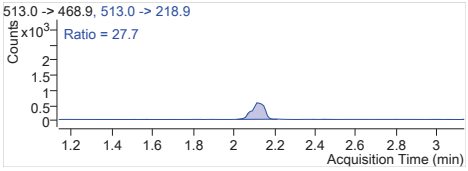
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 2.28 µg/L
Area ratio: 37.43632
Sample type: Sample



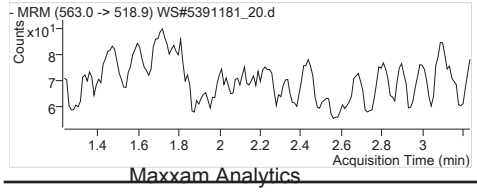


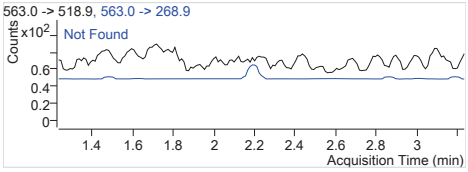
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.04 µg/L
Area ratio: 0.57819
Sample type: Sample



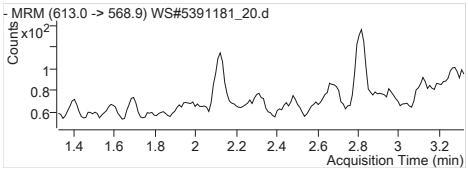


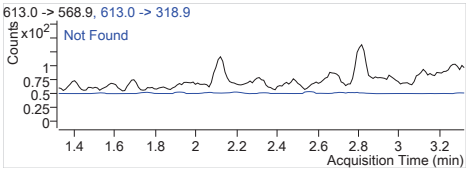
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.07 µg/L
Area ratio: 1.57517
Sample type: Sample



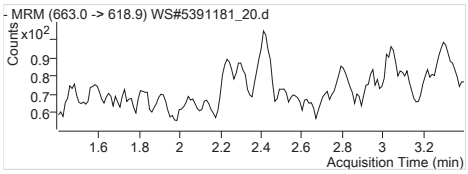


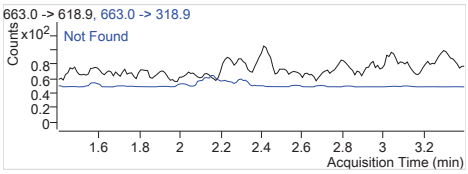
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



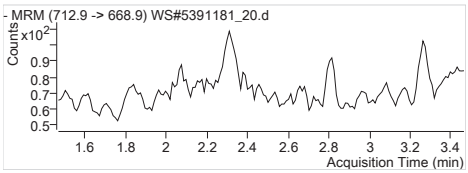


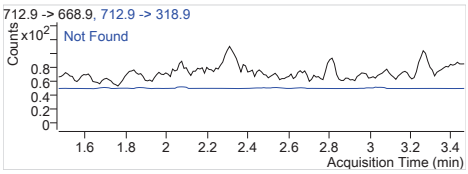
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



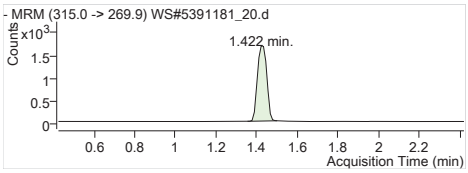


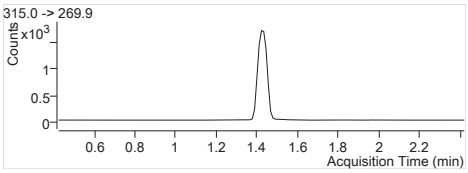
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



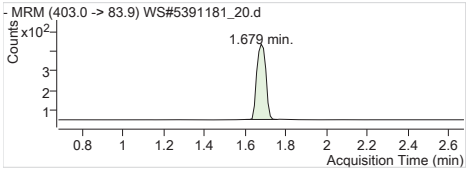


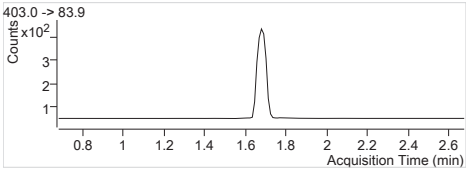
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



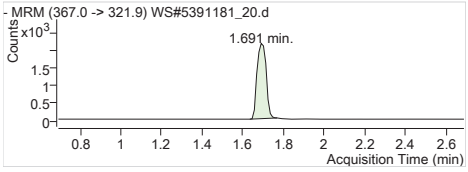


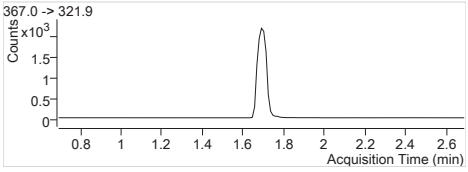
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 100.77 µg/L
Area ratio: 0.26241
Sample type: Sample



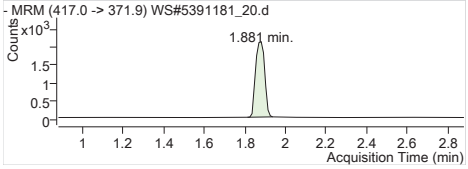


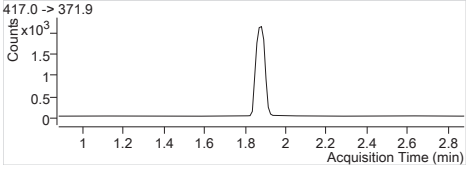
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 91.41 µg/L
Area ratio: 0.05943
Sample type: Sample



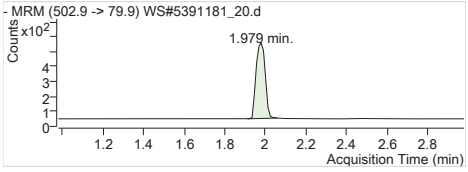


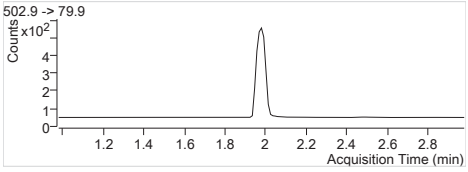
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 99.21 µg/L
Area ratio: 0.32995
Sample type: Sample



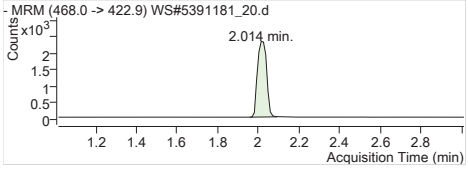


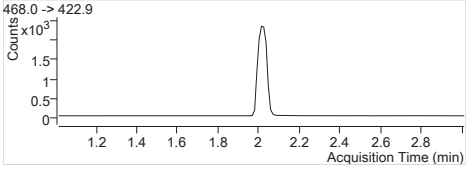
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 92.50 µg/L
Area ratio: 0.32411
Sample type: Sample



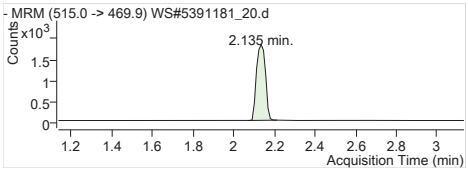


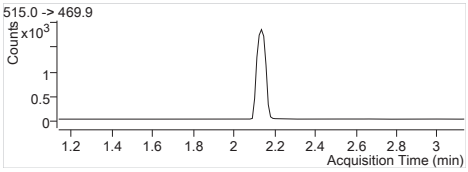
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 100.66 µg/L
Area ratio: 0.07848
Sample type: Sample



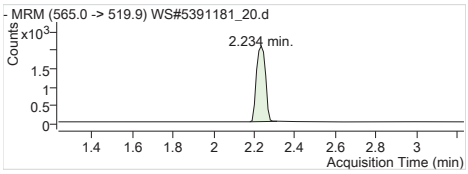


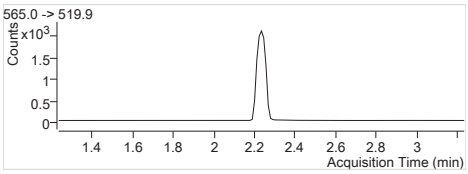
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 101.34 µg/L
Area ratio: 0.35855
Sample type: Sample



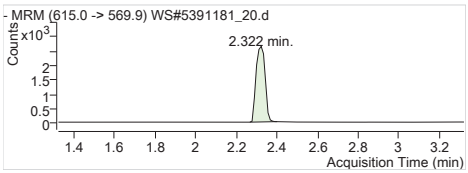


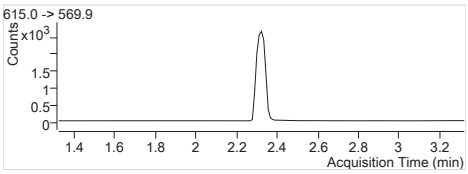
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 95.98 µg/L
Area ratio: 0.20866
Sample type: Sample



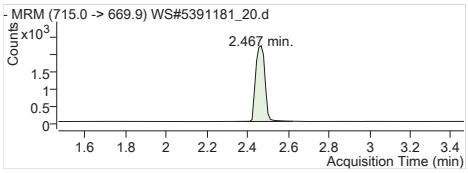


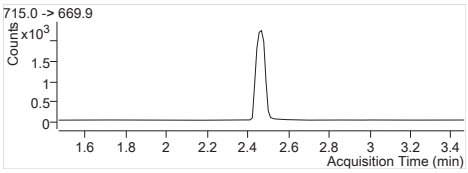
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 91.54 µg/L
Area ratio: 0.23918
Sample type: Sample



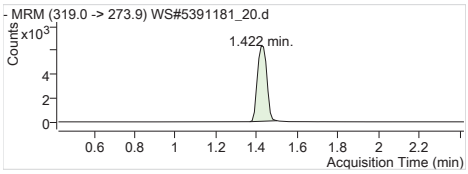


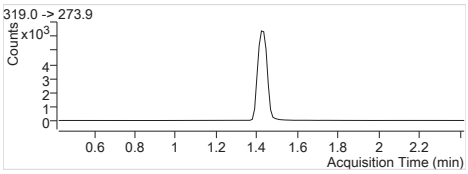
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 85.17 µg/L
Area ratio: 0.30461
Sample type: Sample



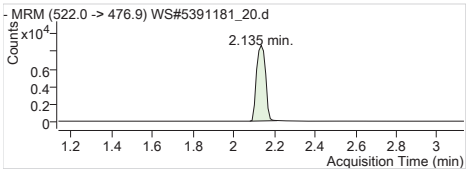


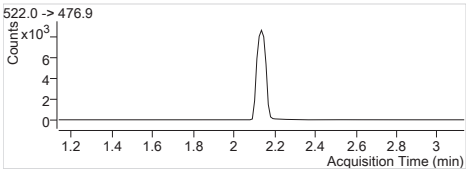
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 62.72 µg/L
Area ratio: 0.26415
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.26 µg/L
Area ratio: 0
Sample type: Sample





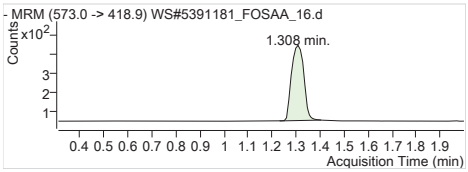
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.28 µg/L
Area ratio: 0
Sample type: Sample

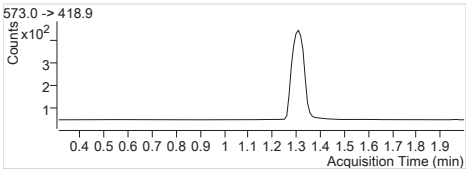
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**5391181:FZH326-01:10x**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_16.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D4
Acq. Date	2018/02/09 11:03:17 PM	**Injection Volume**	Per Method
Sample Annotation	Not used.		

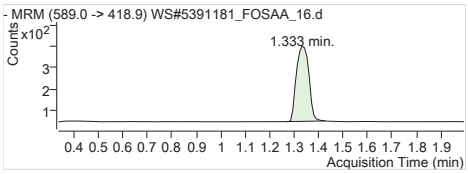
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1409	1.31	1 µg/L		
D5-EtFOSAA IS	1243	1.33	1 µg/L		
13C9-PFDA IS	21894	0.88	1 µg/L		

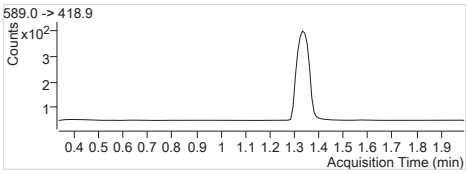
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1435	1.31	-	88.72 µg/L	-
D5-EtFOSAA	1262	1.33	-	86.85 µg/L	-
13C9-PFDA	21301	0.88	-	22.93 µg/L	-



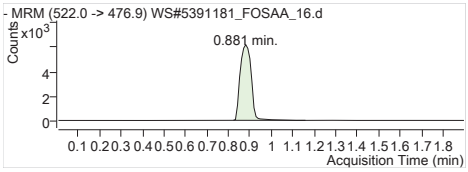


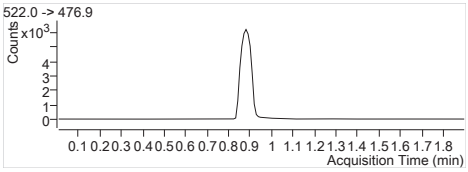
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



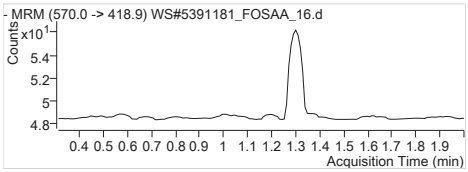


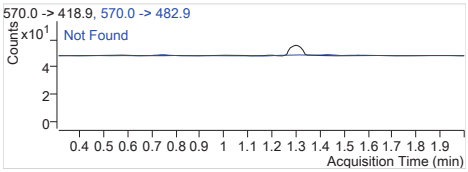
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



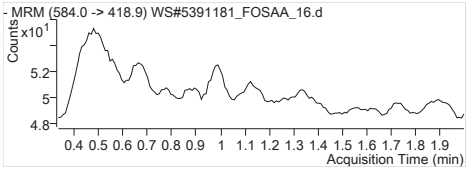


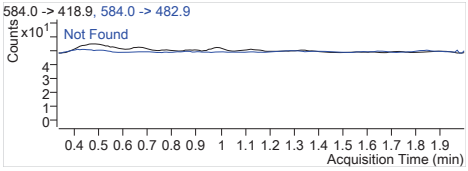
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.900)
Concentration: 1 µg/L
Sample type: Sample



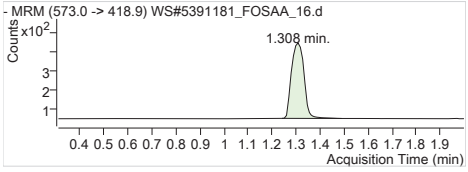


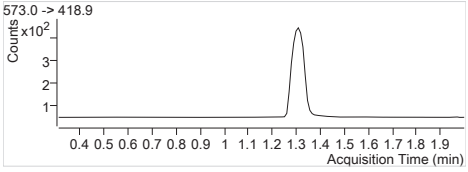
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



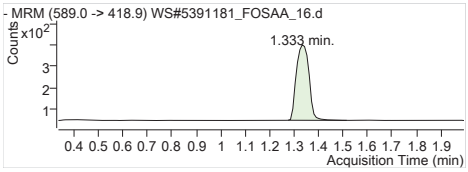


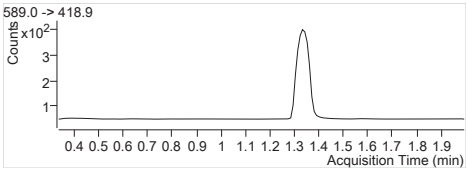
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



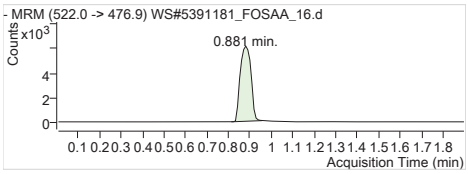


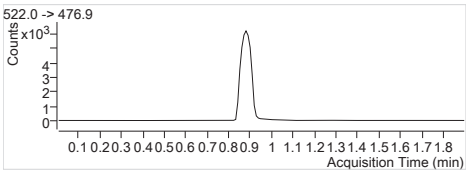
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 88.72 µg/L
Area ratio: 0.06554
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	86.85 µg/L
Area ratio:	0.05764
Sample type:	Sample





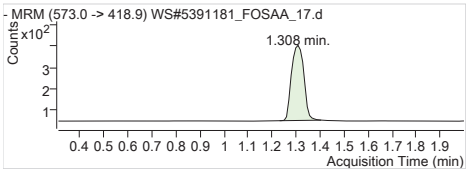
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.900)
Calc. conc.	22.93 µg/L
Area ratio:	0
Sample type:	Sample

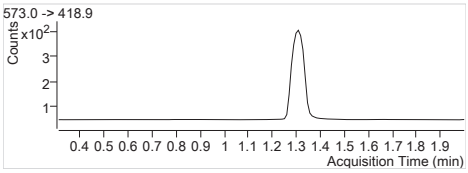
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**5391181:FZH326-01**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_17.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D5
Acq. Date	2018/02/09 11:05:40 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for all.		

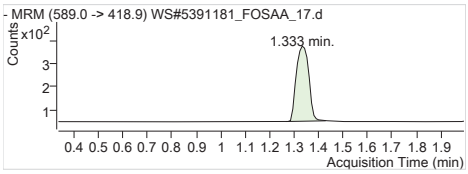
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1266	1.31	1 µg/L		
D5-EtFOSAA IS	1157	1.33	1 µg/L		
13C9-PFDA IS	21903	0.89	1 µg/L		

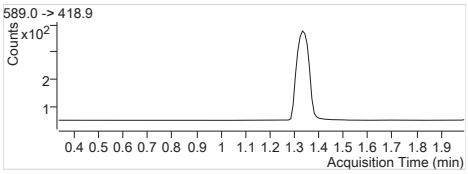
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1288	1.31	-	79.60 µg/L	-
D5-EtFOSAA	1164	1.33	-	80.07 µg/L	-
13C9-PFDA	21615	0.89	-	2.33 µg/L	-



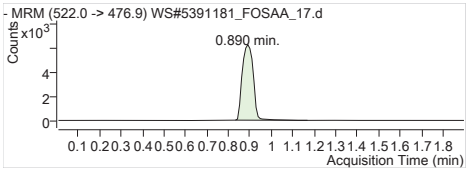


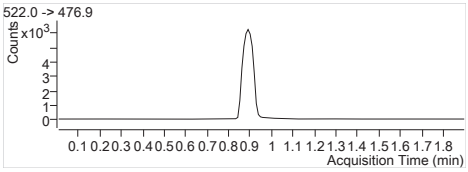
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



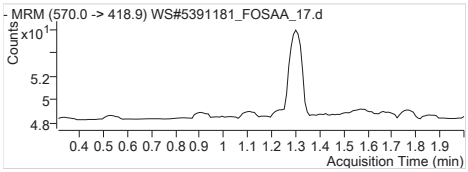


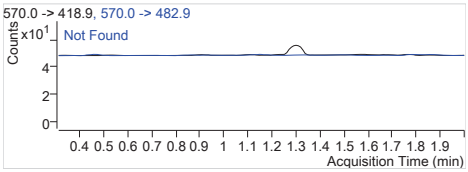
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



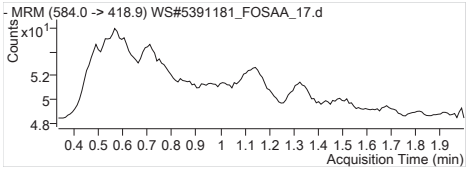


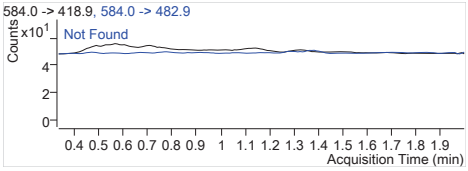
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: Sample



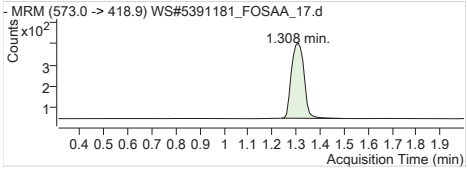


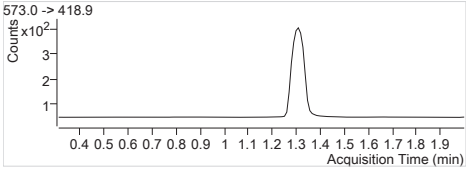
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



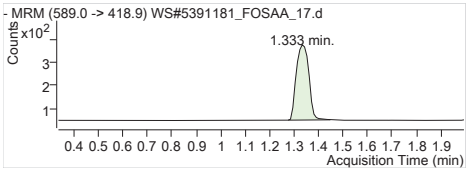


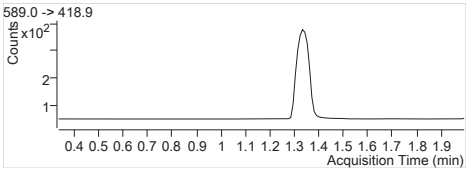
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



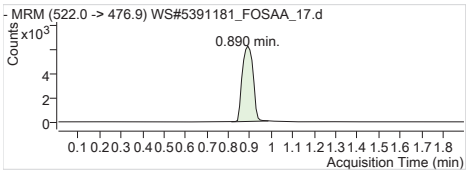


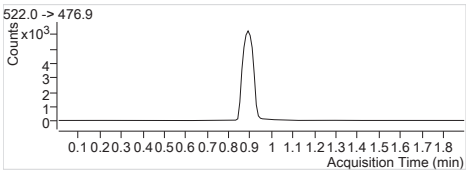
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 79.60 µg/L
Area ratio: 0.05880
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	80.07 µg/L
Area ratio:	0.05314
Sample type:	Sample





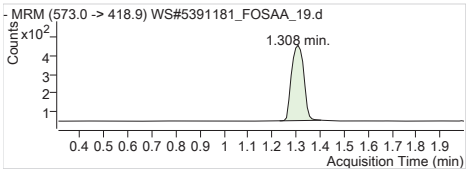
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	2.33 µg/L
Area ratio:	0
Sample type:	Sample

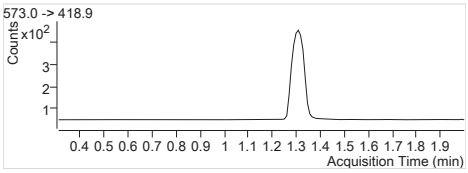
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**5391181:FZH327-01:10x**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_19.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D6
Acq. Date	2018/02/09 11:10:29 PM	**Injection Volume**	Per Method
Sample Annotation	Not used.		

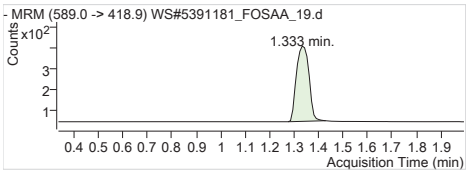
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1447	1.31	1 µg/L		
D5-EtFOSAA IS	1281	1.33	1 µg/L		
13C9-PFDA IS	22436	0.89	1 µg/L		

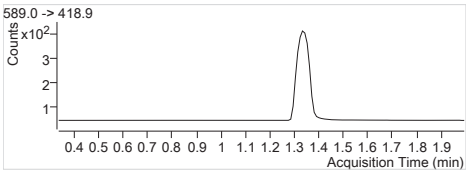
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1483	1.31	-	89.47 µg/L	-
D5-EtFOSAA	1301	1.33	-	87.37 µg/L	-
13C9-PFDA	22245	0.89	-	23.95 µg/L	-



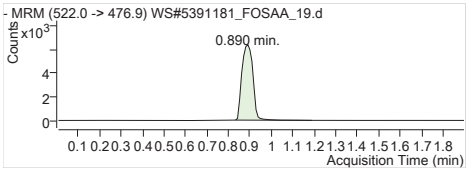


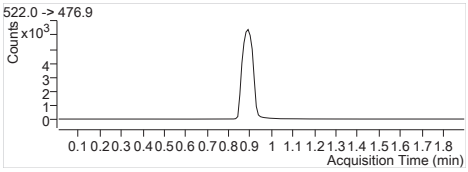
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



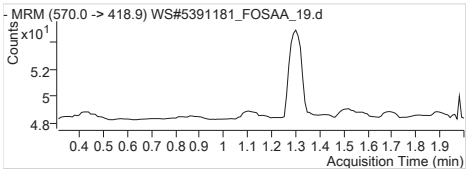


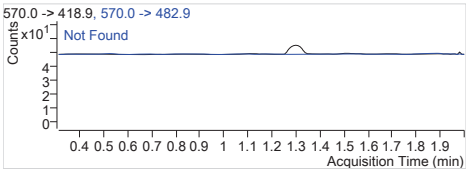
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



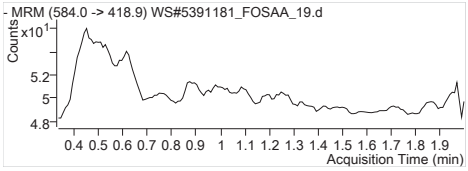


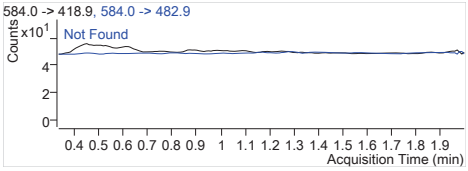
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: Sample



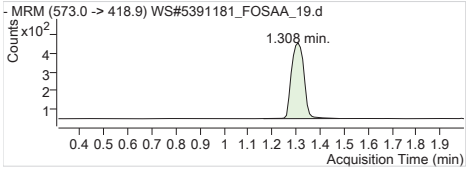


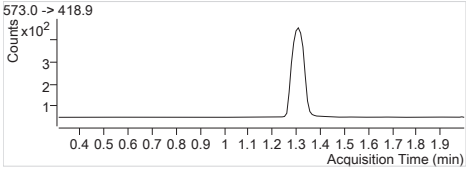
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



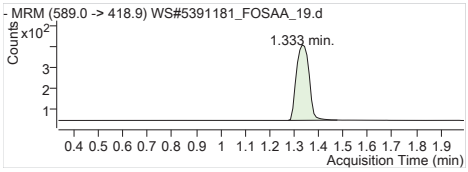


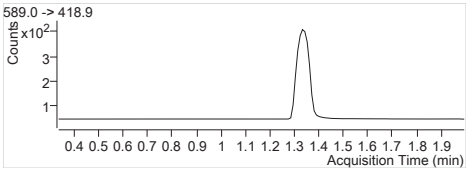
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



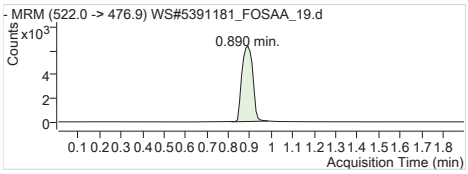


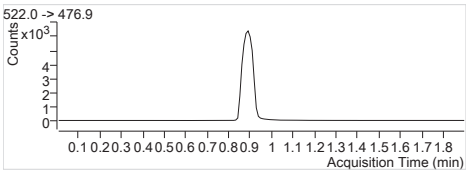
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 89.47 µg/L
Area ratio: 0.06610
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	87.37 µg/L
Area ratio:	0.05799
Sample type:	Sample





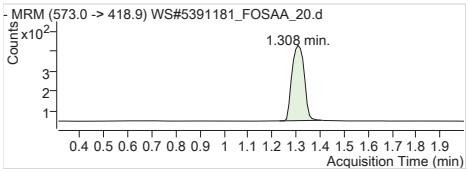
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	23.95 µg/L
Area ratio:	0
Sample type:	Sample

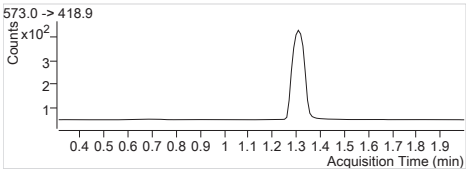
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**5391181:FZH327-01**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_20.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D7
Acq. Date	2018/02/09 11:12:54 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for all.		

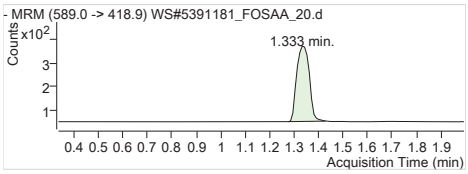
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1350	1.31	1 µg/L		
D5-EtFOSAA IS	1160	1.33	1 µg/L		
13C9-PFDA IS	21643	0.89	1 µg/L		

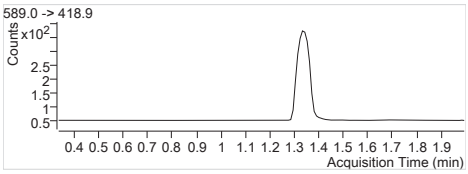
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1368	1.31	-	85.56 µg/L	-
D5-EtFOSAA	1169	1.33	-	81.38 µg/L	-
13C9-PFDA	21211	0.89	-	2.28 µg/L	-



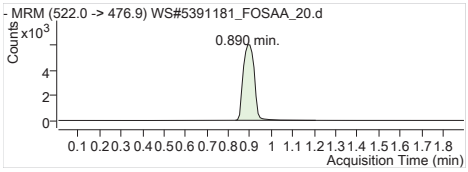


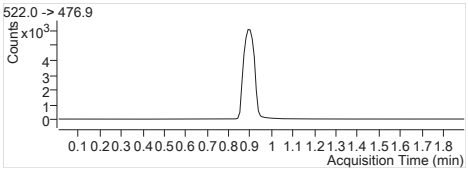
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



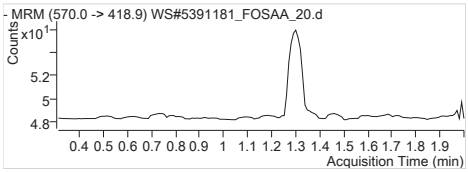


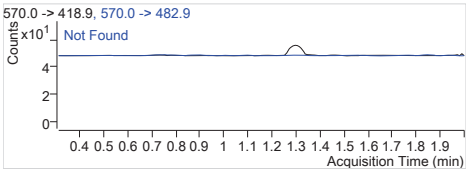
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



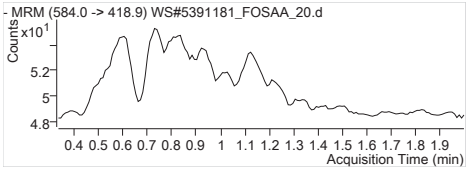


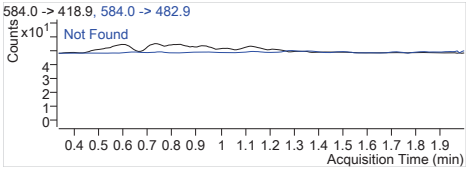
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: Sample



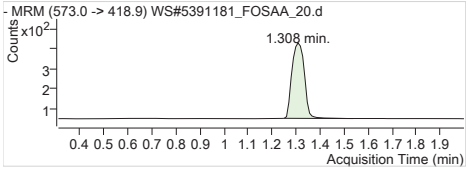


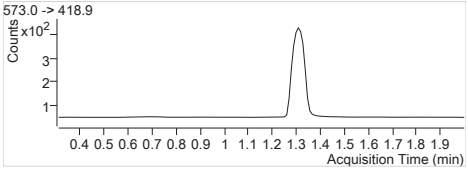
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



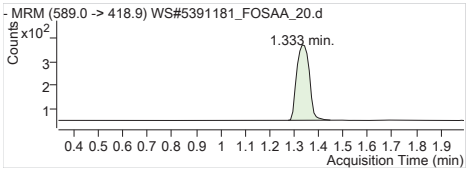


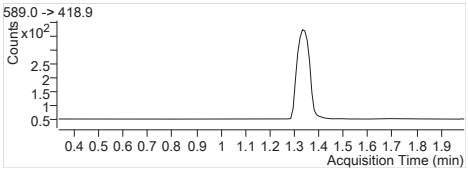
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



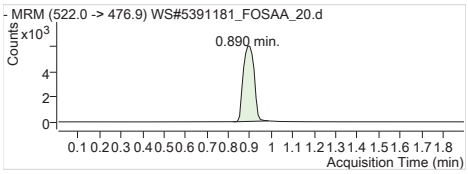


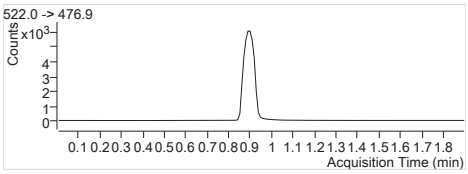
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 85.56 µg/L
Area ratio: 0.06321
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	81.38 µg/L
Area ratio:	0.05401
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	2.28 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

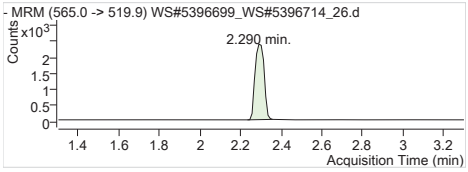
Agilent Technologies

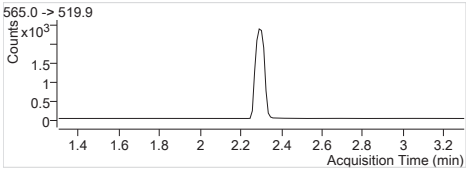
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**5396699:FZH332-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_26.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-C6
Acq. Date	2018/02/15 6:14:14 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFTrDA , PFTeDA only.		

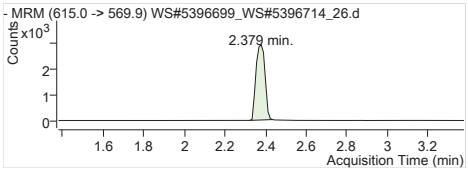
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	7363	2.29	1 µg/L		
MPFDoA	8883	2.38	1 µg/L		
MPFTeDA	6740	2.51	1 µg/L		
13C9-PFDA IS	26857	2.20	1 µg/L		

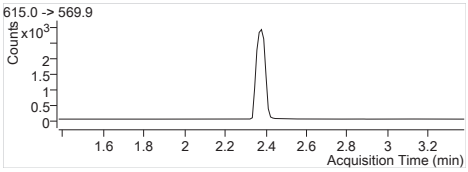
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	1223	2.29	-	0.01 µg/L	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFUnA	7363	2.29	-	116.61 µg/L	-
13C2-PFDoA	8883	2.38	-	108.08 µg/L	-
13C2-PFTeDA	6754	2.51	-	92.96 µg/L	-
13C9-PFDA	26857	2.20	-	2.65 µg/L	-



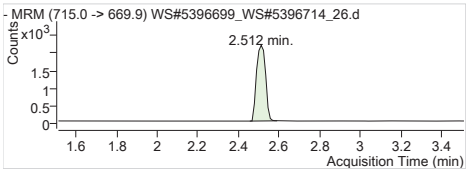


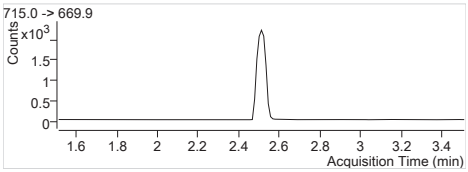
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: Sample



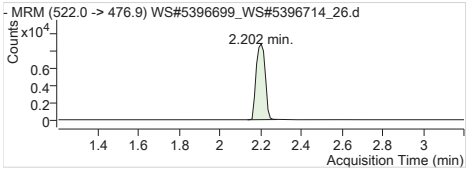


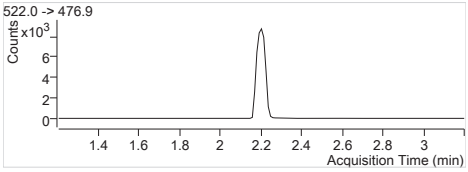
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Sample



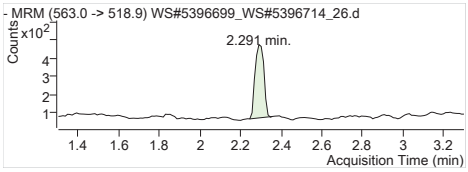


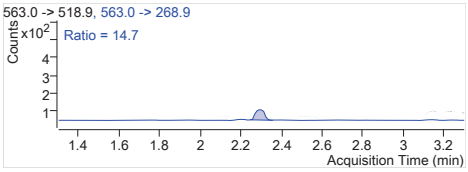
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Sample



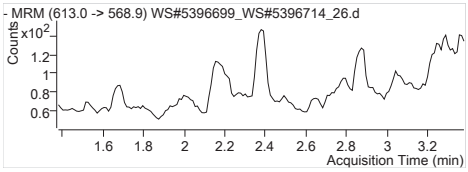


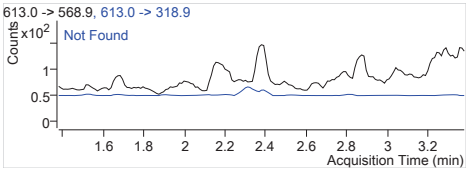
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Sample



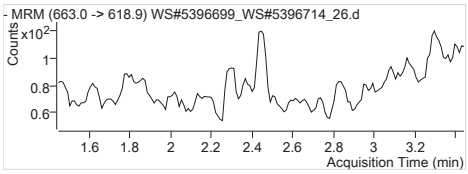


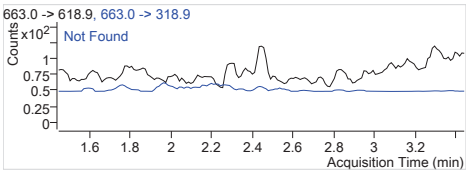
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 0.01 µg/L
Area ratio: 0.16610
Sample type: Sample



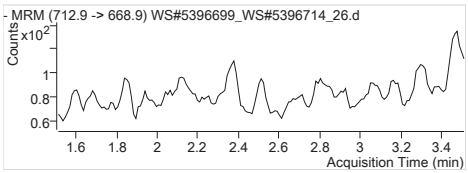


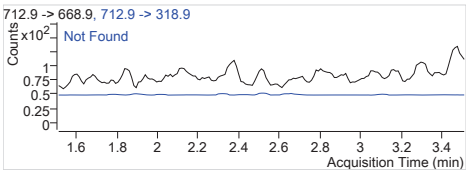
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.379)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



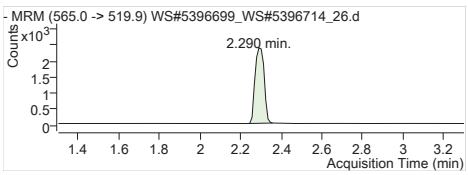


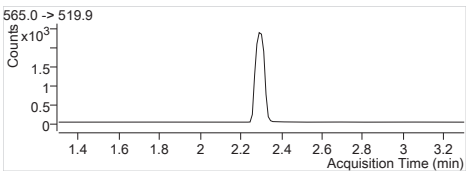
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.445)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



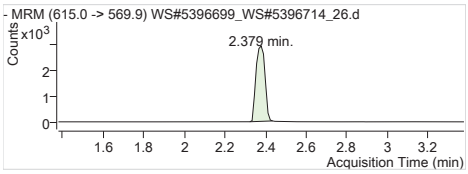


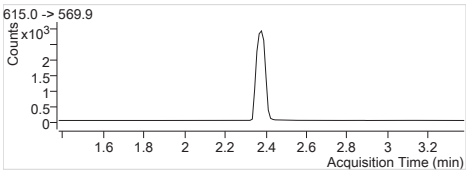
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.512)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



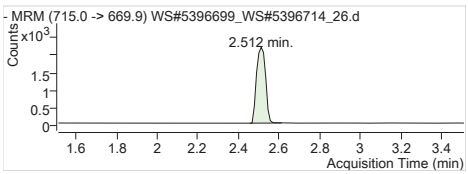


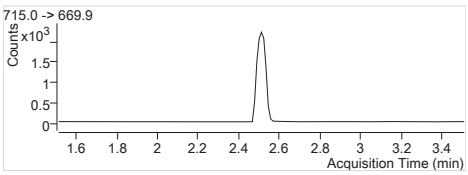
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.290 (2.302)
Calc. conc.	116.61 µg/L
Area ratio:	0.27416
Sample type:	Sample



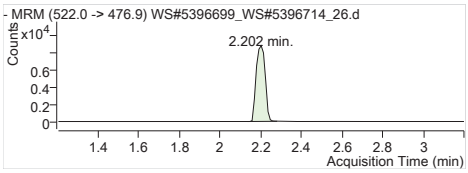


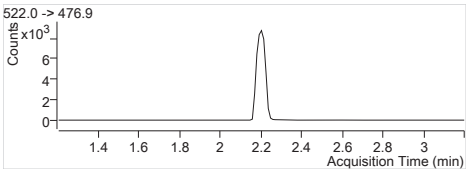
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	108.08 µg/L
Area ratio:	0.33075
Sample type:	Sample





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	92.96 µg/L
Area ratio:	0.25148
Sample type:	Sample





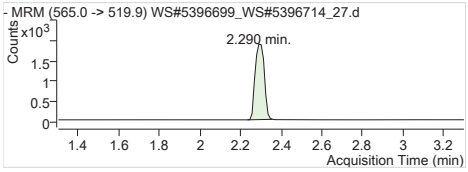
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.65 µg/L
Area ratio:	0
Sample type:	Sample

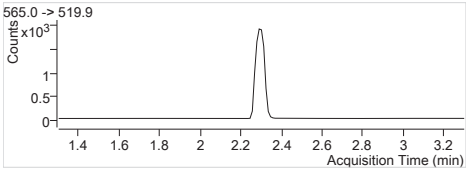
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**5396699:FZH334-01:10x**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_27.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low.m	**Position**	P2-C7
Acq. Date	2018/02/15 6:19:11 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFTrDA , PFTeDA only.		

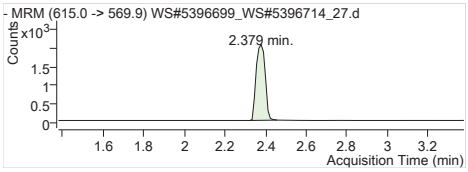
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5862	2.29	1 µg/L		
MPFDoA	6348	2.38	1 µg/L		
MPFTeDA	3554	2.51	1 µg/L		
13C9-PFDA IS	23286	2.20	1 µg/L		

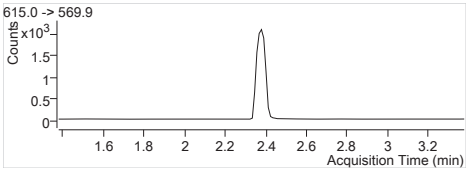
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFUnA	5862	2.29	-	107.08 µg/L	-
13C2-PFDoA	6348	2.38	-	89.08 µg/L	-
13C2-PFTeDA	3616	2.51	-	57.40 µg/L	-
13C9-PFDA	23286	2.20	-	22.95 µg/L	-



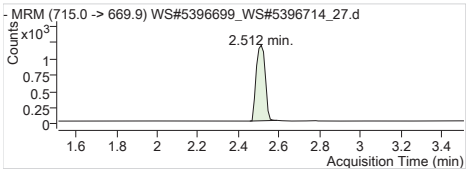


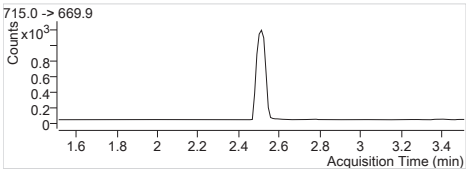
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: Sample



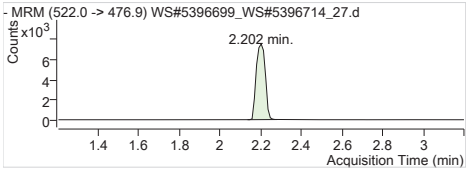


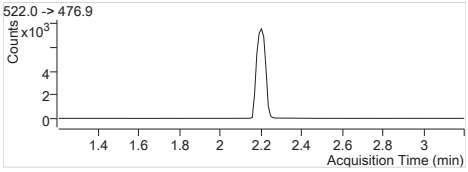
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Sample



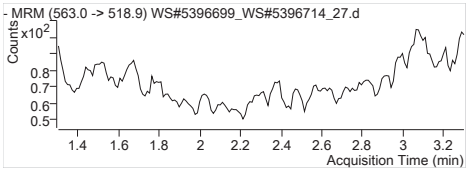


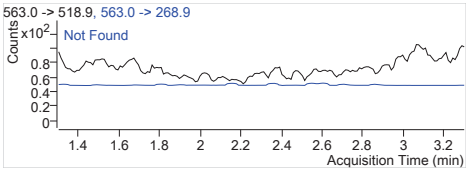
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Sample



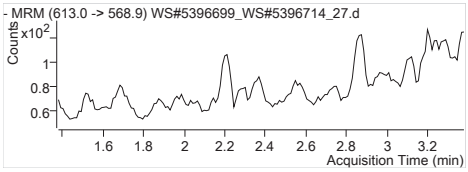


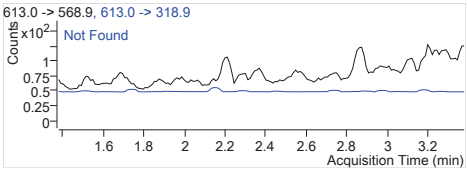
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Sample



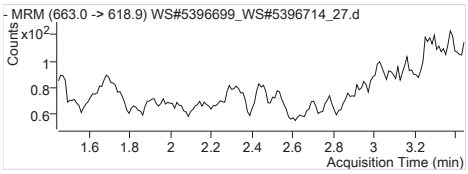


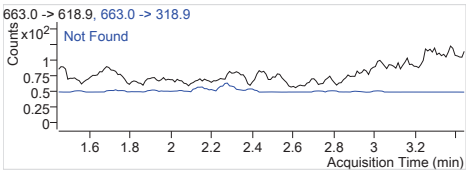
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.302)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



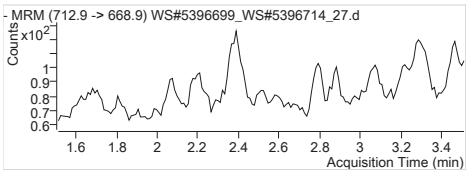


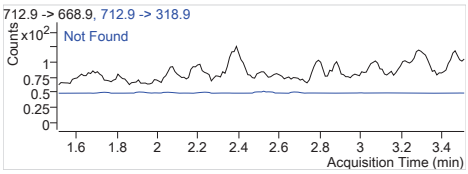
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.379)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



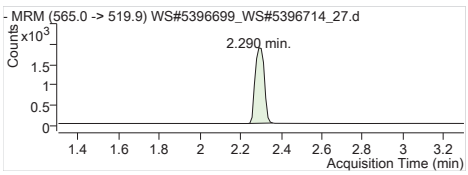


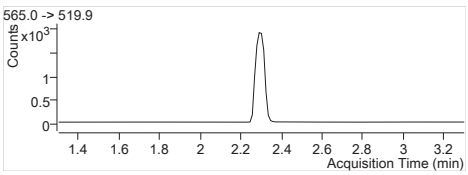
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.445)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



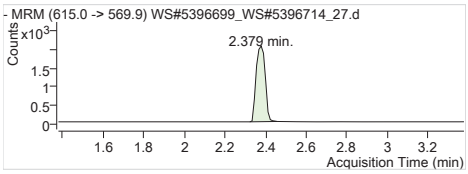


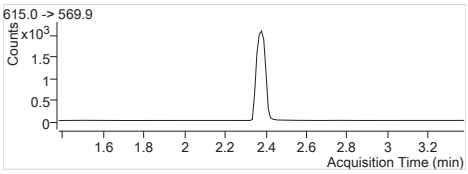
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.512)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



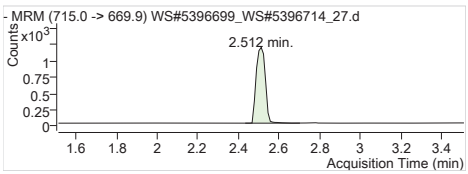


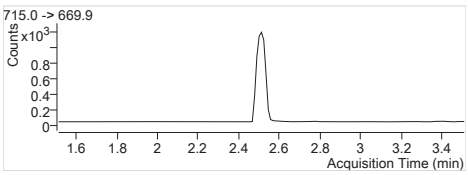
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.290 (2.302)
Calc. conc.	107.08 µg/L
Area ratio:	0.25174
Sample type:	Sample



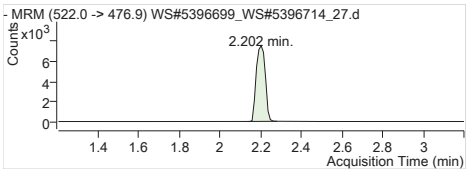


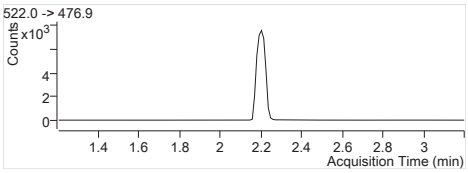
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	89.08 µg/L
Area ratio:	0.27261
Sample type:	Sample





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	57.40 µg/L
Area ratio:	0.15529
Sample type:	Sample





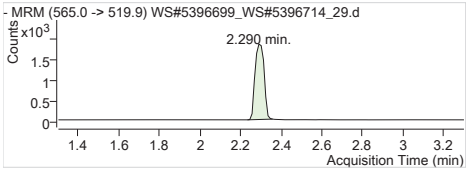
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	22.95 µg/L
Area ratio:	0
Sample type:	Sample

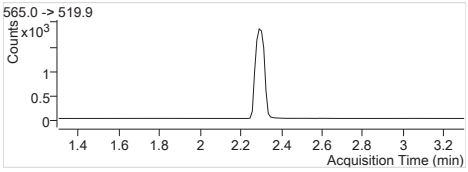
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**5396699:FZH338-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_29.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-C9
Acq. Date	2018/02/15 6:29:03 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFDoA, PFUnA , PFTeDA only.		

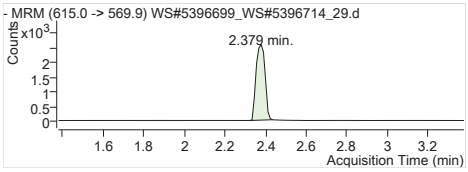
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5607	2.29	1 µg/L		
MPFDoA	7813	2.38	1 µg/L		
MPFTeDA	5018	2.51	1 µg/L		
13C9-PFDA IS	22356	2.20	1 µg/L		

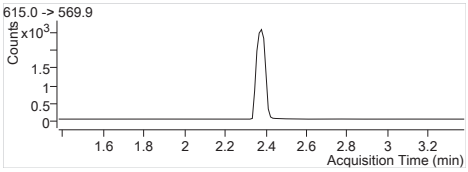
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFUnA	5607	2.29	-	106.68 µg/L	-
13C2-PFDoA	7813	2.38	-	114.20 µg/L	-
13C2-PFTeDA	5030	2.51	-	83.17 µg/L	-
13C9-PFDA	22356	2.20	-	2.20 µg/L	-



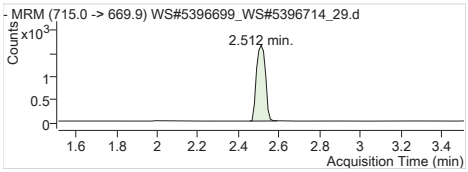


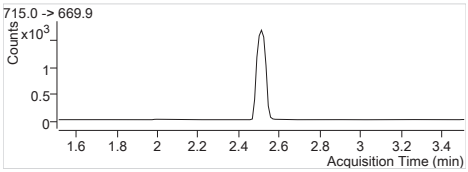
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: Sample



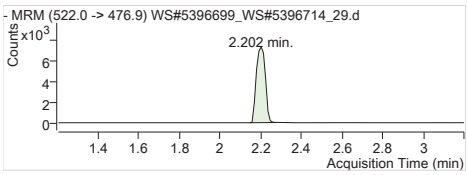


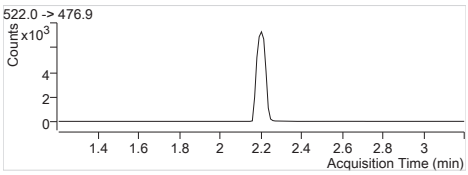
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Sample



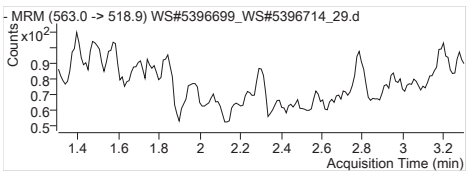


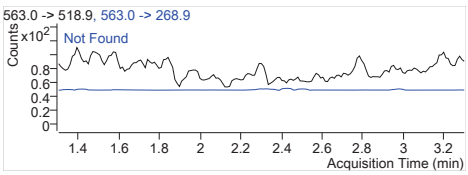
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Sample



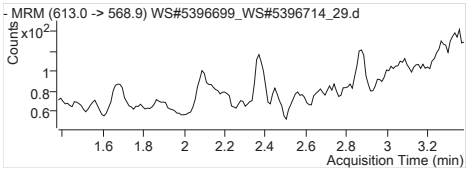


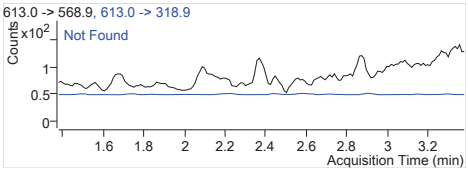
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Sample



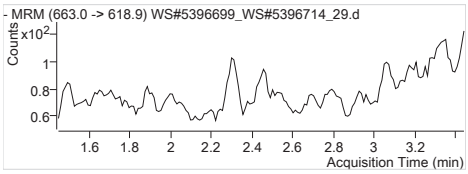


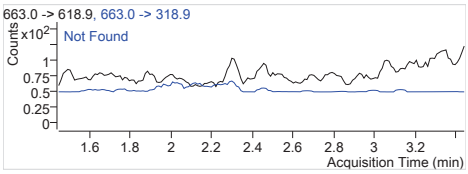
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.302)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



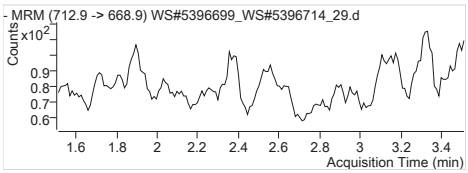


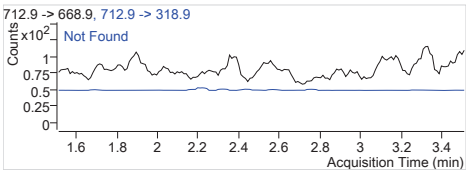
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.379)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



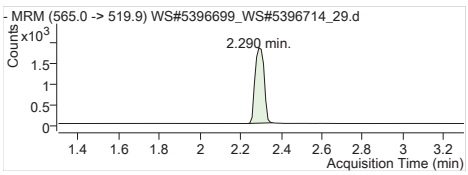


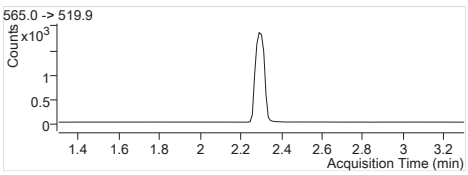
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.445)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



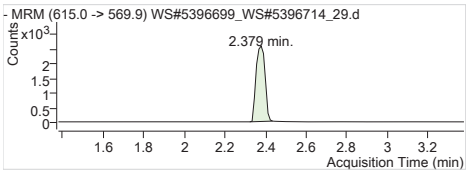


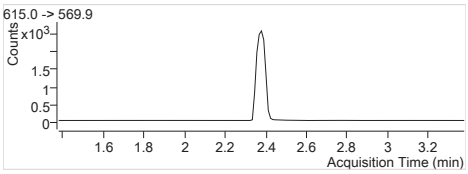
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.512)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



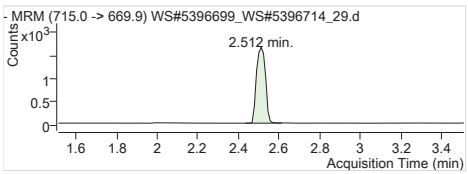


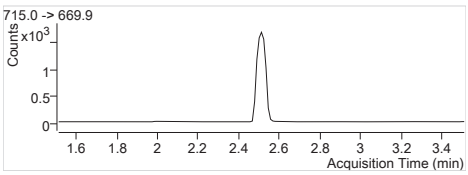
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.290 (2.302)
Calc. conc.	106.68 µg/L
Area ratio:	0.25081
Sample type:	Sample



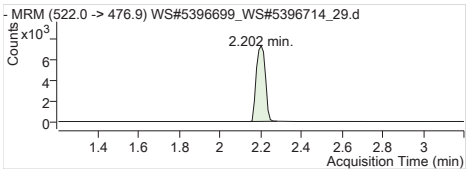


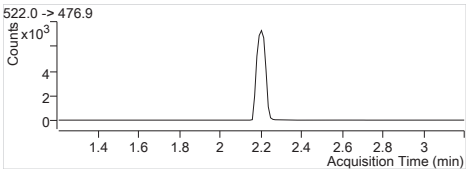
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	114.20 µg/L
Area ratio:	0.34948
Sample type:	Sample





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	83.17 µg/L
Area ratio:	0.22500
Sample type:	Sample





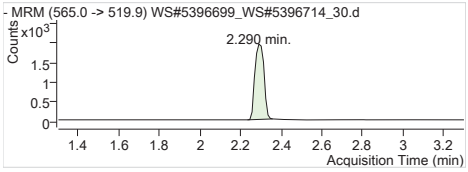
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.20 µg/L
Area ratio:	0
Sample type:	Sample

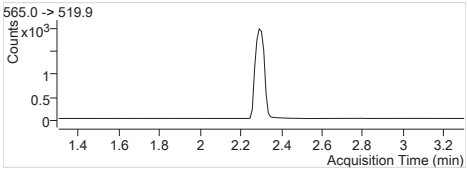
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**5396699:FZH339-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_30.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D1
Acq. Date	2018/02/15 6:33:59 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFDoA, PFUnA , PFTeDA only.		

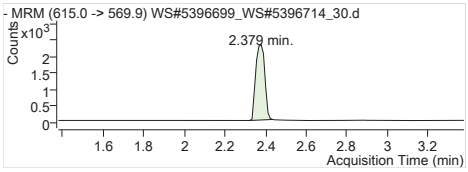
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5970	2.29	1 µg/L		
MPFDoA	7154	2.38	1 µg/L		
MPFTeDA	5187	2.51	1 µg/L		
13C9-PFDA IS	22519	2.20	1 µg/L		

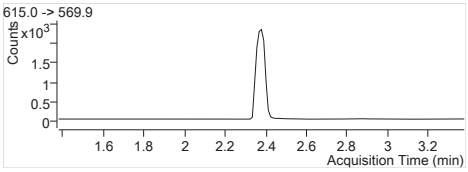
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFUnA	5970	2.29	-	112.76 µg/L	-
13C2-PFDoA	7154	2.38	-	103.81 µg/L	-
13C2-PFTeDA	5233	2.51	-	85.90 µg/L	-
13C9-PFDA	22519	2.20	-	2.22 µg/L	-



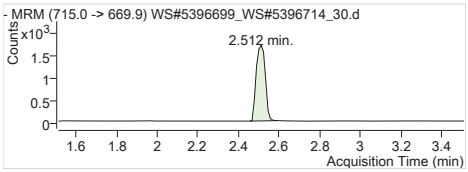


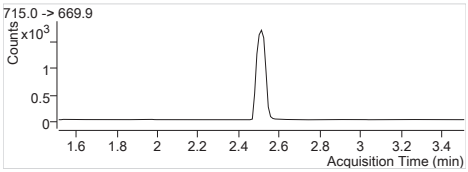
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: Sample



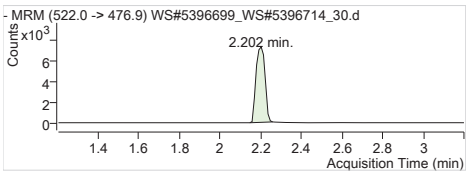


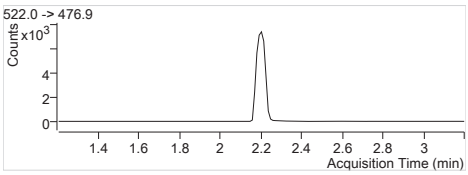
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Sample



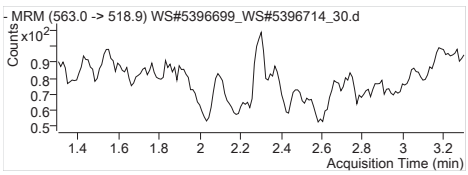


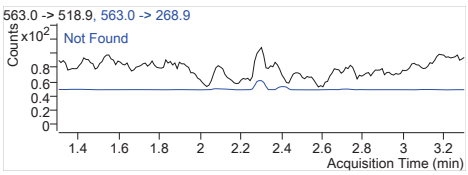
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Sample



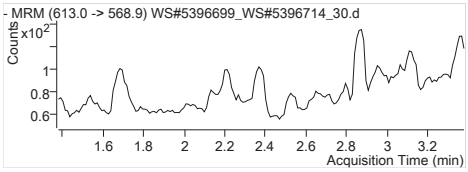


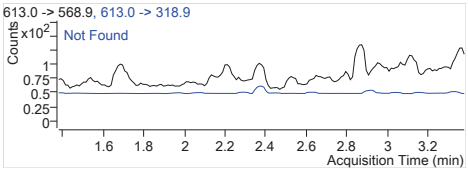
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Sample



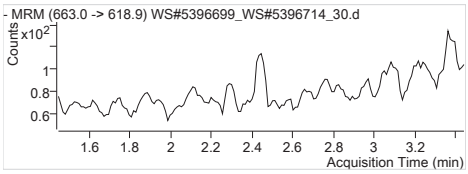


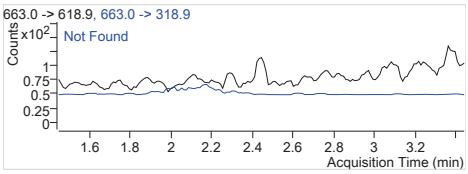
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.302)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



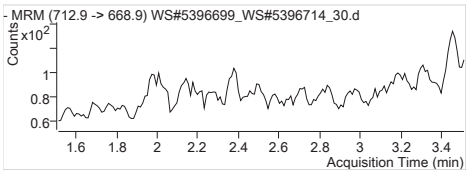


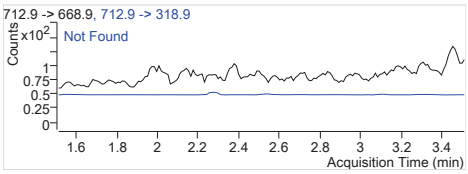
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.379)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



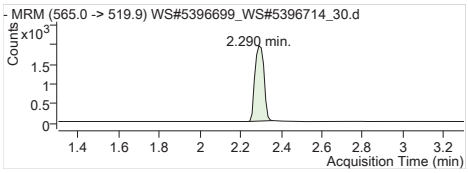


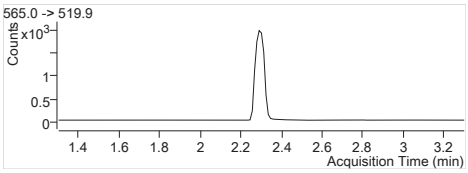
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.445)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



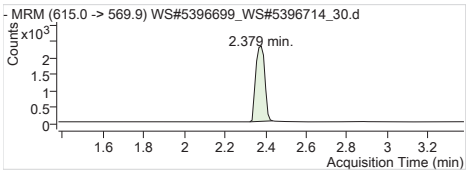


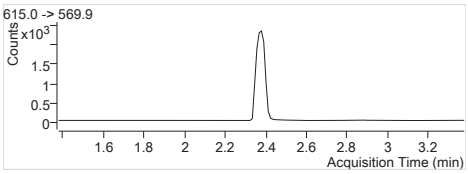
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.512)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



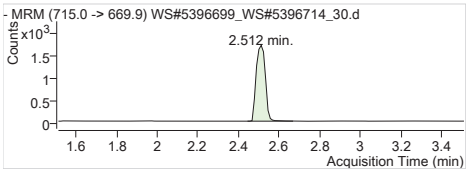


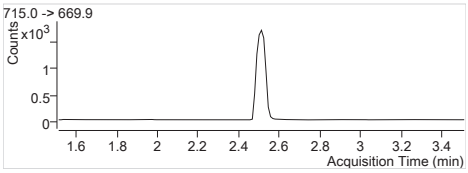
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.290 (2.302)
Calc. conc.	112.76 µg/L
Area ratio:	0.26511
Sample type:	Sample



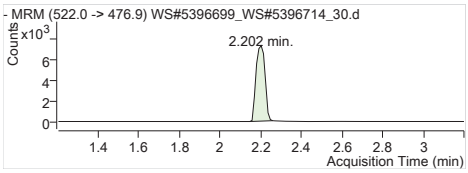


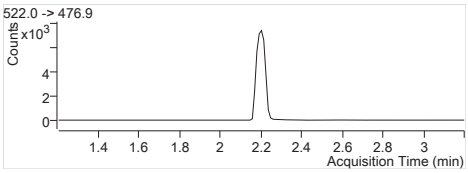
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	103.81 µg/L
Area ratio:	0.31769
Sample type:	Sample





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	85.90 µg/L
Area ratio:	0.23238
Sample type:	Sample





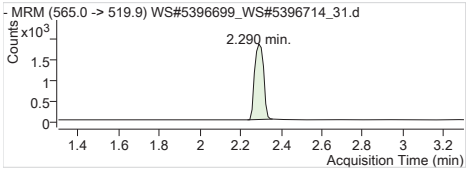
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.22 µg/L
Area ratio:	0
Sample type:	Sample

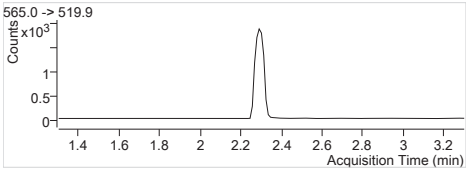
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**5396699:FZH340-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_31.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D2
Acq. Date	2018/02/15 6:38:55 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFDoA, PFUnA , PFTeDA only.		

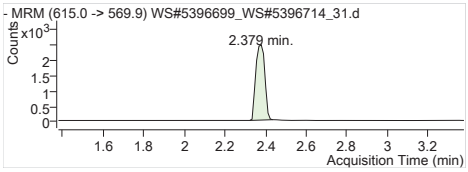
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5623	2.29	1 µg/L		
MPFDoA	7560	2.38	1 µg/L		
MPFTeDA	5065	2.51	1 µg/L		
13C9-PFDA IS	23244	2.20	1 µg/L		

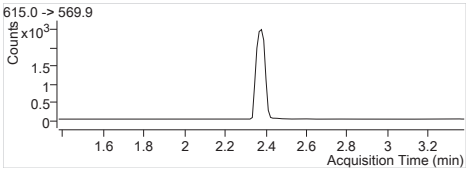
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFUnA	5623	2.29	-	102.90 µg/L	-
13C2-PFDoA	7560	2.38	-	106.28 µg/L	-
13C2-PFTeDA	5102	2.51	-	81.14 µg/L	-
13C9-PFDA	23244	2.20	-	2.29 µg/L	-



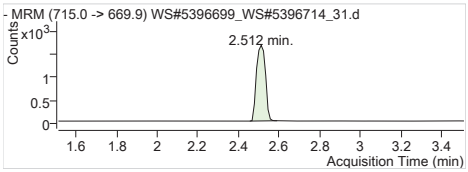


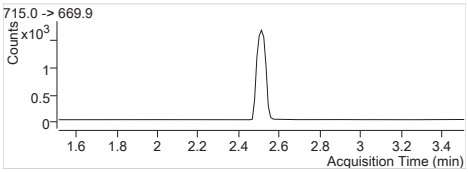
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: Sample



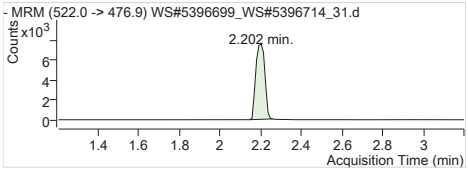


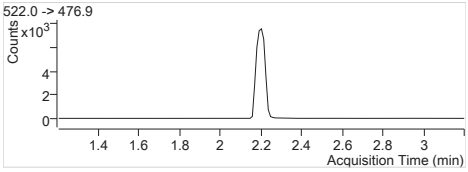
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Sample



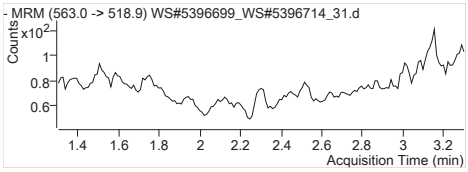


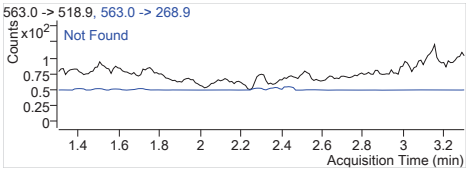
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Sample



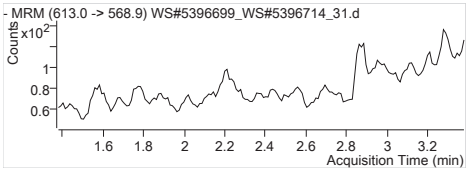


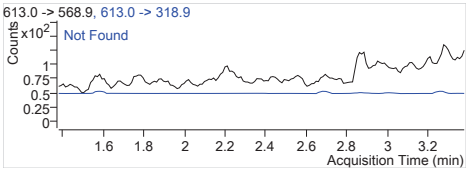
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Sample



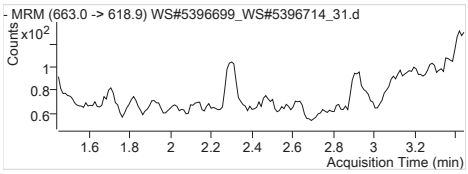


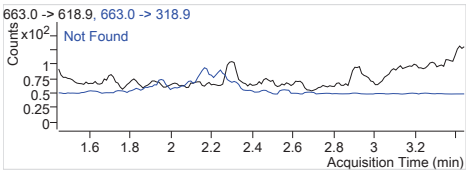
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.302)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



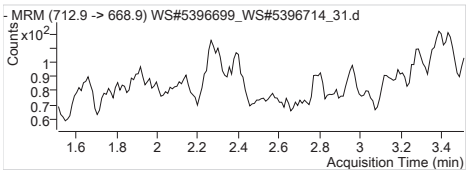


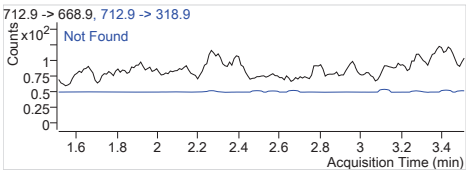
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.379)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



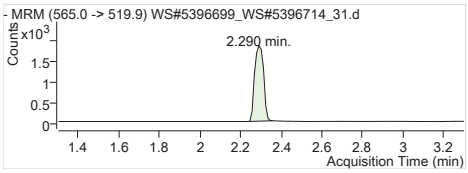


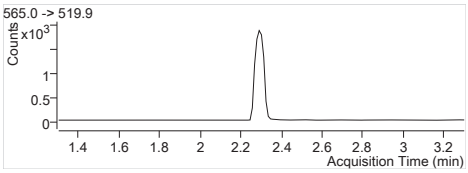
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.445)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



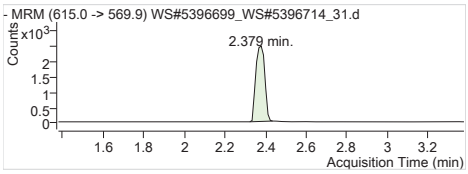


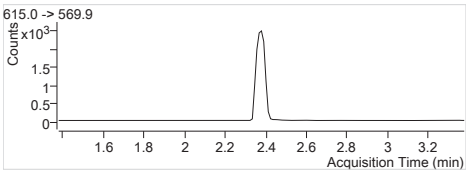
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.512)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



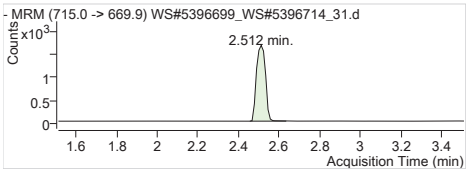


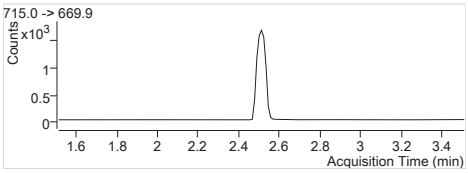
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.290 (2.302)
Calc. conc.	102.90 µg/L
Area ratio:	0.24191
Sample type:	Sample



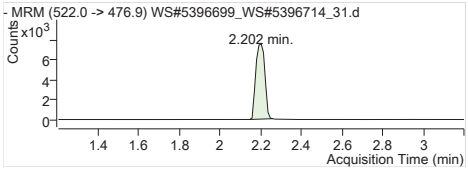


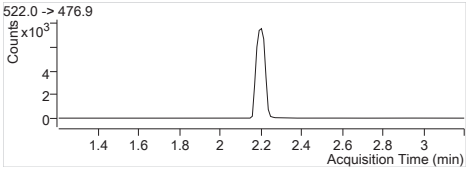
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	106.28 µg/L
Area ratio:	0.32525
Sample type:	Sample





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	81.14 µg/L
Area ratio:	0.21950
Sample type:	Sample





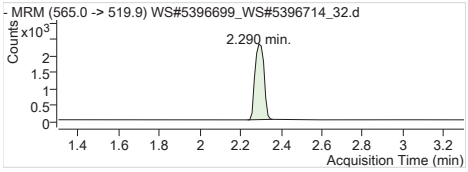
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.29 µg/L
Area ratio:	0
Sample type:	Sample

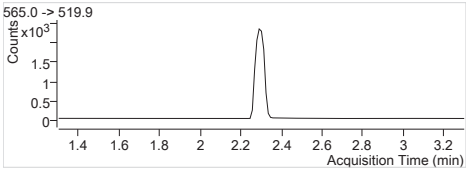
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**5396699:FZH341-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_32.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D3
Acq. Date	2018/02/15 6:43:51 PM	**Injection Volume**	Per Method
Sample Annotation	-		

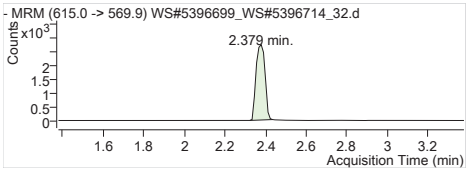
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	7154	2.29	1 µg/L		
MPFDoA	8315	2.38	1 µg/L		
MPFTeDA	7515	2.51	1 µg/L		
13C9-PFDA IS	27193	2.20	1 µg/L		

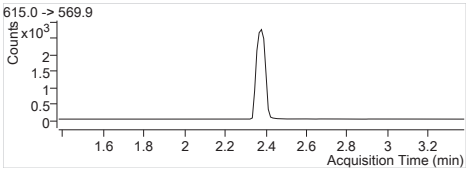
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFUnA	7154	2.29	-	111.90 µg/L	-
13C2-PFDoA	8315	2.38	-	99.92 µg/L	-
13C2-PFTeDA	7521	2.51	-	102.24 µg/L	-
13C9-PFDA	27193	2.20	-	2.68 µg/L	-



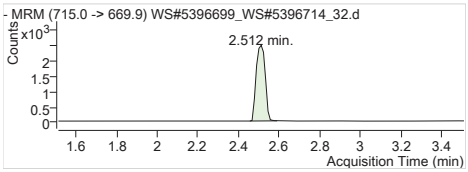


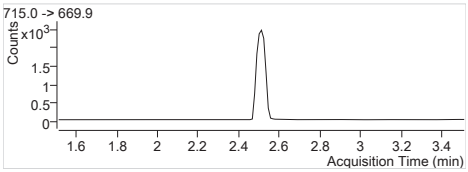
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: Sample



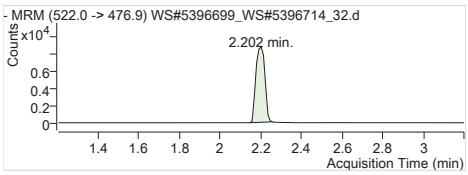


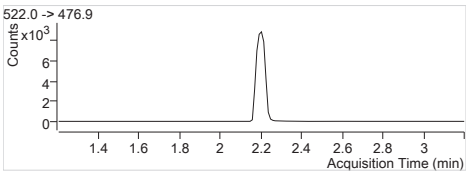
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Sample



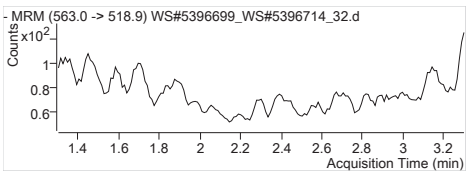


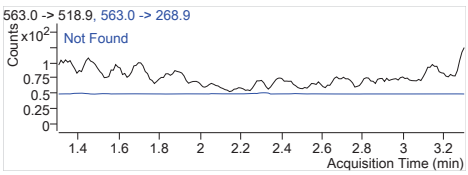
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Sample



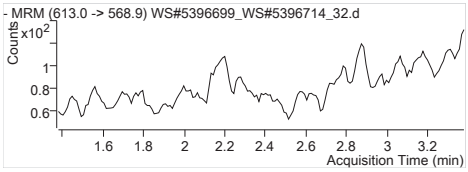


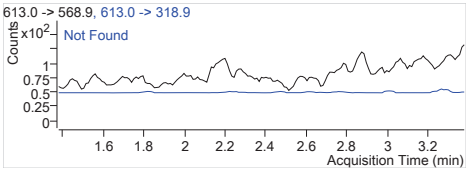
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Sample



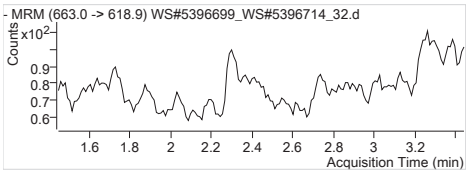


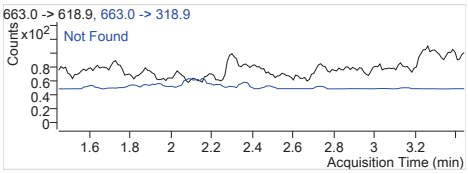
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.302)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



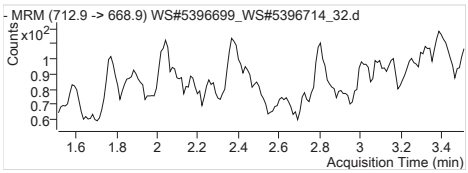


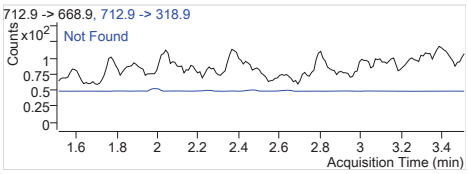
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.379)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



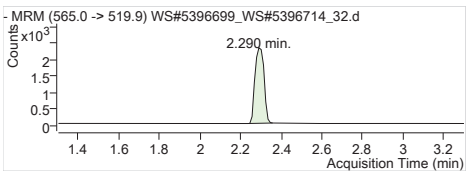


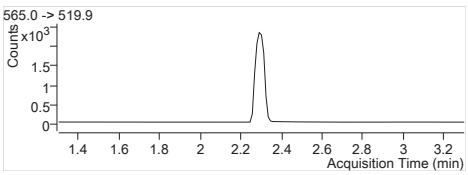
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.445)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



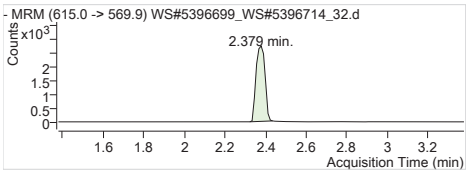


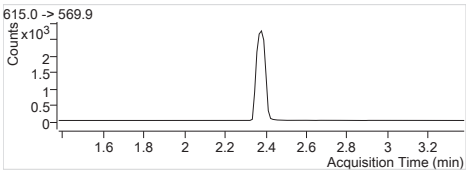
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.512)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



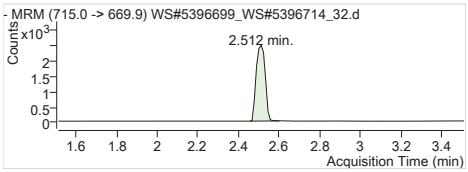


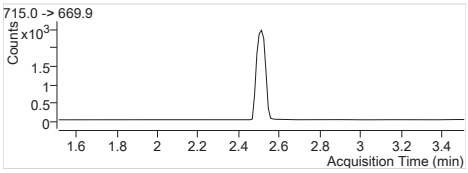
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.290 (2.302)
Calc. conc.	111.90 µg/L
Area ratio:	0.26308
Sample type:	Sample



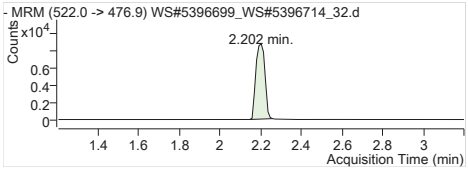


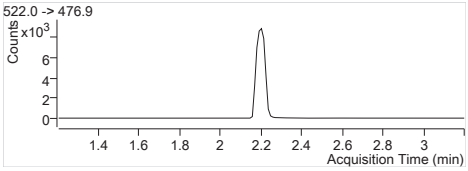
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	99.92 µg/L
Area ratio:	0.30578
Sample type:	Sample





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	102.24 µg/L
Area ratio:	0.27658
Sample type:	Sample





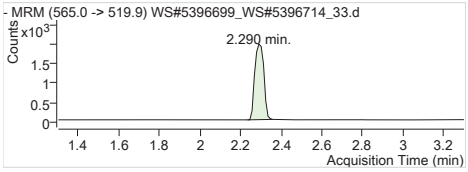
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.68 µg/L
Area ratio:	0
Sample type:	Sample

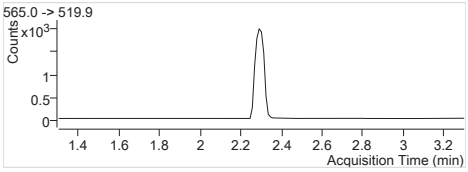
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**5396699:FZH342-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_33.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D4
Acq. Date	2018/02/15 6:48:47 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFDoA, PFUnA , PFTeDA only.		

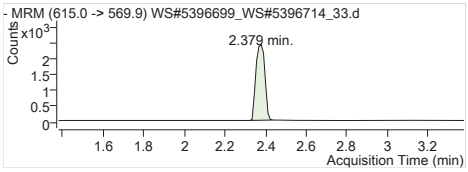
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6036	2.29	1 µg/L		
MPFDoA	7366	2.38	1 µg/L		
MPFTeDA	7005	2.51	1 µg/L		
13C9-PFDA IS	23878	2.20	1 µg/L		

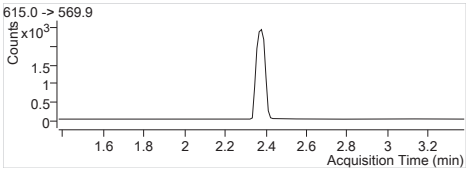
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFUnA	6036	2.29	-	107.52 µg/L	-
13C2-PFDoA	7366	2.38	-	100.80 µg/L	-
13C2-PFTeDA	7040	2.51	-	108.99 µg/L	-
13C9-PFDA	23878	2.20	-	2.35 µg/L	-



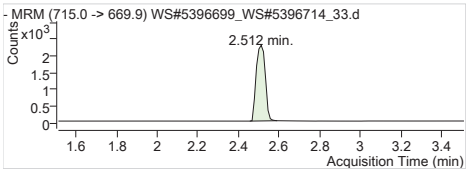


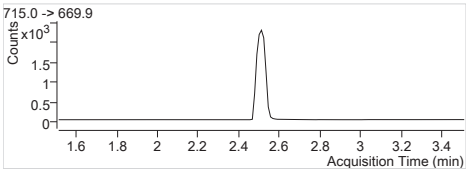
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: Sample



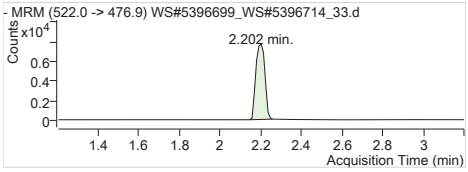


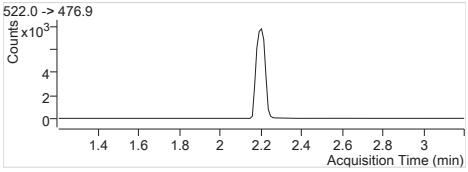
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Sample



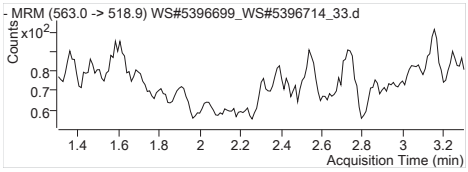


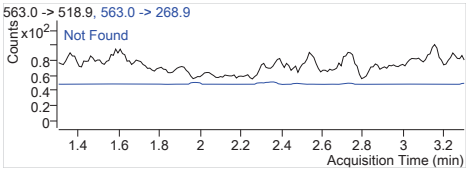
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Sample



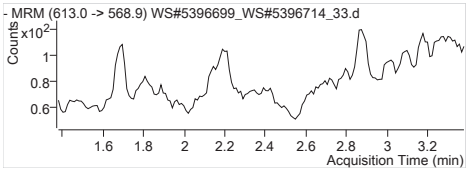


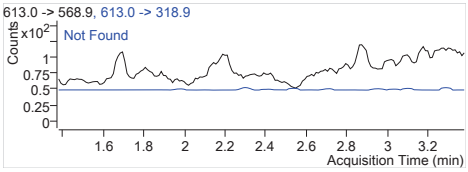
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Sample



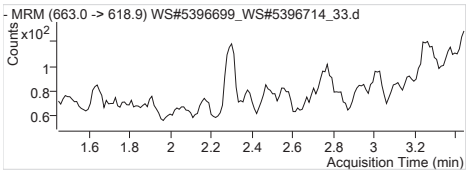


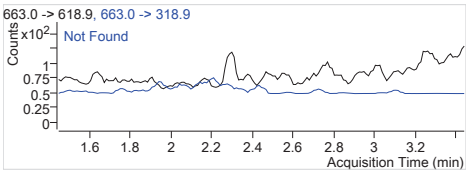
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.302)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



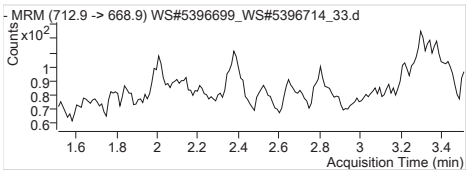


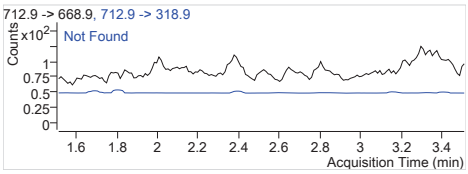
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.379)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



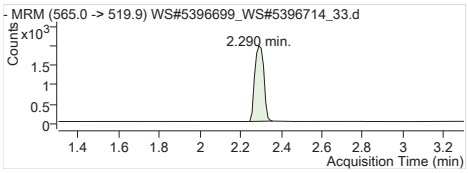


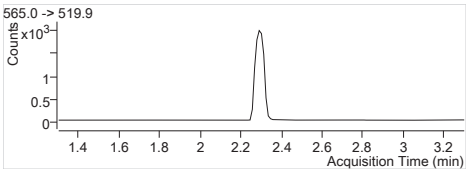
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.445)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



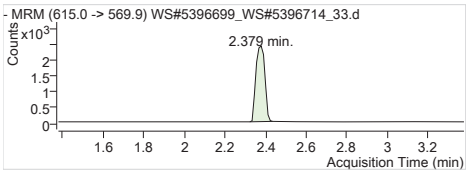


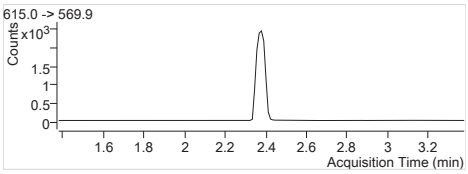
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.512)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



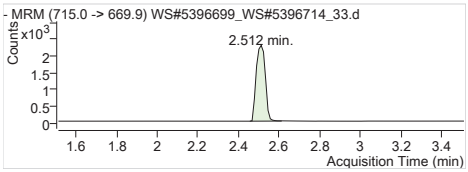


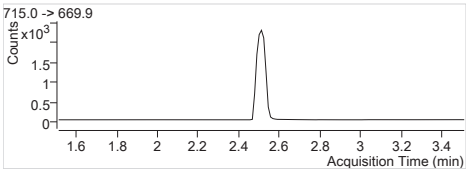
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.290 (2.302)
Calc. conc.	107.52 µg/L
Area ratio:	0.25278
Sample type:	Sample



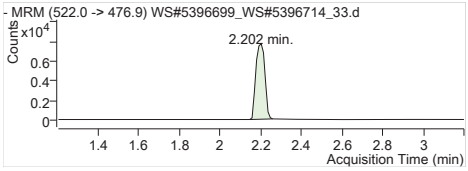


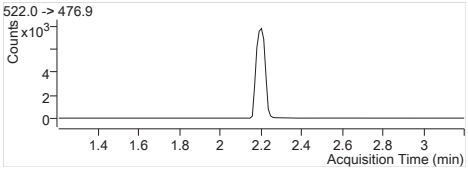
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	100.80 µg/L
Area ratio:	0.30848
Sample type:	Sample





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	108.99 µg/L
Area ratio:	0.29483
Sample type:	Sample





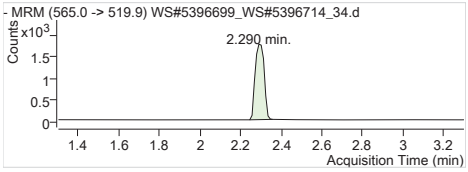
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.35 µg/L
Area ratio:	0
Sample type:	Sample

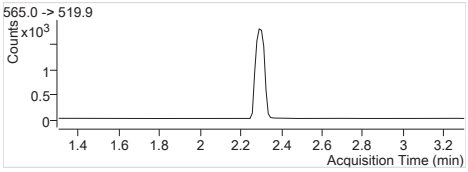
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**5396699:FZH343-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_34.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D5
Acq. Date	2018/02/15 6:53:43 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFDoA, PFUnA , PFTeDA only.		

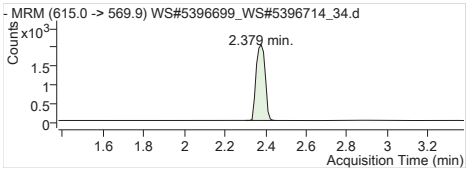
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5397	2.29	1 µg/L		
MPFDoA	6233	2.38	1 µg/L		
MPFTeDA	4949	2.51	1 µg/L		
13C9-PFDA IS	24293	2.20	1 µg/L		

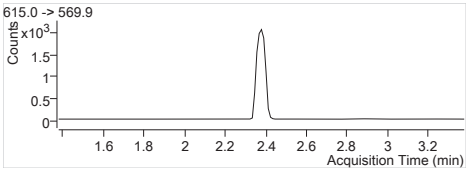
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFUnA	5397	2.29	-	94.50 µg/L	-
13C2-PFDoA	6233	2.38	-	83.84 µg/L	-
13C2-PFTeDA	4999	2.51	-	76.07 µg/L	-
13C9-PFDA	24293	2.20	-	2.39 µg/L	-



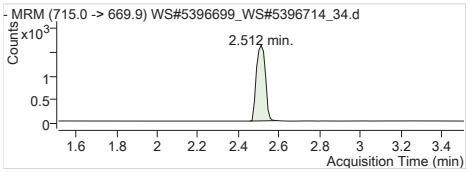


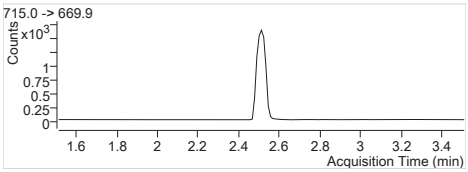
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: Sample



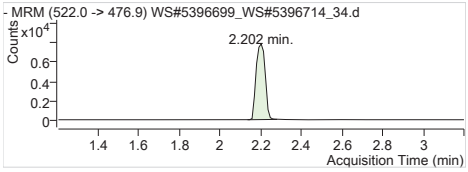


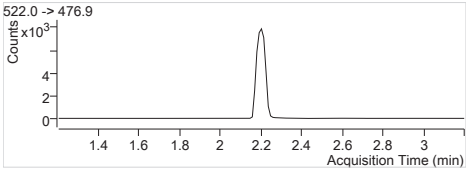
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Sample



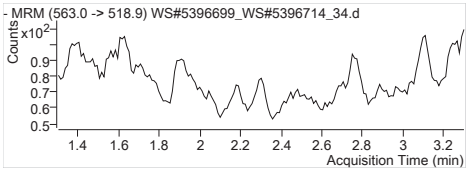


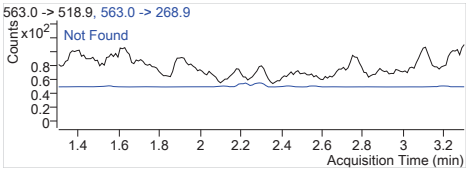
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Sample



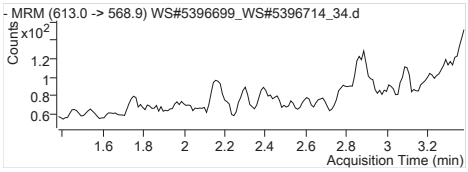


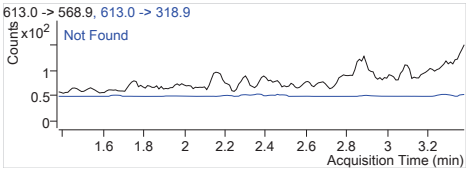
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Sample



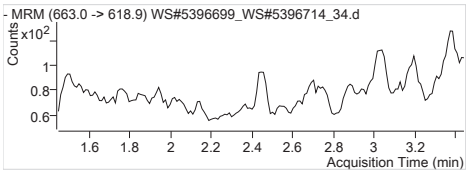


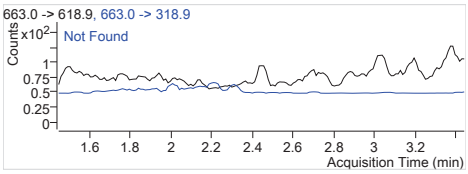
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.302)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



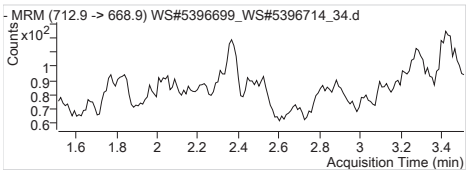


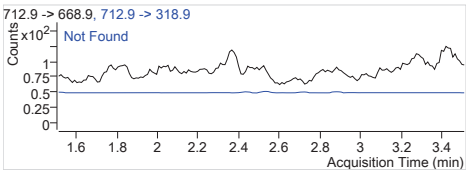
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.379)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



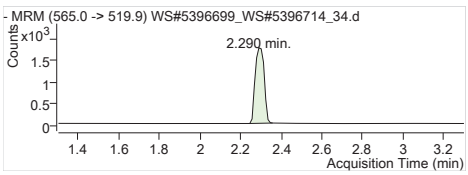


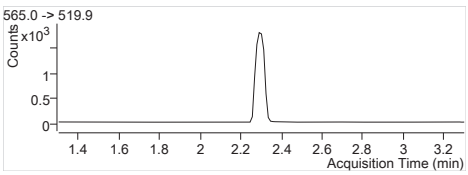
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.445)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



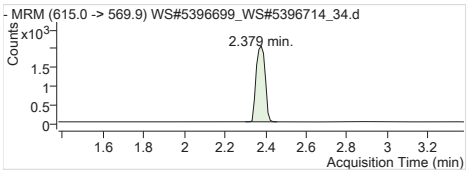


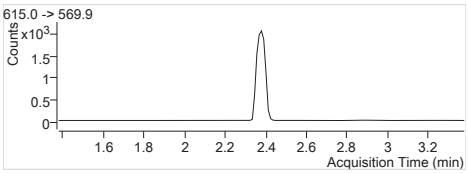
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.512)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



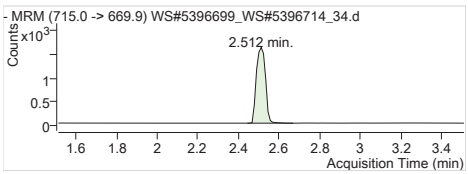


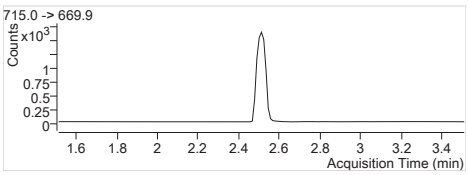
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.290 (2.302)
Calc. conc.	94.50 µg/L
Area ratio:	0.22216
Sample type:	Sample



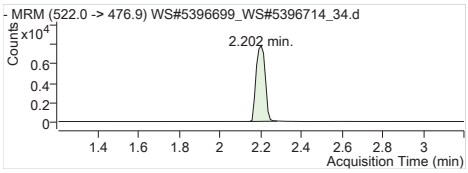


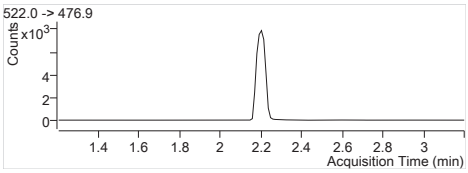
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	83.84 µg/L
Area ratio:	0.25658
Sample type:	Sample





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	76.07 µg/L
Area ratio:	0.20578
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.39 µg/L
Area ratio:	0
Sample type:	Sample

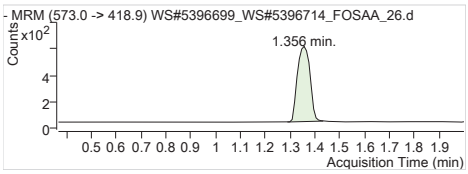
Quantitation Results

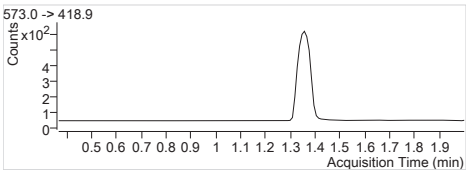
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**5396699:FZH332-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_26.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-C6
Acq. Date	2018/02/15 11:37:05 AM	**Injection Volume**	Per Method
Sample Annotation	-		

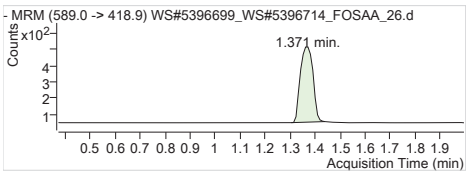
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1994	1.36	1 µg/L		
D5-EtFOSAA IS	1626	1.37	1 µg/L		
13C9-PFDA IS	29100	1.11	1 µg/L		

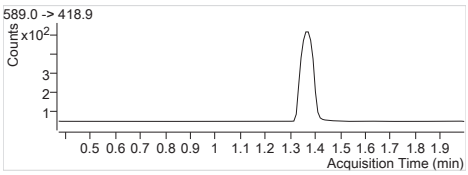
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	2025	1.36	-	126.41 µg/L	-
D5-EtFOSAA	1667	1.37	-	119.50 µg/L	-
13C9-PFDA	28419	1.11	-	2.57 µg/L	-



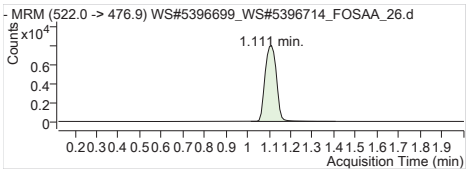


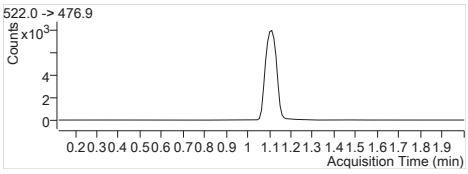
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Sample



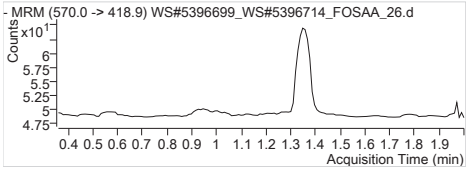


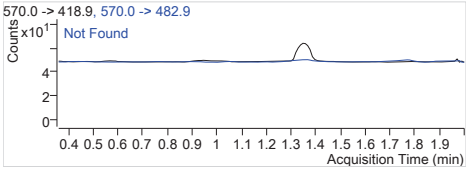
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Sample



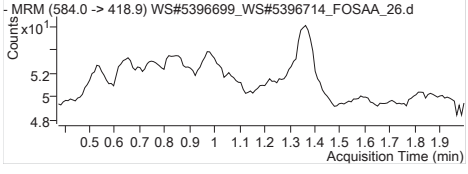


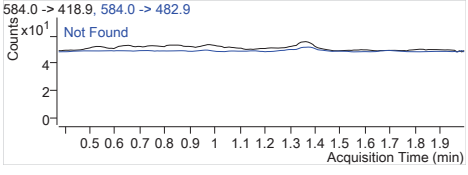
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.111 (1.121)
Concentration: 1 µg/L
Sample type: Sample



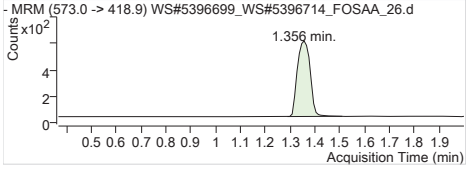


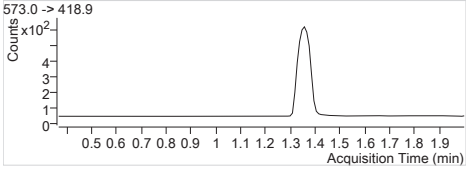
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.358)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



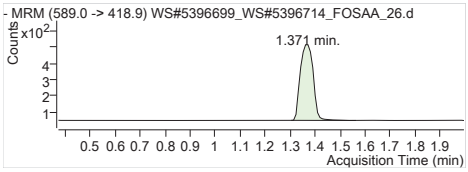


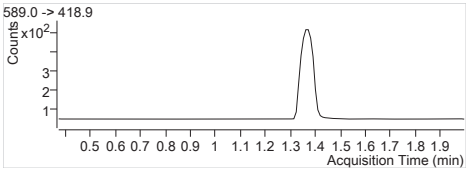
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.373)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



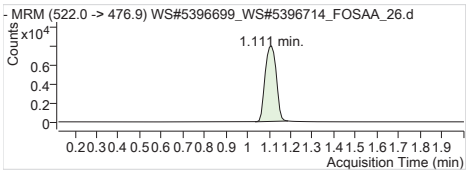


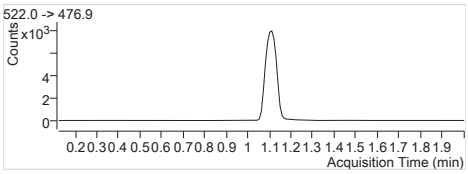
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 126.41 µg/L
Area ratio: 0.06959
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	119.50 µg/L
Area ratio:	0.05729
Sample type:	Sample



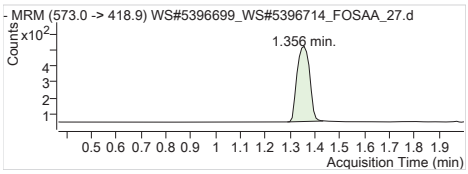


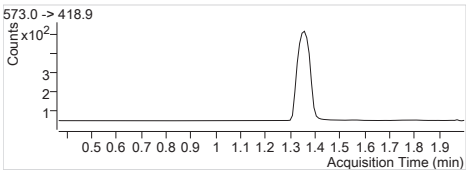
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.111 (1.121)
Calc. conc.	2.57 µg/L
Area ratio:	0
Sample type:	Sample

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**5396699:FZH334-01:10x**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_27.d	**Operator**	
Sample Type	Sample	**Dilution**	0.24
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-C7
Acq. Date	2018/02/15 11:39:30 AM	**Injection Volume**	Per Method
Sample Annotation	Not Used		

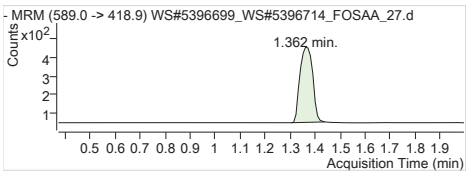
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1658	1.36	1 µg/L		
D5-EtFOSAA IS	1428	1.36	1 µg/L		
13C9-PFDA IS	25375	1.10	1 µg/L		

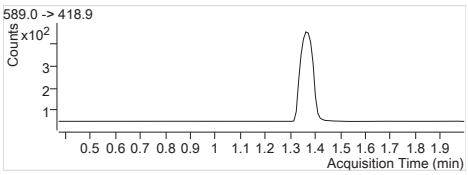
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1687	1.36	-	120.77 µg/L	-
D5-EtFOSAA	1451	1.36	-	119.28 µg/L	-
13C9-PFDA	24812	1.10	-	22.42 µg/L	-



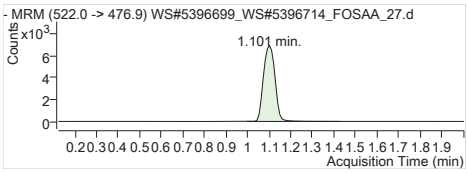


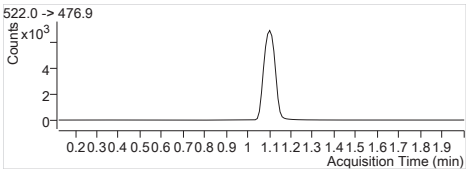
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Sample



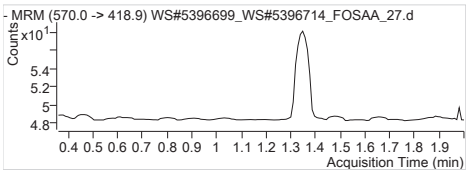


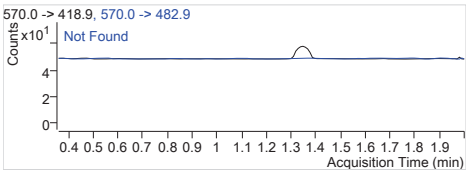
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: Sample



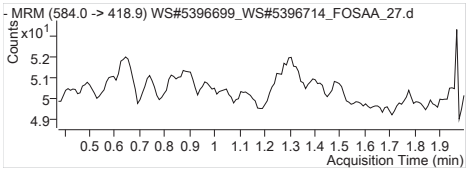


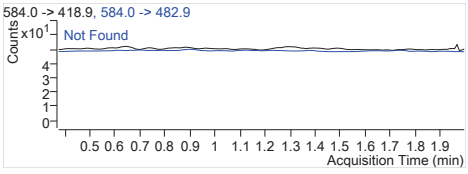
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: Sample



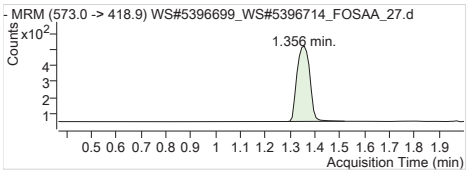


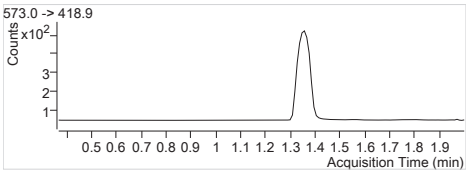
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.358)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



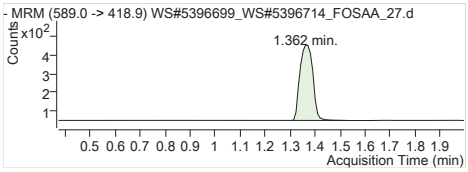


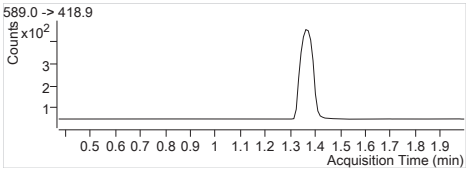
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.373)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



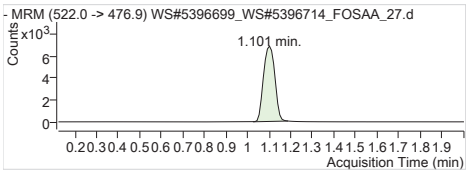


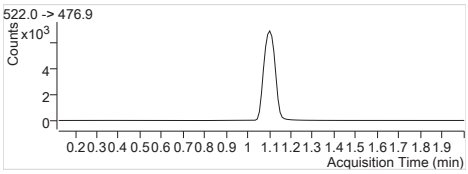
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 120.77 µg/L
Area ratio: 0.06648
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	119.28 µg/L
Area ratio:	0.05718
Sample type:	Sample



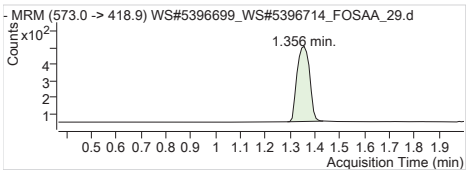


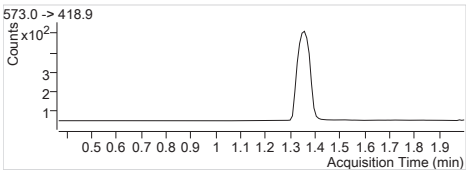
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	22.42 µg/L
Area ratio:	0
Sample type:	Sample

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**5396699:FZH338-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_29.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-C9
Acq. Date	2018/02/15 11:44:20 AM	**Injection Volume**	Per Method
Sample Annotation	-		

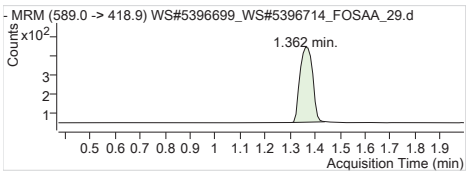
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1614	1.36	1 µg/L		
D5-EtFOSAA IS	1381	1.36	1 µg/L		
13C9-PFDA IS	25425	1.10	1 µg/L		

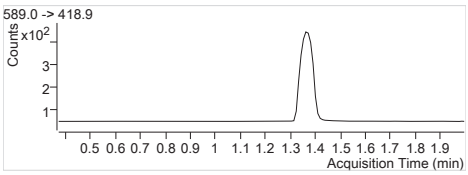
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1626	1.36	-	116.17 µg/L	-
D5-EtFOSAA	1406	1.36	-	115.36 µg/L	-
13C9-PFDA	24852	1.10	-	2.25 µg/L	-



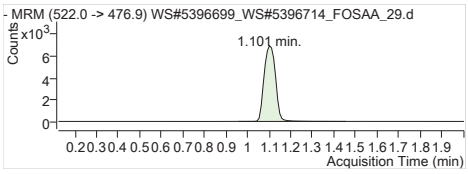


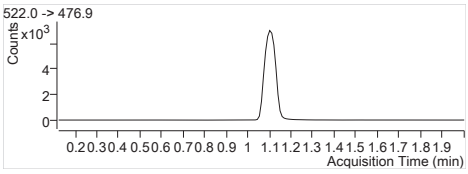
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Sample



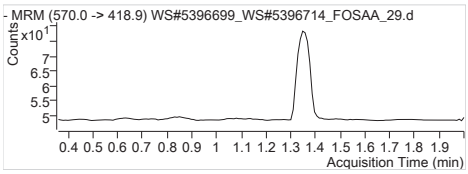


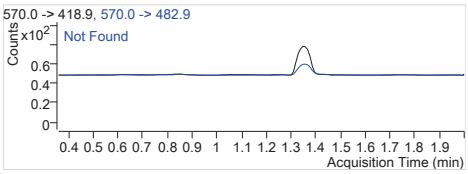
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: Sample



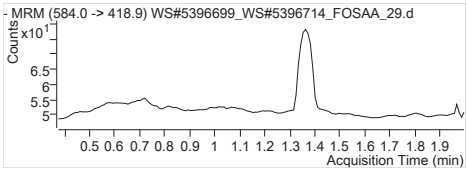


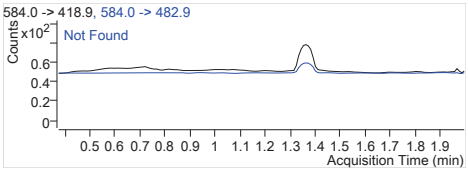
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: Sample



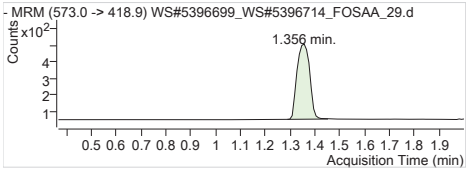


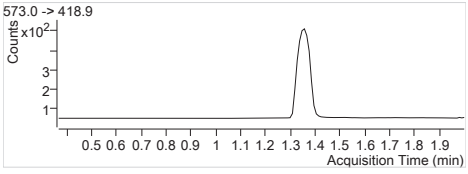
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.358)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



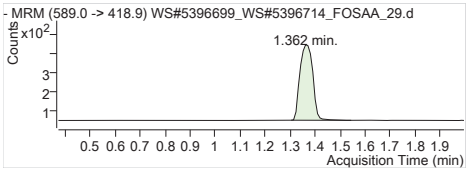


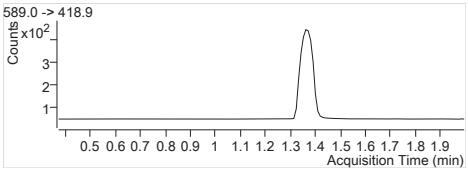
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.373)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



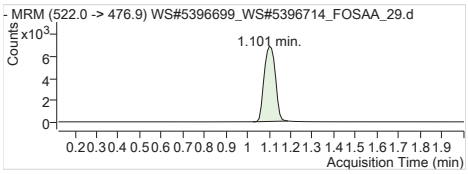


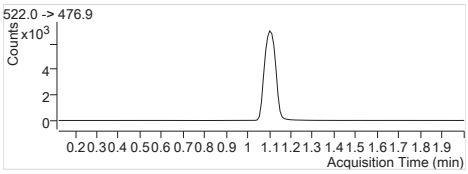
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 116.17 µg/L
Area ratio: 0.06395
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	115.36 µg/L
Area ratio:	0.05530
Sample type:	Sample



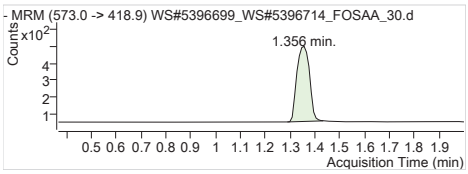


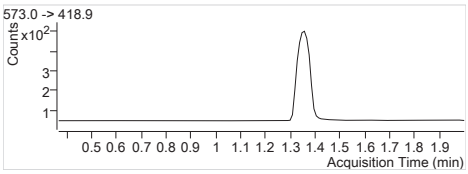
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	2.25 µg/L
Area ratio:	0
Sample type:	Sample

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**5396699:FZH339-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_30.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D1
Acq. Date	2018/02/15 11:46:45 AM	**Injection Volume**	Per Method
Sample Annotation	-		

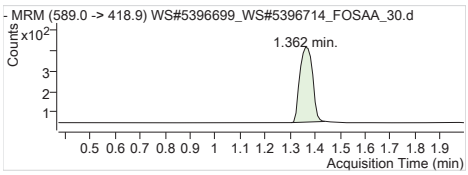
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1584	1.36	1 µg/L		
D5-EtFOSAA IS	1284	1.36	1 µg/L		
13C9-PFDA IS	25622	1.10	1 µg/L		

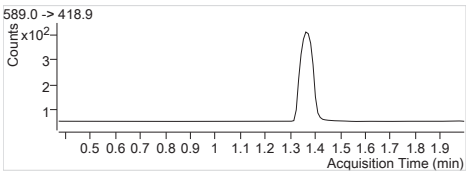
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1608	1.36	-	114.00 µg/L	-
D5-EtFOSAA	1323	1.36	-	107.71 µg/L	-
13C9-PFDA	25111	1.10	-	2.27 µg/L	-



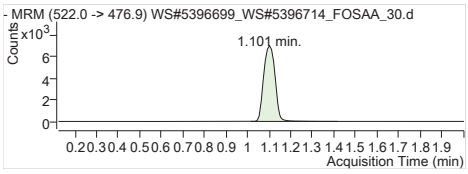


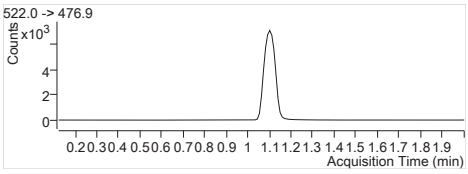
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Sample



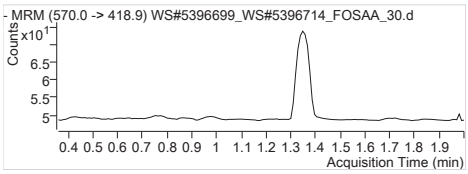


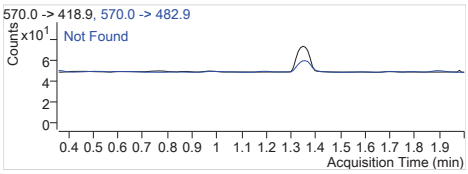
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: Sample



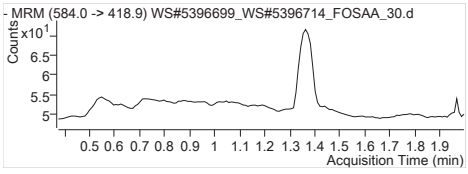


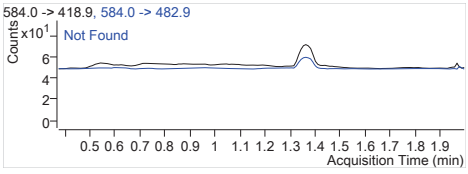
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: Sample



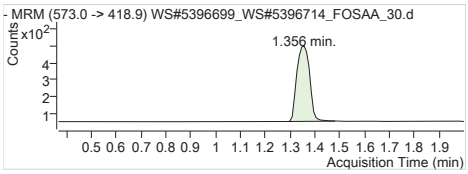


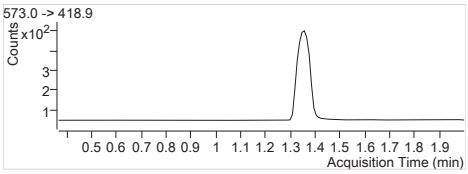
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.358)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



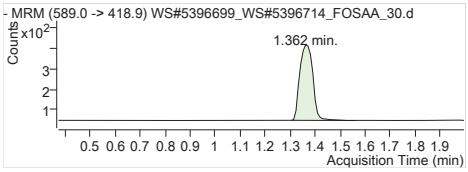


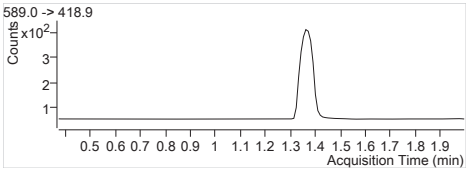
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.373)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



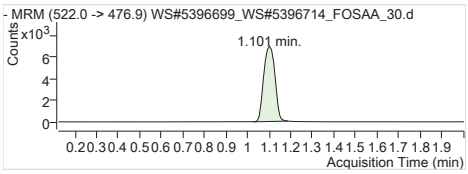


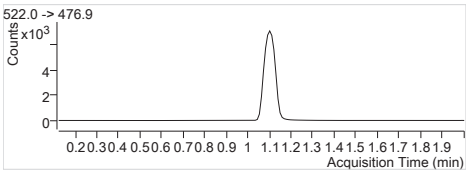
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 114.00 µg/L
Area ratio: 0.06276
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	107.71 µg/L
Area ratio:	0.05164
Sample type:	Sample



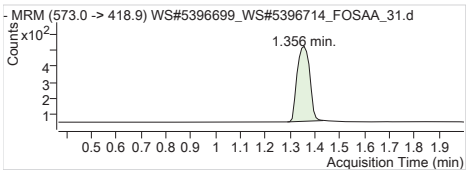


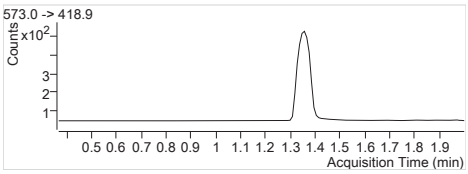
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	2.27 µg/L
Area ratio:	0
Sample type:	Sample

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**5396699:FZH340-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_31.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D2
Acq. Date	2018/02/15 11:49:07 AM	**Injection Volume**	Per Method
Sample Annotation	-		

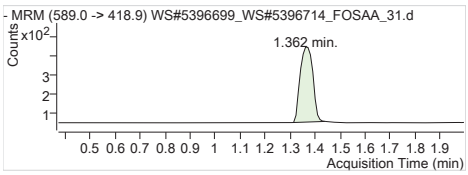
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1667	1.36	1 µg/L		
D5-EtFOSAA IS	1391	1.36	1 µg/L		
13C9-PFDA IS	25495	1.10	1 µg/L		

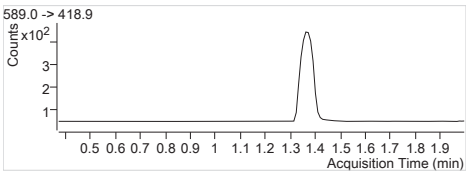
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1710	1.36	-	121.84 µg/L	-
D5-EtFOSAA	1427	1.36	-	116.76 µg/L	-
13C9-PFDA	24945	1.10	-	2.25 µg/L	-



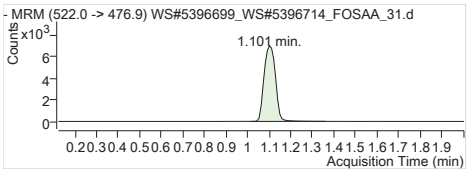


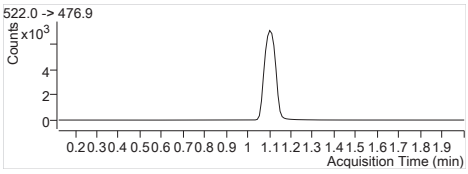
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Sample



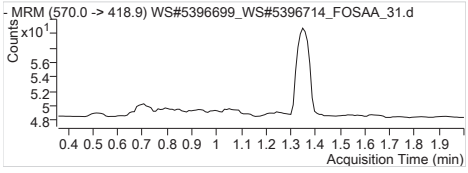


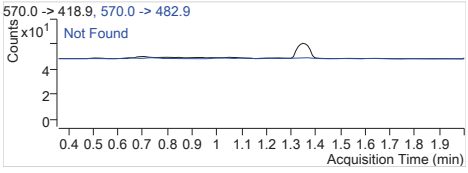
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: Sample



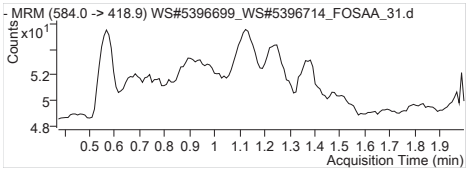


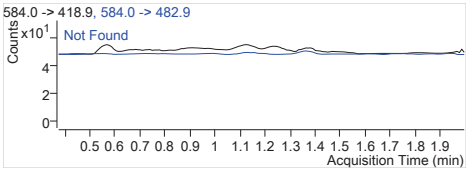
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: Sample



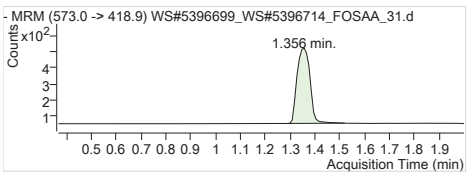


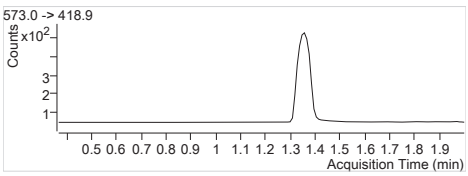
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.358)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



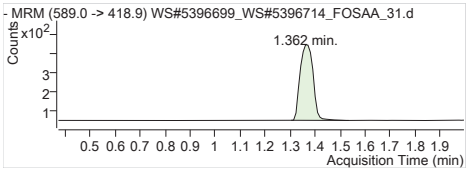


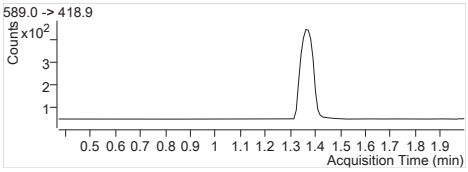
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.373)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



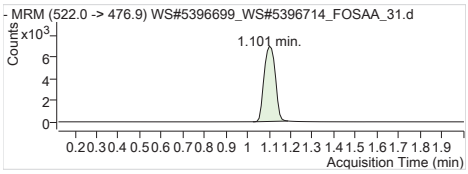


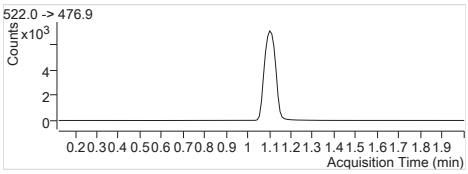
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 121.84 µg/L
Area ratio: 0.06707
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	116.76 µg/L
Area ratio:	0.05597
Sample type:	Sample



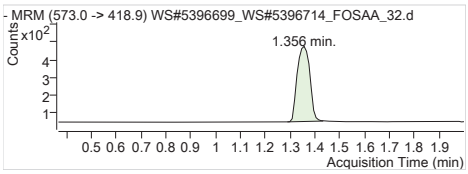


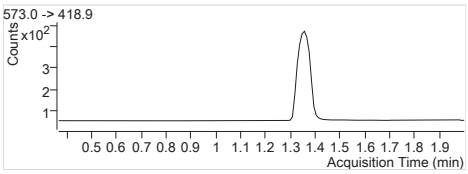
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	2.25 µg/L
Area ratio:	0
Sample type:	Sample

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**5396699:FZH341-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_32.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D3
Acq. Date	2018/02/15 11:51:31 AM	**Injection Volume**	Per Method
Sample Annotation	-		

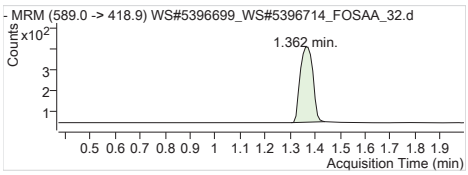
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1500	1.36	1 µg/L		
D5-EtFOSAA IS	1281	1.36	1 µg/L		
13C9-PFDA IS	28358	1.10	1 µg/L		

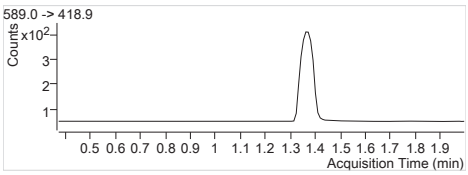
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1518	1.36	-	97.24 µg/L	-
D5-EtFOSAA	1291	1.36	-	94.97 µg/L	-
13C9-PFDA	27725	1.10	-	2.51 µg/L	-



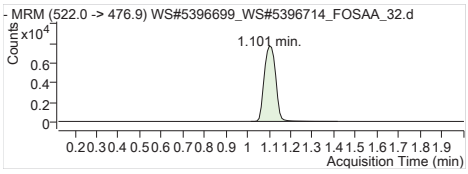


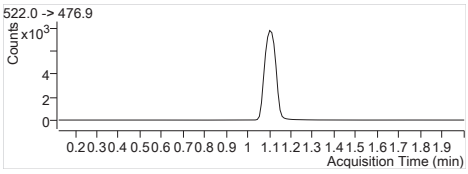
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Sample



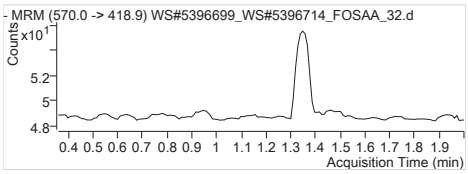


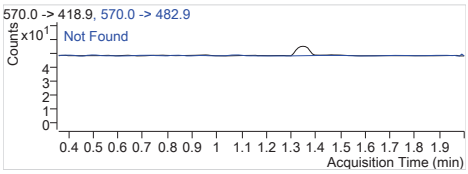
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: Sample



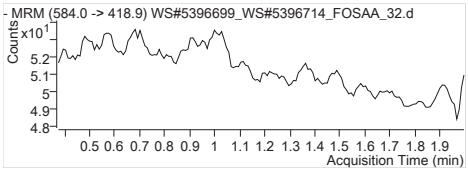


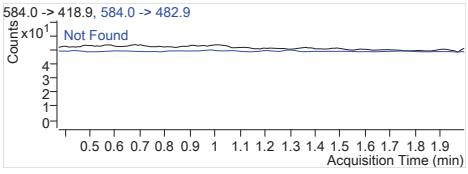
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: Sample



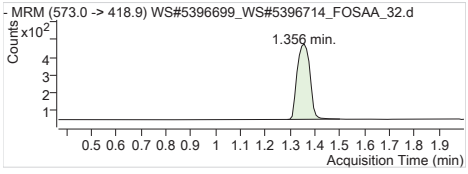


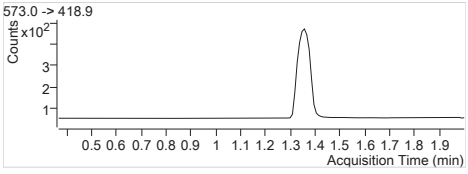
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.358)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



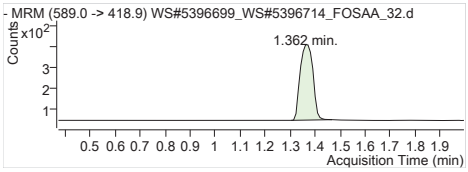


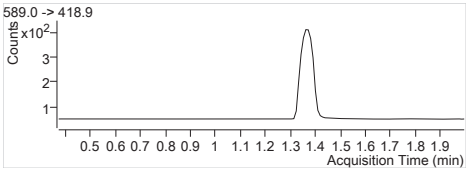
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.373)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



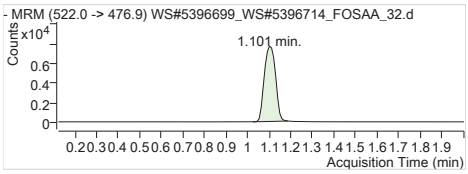


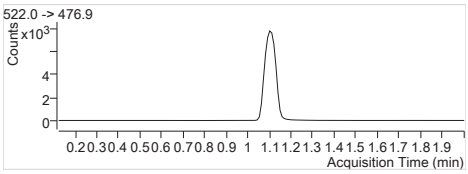
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 97.24 µg/L
Area ratio: 0.05353
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	94.97 µg/L
Area ratio:	0.04553
Sample type:	Sample



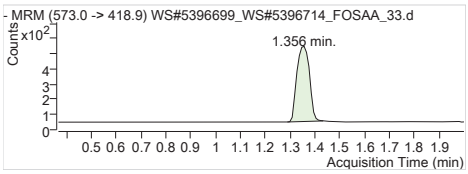


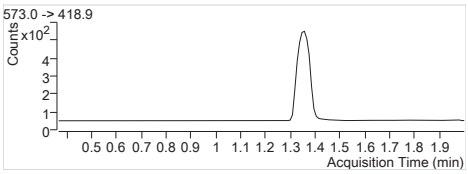
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	2.51 µg/L
Area ratio:	0
Sample type:	Sample

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**5396699:FZH342-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_33.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D4
Acq. Date	2018/02/15 11:53:54 AM	**Injection Volume**	Per Method
Sample Annotation	-		

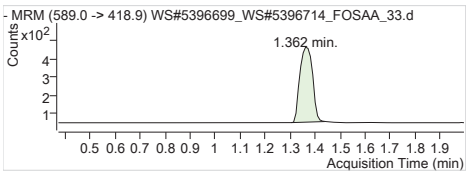
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1760	1.36	1 µg/L		
D5-EtFOSAA IS	1455	1.36	1 µg/L		
13C9-PFDA IS	26611	1.10	1 µg/L		

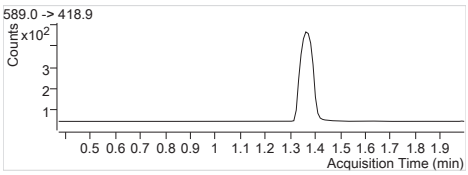
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1802	1.36	-	123.01 µg/L	-
D5-EtFOSAA	1485	1.36	-	116.41 µg/L	-
13C9-PFDA	26081	1.10	-	2.36 µg/L	-



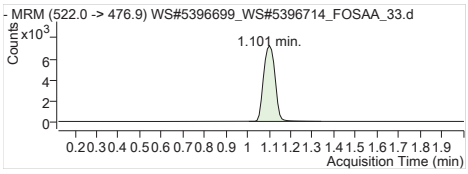


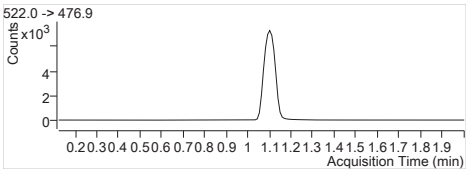
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Sample



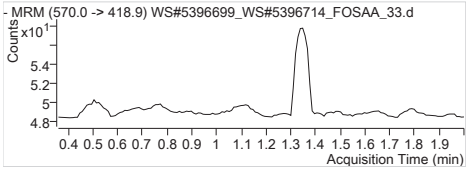


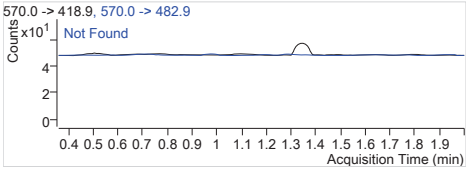
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: Sample



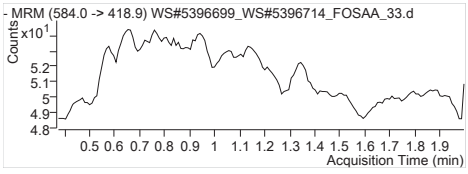


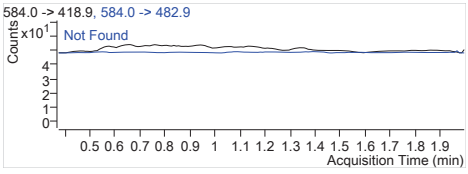
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: Sample



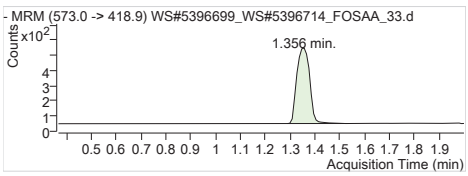


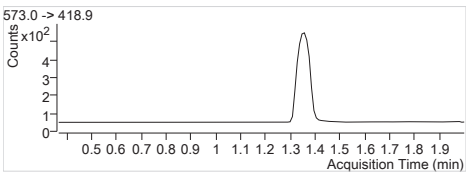
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.358)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



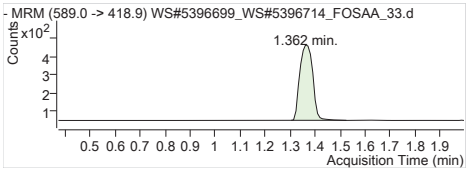


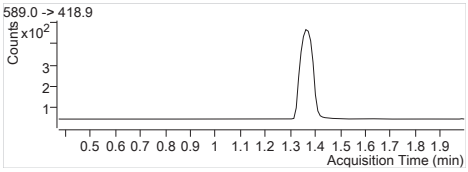
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.373)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



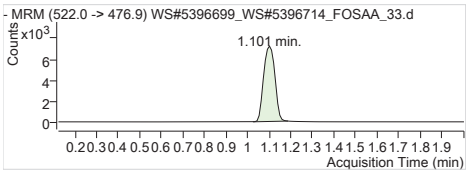


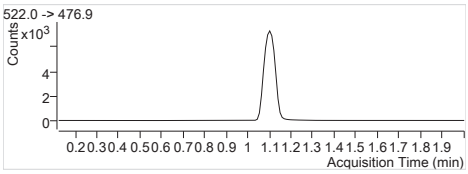
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 123.01 µg/L
Area ratio: 0.06772
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	116.41 µg/L
Area ratio:	0.05580
Sample type:	Sample



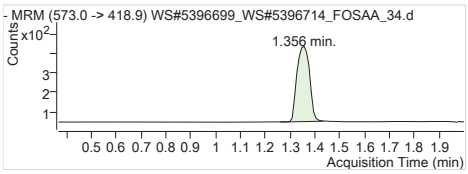


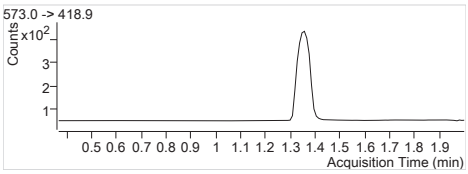
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	2.36 µg/L
Area ratio:	0
Sample type:	Sample

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**5396699:FZH343-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_34.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D5
Acq. Date	2018/02/15 11:56:19 AM	**Injection Volume**	Per Method
Sample Annotation	-		

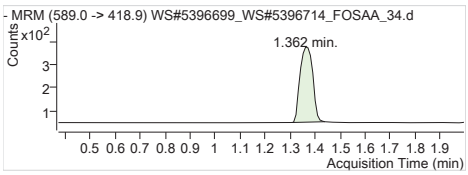
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1360	1.36	1 µg/L		
D5-EtFOSAA IS	1148	1.36	1 µg/L		
13C9-PFDA IS	26091	1.10	1 µg/L		

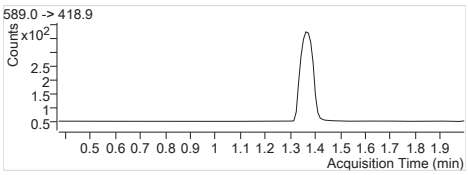
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1363	1.36	-	94.89 µg/L	-
D5-EtFOSAA	1163	1.36	-	92.98 µg/L	-
13C9-PFDA	25546	1.10	-	2.31 µg/L	-



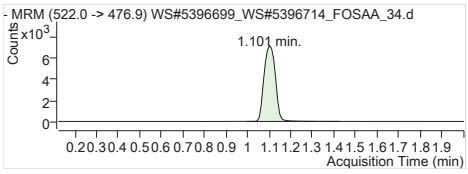


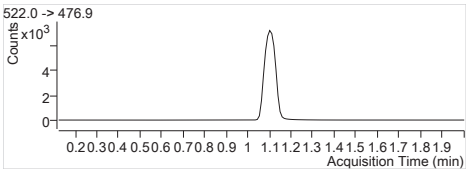
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Sample



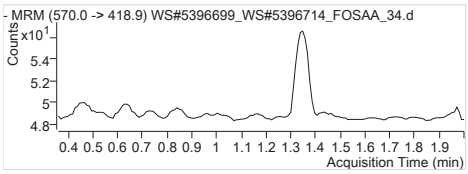


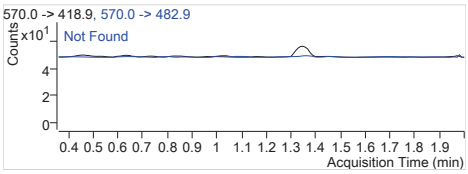
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: Sample



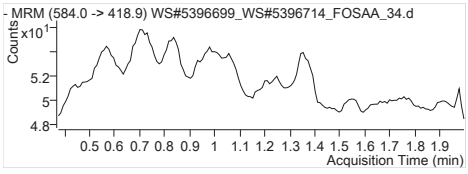


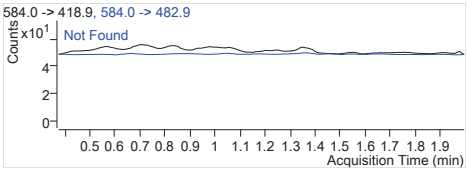
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: Sample



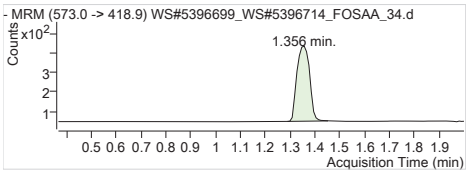


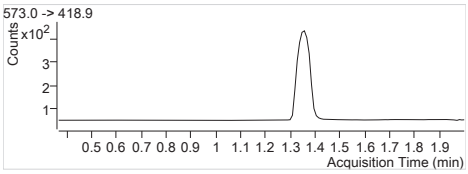
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.358)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



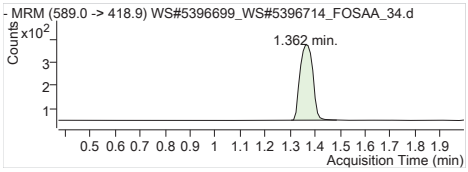


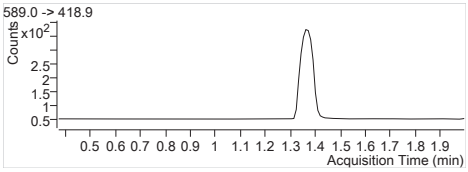
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.373)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



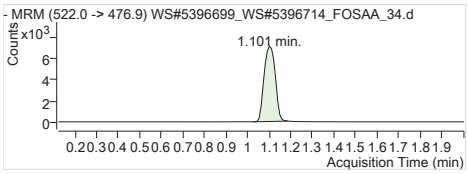


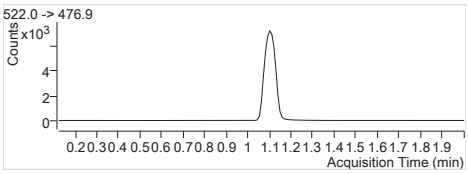
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 94.89 µg/L
Area ratio: 0.05224
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	92.98 µg/L
Area ratio:	0.04457
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	2.31 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

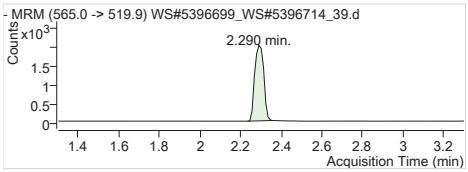
Agilent Technologies

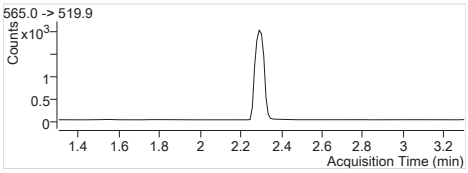
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**5396714:FZH337-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_39.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D9
Acq. Date	2018/02/15 7:18:23 PM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFDoA, PFUnA , PFTeDA only.		

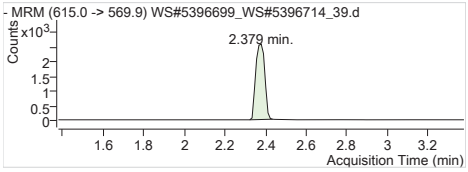
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6179	2.29	1 µg/L		
MPFDoA	7897	2.38	1 µg/L		
MPFTeDA	6260	2.51	1 µg/L		
13C9-PFDA IS	24522	2.20	1 µg/L		

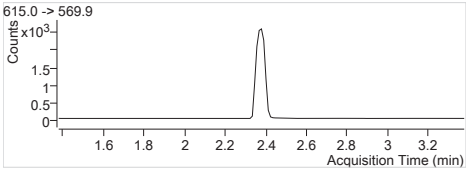
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFUnA	6179	2.29	-	107.18 µg/L	-
13C2-PFDoA	7897	2.38	-	105.23 µg/L	-
13C2-PFTeDA	6290	2.51	-	94.82 µg/L	-
13C9-PFDA	24522	2.20	-	2.42 µg/L	-



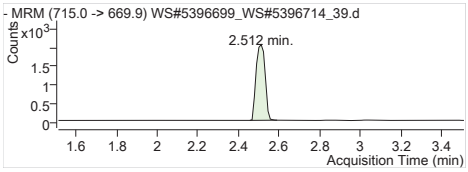


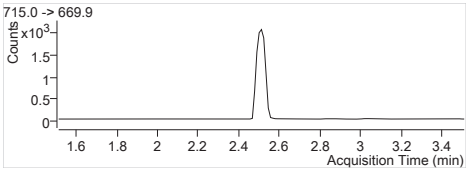
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: Sample



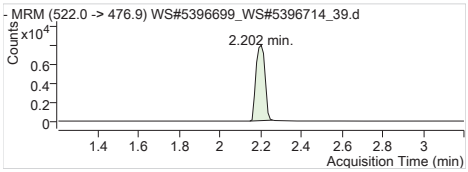


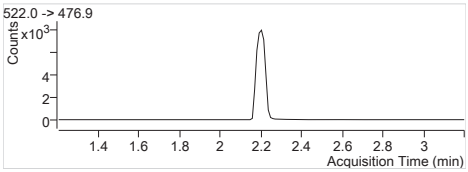
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Sample



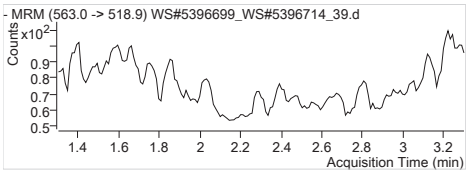


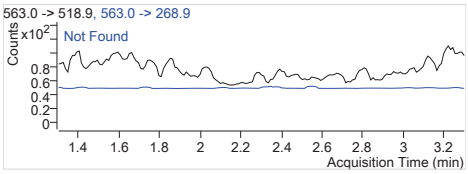
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Sample



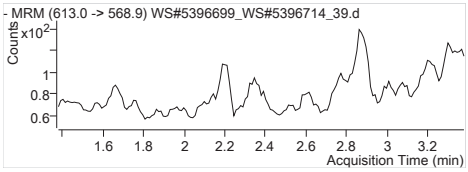


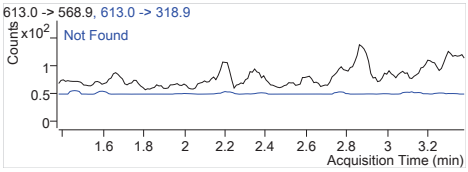
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Sample



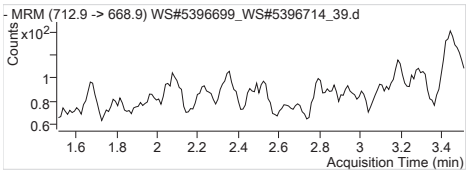


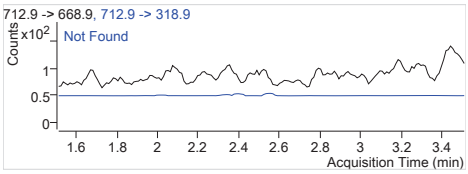
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.302)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



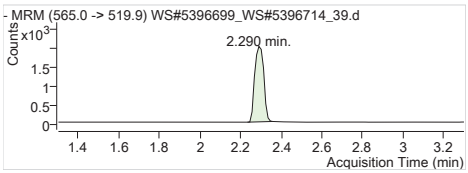


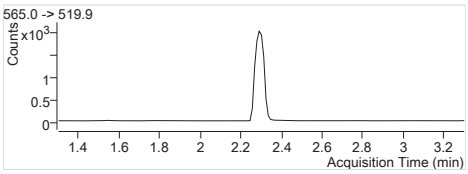
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.379)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



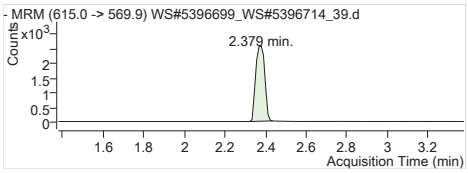


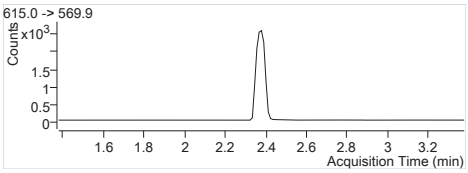
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.512)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



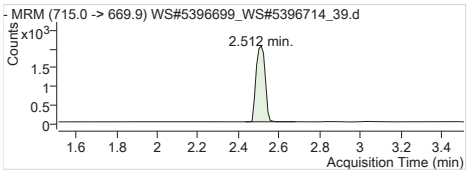


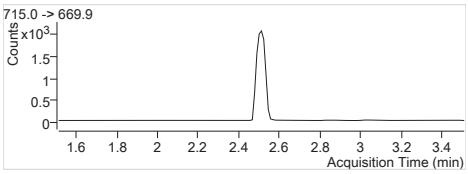
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.290 (2.302)
Calc. conc.	107.18 µg/L
Area ratio:	0.25198
Sample type:	Sample



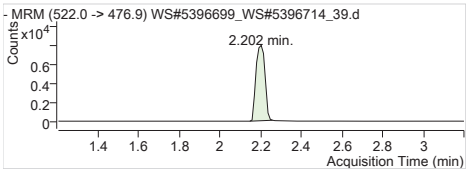


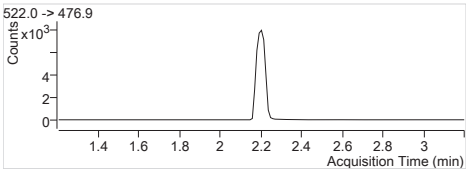
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	105.23 µg/L
Area ratio:	0.32204
Sample type:	Sample





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	94.82 µg/L
Area ratio:	0.25650
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.42 µg/L
Area ratio:	0
Sample type:	Sample

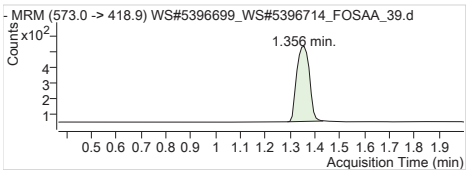
Quantitation Results

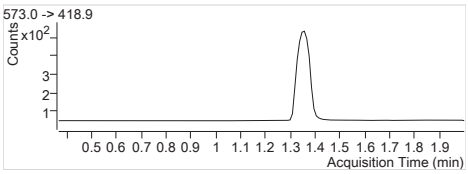
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	**5396714:FZH337-01**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_39.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D9
Acq. Date	2018/02/15 12:08:24 PM	**Injection Volume**	Per Method
Sample Annotation	-		

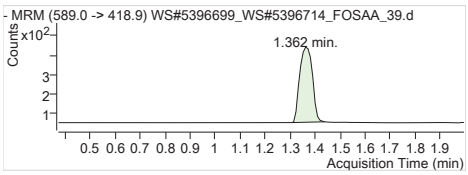
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1708	1.36	1 µg/L		
D5-EtFOSAA IS	1376	1.36	1 µg/L		
13C9-PFDA IS	25937	1.10	1 µg/L		

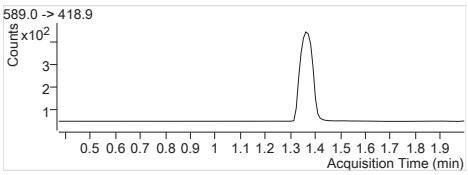
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1730	1.36	-	121.16 µg/L	-
D5-EtFOSAA	1390	1.36	-	111.79 µg/L	-
13C9-PFDA	25346	1.10	-	2.29 µg/L	-



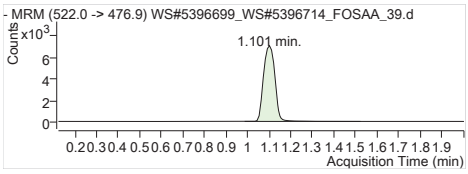


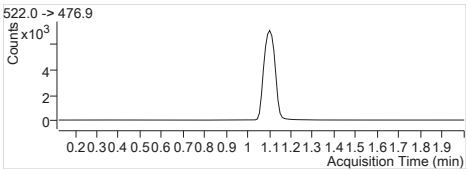
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Sample



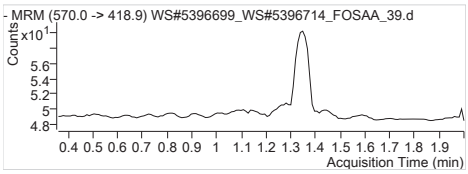


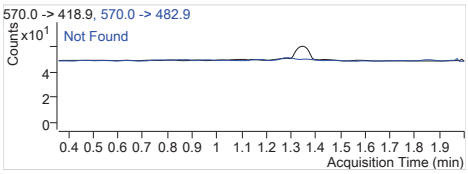
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: Sample



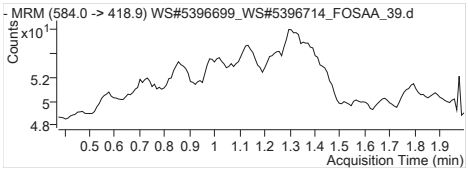


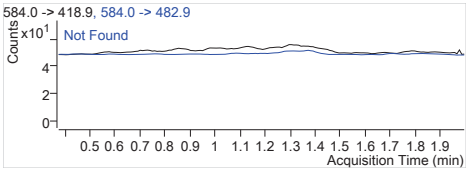
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: Sample



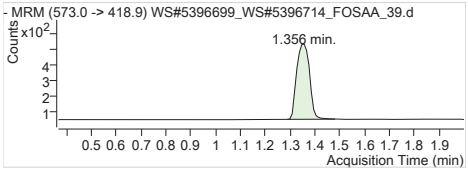


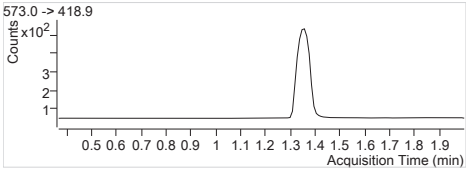
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.358)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



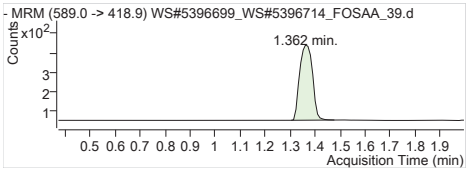


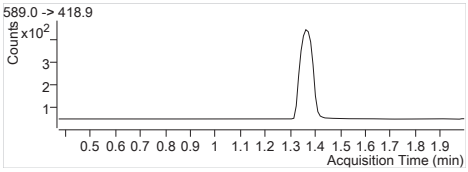
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.373)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



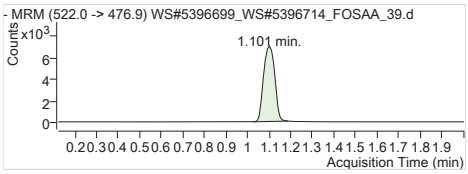


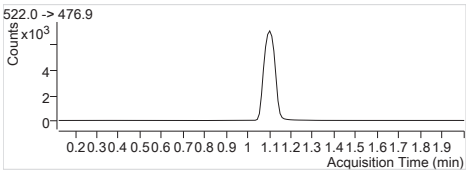
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 121.16 µg/L
Area ratio: 0.06670
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	111.79 µg/L
Area ratio:	0.05359
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	2.29 µg/L
Area ratio:	0
Sample type:	Sample



4. QA/QC Data

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

Quantitation Results

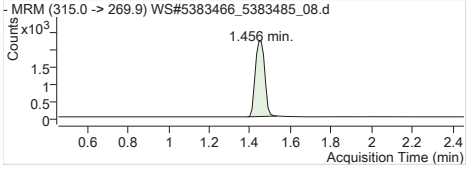
Agilent Technologies

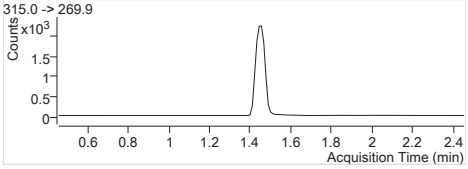
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-A8
Acq. Date	2018/02/06 6:41:25 PM	**Injection Volume**	Per Method
Sample Annotation	-		

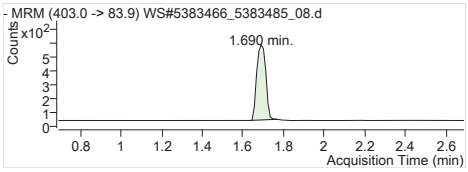
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7067	1.46	1 µg/L		
MPFHxS	1679	1.69	1 µg/L		
MPFHpA	8797	1.71	1 µg/L		
MPFOA	8726	1.89	1 µg/L		
MPFOS	2052	1.99	1 µg/L		
MPFNA	9059	2.04	1 µg/L		
MPFDA	7282	2.15	1 µg/L		
MPFUnA	8608	2.25	1 µg/L		
MPFDoA	11464	2.33	1 µg/L		
MPFTeDA	13573	2.48	1 µg/L		
13C6-PFHxA IS	29106	1.46	1 µg/L		
13C9-PFDA IS	37296	2.15	1 µg/L		

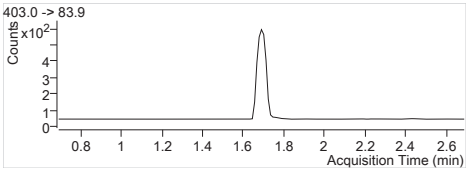
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	7067	1.46	-	102.48 µg/L	-
18O2-PFHxS	1679	1.69	-	99.27 µg/L	-
13C4-PFHpA	8797	1.71	-	103.45 µg/L	-
13C4-PFOA	8726	1.89	-	95.51 µg/L	-
13C4-PFOS	2052	1.99	-	102.14 µg/L	-
13C5-PFNA	8984	2.04	-	99.80 µg/L	-
13C2-PFDA	7172	2.15	-	95.83 µg/L	-
13C2-PFUnA	8608	2.25	-	95.42 µg/L	-
13C2-PFDoA	11464	2.33	-	95.48 µg/L	-
13C2-PFTeDA	14048	2.48	-	102.69 µg/L	-
13C6-PFHxA	29106	1.46	-	2.46 µg/L	-
13C9-PFDA	37296	2.15	-	2.50 µg/L	-



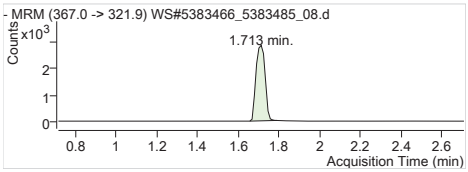


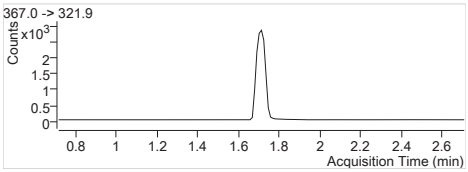
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Sample



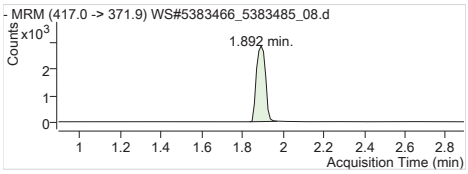


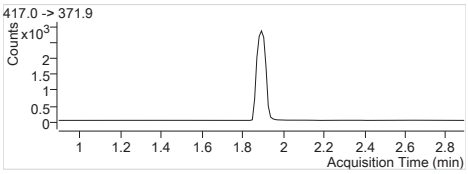
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



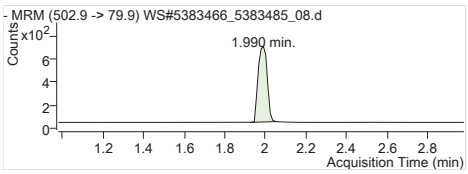


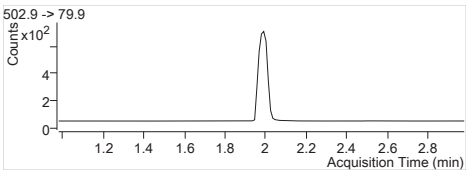
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



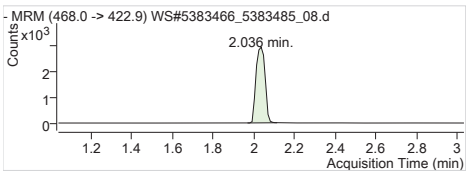


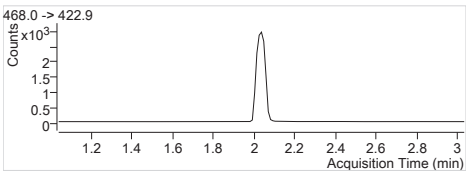
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



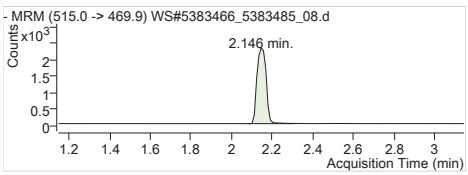


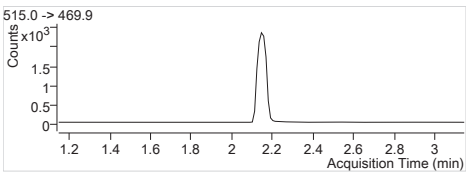
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Sample



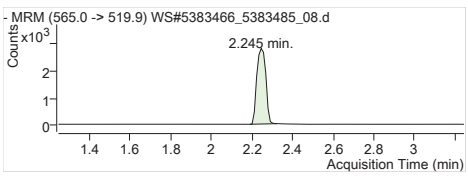


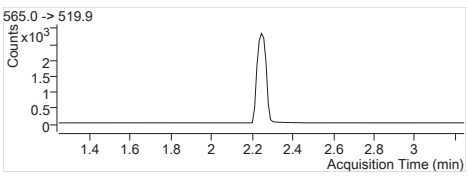
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



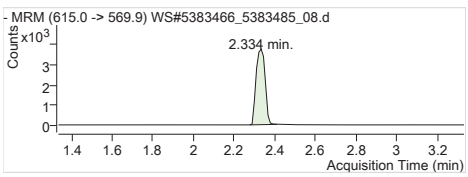


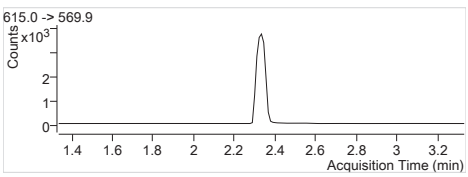
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



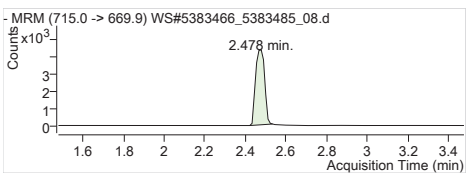


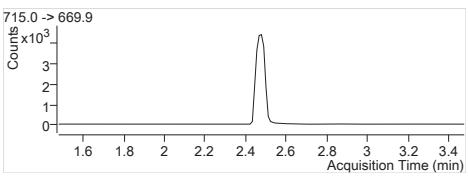
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



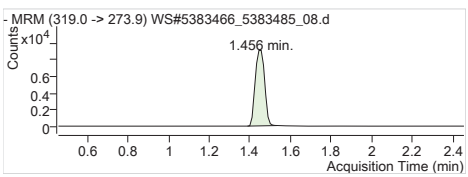


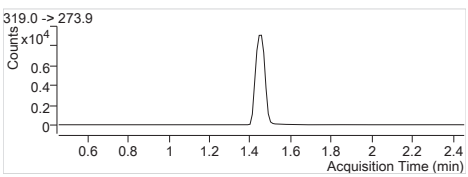
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Sample



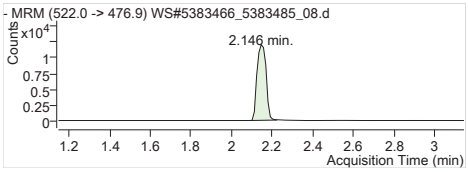


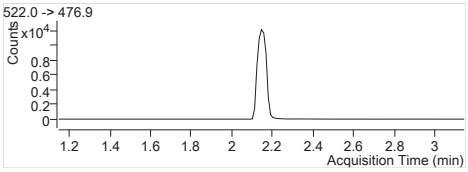
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Sample



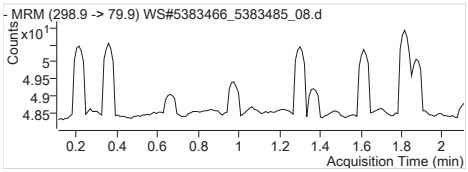


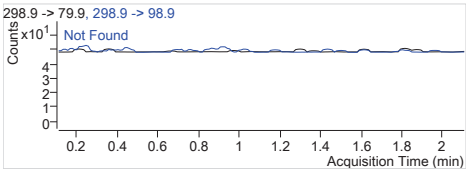
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



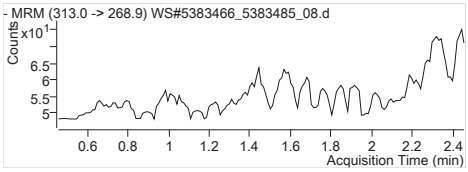


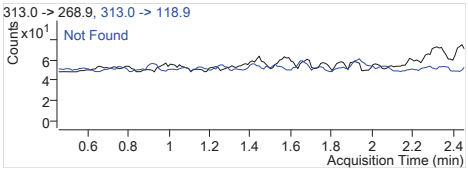
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



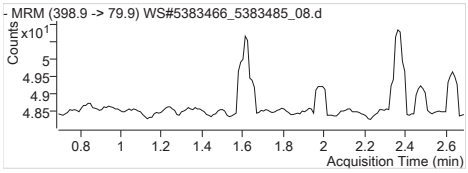


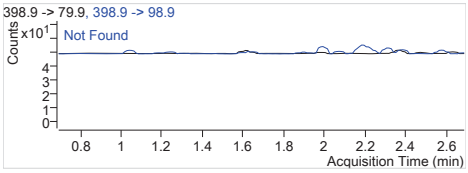
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.109)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



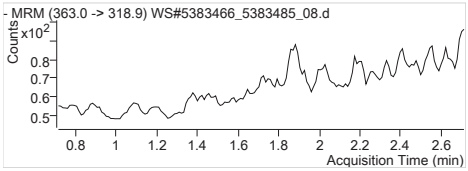


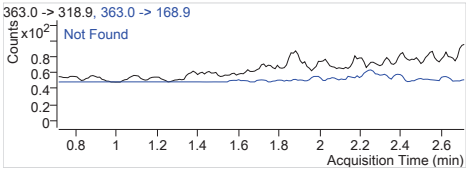
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.456)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



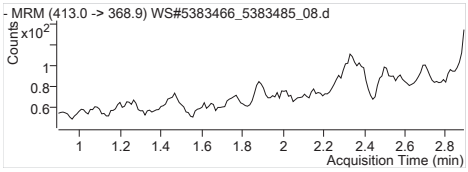


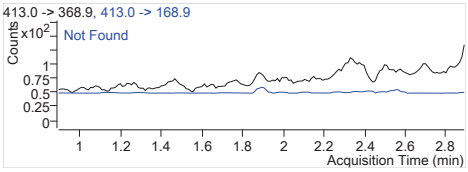
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



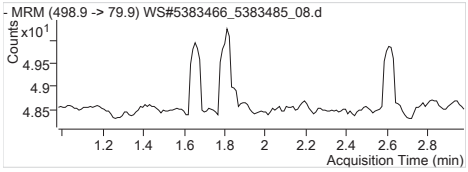


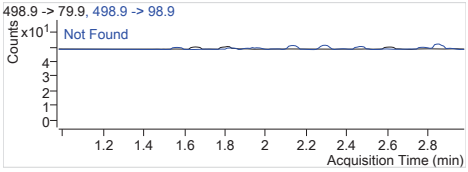
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.713)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



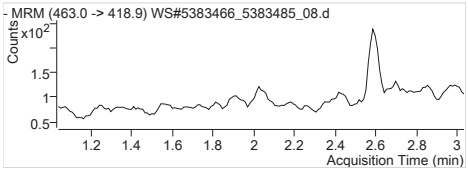


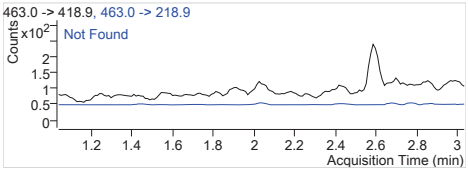
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.892)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



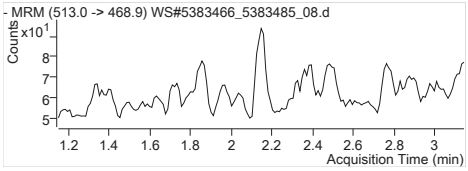


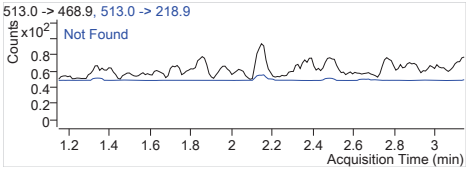
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



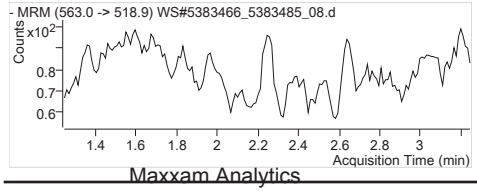


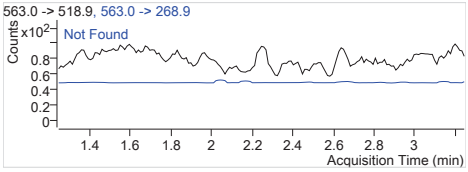
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.036)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



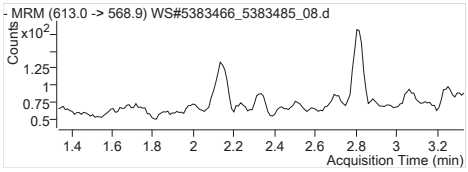


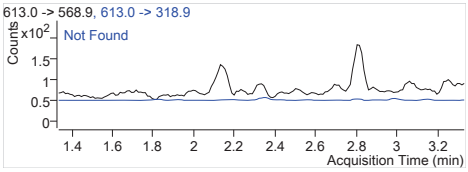
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



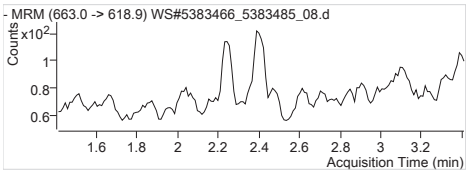


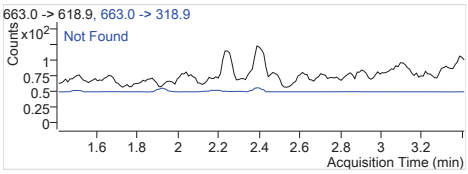
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



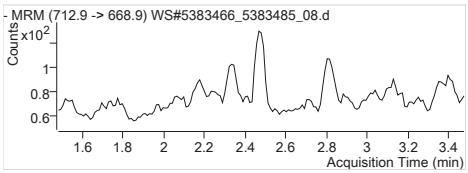


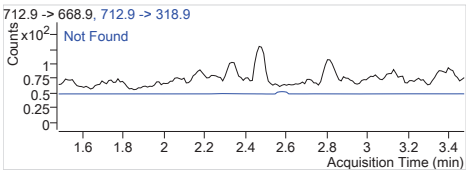
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



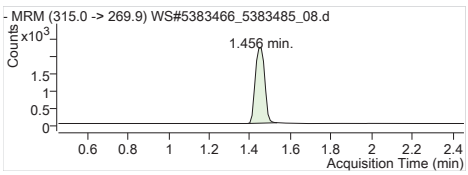


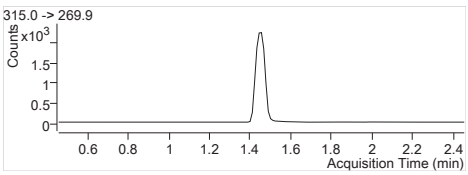
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.411)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



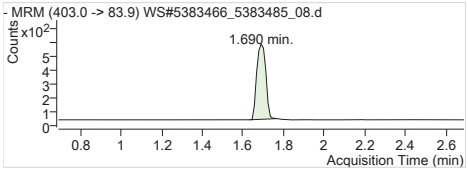


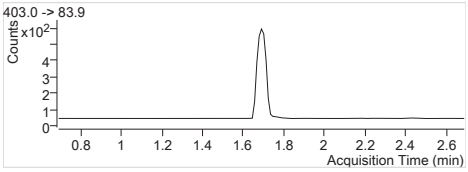
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.478)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



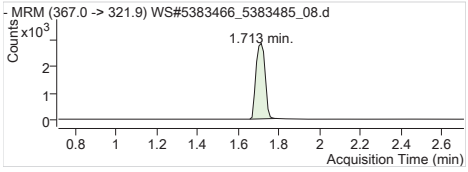


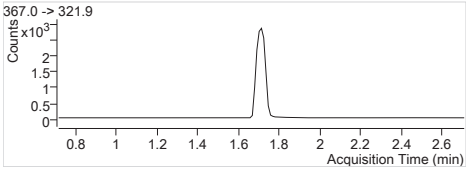
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 102.48 µg/L
Area ratio: 0.24280
Sample type: Sample



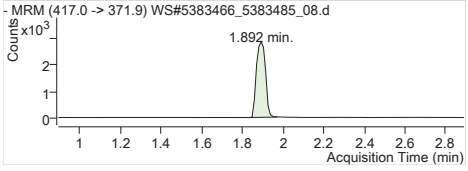


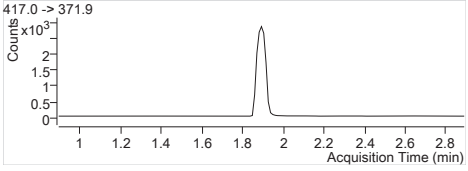
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 99.27 µg/L
Area ratio: 0.05769
Sample type: Sample



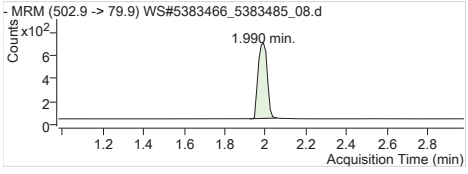


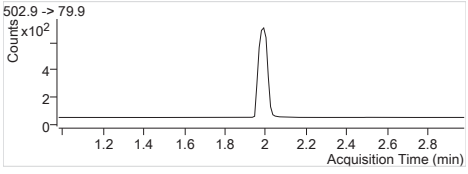
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 103.45 µg/L
Area ratio: 0.30224
Sample type: Sample



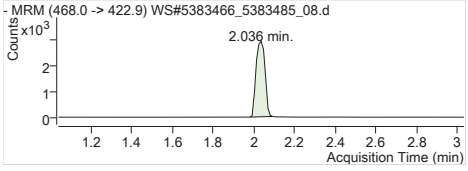


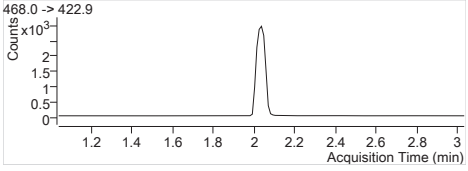
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 95.51 µg/L
Area ratio: 0.29980
Sample type: Sample



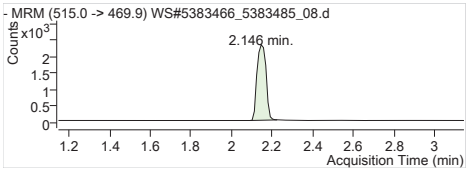


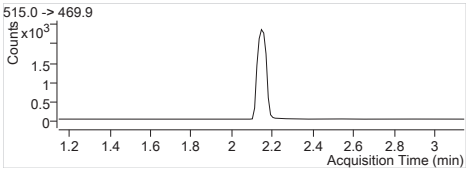
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 102.14 µg/L
Area ratio: 0.07050
Sample type: Sample



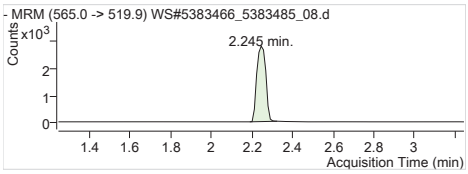


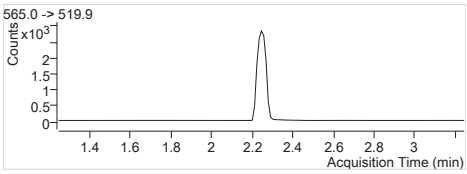
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 99.80 µg/L
Area ratio: 0.30866
Sample type: Sample



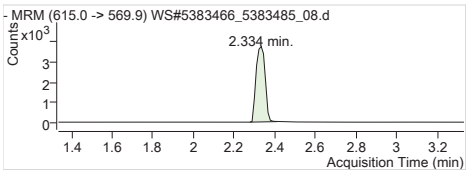


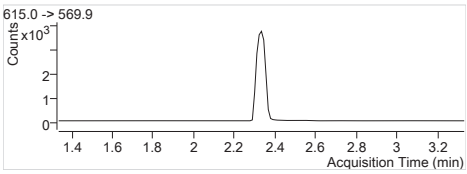
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 95.83 µg/L
Area ratio: 0.19230
Sample type: Sample



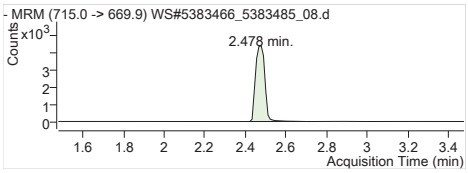


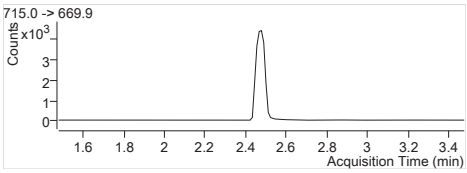
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 95.42 µg/L
Area ratio: 0.23080
Sample type: Sample



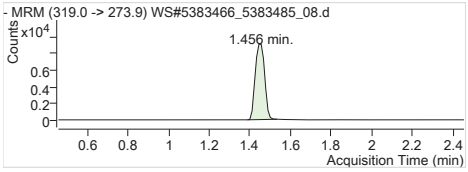


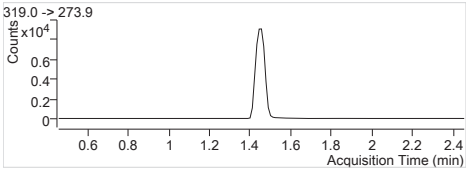
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 95.48 µg/L
Area ratio: 0.30738
Sample type: Sample



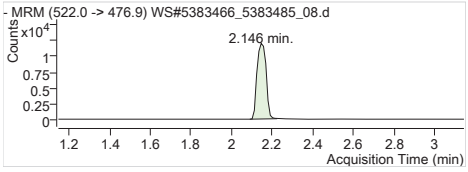


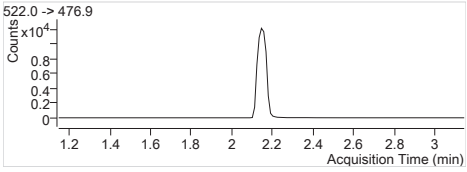
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 102.69 µg/L
Area ratio: 0.37666
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.46 µg/L
Area ratio: 0
Sample type: Sample





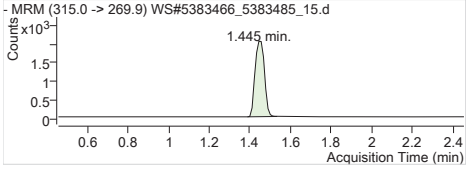
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.50 µg/L
Area ratio: 0
Sample type: Sample

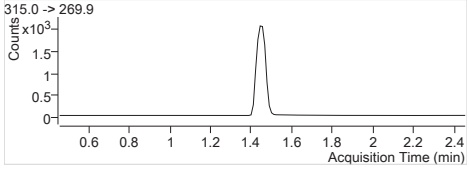
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_15.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-A8
Acq. Date	2018/02/06 7:16:04 PM	**Injection Volume**	Per Method
Sample Annotation	-		

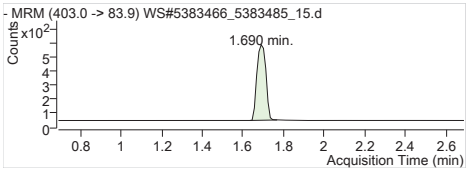
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6540	1.44	1 µg/L		
MPFHxS	1661	1.69	1 µg/L		
MPFHpA	8757	1.71	1 µg/L		
MPFOA	9555	1.89	1 µg/L		
MPFOS	2176	1.99	1 µg/L		
MPFNA	8851	2.04	1 µg/L		
MPFDA	7141	2.15	1 µg/L		
MPFUnA	8800	2.25	1 µg/L		
MPFDoA	12337	2.33	1 µg/L		
MPFTeDA	13282	2.48	1 µg/L		
13C6-PFHxA IS	26939	1.44	1 µg/L		
13C9-PFDA IS	38248	2.15	1 µg/L		

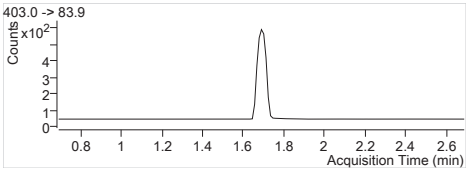
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6540	1.44	-	102.47 µg/L	-
18O2-PFHxS	1661	1.69	-	106.11 µg/L	-
13C4-PFHpA	8757	1.71	-	111.27 µg/L	-
13C4-PFOA	9555	1.89	-	113.00 µg/L	-
13C4-PFOS	2176	1.99	-	117.03 µg/L	-
13C5-PFNA	8770	2.04	-	105.26 µg/L	-
13C2-PFDA	7048	2.15	-	91.83 µg/L	-
13C2-PFUnA	8800	2.25	-	95.12 µg/L	-
13C2-PFDoA	12337	2.33	-	100.20 µg/L	-
13C2-PFTeDA	13617	2.48	-	97.06 µg/L	-
13C6-PFHxA	26939	1.44	-	2.27 µg/L	-
13C9-PFDA	38248	2.15	-	2.57 µg/L	-



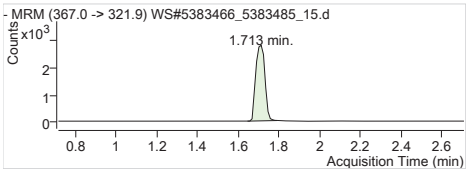


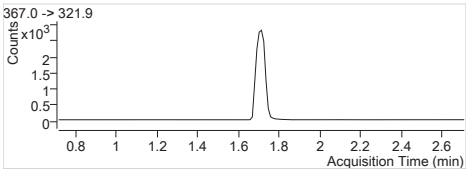
MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	Sample



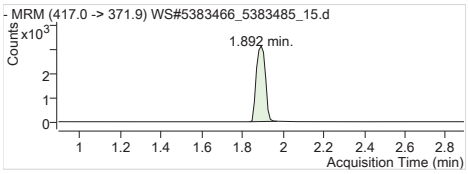


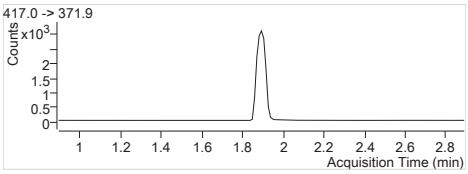
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



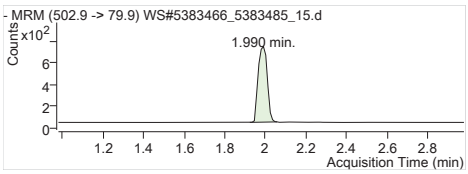


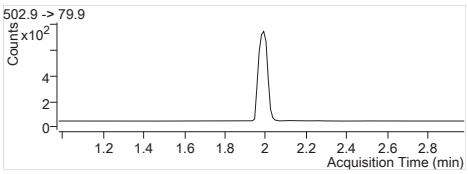
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



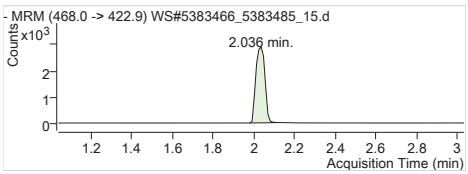


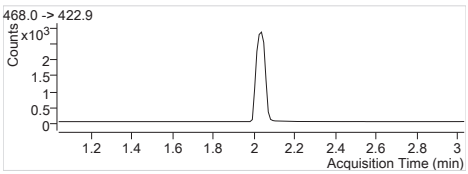
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



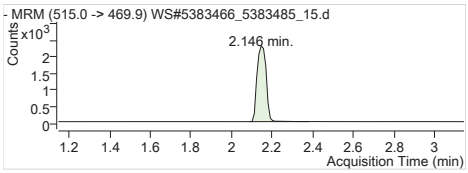


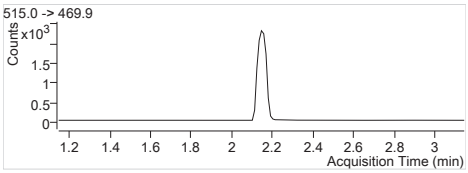
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Sample



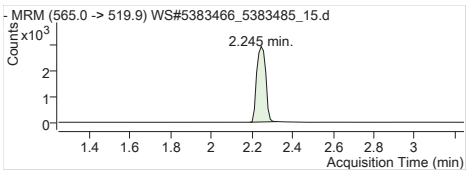


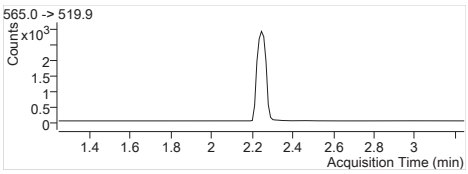
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



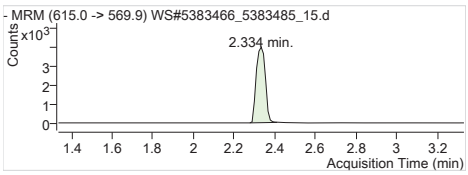


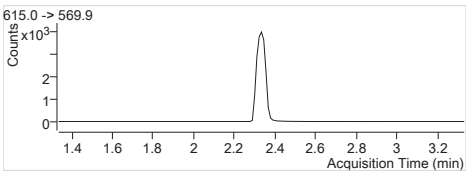
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



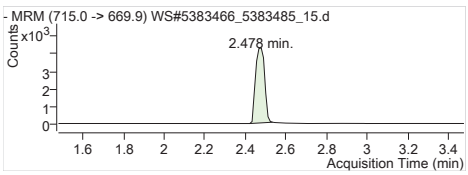


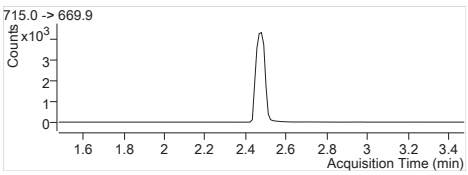
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



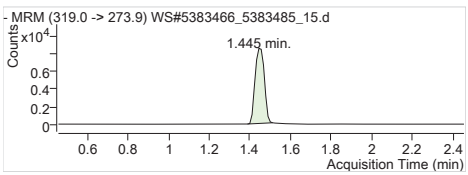


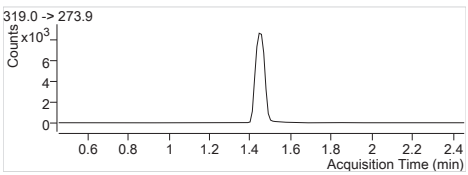
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Sample



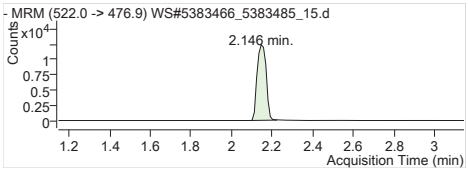


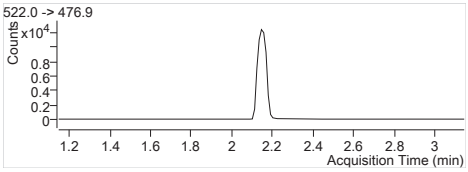
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Sample



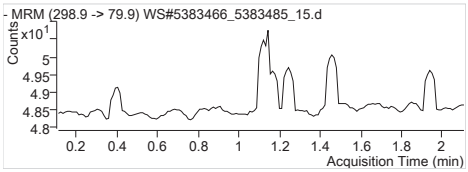


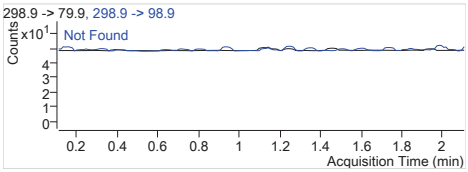
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Sample



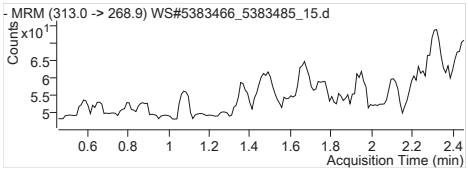


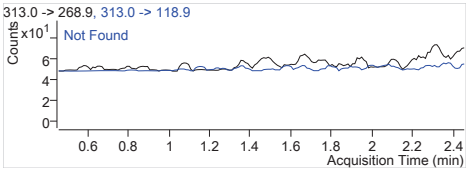
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



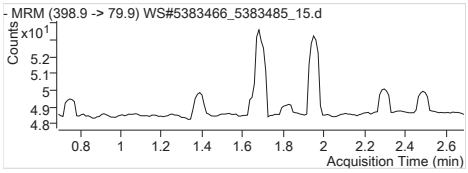


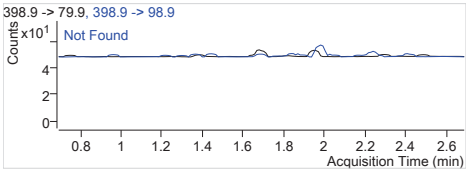
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.109)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



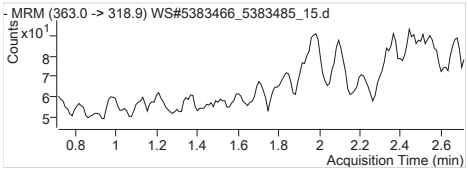


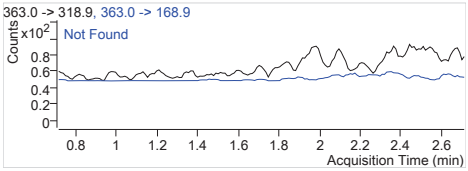
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.456)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



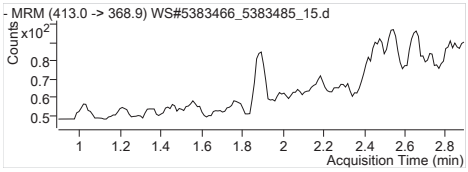


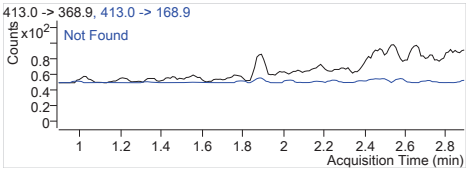
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



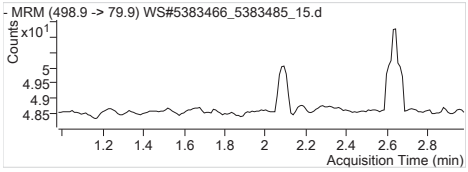


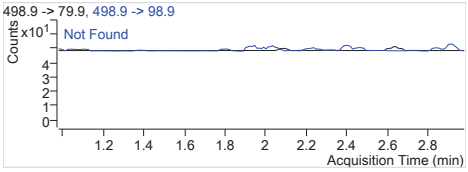
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.713)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



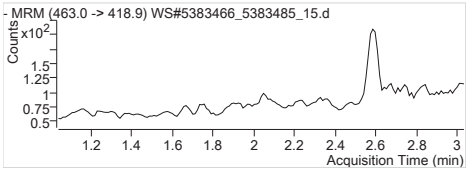


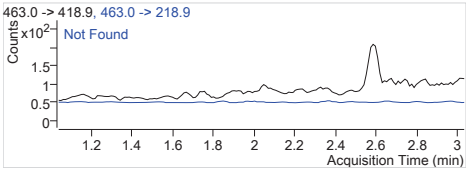
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.892)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



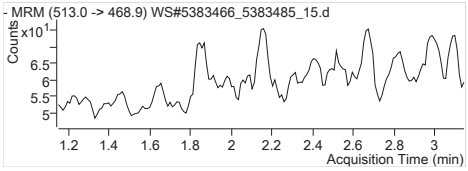


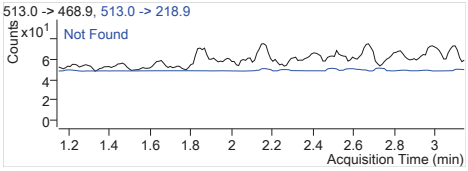
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



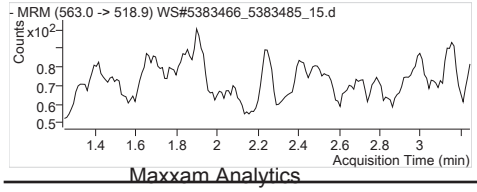


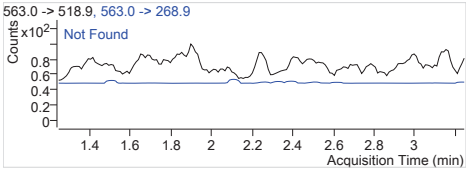
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.036)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



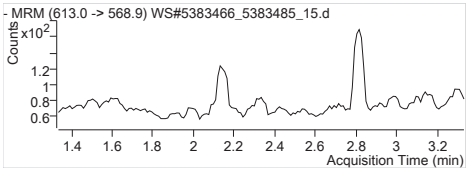


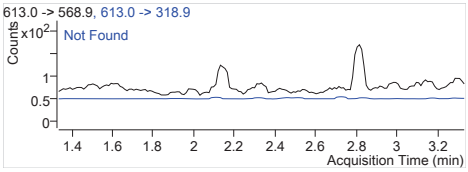
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



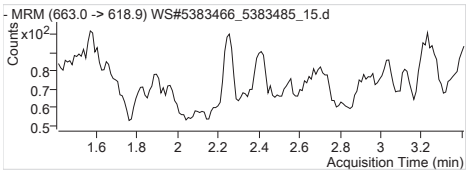


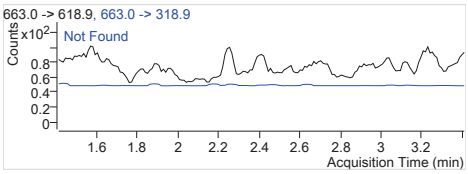
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



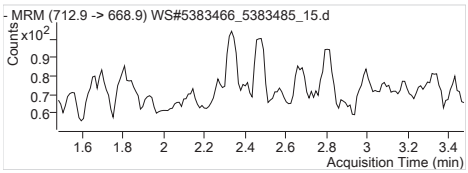


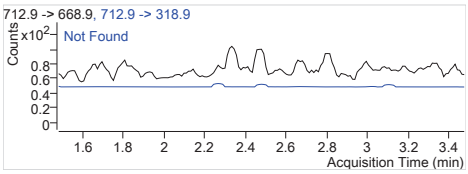
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



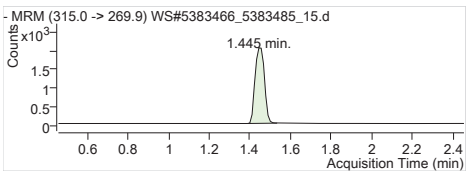


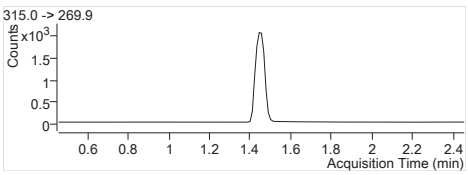
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.411)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



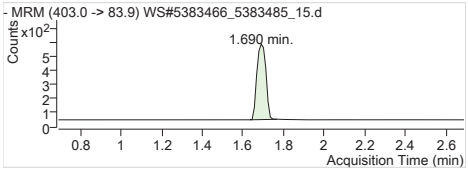


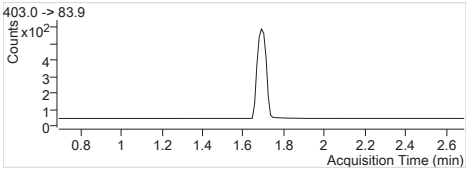
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.478)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



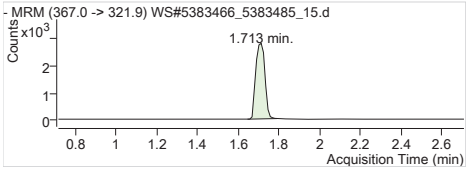


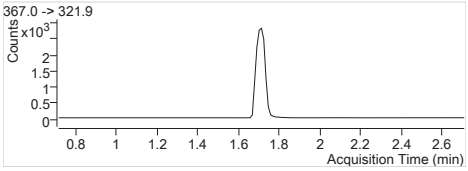
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 102.47 µg/L
Area ratio: 0.24277
Sample type: Sample



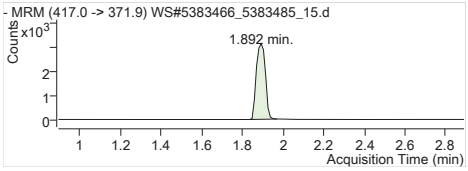


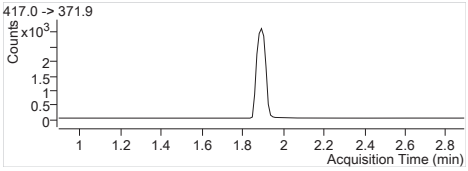
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 106.11 µg/L
Area ratio: 0.06166
Sample type: Sample



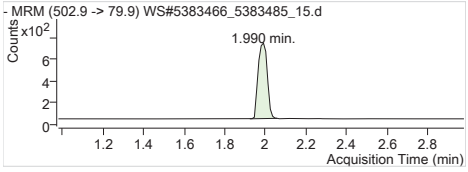


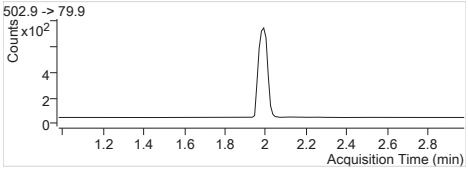
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 111.27 µg/L
Area ratio: 0.32507
Sample type: Sample



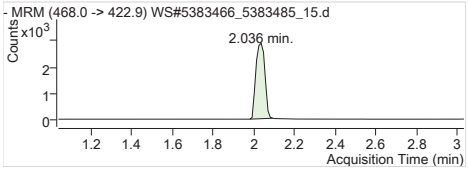


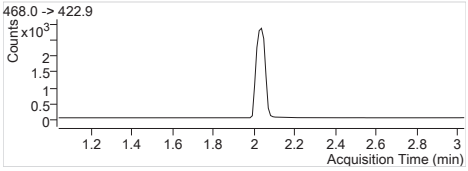
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 113.00 µg/L
Area ratio: 0.35469
Sample type: Sample



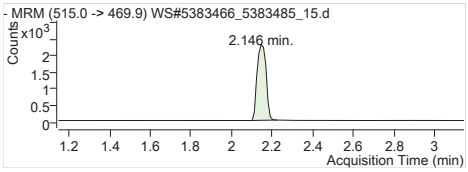


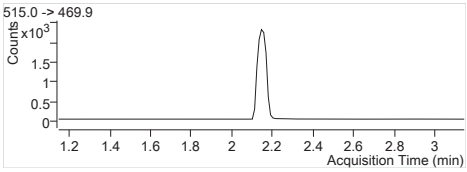
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 117.03 µg/L
Area ratio: 0.08078
Sample type: Sample



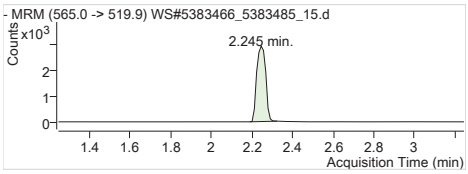


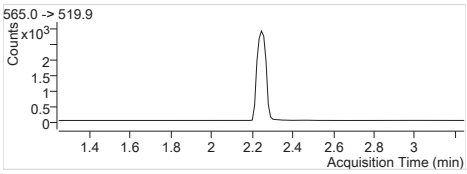
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 105.26 µg/L
Area ratio: 0.32555
Sample type: Sample



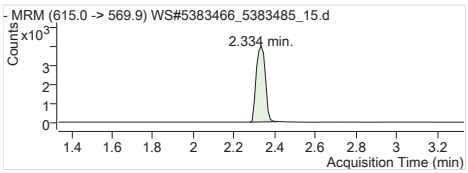


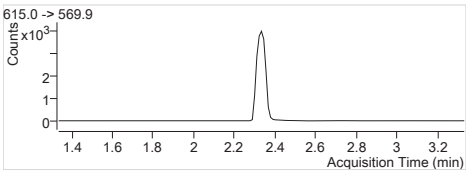
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 91.83 µg/L
Area ratio: 0.18427
Sample type: Sample



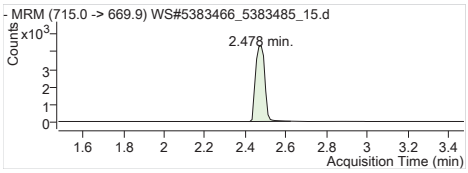


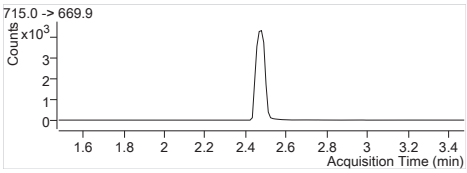
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 95.12 µg/L
Area ratio: 0.23008
Sample type: Sample



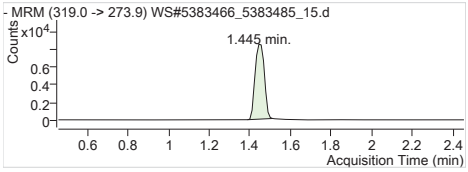


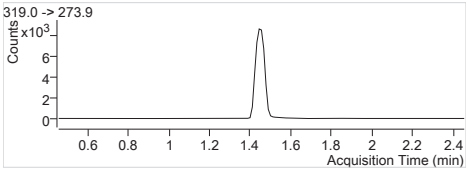
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 100.20 µg/L
Area ratio: 0.32255
Sample type: Sample



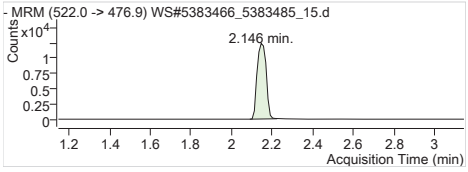


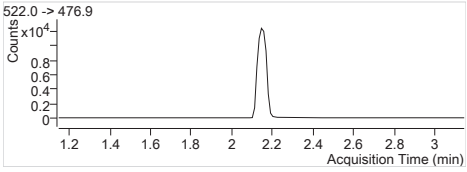
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 97.06 µg/L
Area ratio: 0.35602
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 2.27 µg/L
Area ratio: 0
Sample type: Sample





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.57 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

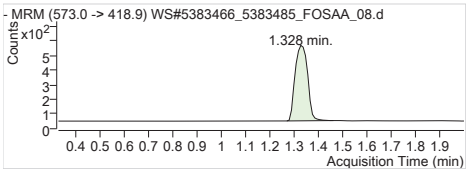
Agilent Technologies

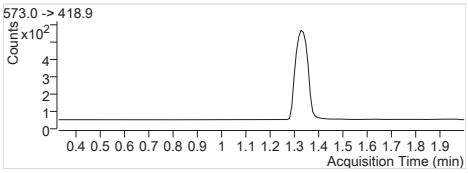
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A8
Acq. Date	2018/02/06 12:42:33 PM	**Injection Volume**	Per Method
Sample Annotation	-		

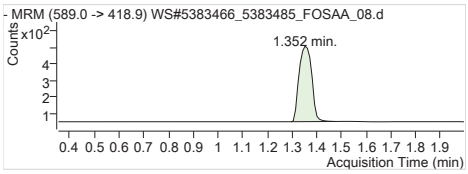
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1855	1.33	1 µg/L		
D5-EtFOSAA IS	1636	1.35	1 µg/L		
13C9-PFDA IS	28601	0.96	1 µg/L		

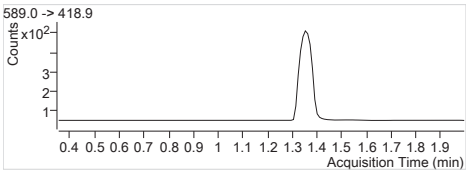
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1855	1.33	-	98.73 µg/L	-
D5-EtFOSAA	1636	1.35	-	101.07 µg/L	-
13C9-PFDA	28656	0.96	-	2.44 µg/L	-



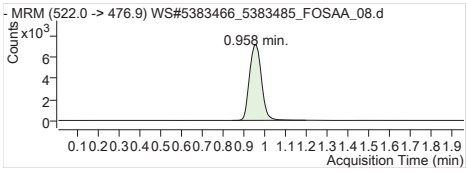


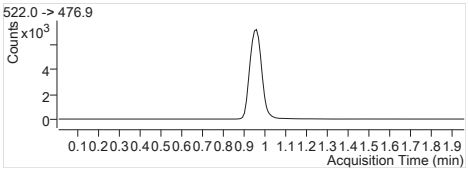
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Sample



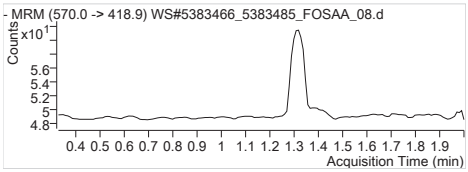


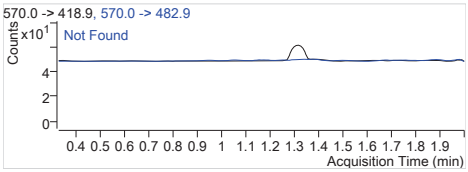
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Sample



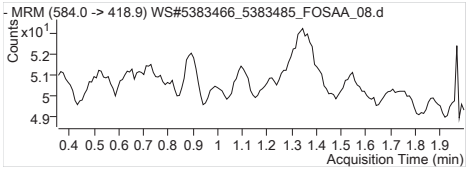


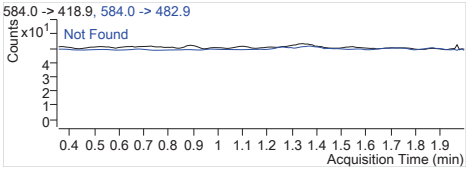
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: Sample



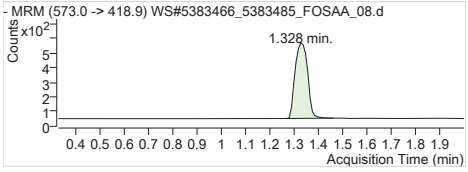


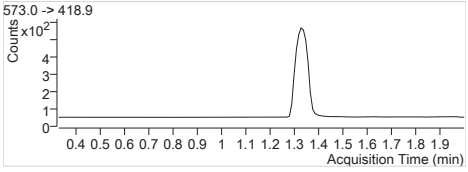
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.329)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



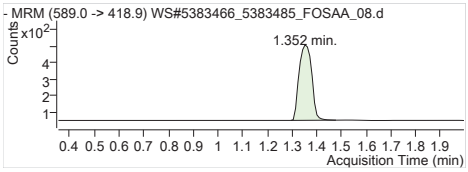


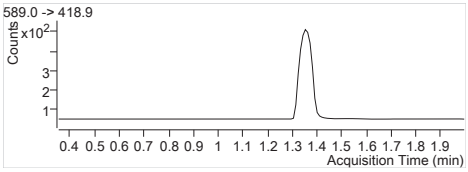
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.354)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



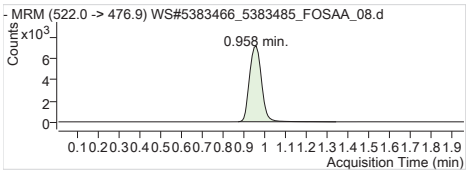


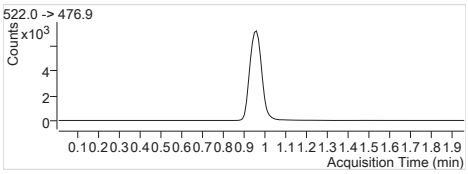
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 98.73 µg/L
Area ratio: 0.06486
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	101.07 µg/L
Area ratio:	0.05720
Sample type:	Sample





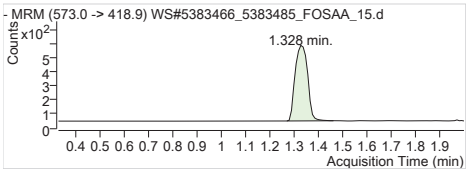
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	2.44 µg/L
Area ratio:	0
Sample type:	Sample

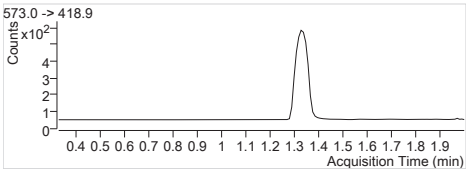
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_15.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A8
Acq. Date	2018/02/06 12:59:27 PM	**Injection Volume**	Per Method
Sample Annotation	-		

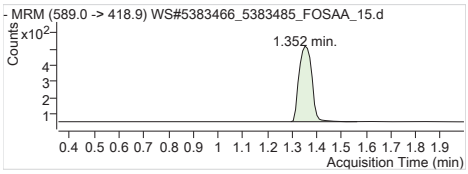
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1917	1.33	1 µg/L		
D5-EtFOSAA IS	1683	1.35	1 µg/L		
13C9-PFDA IS	28610	0.96	1 µg/L		

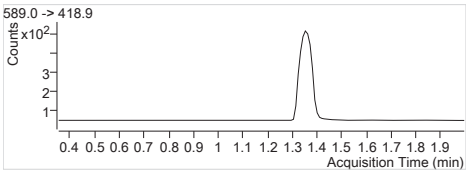
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1917	1.33	-	102.00 µg/L	-
D5-EtFOSAA	1683	1.35	-	103.94 µg/L	-
13C9-PFDA	28486	0.96	-	2.43 µg/L	-



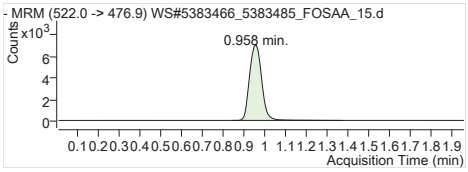


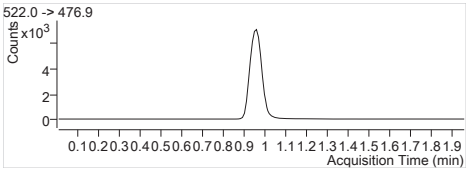
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Sample



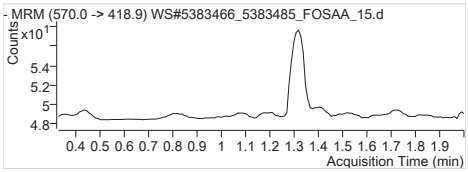


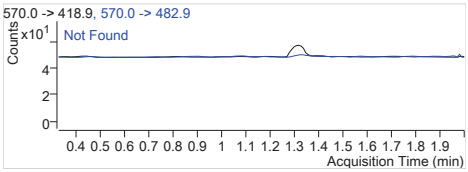
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Sample



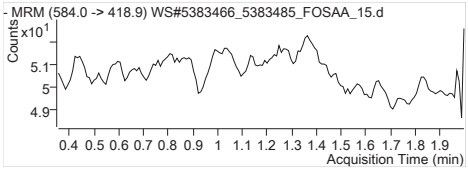


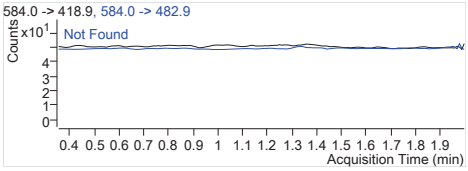
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: Sample



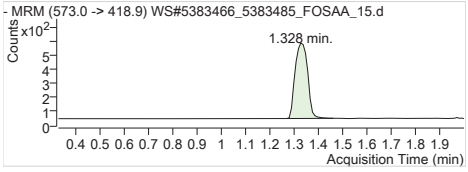


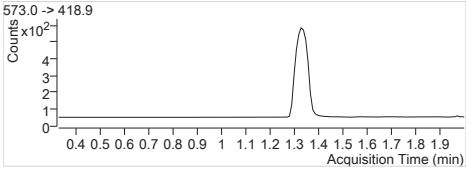
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.329)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



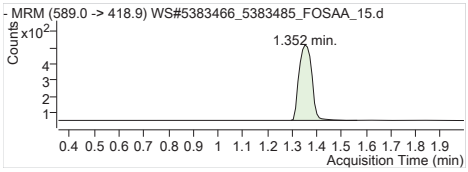


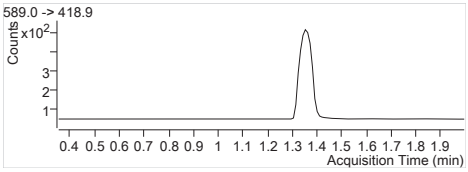
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.354)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



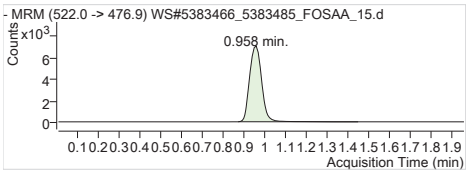


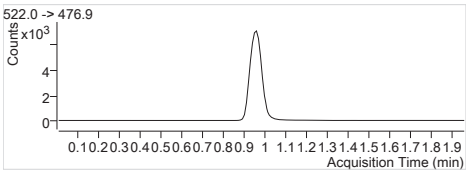
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 102.00 µg/L
Area ratio: 0.06700
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	103.94 µg/L
Area ratio:	0.05883
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	2.43 µg/L
Area ratio:	0
Sample type:	Sample

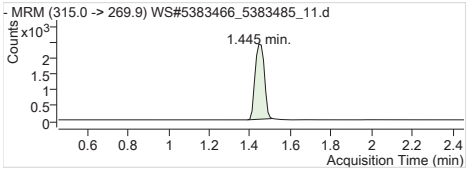
Quantitation Results

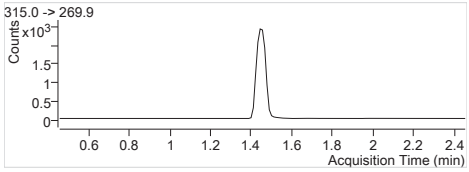
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics		
Sample Name	**5383466:BLANK**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B1
Acq. Date	2018/02/06 6:56:12 PM	**Injection Volume**	Per Method
Sample Annotation	-		

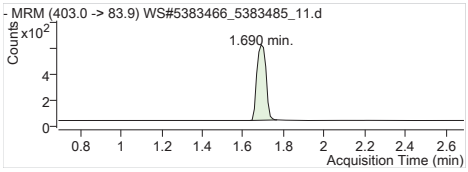
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7513	1.44	1 µg/L		
MPFHxS	1798	1.69	1 µg/L		
MPFHpA	9539	1.71	1 µg/L		
MPFOA	10044	1.89	1 µg/L		
MPFOS	2153	1.99	1 µg/L		
MPFNA	9560	2.04	1 µg/L		
MPFDA	6823	2.15	1 µg/L		
MPFUnA	5340	2.25	1 µg/L		
MPFDoA	6041	2.33	1 µg/L		
MPFTeDA	7450	2.48	1 µg/L		
13C6-PFHxA IS	29859	1.44	1 µg/L		
13C9-PFDA IS	39886	2.15	1 µg/L		

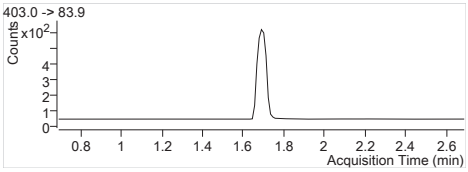
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	7513	1.44	-	106.20 µg/L	-
18O2-PFHxS	1798	1.69	-	103.63 µg/L	-
13C4-PFHpA	9539	1.71	-	109.35 µg/L	-
13C4-PFOA	10044	1.89	-	107.16 µg/L	-
13C4-PFOS	2153	1.99	-	104.46 µg/L	-
13C5-PFNA	9559	2.04	-	103.51 µg/L	-
13C2-PFDA	6767	2.15	-	84.55 µg/L	-
13C2-PFUnA	5340	2.25	-	55.35 µg/L	-
13C2-PFDoA	6041	2.33	-	47.05 µg/L	-
13C2-PFTeDA	7595	2.48	-	51.92 µg/L	-
13C6-PFHxA	29859	1.44	-	2.52 µg/L	-
13C9-PFDA	39886	2.15	-	2.68 µg/L	-



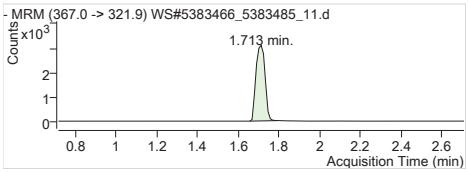


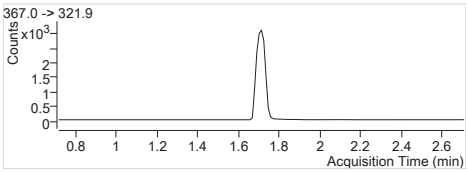
MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	Sample



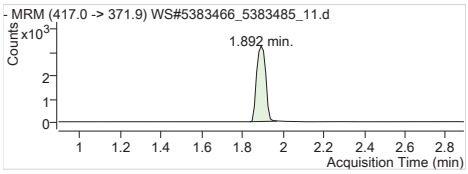


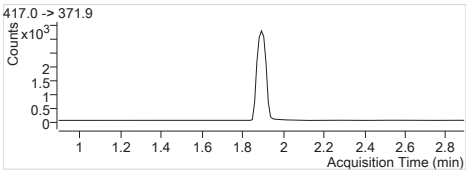
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



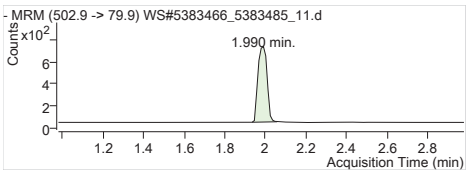


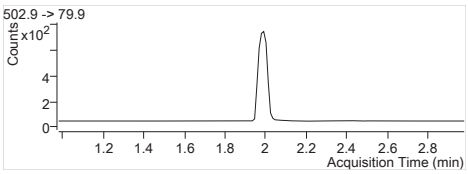
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



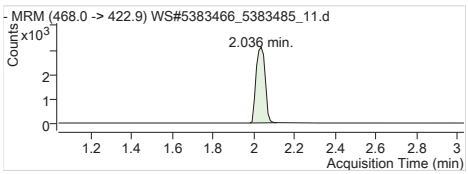


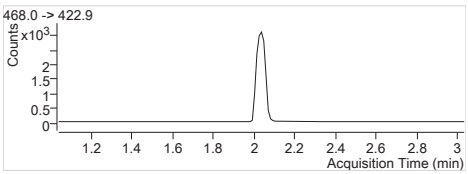
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



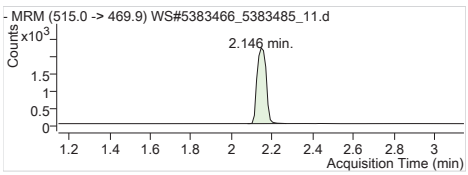


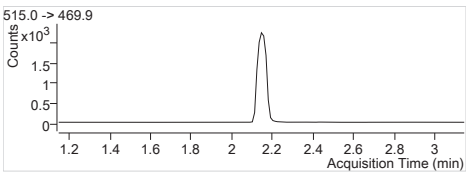
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Sample



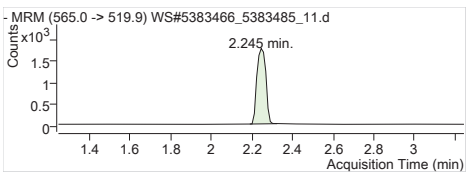


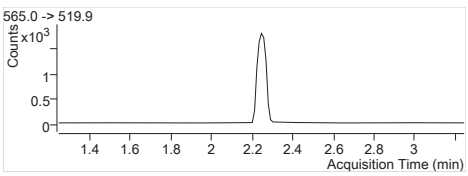
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



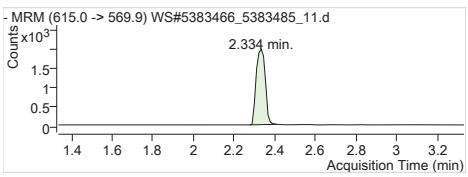


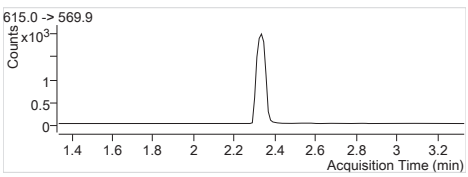
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



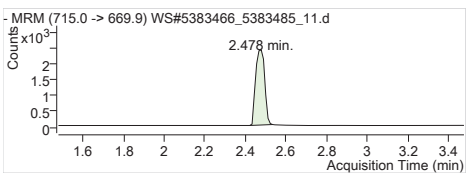


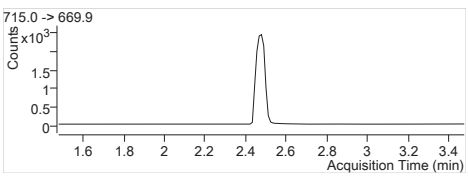
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



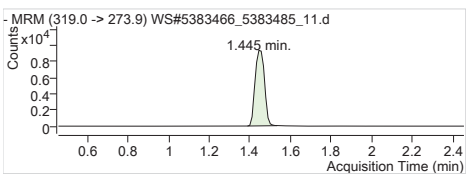


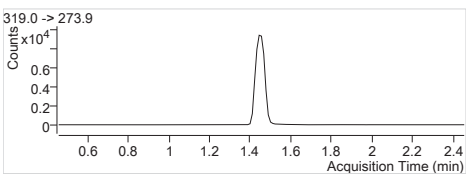
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Sample



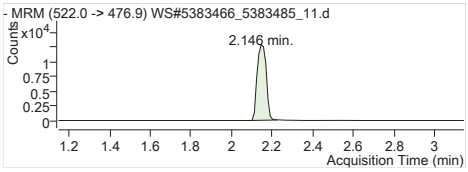


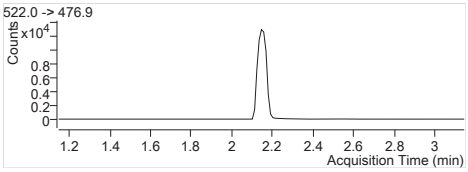
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Sample



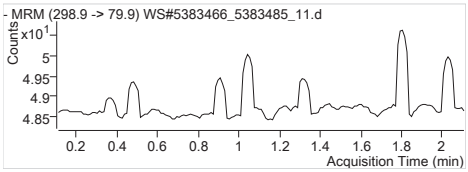


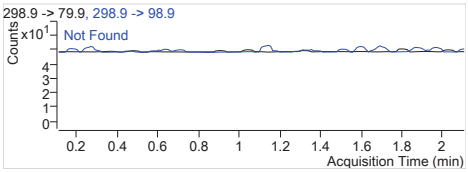
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Sample



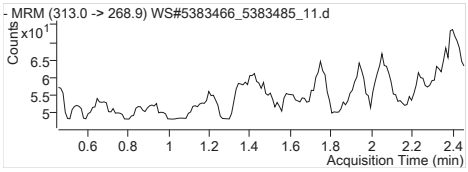


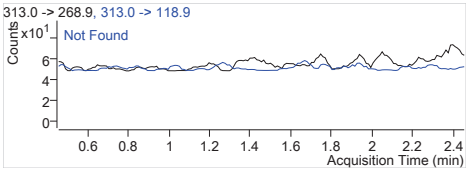
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



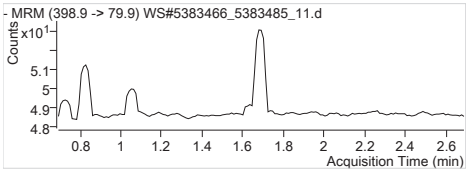


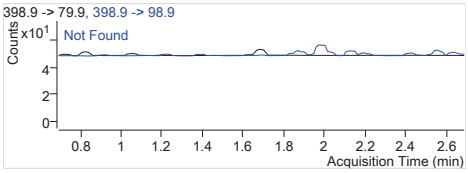
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.109)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



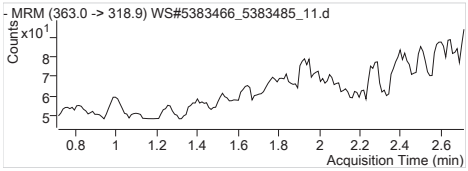


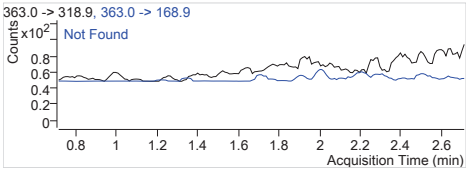
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.456)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



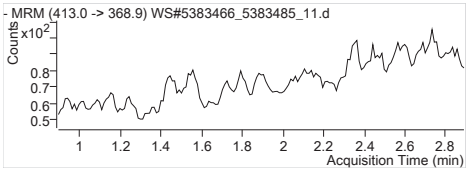


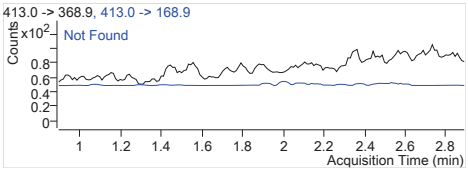
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



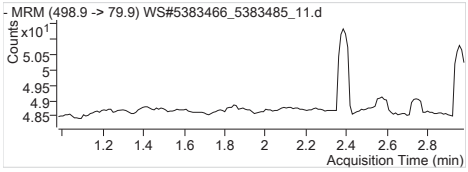


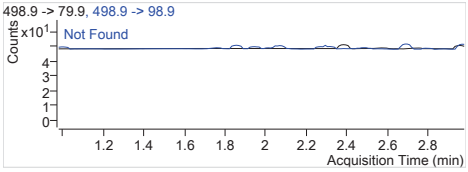
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.713)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



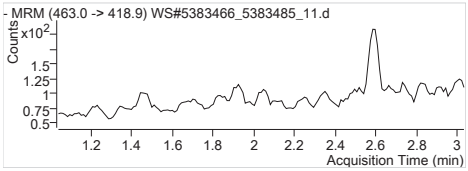


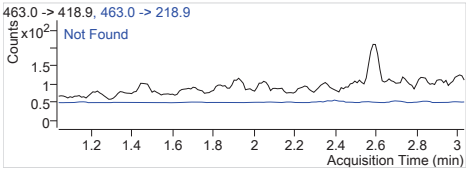
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.892)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



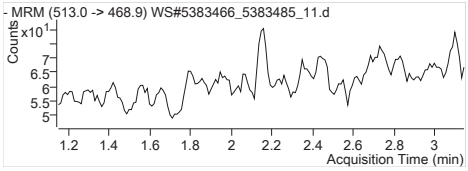


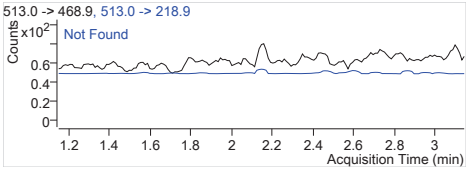
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



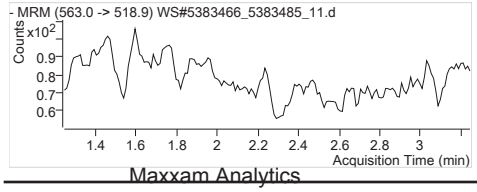


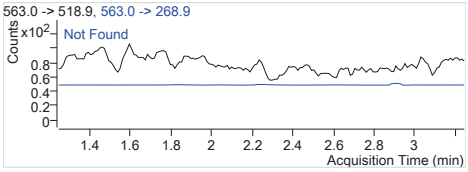
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.036)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



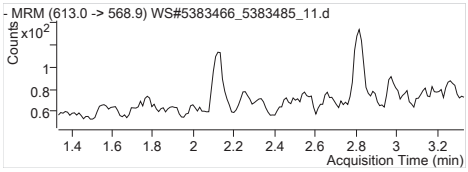


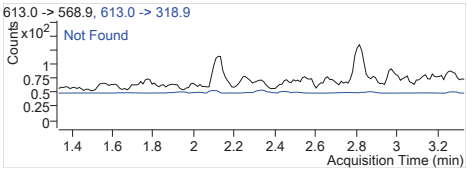
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



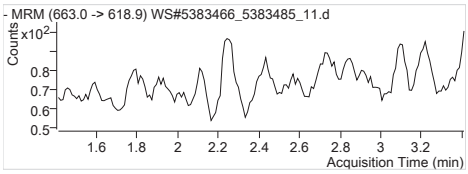


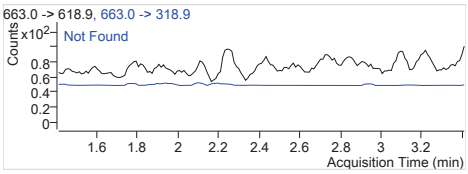
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



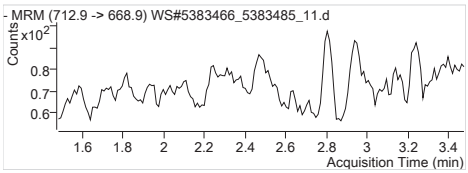


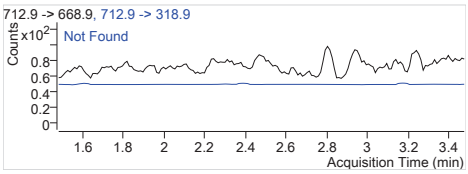
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.334)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



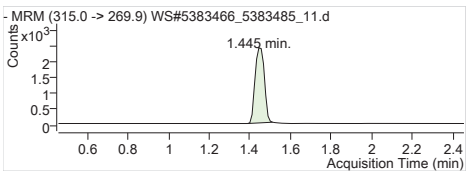


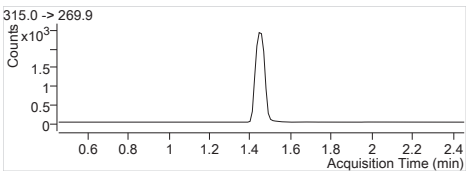
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.411)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



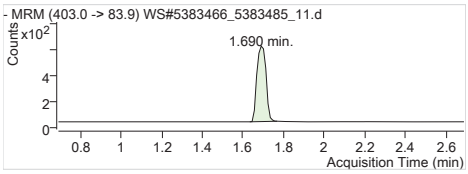


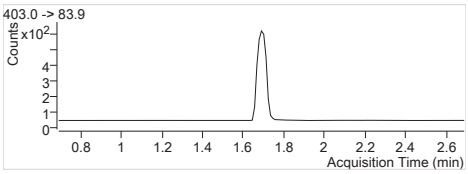
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.478)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



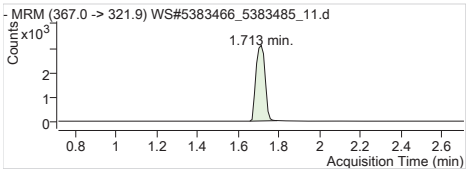


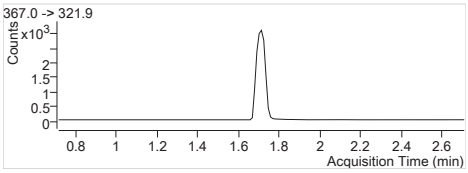
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.445 (1.456)
Calc. conc.	106.20 µg/L
Area ratio:	0.25162
Sample type:	Sample



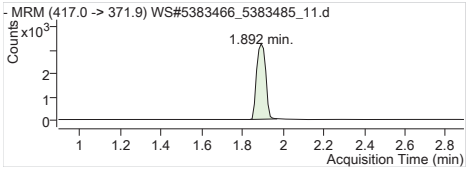


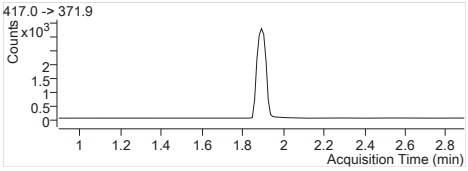
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	103.63 µg/L
Area ratio:	0.06022
Sample type:	Sample



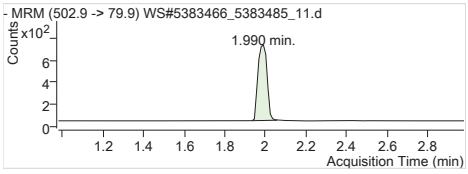


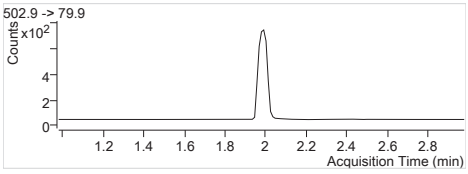
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	109.35 µg/L
Area ratio:	0.31947
Sample type:	Sample



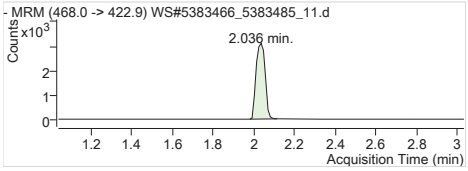


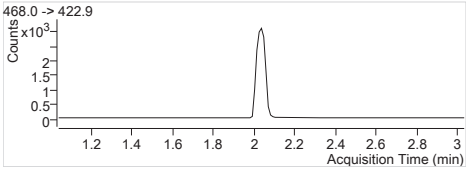
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	107.16 µg/L
Area ratio:	0.33638
Sample type:	Sample



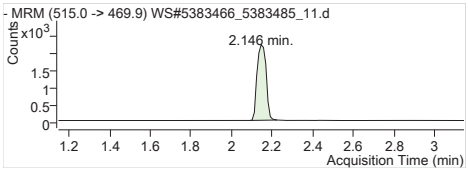


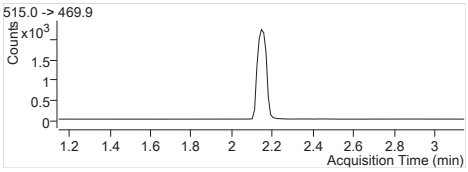
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	104.46 µg/L
Area ratio:	0.07211
Sample type:	Sample



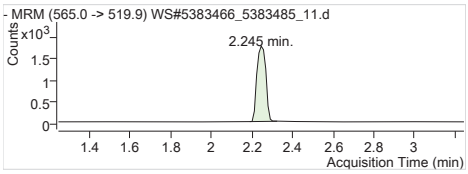


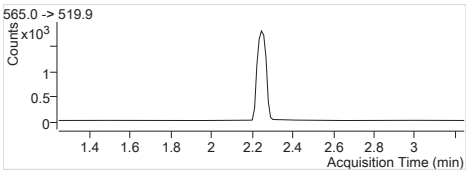
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	103.51 µg/L
Area ratio:	0.32014
Sample type:	Sample



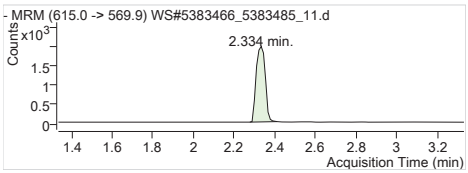


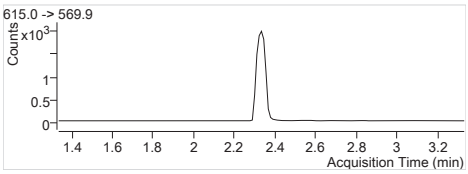
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 84.55 µg/L
Area ratio: 0.16966
Sample type: Sample



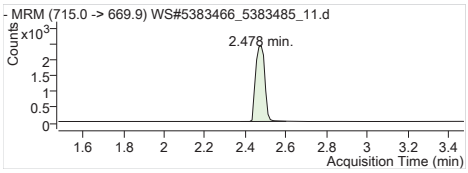


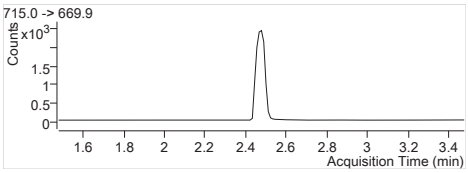
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 55.35 µg/L
Area ratio: 0.13388
Sample type: Sample



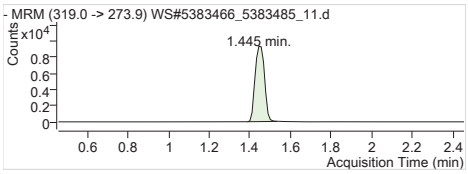


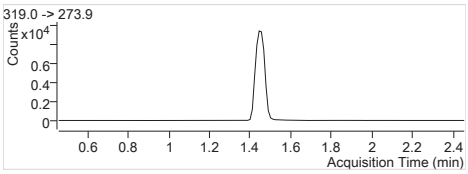
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 47.05 µg/L
Area ratio: 0.15146
Sample type: Sample



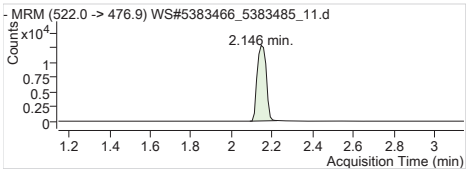


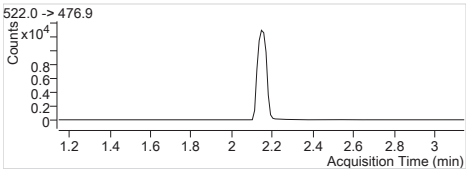
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 51.92 µg/L
Area ratio: 0.19042
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 2.52 µg/L
Area ratio: 0
Sample type: Sample





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.68 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

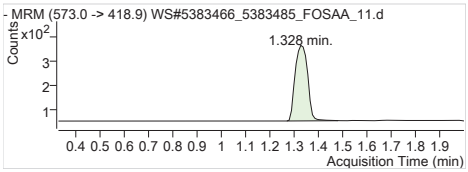
Agilent Technologies

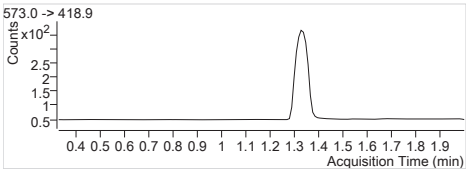
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**5383466:BLANK**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B1
Acq. Date	2018/02/06 12:49:48 PM	**Injection Volume**	Per Method
Sample Annotation	-		

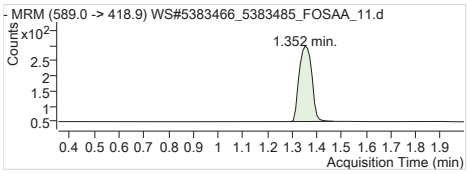
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1134	1.33	1 µg/L		
D5-EtFOSAA IS	887	1.35	1 µg/L		
13C9-PFDA IS	30346	0.92	1 µg/L		

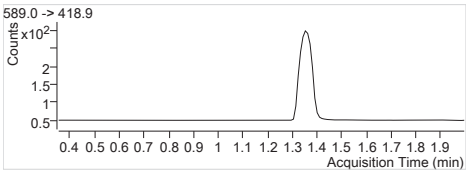
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1134	1.33	-	56.89 µg/L	-
D5-EtFOSAA	887	1.35	-	51.65 µg/L	-
13C9-PFDA	30305	0.92	-	2.58 µg/L	-



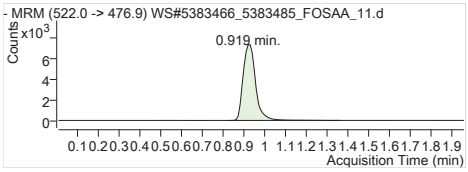


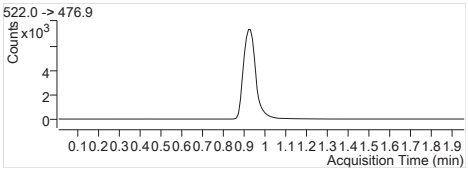
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Sample



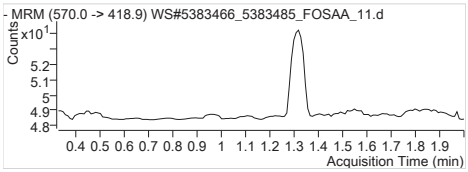


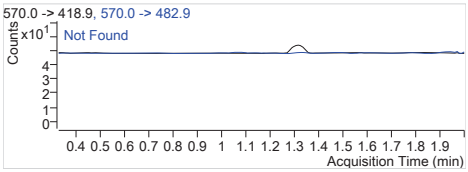
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Sample



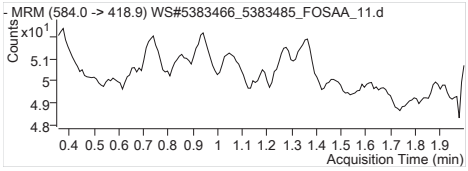


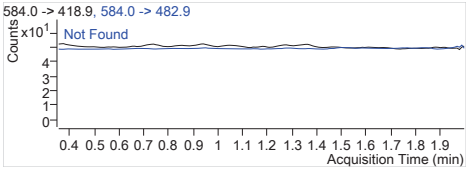
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.958)
Concentration: 1 µg/L
Sample type: Sample



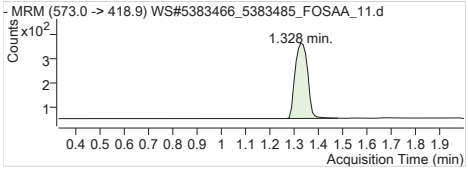


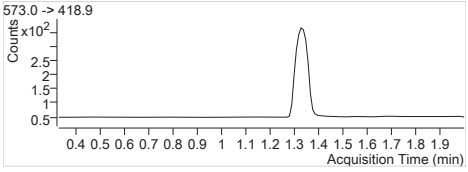
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.329)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



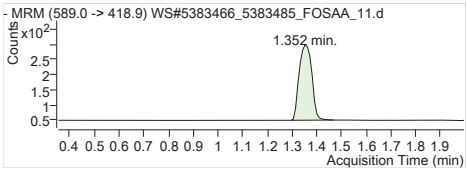


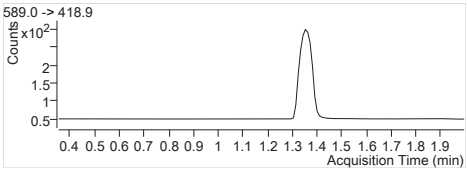
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.354)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



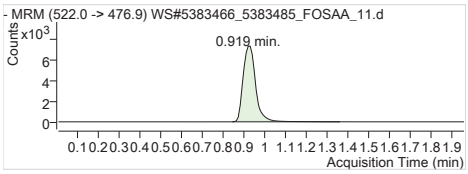


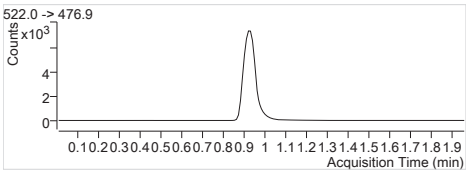
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 56.89 µg/L
Area ratio: 0.03737
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	51.65 µg/L
Area ratio:	0.02923
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.958)
Calc. conc.	2.58 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

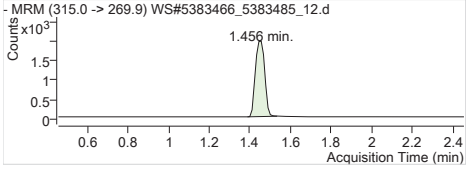
Agilent Technologies

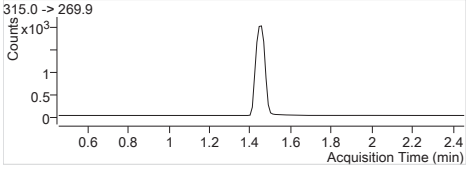
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**5383466:SPIKE**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B2
Acq. Date	2018/02/06 7:01:12 PM	**Injection Volume**	Per Method
Sample Annotation	-		

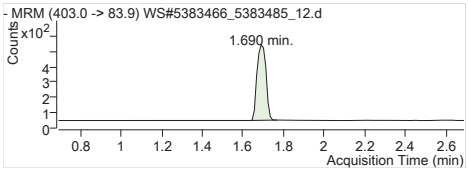
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6262	1.46	1 µg/L		
MPFHxS	1522	1.69	1 µg/L		
MPFHpA	7915	1.71	1 µg/L		
MPFOA	8277	1.89	1 µg/L		
MPFOS	1787	1.99	1 µg/L		
MPFNA	8834	2.04	1 µg/L		
MPFDA	7730	2.15	1 µg/L		
MPFUnA	10955	2.25	1 µg/L		
MPFDoA	14422	2.33	1 µg/L		
MPFTeDA	14467	2.48	1 µg/L		
13C6-PFHxA IS	29307	1.46	1 µg/L		
13C9-PFDA IS	37003	2.15	1 µg/L		

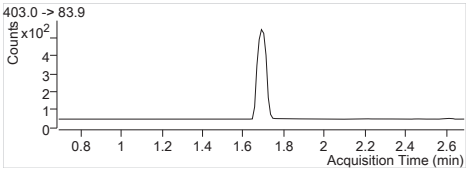
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	13870	1.11	20.80	0.50 µg/L	99.84
PFHxA 1	45963	1.46	20.80	0.44 µg/L	88.65
PFHxS 1	13611	1.69	20.80	0.49 µg/L	97.36
PFHpA 1	64423	1.71	20.80	0.47 µg/L	93.76
PFOA 1	70895	1.89	20.80	0.49 µg/L	97.35
PFOS 1	12899	1.98	20.80	0.50 µg/L	101.01
PFNA 1	63624	2.04	20.80	0.46 µg/L	92.82
PFDA 1	63169	2.15	20.80	0.42 µg/L	83.63
PFUnA 1	69678	2.25	20.80	0.36 µg/L	72.20
PFDoA 1	76068	2.33	20.80	0.31 µg/L	62.28
PFTrDA 1	81979	2.41	20.80	0.33 µg/L	65.95
PFTeDA 1	70218	2.48	20.80	0.34 µg/L	67.85
13C2-PFHxA	6262	1.46	100.00	90.18 µg/L	90.18
18O2-PFHxS	1522	1.69	100.00	89.37 µg/L	89.37
13C4-PFHpA	7915	1.71	100.00	92.44 µg/L	92.44
13C4-PFOA	8277	1.89	100.00	89.97 µg/L	89.97
13C4-PFOS	1787	1.99	100.00	88.34 µg/L	88.34
13C5-PFNA	8835	2.04	100.00	97.47 µg/L	97.47
13C2-PFDA	7629	2.15	100.00	102.74 µg/L	102.74
13C2-PFUnA	10955	2.25	100.00	122.40 µg/L	122.40
13C2-PFDoA	14422	2.33	100.00	121.07 µg/L	121.07
13C2-PFTeDA	14886	2.48	100.00	109.68 µg/L	109.68
13C6-PFHxA	29307	1.46	100.00	2.47 µg/L	103.09
13C9-PFDA	37003	2.15	100.00	2.48 µg/L	103.44



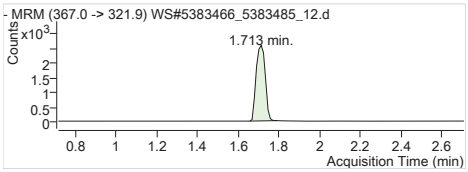


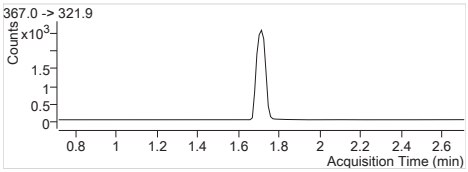
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	QC



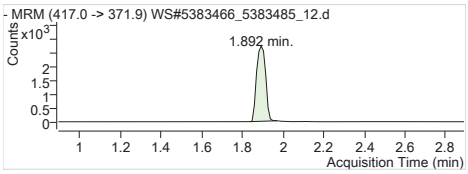


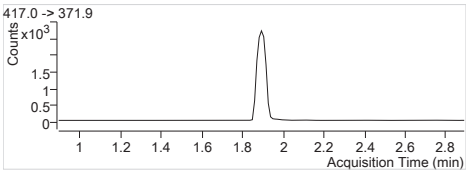
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



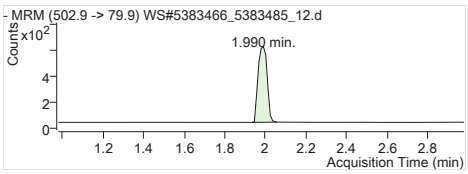


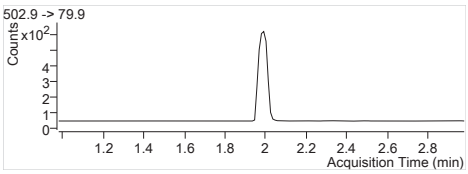
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: QC



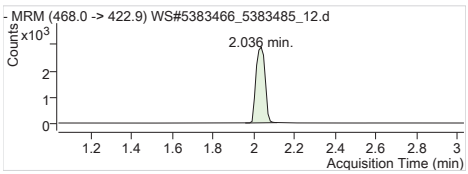


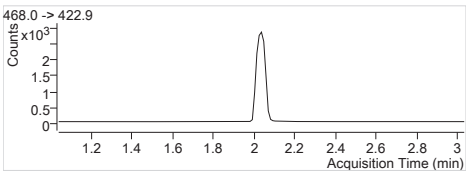
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: QC



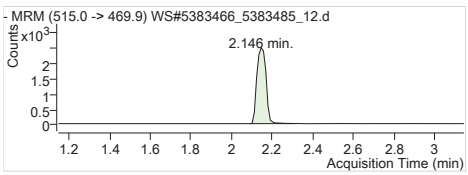


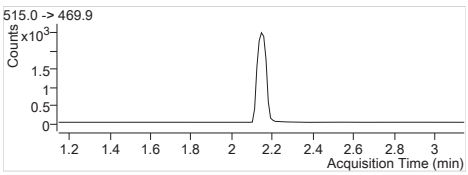
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: QC



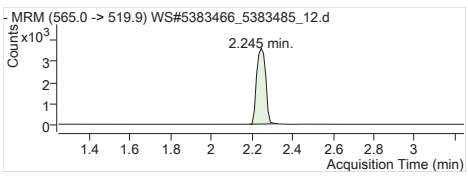


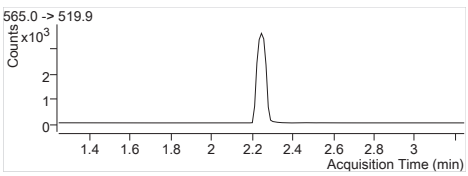
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: QC



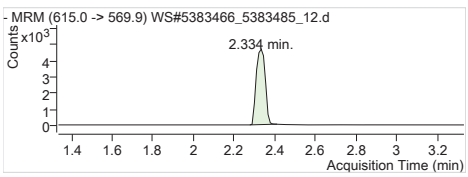


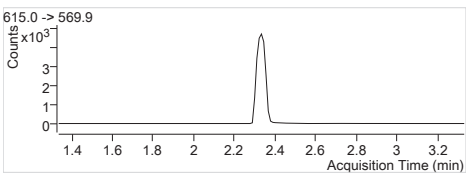
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



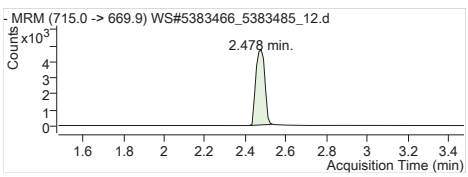


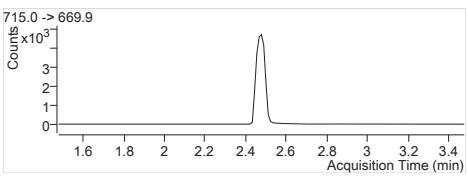
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC



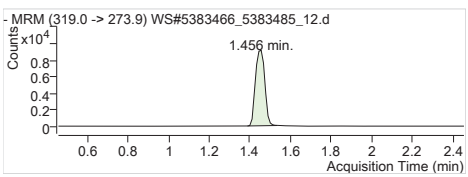


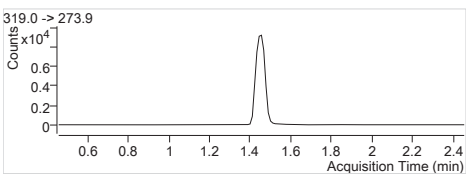
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: QC



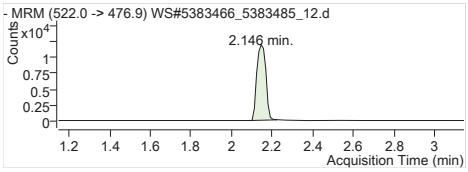


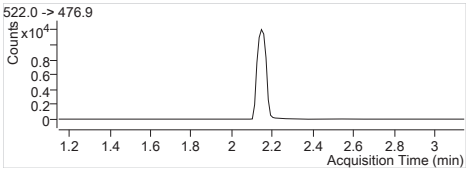
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: QC



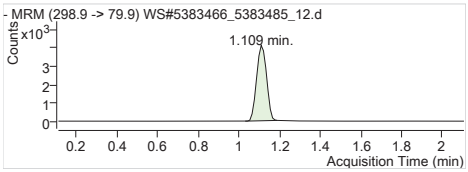


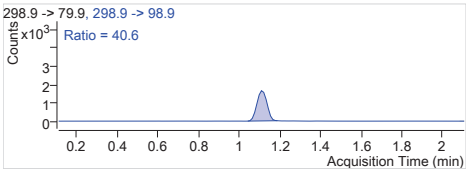
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: QC



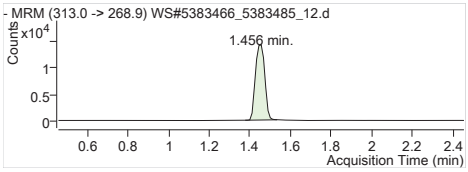


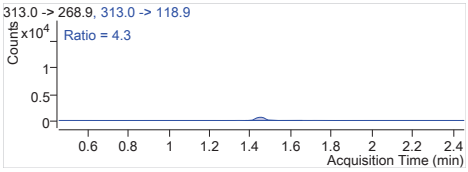
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



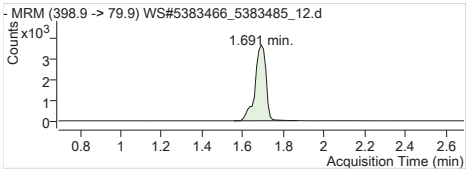


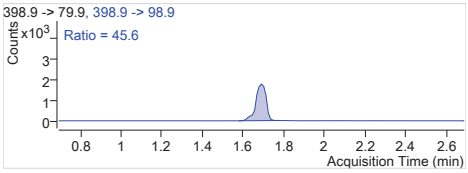
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 0.50 µg/L
Area ratio: 9.11301
Sample type: QC



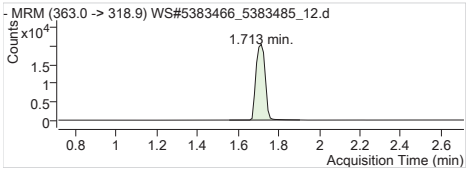


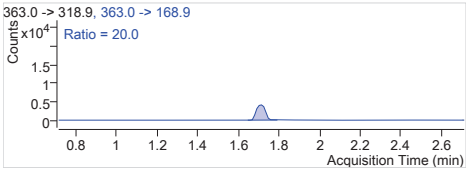
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 0.44 µg/L
Area ratio: 7.33999
Sample type: QC



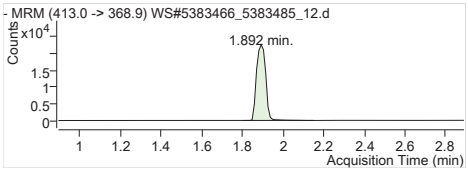


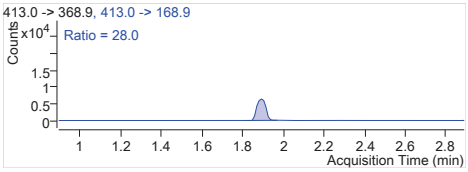
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.49 µg/L
Area ratio: 8.94284
Sample type: QC



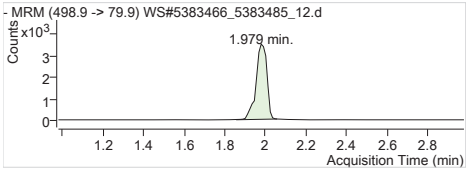


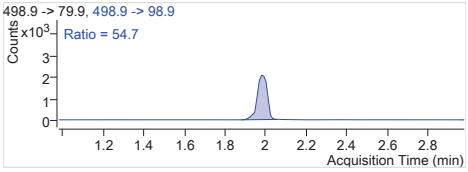
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 0.47 µg/L
Area ratio: 8.13936
Sample type: QC



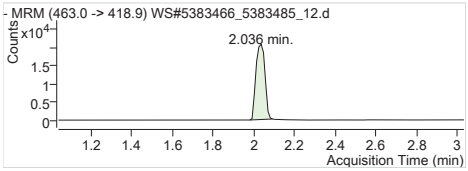


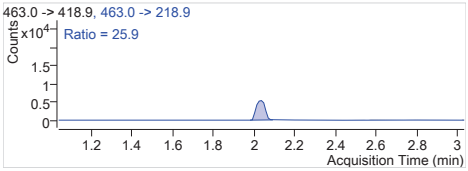
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 0.49 µg/L
Area ratio: 8.56530
Sample type: QC



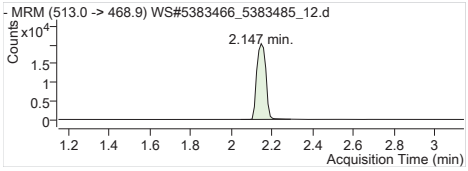


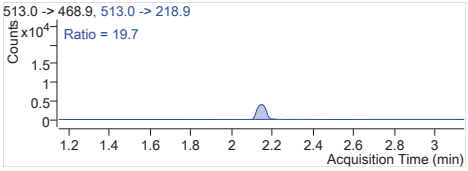
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.50 µg/L
Area ratio: 7.21824
Sample type: QC



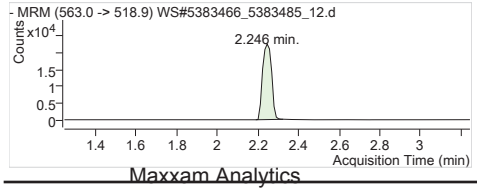


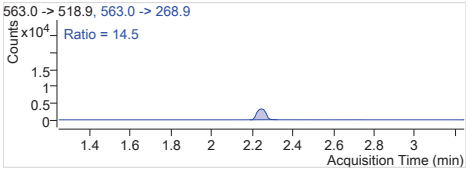
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.46 µg/L
Area ratio: 7.20217
Sample type: QC



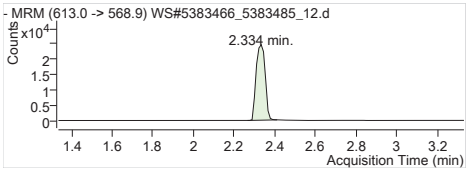


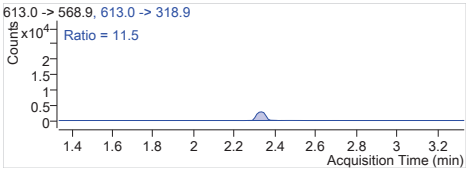
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 0.42 µg/L
Area ratio: 8.17193
Sample type: QC



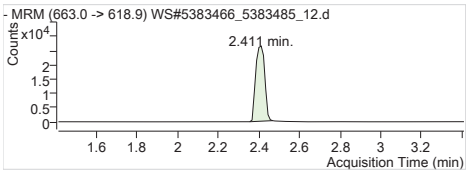


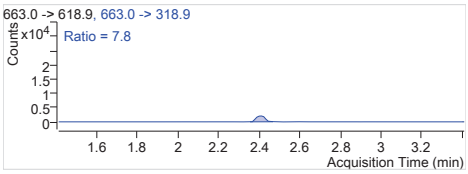
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.36 µg/L
Area ratio: 6.36038
Sample type: QC



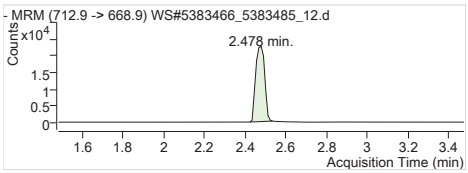


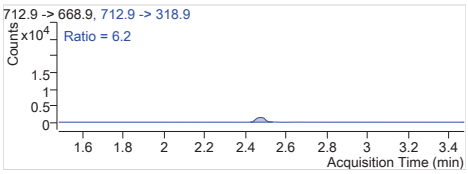
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 0.31 µg/L
Area ratio: 5.27444
Sample type: QC



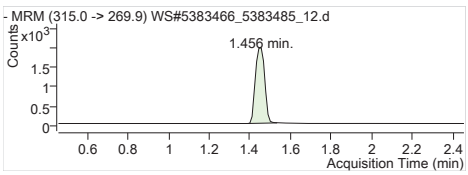


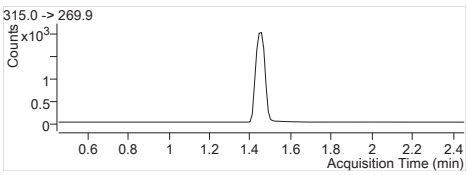
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 0.33 µg/L
Area ratio: 5.66662
Sample type: QC



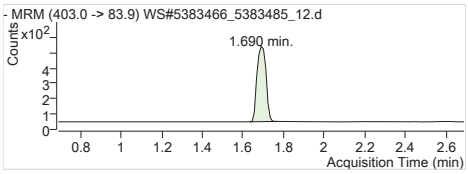


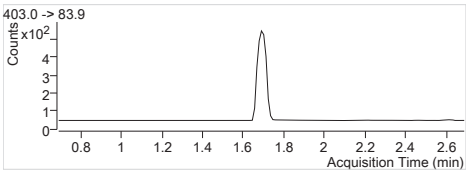
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 0.34 µg/L
Area ratio: 4.85367
Sample type: QC



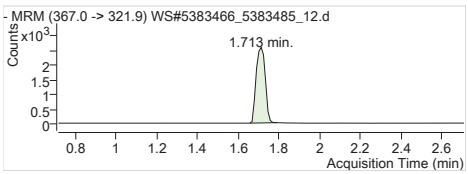


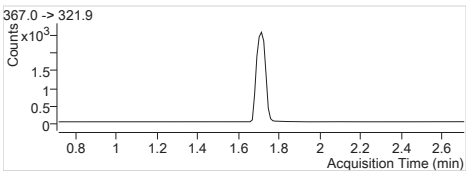
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 90.18 µg/L
Area ratio: 0.21367
Sample type: QC



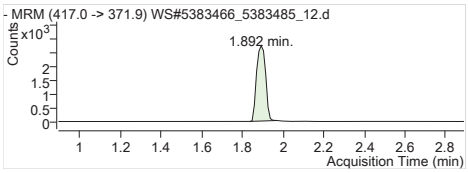


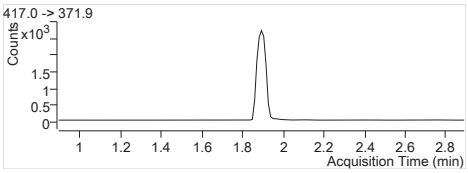
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 89.37 µg/L
Area ratio: 0.05193
Sample type: QC



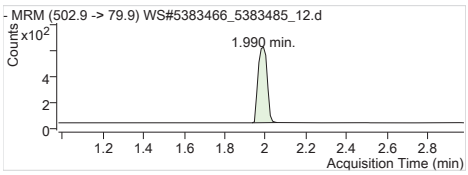


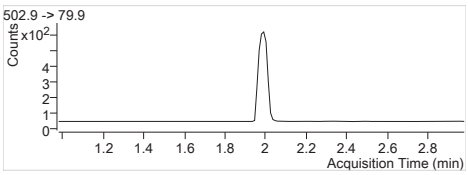
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 92.44 µg/L
Area ratio: 0.27007
Sample type: QC



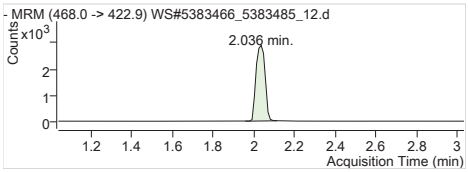


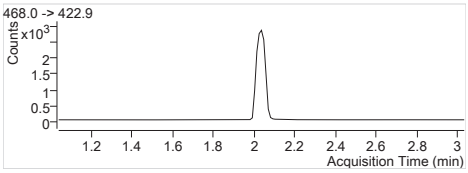
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 89.97 µg/L
Area ratio: 0.28242
Sample type: QC



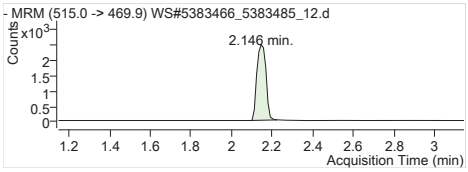


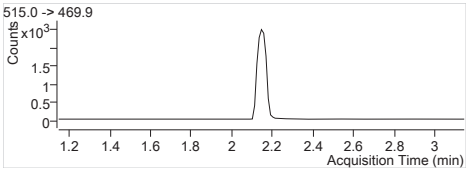
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 88.34 µg/L
Area ratio: 0.06098
Sample type: QC



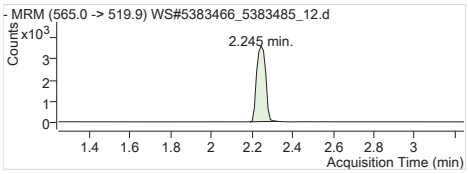


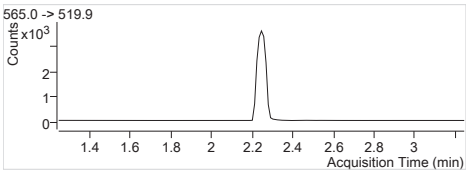
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 97.47 µg/L
Area ratio: 0.30146
Sample type: QC



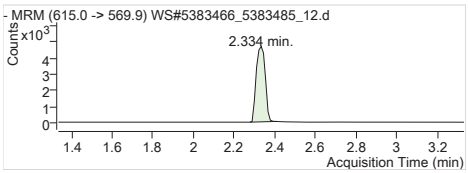


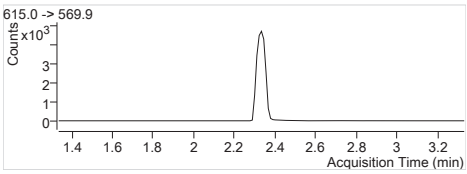
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 102.74 µg/L
Area ratio: 0.20617
Sample type: QC



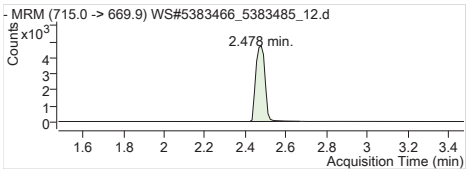


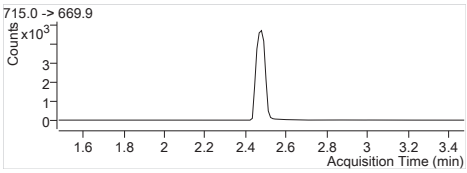
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 122.40 µg/L
Area ratio: 0.29606
Sample type: QC



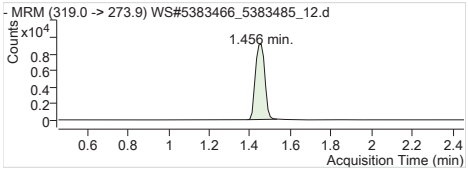


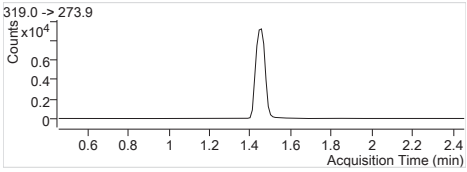
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 121.07 µg/L
Area ratio: 0.38975
Sample type: QC



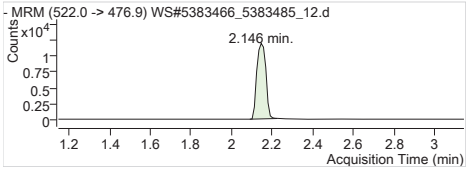


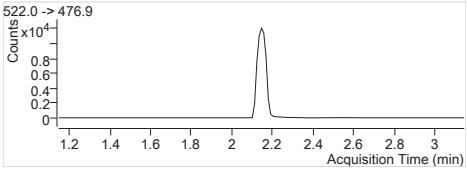
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 109.68 µg/L
Area ratio: 0.40229
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.47 µg/L
Area ratio: 0
Sample type: QC





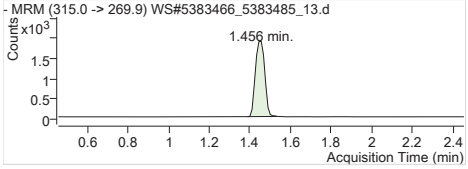
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.48 µg/L
Area ratio: 0
Sample type: QC

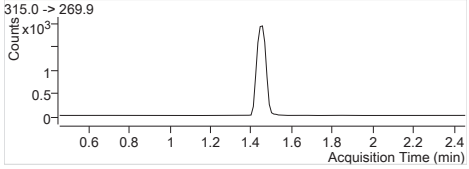
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**5383466:MTRX SPK**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_13.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B3
Acq. Date	2018/02/06 7:06:12 PM	**Injection Volume**	Per Method
Sample Annotation	FZA786		

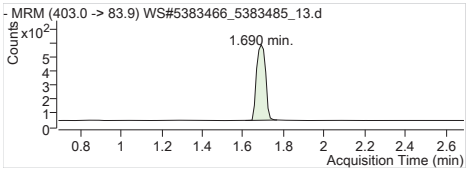
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6025	1.46	1 µg/L		
MPFHxS	1666	1.69	1 µg/L		
MPFHpA	8269	1.71	1 µg/L		
MPFOA	8398	1.89	1 µg/L		
MPFOS	1923	1.99	1 µg/L		
MPFNA	8620	2.04	1 µg/L		
MPFDA	6477	2.15	1 µg/L		
MPFUnA	7902	2.25	1 µg/L		
MPFDoA	10271	2.33	1 µg/L		
MPFTeDA	11131	2.48	1 µg/L		
13C6-PFHxA IS	27642	1.44	1 µg/L		
13C9-PFDA IS	37506	2.15	1 µg/L		

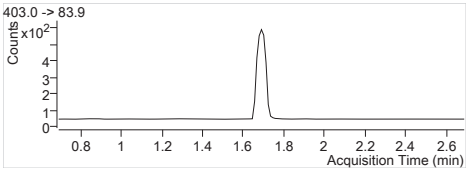
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	12974	1.11	20.80	0.43 µg/L	85.42
PFHxA 1	49505	1.45	20.80	0.49 µg/L	99.05
PFHxS 1	14230	1.69	20.80	0.46 µg/L	93.04
PFHpA 1	65968	1.71	20.80	0.46 µg/L	91.92
PFOA 1	91754	1.89	20.80	0.62 µg/L	123.94
PFOS 1	15388	1.98	20.80	0.56 µg/L	111.95
PFNA 1	62600	2.04	20.80	0.47 µg/L	93.58
PFDA 1	64961	2.15	20.80	0.51 µg/L	102.54
PFUnA 1	67251	2.25	20.80	0.48 µg/L	96.62
PFDoA 1	79333	2.33	20.80	0.45 µg/L	90.93
PFTrDA 1	92323	2.41	20.80	0.48 µg/L	96.45
PFTeDA 1	76552	2.48	20.80	0.48 µg/L	96.05
13C2-PFHxA	6025	1.46	100.00	92.00 µg/L	92.00
18O2-PFHxS	1666	1.69	100.00	103.72 µg/L	103.72
13C4-PFHpA	8269	1.71	100.00	102.40 µg/L	102.40
13C4-PFOA	8398	1.89	100.00	96.79 µg/L	96.79
13C4-PFOS	1923	1.99	100.00	100.79 µg/L	100.79
13C5-PFNA	8553	2.04	100.00	100.04 µg/L	100.04
13C2-PFDA	6396	2.15	100.00	84.98 µg/L	84.98
13C2-PFUnA	7902	2.25	100.00	87.10 µg/L	87.10
13C2-PFDoA	10271	2.33	100.00	85.07 µg/L	85.07
13C2-PFTeDA	11300	2.48	100.00	82.14 µg/L	82.14
13C6-PFHxA	27642	1.44	100.00	2.33 µg/L	97.23
13C9-PFDA	37506	2.15	100.00	2.52 µg/L	104.84



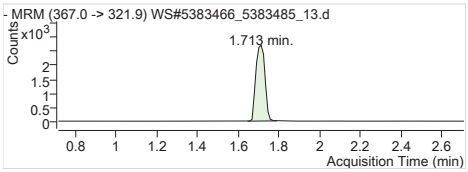


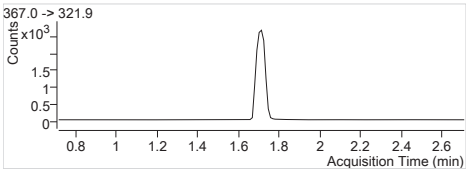
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	QC



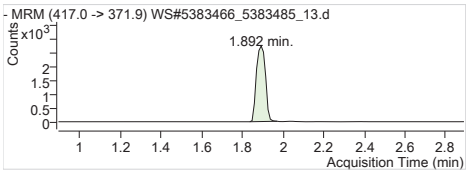


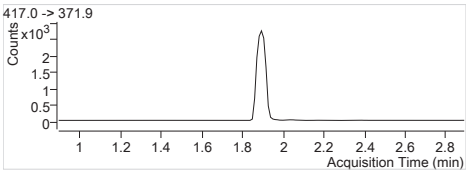
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



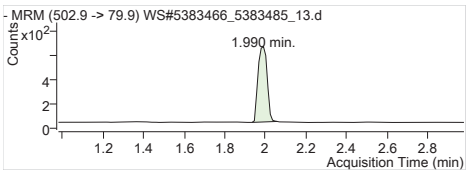


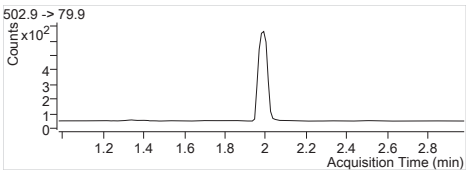
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: QC



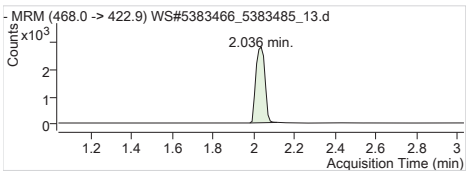


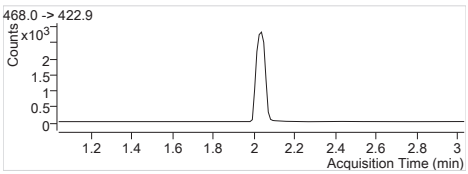
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: QC



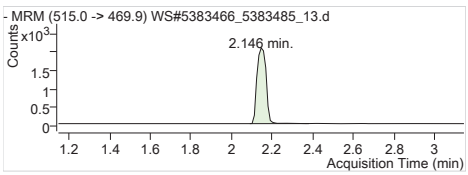


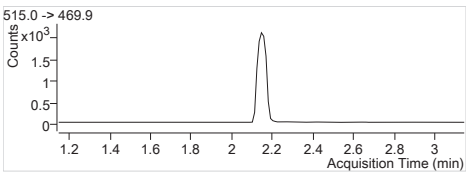
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: QC



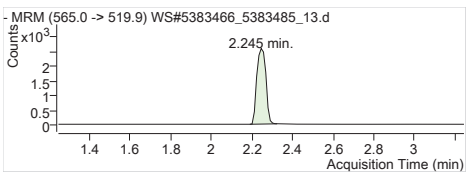


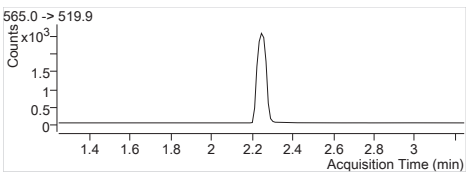
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: QC



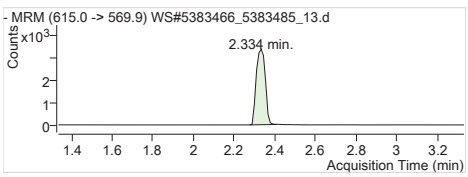


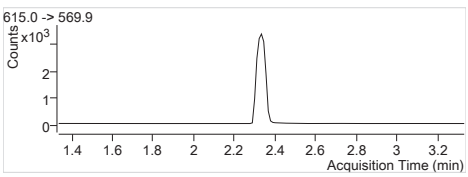
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



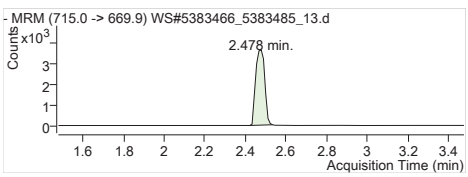


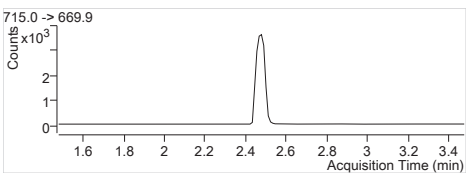
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC



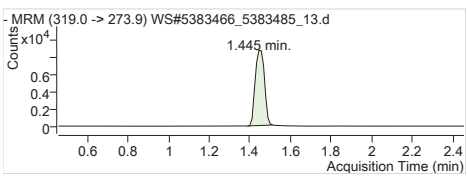


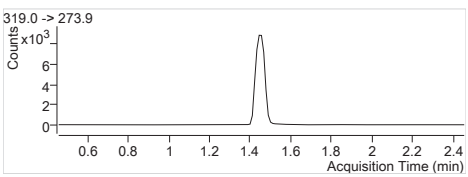
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: QC



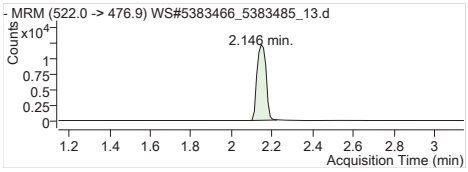


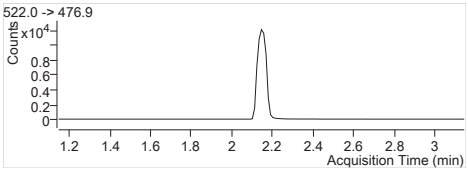
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: QC



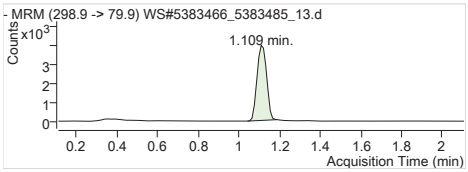


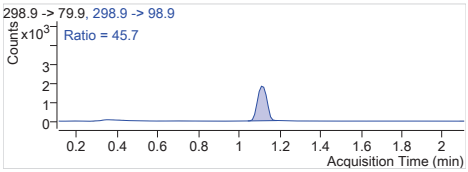
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: QC



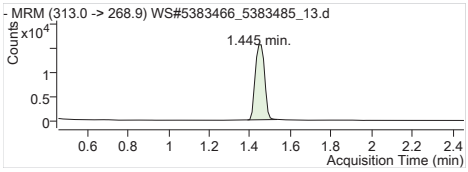


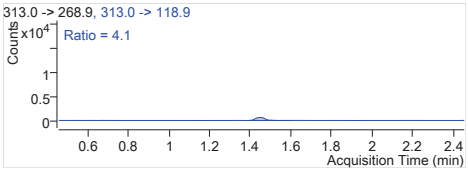
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



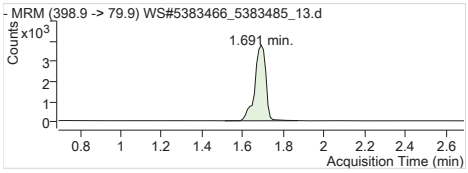


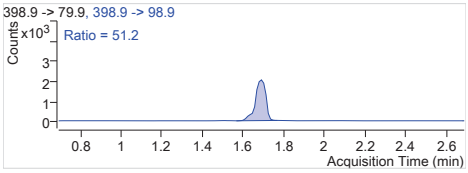
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 0.43 µg/L
Area ratio: 7.78752
Sample type: QC



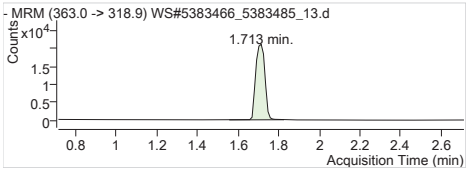


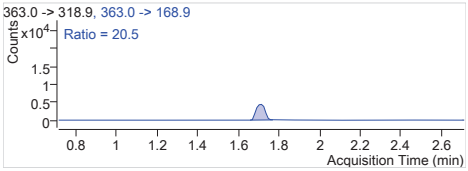
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 0.49 µg/L
Area ratio: 8.21660
Sample type: QC



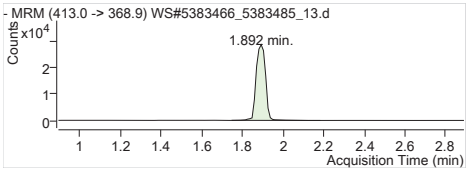


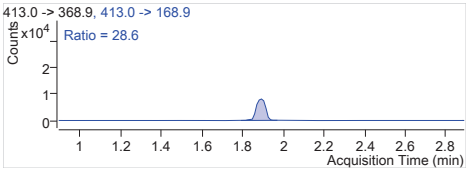
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.46 µg/L
Area ratio: 8.54142
Sample type: QC



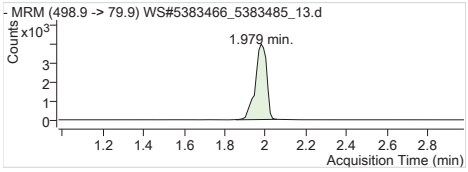


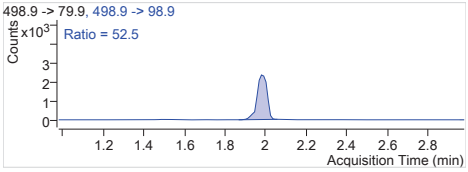
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 0.46 µg/L
Area ratio: 7.97775
Sample type: QC



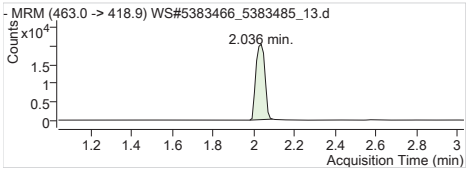


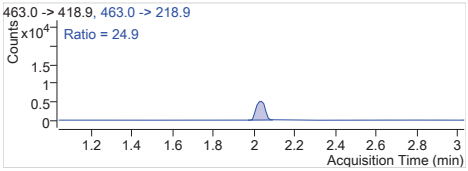
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 0.62 µg/L
Area ratio: 10.92570
Sample type: QC



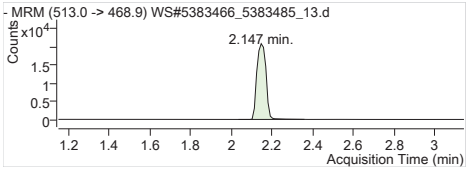


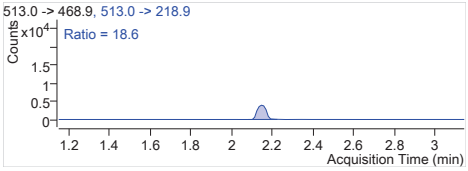
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.56 µg/L
Area ratio: 8.00208
Sample type: QC



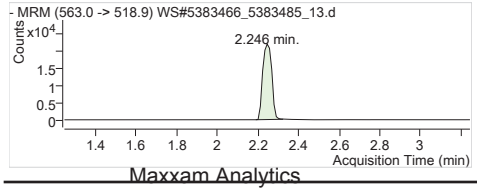


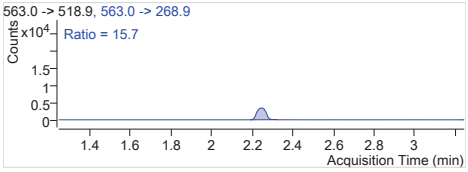
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.47 µg/L
Area ratio: 7.26218
Sample type: QC



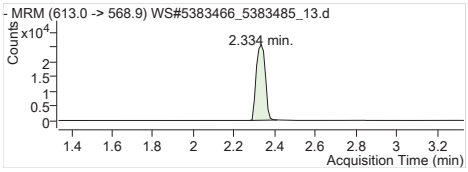


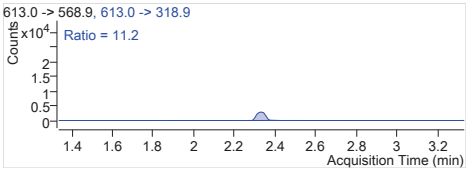
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 0.51 µg/L
Area ratio: 10.02949
Sample type: QC



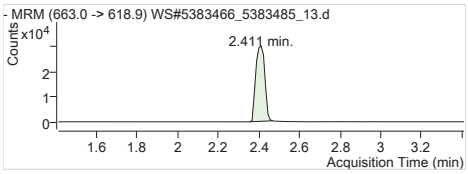


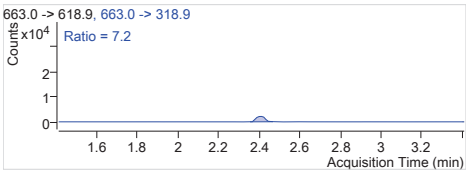
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.48 µg/L
Area ratio: 8.51063
Sample type: QC



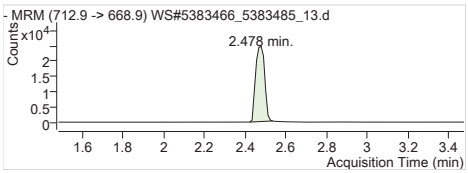


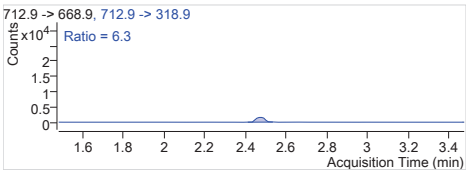
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 0.45 µg/L
Area ratio: 7.72398
Sample type: QC



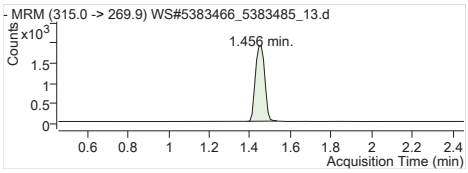


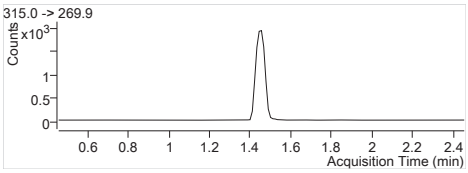
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 0.48 µg/L
Area ratio: 8.29422
Sample type: QC



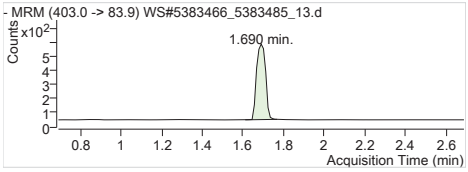


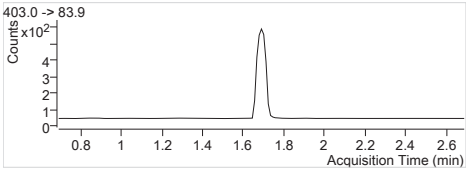
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 0.48 µg/L
Area ratio: 6.87737
Sample type: QC



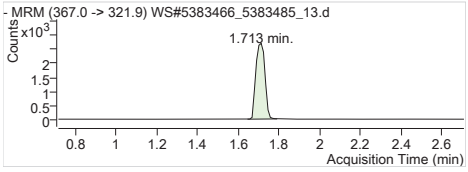


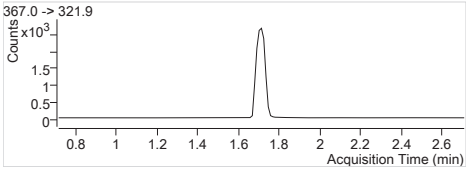
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 92.00 µg/L
Area ratio: 0.21797
Sample type: QC



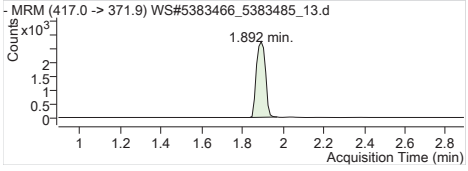


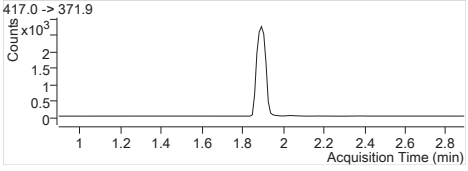
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 103.72 µg/L
Area ratio: 0.06027
Sample type: QC



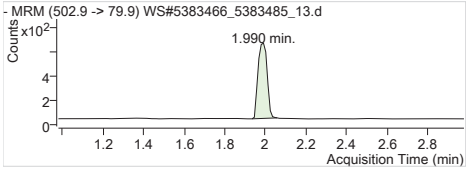


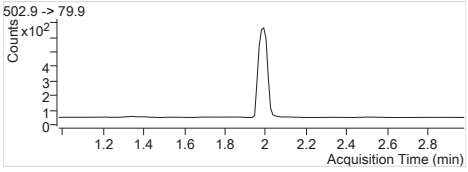
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 102.40 µg/L
Area ratio: 0.29915
Sample type: QC



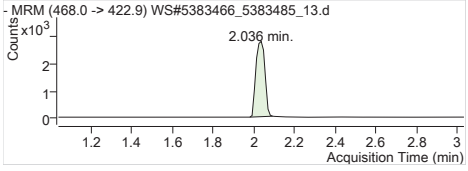


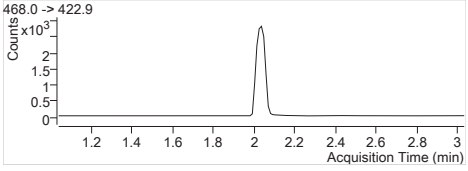
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 96.79 µg/L
Area ratio: 0.30381
Sample type: QC



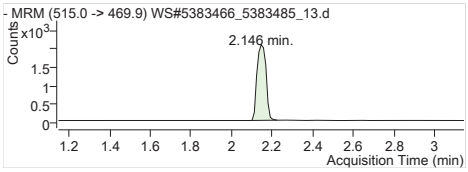


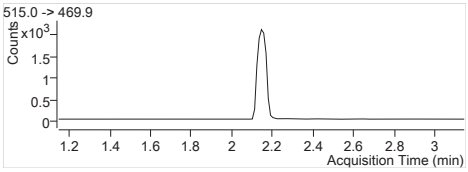
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 100.79 µg/L
Area ratio: 0.06957
Sample type: QC



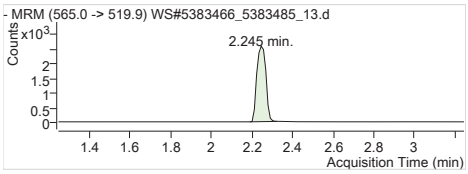


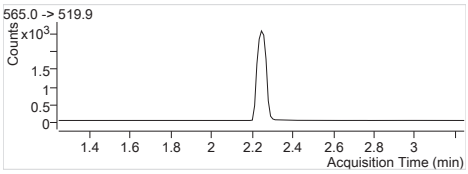
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 100.04 µg/L
Area ratio: 0.30942
Sample type: QC



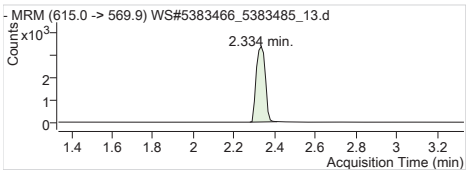


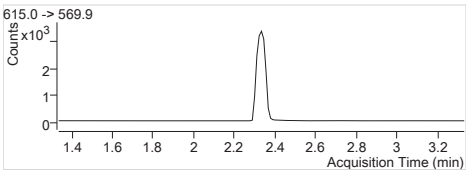
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 84.98 µg/L
Area ratio: 0.17053
Sample type: QC



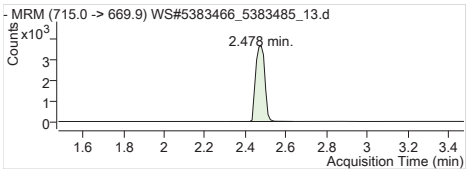


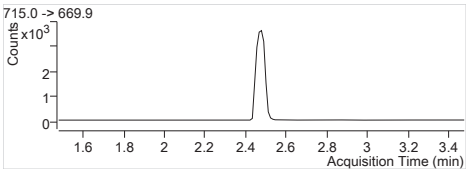
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 87.10 µg/L
Area ratio: 0.21069
Sample type: QC



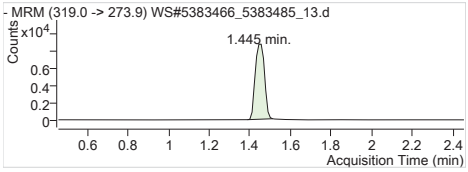


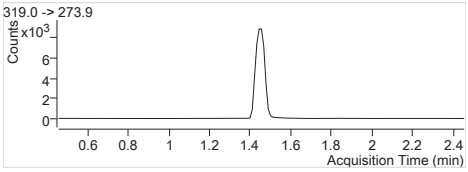
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 85.07 µg/L
Area ratio: 0.27385
Sample type: QC



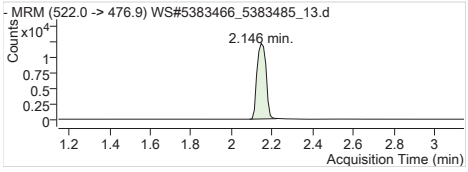


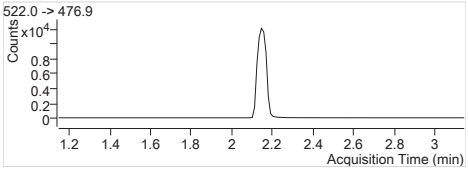
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 82.14 µg/L
Area ratio: 0.30129
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 2.33 µg/L
Area ratio: 0
Sample type: QC





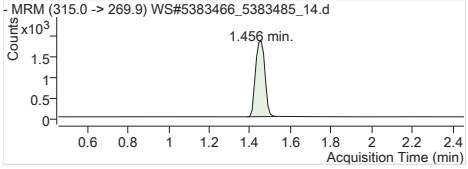
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.52 µg/L
Area ratio: 0
Sample type: QC

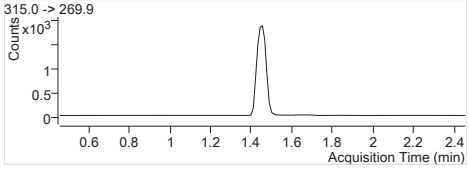
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**5383466:MTRX SPK:D1**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_14.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B4
Acq. Date	2018/02/06 7:11:08 PM	**Injection Volume**	Per Method
Sample Annotation	FZA786		

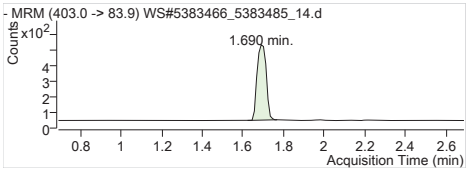
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5862	1.46	1 µg/L		
MPFHxS	1514	1.69	1 µg/L		
MPFHpA	7688	1.71	1 µg/L		
MPFOA	8395	1.89	1 µg/L		
MPFOS	1743	1.99	1 µg/L		
MPFNA	8031	2.04	1 µg/L		
MPFDA	7153	2.15	1 µg/L		
MPFUnA	7994	2.25	1 µg/L		
MPFDoA	10539	2.33	1 µg/L		
MPFTeDA	12020	2.48	1 µg/L		
13C6-PFHxA IS	25480	1.46	1 µg/L		
13C9-PFDA IS	33966	2.15	1 µg/L		

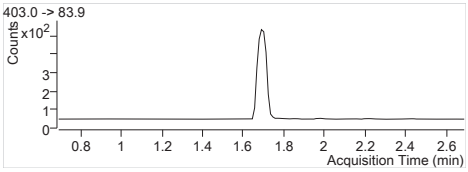
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	13588	1.11	20.80	0.49 µg/L	98.34
PFHxA 1	48572	1.46	20.80	0.50 µg/L	99.87
PFHxS 1	14071	1.69	20.80	0.50 µg/L	101.13
PFHpA 1	66259	1.71	20.80	0.50 µg/L	99.22
PFOA 1	90262	1.89	20.80	0.61 µg/L	121.98
PFOS 1	15668	1.98	20.80	0.63 µg/L	125.72
PFNA 1	60386	2.04	20.80	0.48 µg/L	96.88
PFDA 1	66635	2.15	20.80	0.48 µg/L	95.27
PFUnA 1	72096	2.25	20.80	0.51 µg/L	102.39
PFDoA 1	86761	2.33	20.80	0.48 µg/L	96.88
PFTrDA 1	98816	2.41	20.80	0.48 µg/L	95.60
PFTeDA 1	83035	2.48	20.80	0.48 µg/L	96.48
13C2-PFHxA	5862	1.46	100.00	97.10 µg/L	97.10
18O2-PFHxS	1514	1.69	100.00	102.25 µg/L	102.25
13C4-PFHpA	7688	1.71	100.00	103.28 µg/L	103.28
13C4-PFOA	8395	1.89	100.00	104.96 µg/L	104.96
13C4-PFOS	1743	1.99	100.00	99.11 µg/L	99.11
13C5-PFNA	7997	2.04	100.00	101.48 µg/L	101.48
13C2-PFDA	7097	2.15	100.00	104.12 µg/L	104.12
13C2-PFUnA	7994	2.25	100.00	97.30 µg/L	97.30
13C2-PFDoA	10539	2.33	100.00	96.39 µg/L	96.39
13C2-PFTeDA	12309	2.48	100.00	98.80 µg/L	98.80
13C6-PFHxA	25480	1.46	100.00	2.15 µg/L	89.63
13C9-PFDA	33966	2.15	100.00	2.28 µg/L	94.95



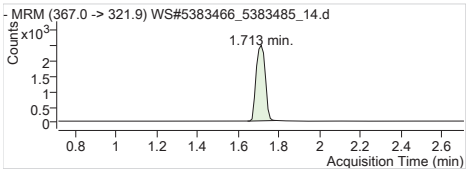


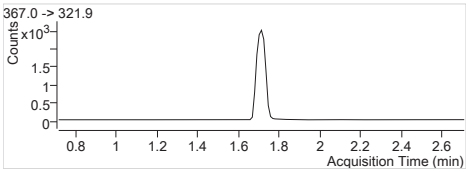
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	QC



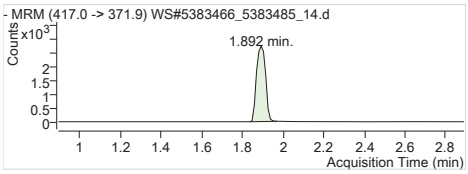


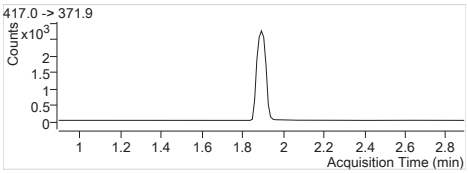
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



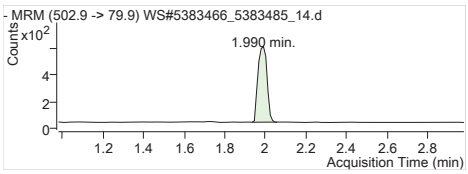


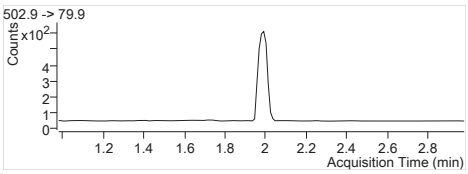
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: QC



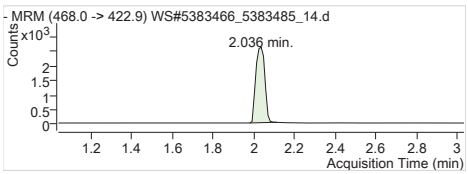


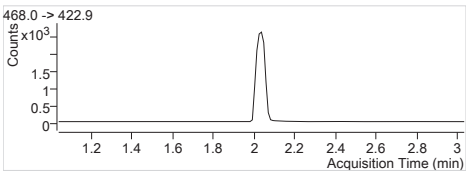
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: QC



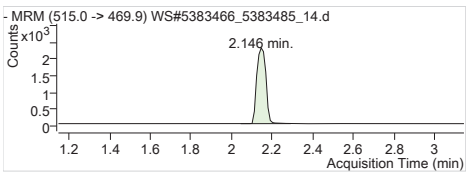


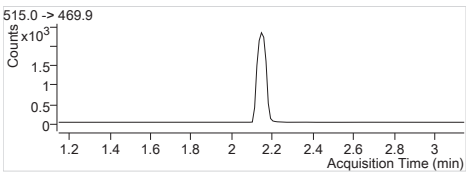
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: QC



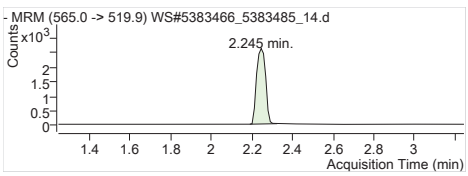


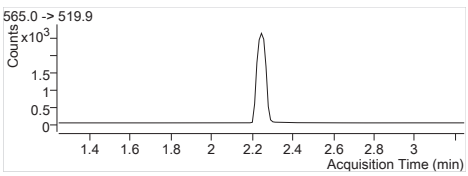
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: QC



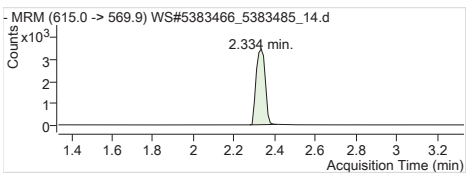


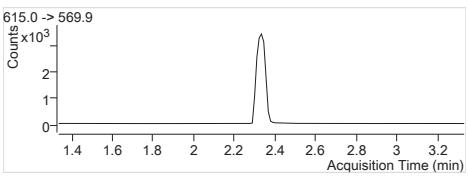
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



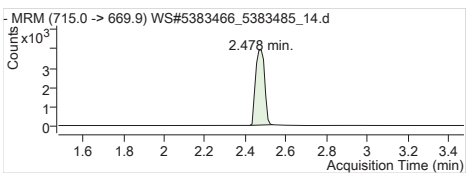


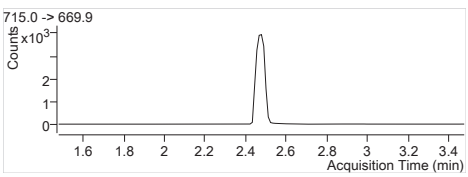
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC



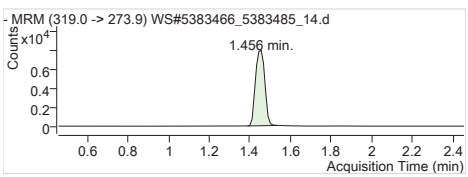


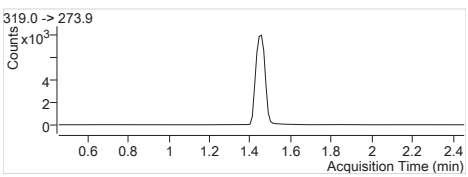
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: QC



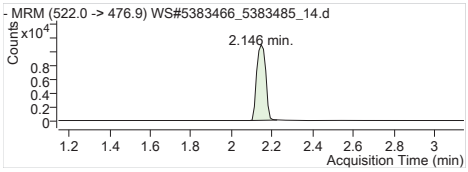


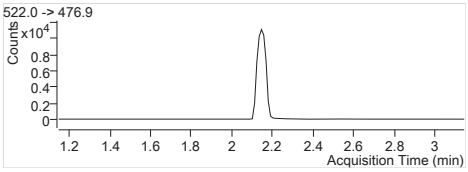
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: QC



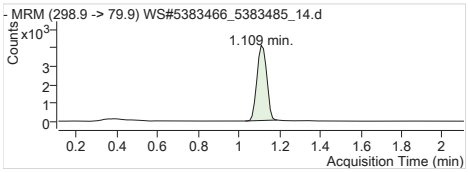


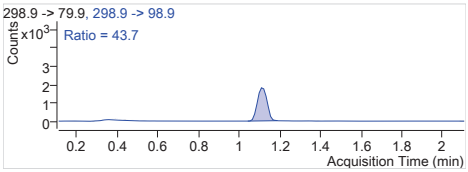
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: QC



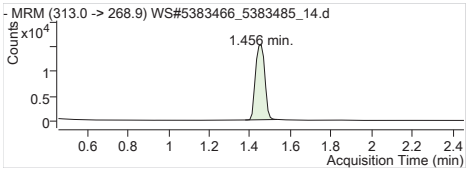


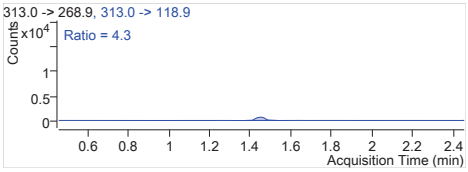
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



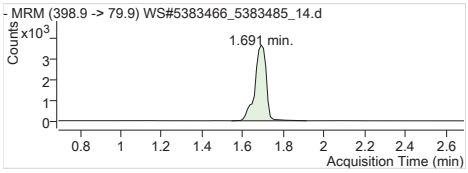


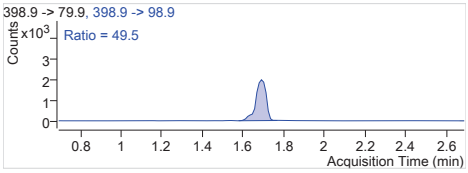
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 0.49 µg/L
Area ratio: 8.97490
Sample type: QC



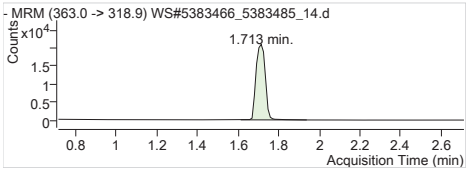


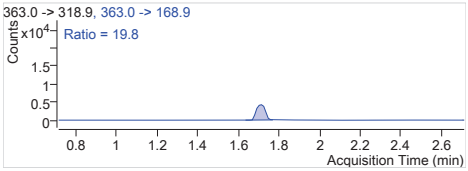
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 0.50 µg/L
Area ratio: 8.28591
Sample type: QC



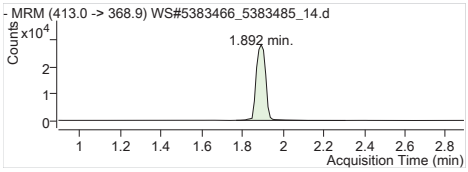


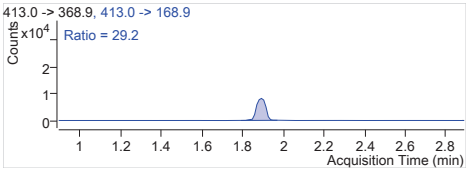
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.50 µg/L
Area ratio: 9.29392
Sample type: QC



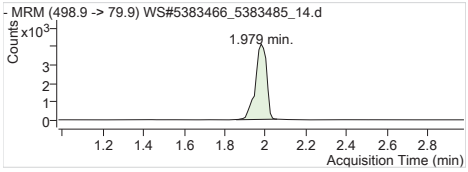


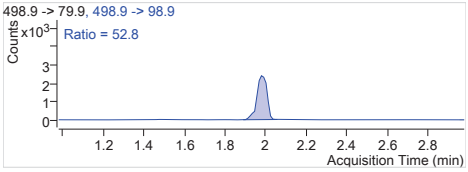
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 0.50 µg/L
Area ratio: 8.61850
Sample type: QC



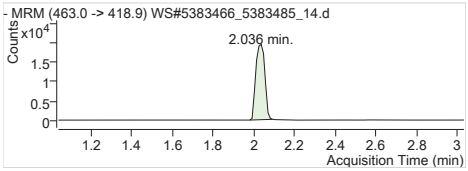


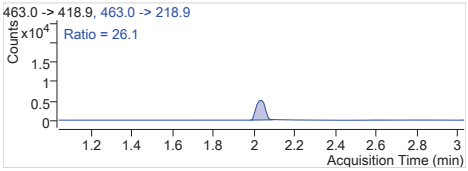
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 0.61 µg/L
Area ratio: 10.75188
Sample type: QC



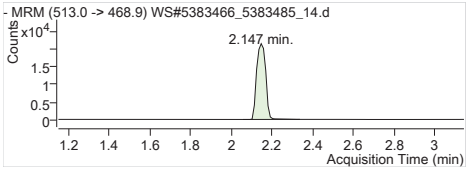


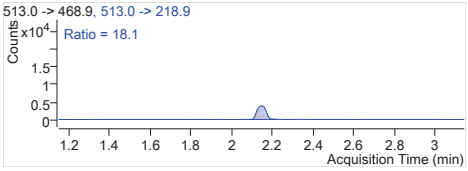
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.63 µg/L
Area ratio: 8.98910
Sample type: QC



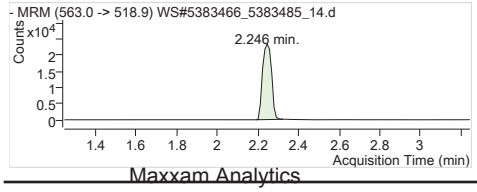


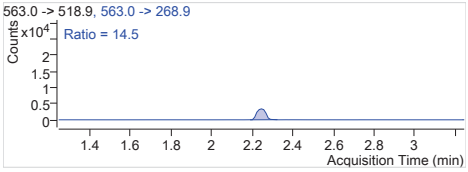
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.48 µg/L
Area ratio: 7.51911
Sample type: QC



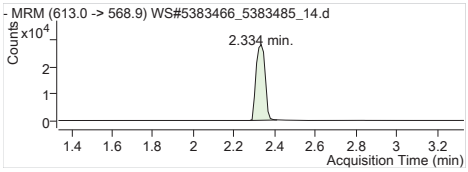


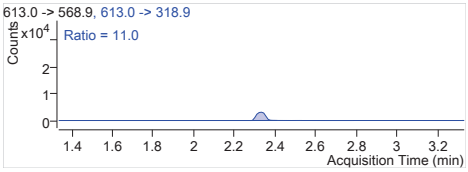
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 0.48 µg/L
Area ratio: 9.31567
Sample type: QC



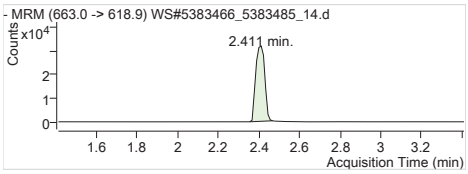


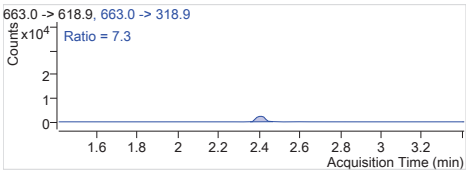
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.51 µg/L
Area ratio: 9.01876
Sample type: QC



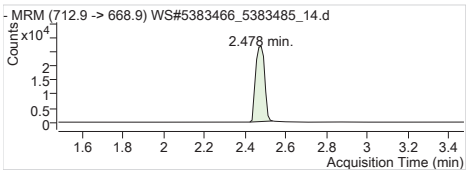


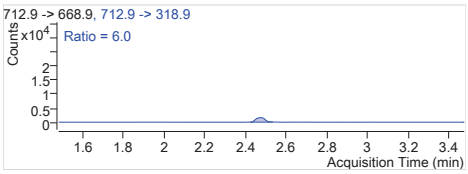
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.334 (2.334)
Calc. conc.	0.48 µg/L
Area ratio:	8.23237
Sample type:	QC



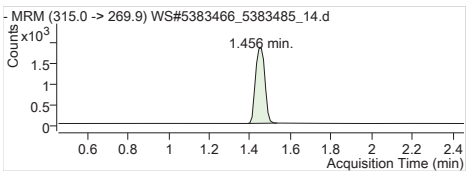


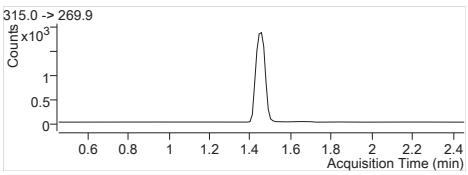
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.411 (2.411)
Calc. conc.	0.48 µg/L
Area ratio:	8.22097
Sample type:	QC



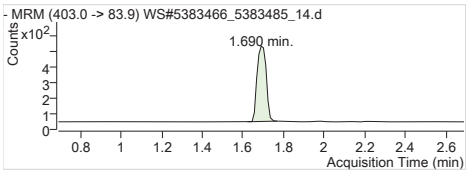


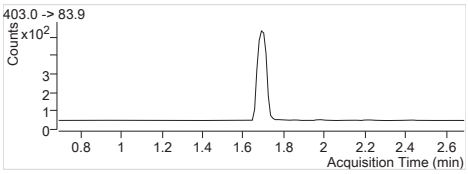
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.478 (2.478)
Calc. conc.	0.48 µg/L
Area ratio:	6.90807
Sample type:	QC



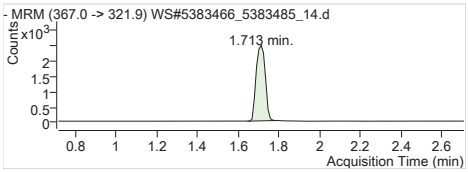


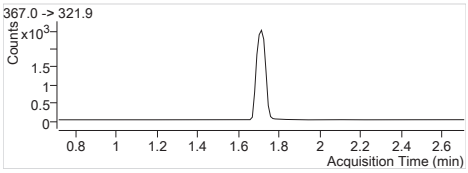
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	97.10 µg/L
Area ratio:	0.23006
Sample type:	QC



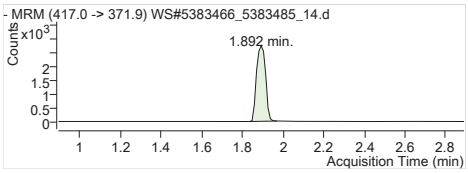


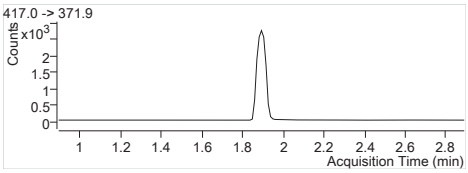
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	102.25 µg/L
Area ratio:	0.05942
Sample type:	QC



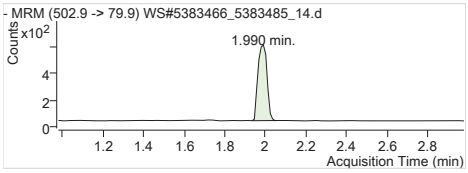


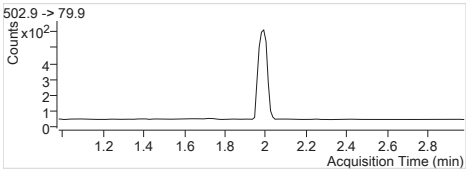
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	103.28 µg/L
Area ratio:	0.30173
Sample type:	QC



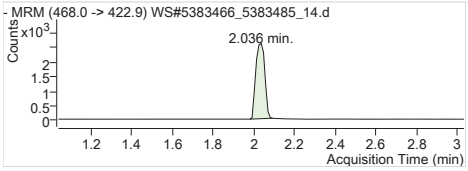


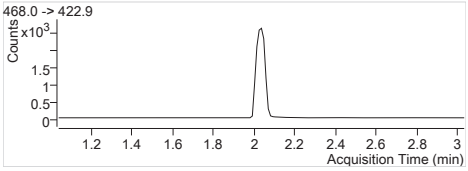
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	104.96 µg/L
Area ratio:	0.32947
Sample type:	QC



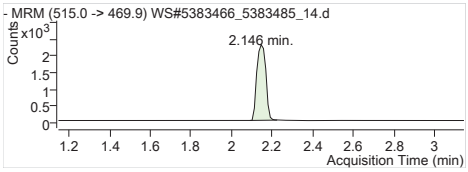


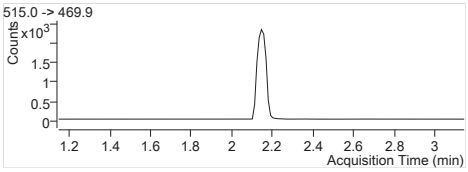
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	99.11 µg/L
Area ratio:	0.06841
Sample type:	QC



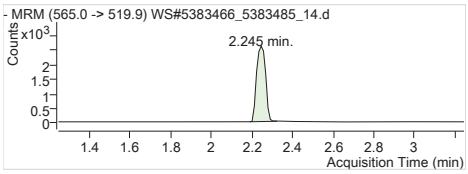


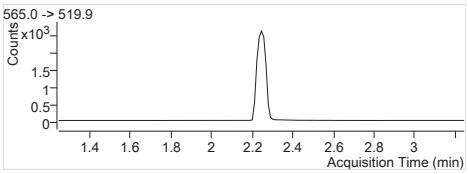
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	101.48 µg/L
Area ratio:	0.31385
Sample type:	QC



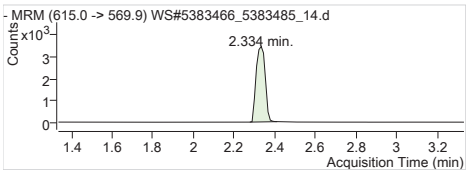


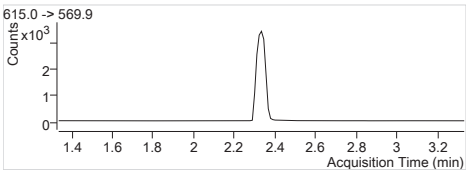
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 104.12 µg/L
Area ratio: 0.20894
Sample type: QC



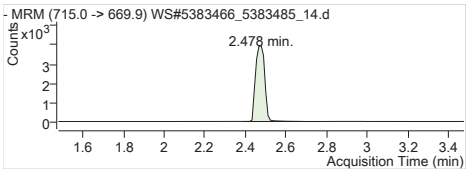


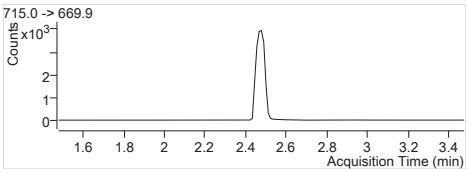
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 97.30 µg/L
Area ratio: 0.23535
Sample type: QC



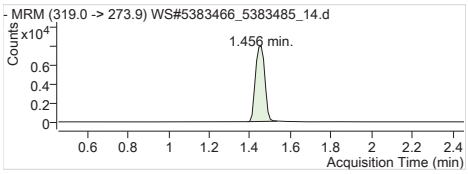


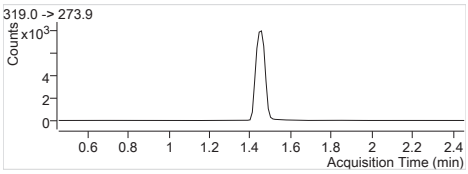
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 96.39 µg/L
Area ratio: 0.31028
Sample type: QC



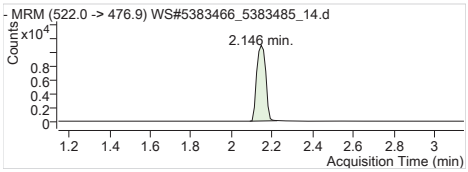


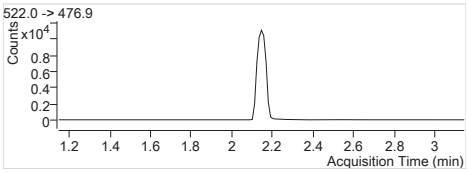
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 98.80 µg/L
Area ratio: 0.36239
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.15 µg/L
Area ratio: 0
Sample type: QC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.28 µg/L
Area ratio: 0
Sample type: QC

Quantitation Results

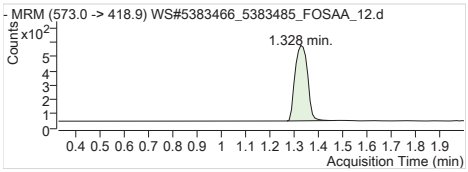
Agilent Technologies

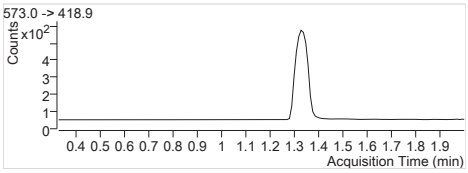
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**5383466:SPIKE**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B2
Acq. Date	2018/02/06 12:52:11 PM	**Injection Volume**	Per Method
Sample Annotation	-		

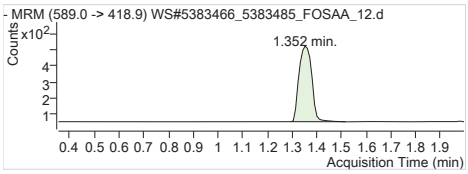
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1884	1.33	1 µg/L		
D5-EtFOSAA IS	1697	1.35	1 µg/L		
13C9-PFDA IS	29447	0.94	1 µg/L		

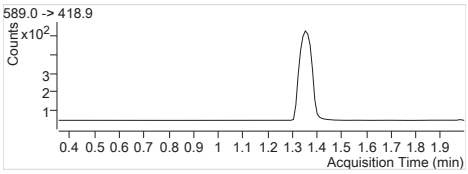
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	9660	1.33	20.80	0.34 µg/L	68.19
EtFOSAA 1	9506	1.35	20.80	0.32 µg/L	63.85
D3-MeFOSAA	1884	1.33	100.00	97.40 µg/L	97.40
D5-EtFOSAA	1697	1.35	100.00	101.83 µg/L	101.83
13C9-PFDA	29691	0.94	100.00	2.53 µg/L	105.32



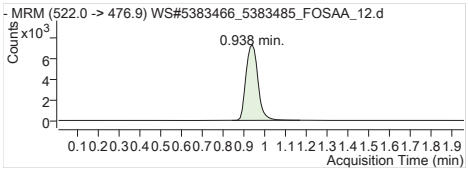


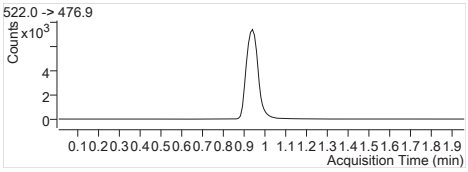
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: QC



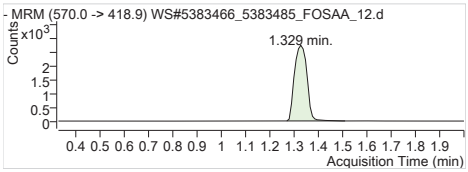


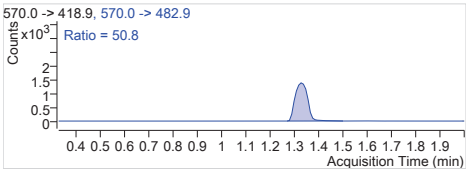
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: QC



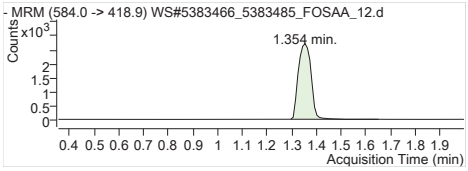


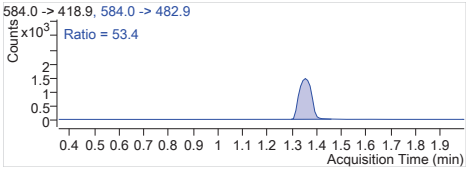
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.938 (0.958)
Concentration: 1 µg/L
Sample type: QC



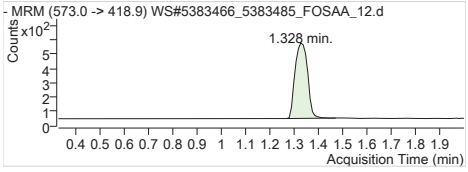


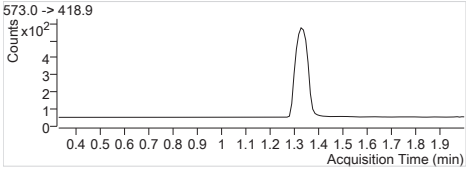
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 0.34 µg/L
Area ratio: 5.12739
Sample type: QC



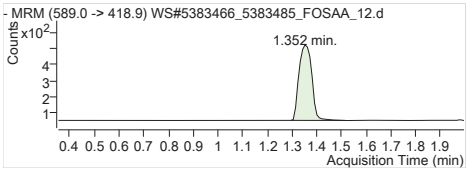


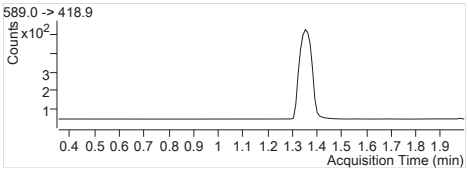
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 0.32 µg/L
Area ratio: 5.60165
Sample type: QC



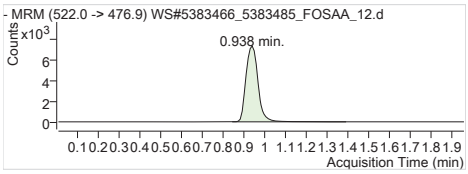


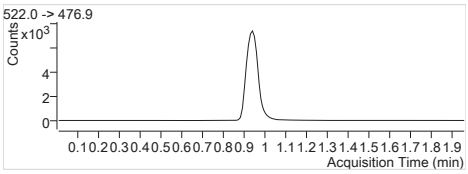
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 97.40 µg/L
Area ratio: 0.06398
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	101.83 µg/L
Area ratio:	0.05763
Sample type:	QC





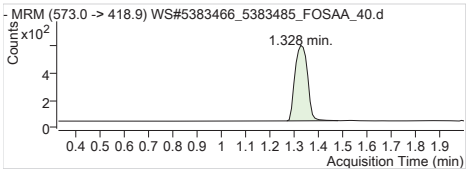
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.938 (0.958)
Calc. conc.	2.53 µg/L
Area ratio:	0
Sample type:	QC

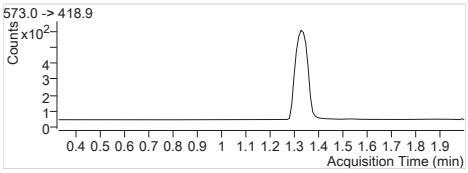
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**5383466:SPIKE:R**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_40.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B2
Acq. Date	2018/02/06 2:55:09 PM	**Injection Volume**	Per Method
Sample Annotation	Not used		

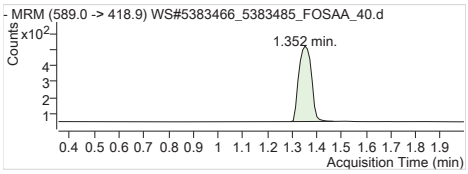
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1986	1.33	1 µg/L		
D5-EtFOSAA IS	1671	1.35	1 µg/L		
13C9-PFDA IS	30281	0.94	1 µg/L		

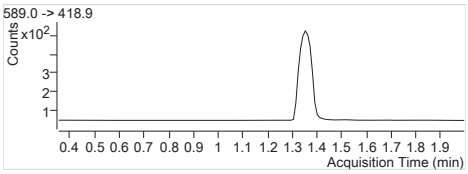
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	9652	1.33	20.80	0.32 µg/L	64.64
EtFOSAA 1	9548	1.35	20.80	0.33 µg/L	65.12
D3-MeFOSAA	1986	1.33	100.00	99.84 µg/L	99.84
D5-EtFOSAA	1671	1.35	100.00	97.50 µg/L	97.50
13C9-PFDA	30309	0.94	100.00	2.58 µg/L	107.52



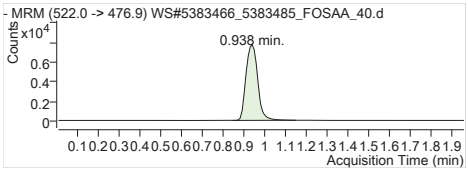


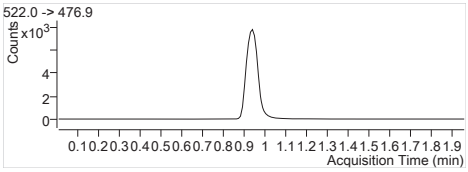
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: QC



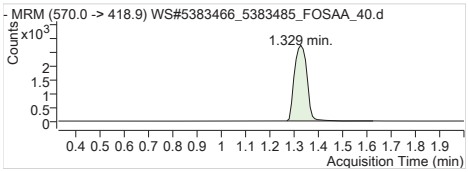


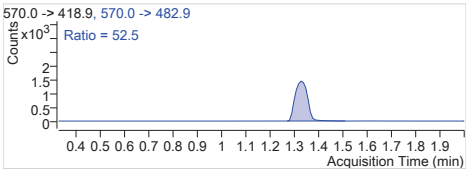
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: QC



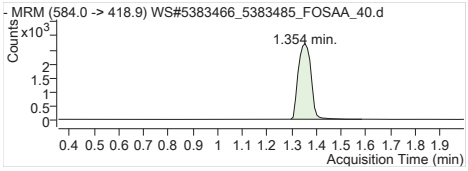


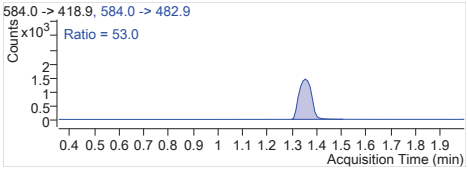
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.938 (0.958)
Concentration: 1 µg/L
Sample type: QC



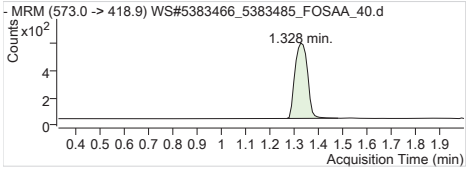


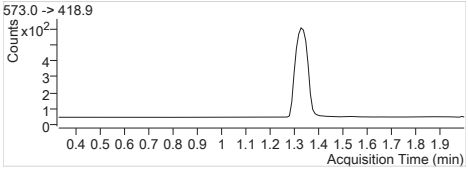
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 0.32 µg/L
Area ratio: 4.86002
Sample type: QC



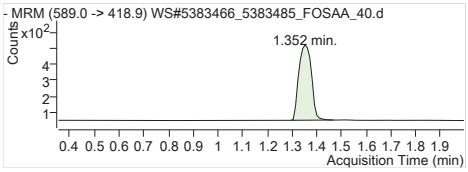


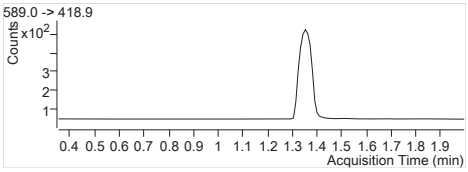
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 0.33 µg/L
Area ratio: 5.71394
Sample type: QC



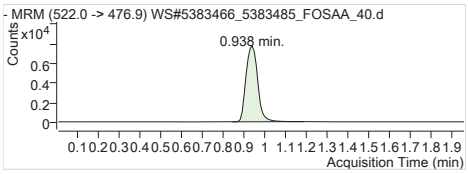


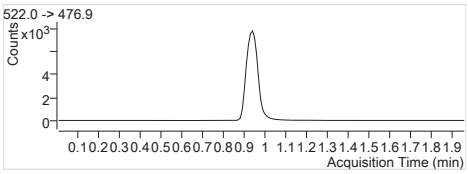
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 99.84 µg/L
Area ratio: 0.06559
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	97.50 µg/L
Area ratio:	0.05518
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.938 (0.958)
Calc. conc.	2.58 µg/L
Area ratio:	0
Sample type:	QC

Quantitation Results

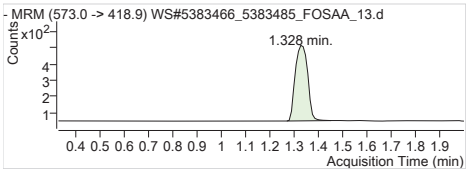
Agilent Technologies

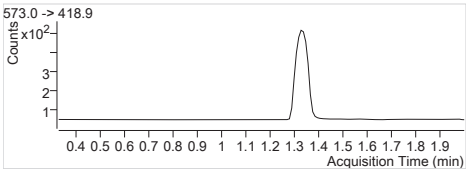
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**5383466:MTRX SPK**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_13.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B3
Acq. Date	2018/02/06 12:54:36 PM	**Injection Volume**	Per Method
Sample Annotation	FZA786		

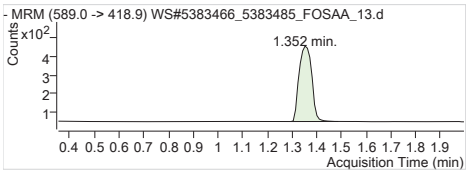
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1659	1.33	1 µg/L		
D5-EtFOSAA IS	1446	1.35	1 µg/L		
13C9-PFDA IS	29374	0.93	1 µg/L		

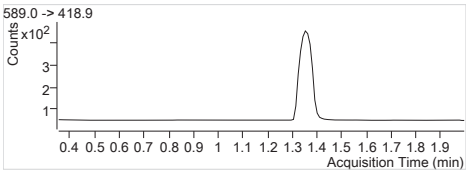
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	11255	1.33	20.80	0.45 µg/L	90.18
EtFOSAA 1	11129	1.35	20.80	0.44 µg/L	87.44
D3-MeFOSAA	1659	1.33	100.00	85.98 µg/L	85.98
D5-EtFOSAA	1446	1.35	100.00	86.98 µg/L	86.98
13C9-PFDA	29366	0.93	100.00	2.50 µg/L	104.17



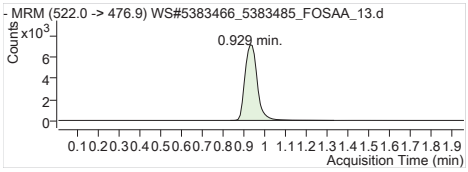


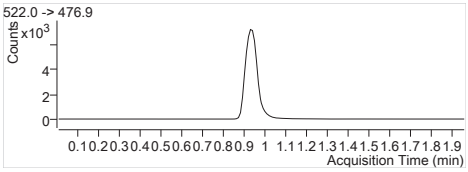
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: QC



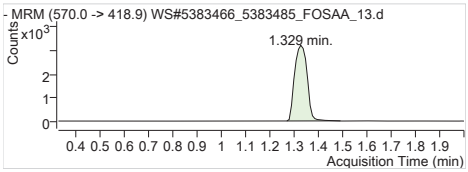


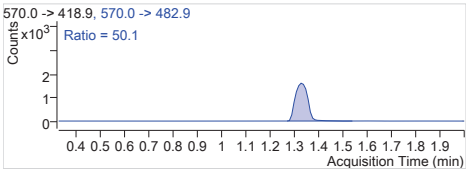
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: QC



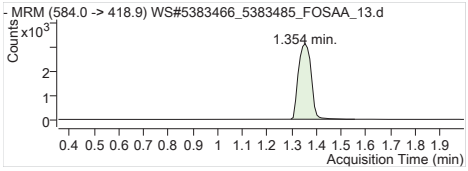


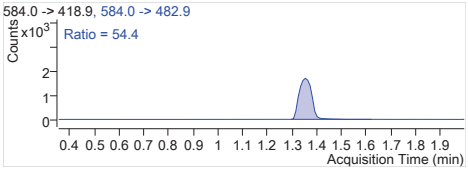
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.929 (0.958)
Concentration: 1 µg/L
Sample type: QC



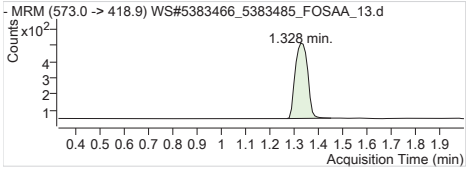


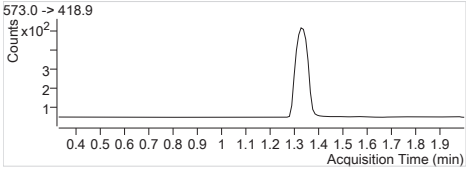
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 0.45 µg/L
Area ratio: 6.78421
Sample type: QC



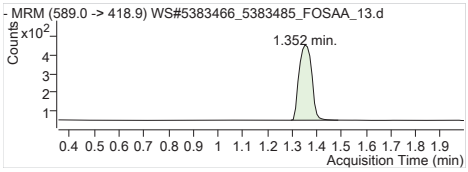


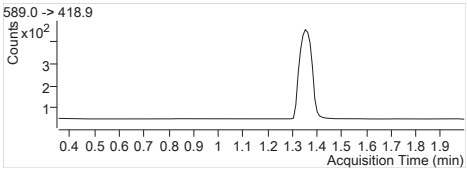
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 0.44 µg/L
Area ratio: 7.69640
Sample type: QC



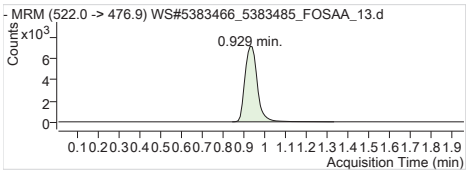


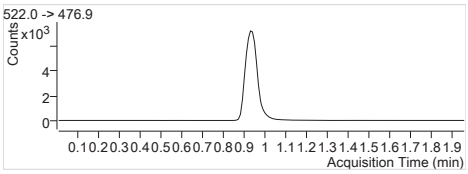
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 85.98 µg/L
Area ratio: 0.05648
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	86.98 µg/L
Area ratio:	0.04923
Sample type:	QC





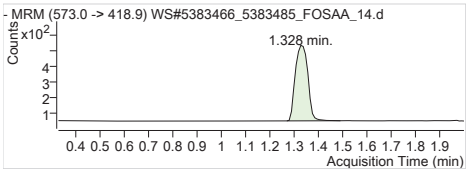
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.929 (0.958)
Calc. conc.	2.50 µg/L
Area ratio:	0
Sample type:	QC

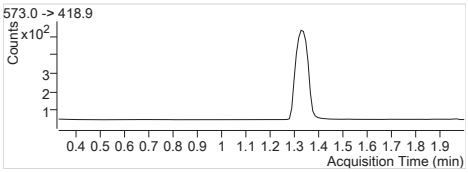
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**5383466:MTRX SPK:D1**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_14.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B4
Acq. Date	2018/02/06 12:57:01 PM	**Injection Volume**	Per Method
Sample Annotation	FZA786		

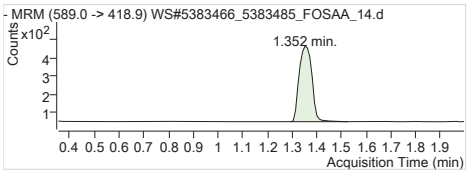
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1730	1.33	1 µg/L		
D5-EtFOSAA IS	1484	1.35	1 µg/L		
13C9-PFDA IS	27873	0.94	1 µg/L		

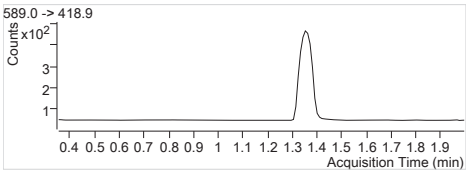
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	12209	1.33	20.80	0.47 µg/L	93.80
EtFOSAA 1	12285	1.35	20.80	0.47 µg/L	94.00
D3-MeFOSAA	1730	1.33	100.00	94.49 µg/L	94.49
D5-EtFOSAA	1484	1.35	100.00	94.07 µg/L	94.07
13C9-PFDA	27872	0.94	100.00	2.37 µg/L	98.87



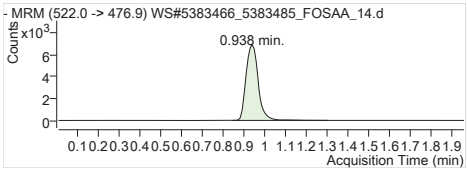


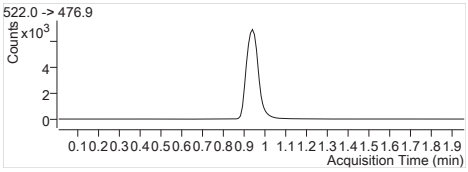
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: QC



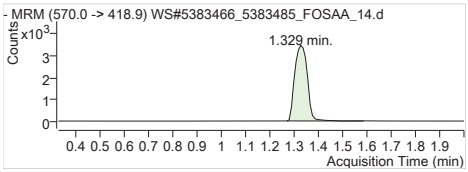


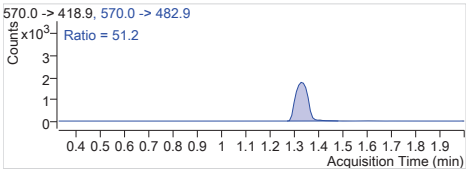
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: QC



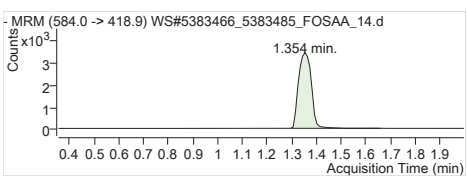


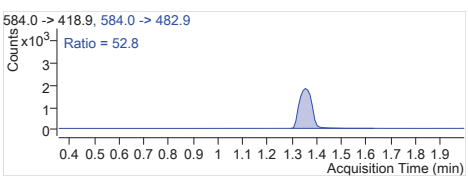
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.938 (0.958)
Concentration: 1 µg/L
Sample type: QC



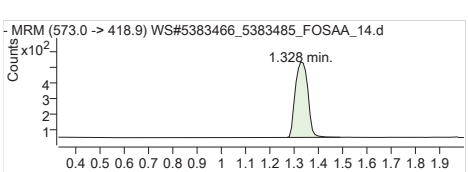


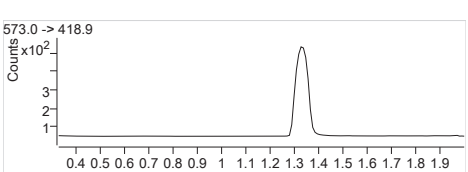
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 0.47 µg/L
Area ratio: 7.05723
Sample type: QC



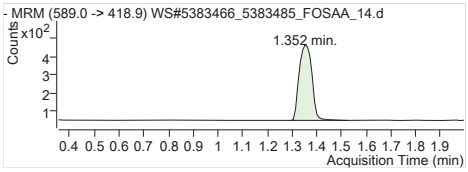


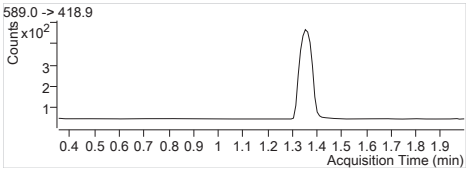
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 0.47 µg/L
Area ratio: 8.27830
Sample type: QC



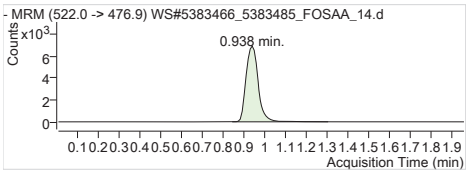


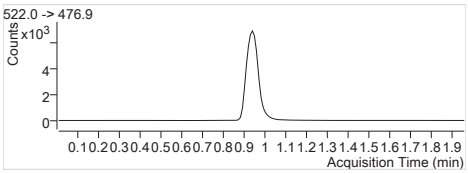
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 94.49 µg/L
Area ratio: 0.06207
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	94.07 µg/L
Area ratio:	0.05324
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.938 (0.958)
Calc. conc.	2.37 µg/L
Area ratio:	0
Sample type:	QC

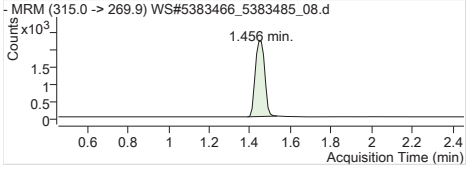
Quantitation Results

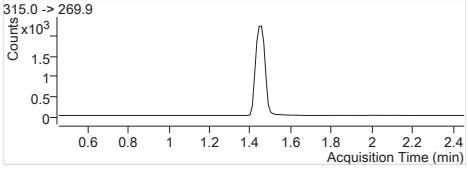
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics		
Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-A8
Acq. Date	2018/02/06 6:41:25 PM	**Injection Volume**	Per Method
Sample Annotation	-		

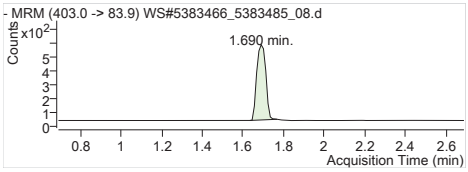
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7067	1.46	1 µg/L		
MPFHxS	1679	1.69	1 µg/L		
MPFHpA	8797	1.71	1 µg/L		
MPFOA	8726	1.89	1 µg/L		
MPFOS	2052	1.99	1 µg/L		
MPFNA	9059	2.04	1 µg/L		
MPFDA	7282	2.15	1 µg/L		
MPFUnA	8608	2.25	1 µg/L		
MPFDoA	11464	2.33	1 µg/L		
MPFTeDA	13573	2.48	1 µg/L		
13C6-PFHxA IS	29106	1.46	1 µg/L		
13C9-PFDA IS	37296	2.15	1 µg/L		

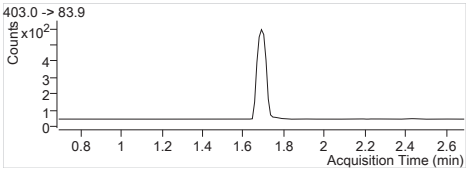
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	7067	1.46	-	102.48 µg/L	-
18O2-PFHxS	1679	1.69	-	99.27 µg/L	-
13C4-PFHpA	8797	1.71	-	103.45 µg/L	-
13C4-PFOA	8726	1.89	-	95.51 µg/L	-
13C4-PFOS	2052	1.99	-	102.14 µg/L	-
13C5-PFNA	8984	2.04	-	99.80 µg/L	-
13C2-PFDA	7172	2.15	-	95.83 µg/L	-
13C2-PFUnA	8608	2.25	-	95.42 µg/L	-
13C2-PFDoA	11464	2.33	-	95.48 µg/L	-
13C2-PFTeDA	14048	2.48	-	102.69 µg/L	-
13C6-PFHxA	29106	1.46	-	2.46 µg/L	-
13C9-PFDA	37296	2.15	-	2.50 µg/L	-



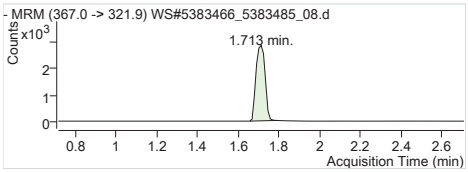


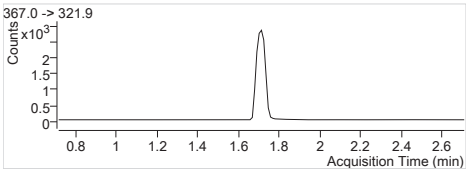
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Sample



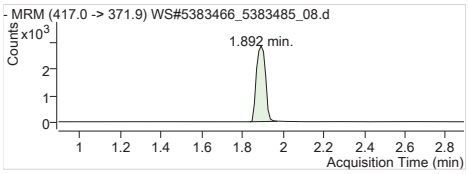


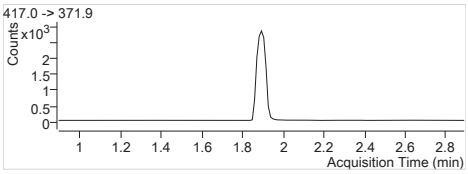
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



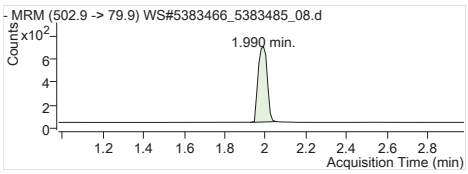


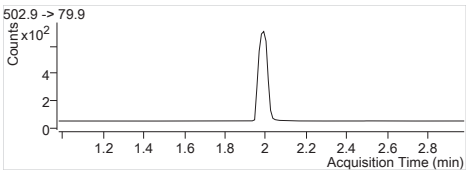
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



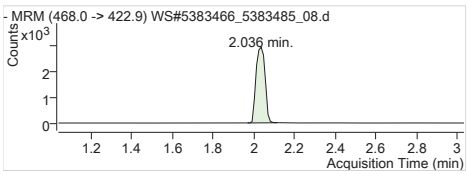


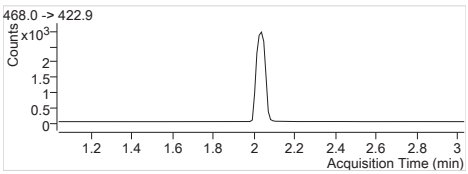
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



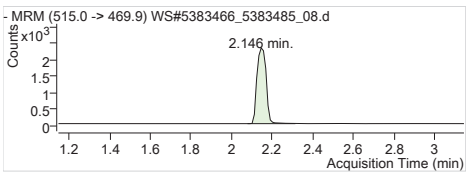


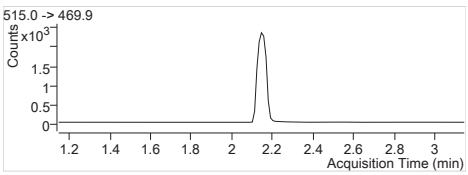
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Sample



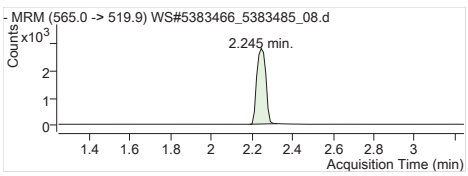


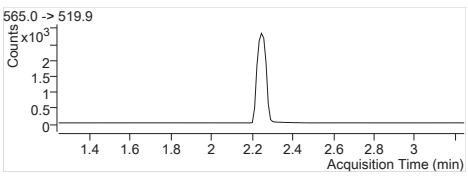
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



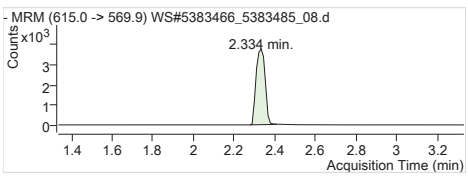


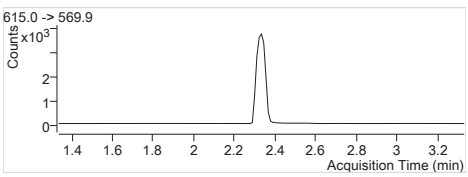
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



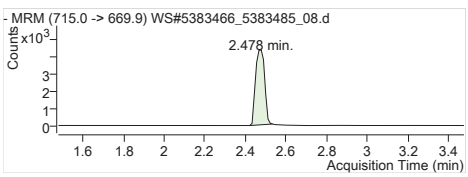


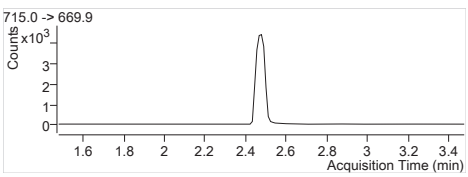
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



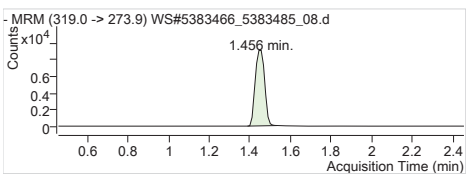


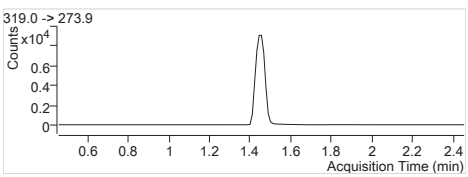
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Sample



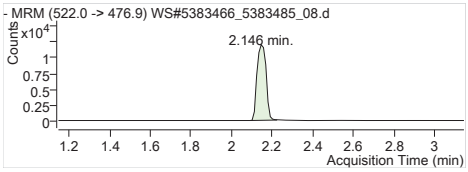


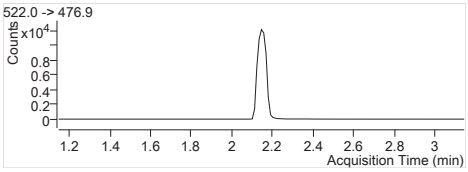
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Sample



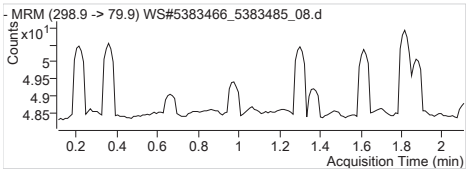


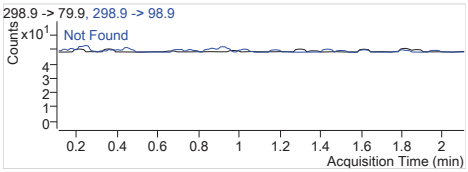
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



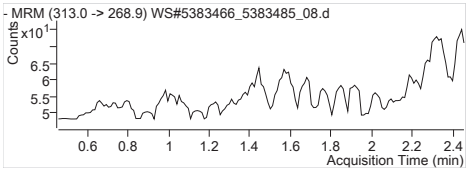


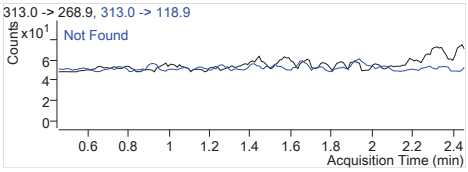
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



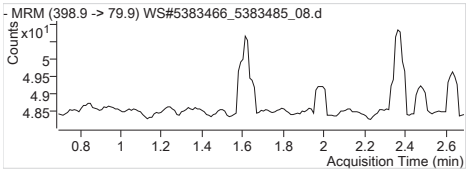


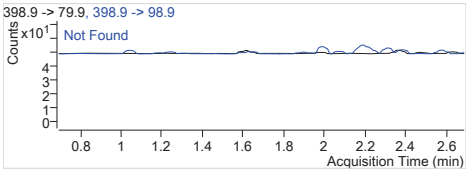
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.109)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



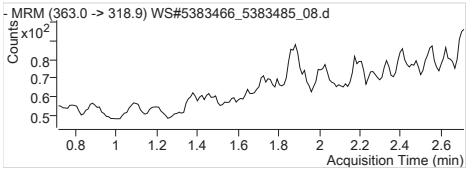


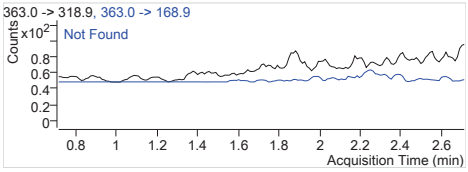
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.456)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



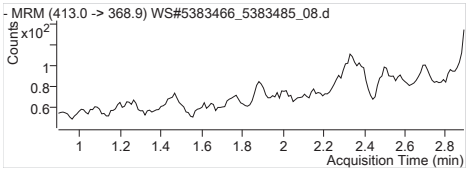


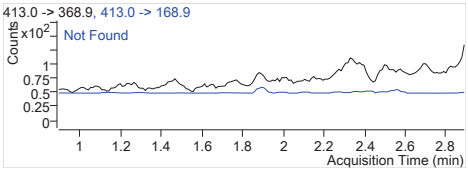
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



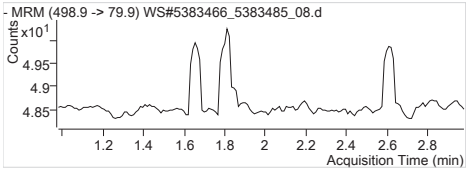


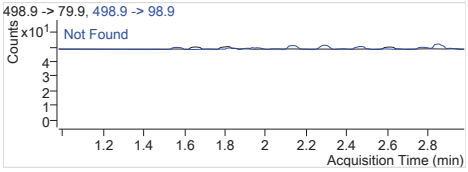
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.713)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



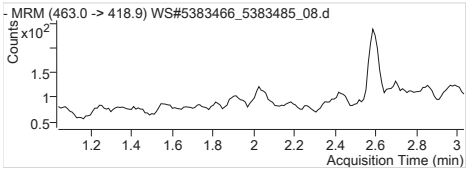


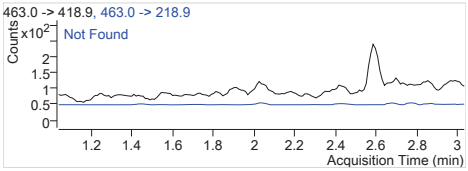
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.892)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



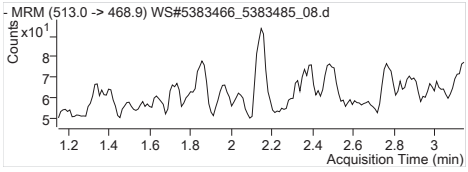


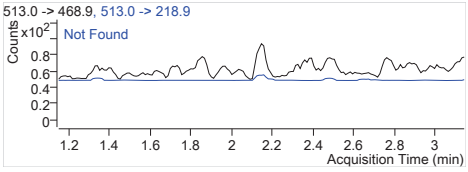
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



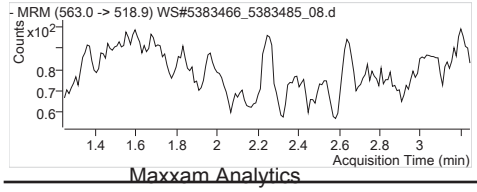


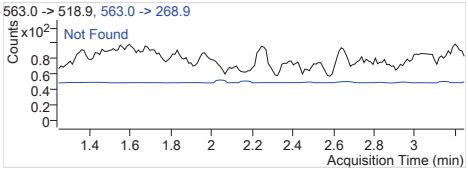
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.036)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



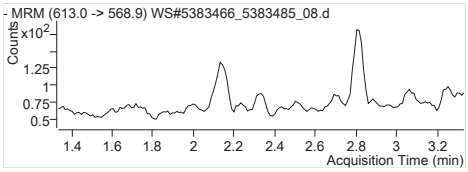


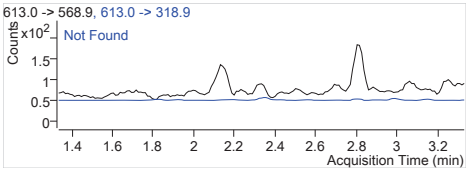
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



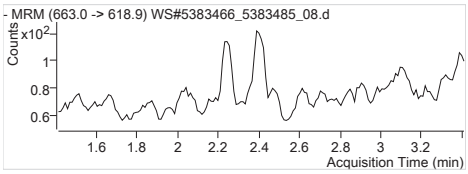


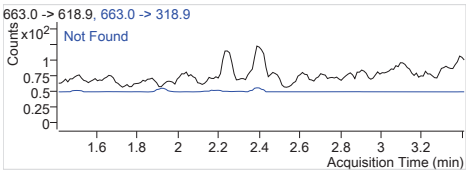
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



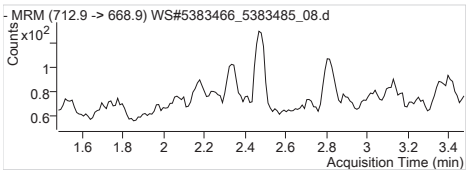


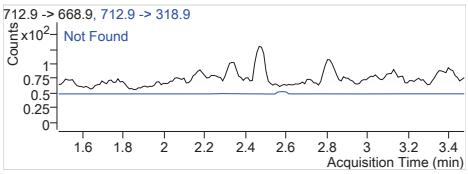
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



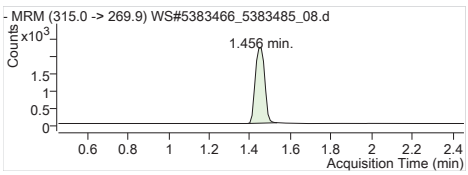


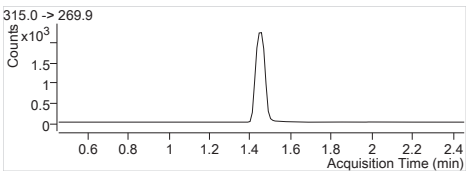
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.411)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



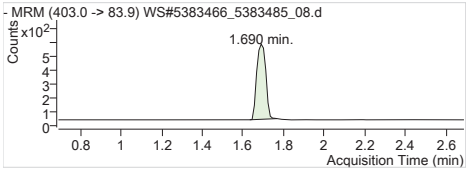


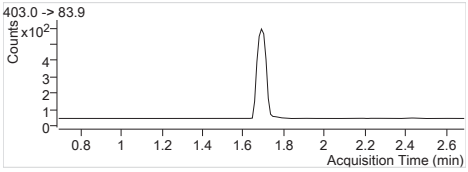
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.478)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



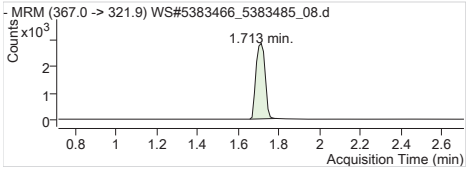


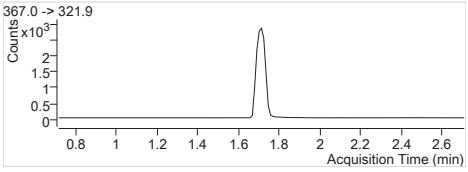
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 102.48 µg/L
Area ratio: 0.24280
Sample type: Sample



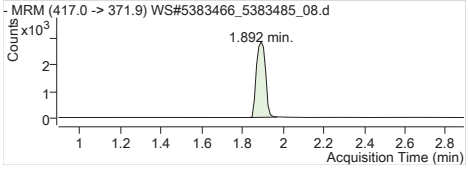


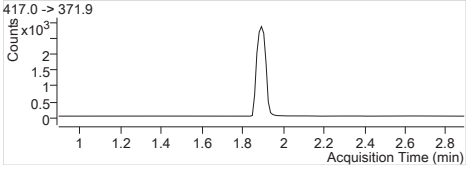
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 99.27 µg/L
Area ratio: 0.05769
Sample type: Sample



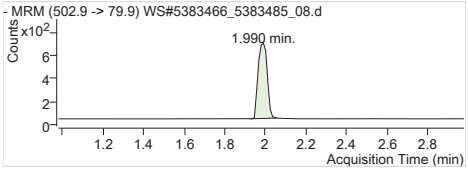


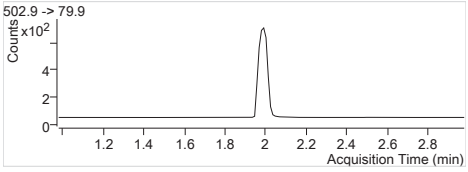
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 103.45 µg/L
Area ratio: 0.30224
Sample type: Sample



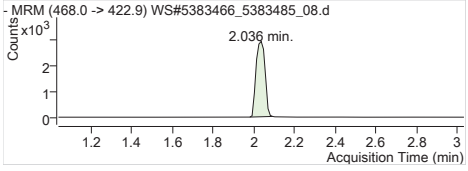


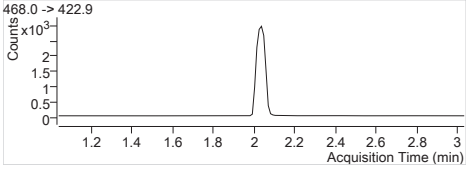
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 95.51 µg/L
Area ratio: 0.29980
Sample type: Sample



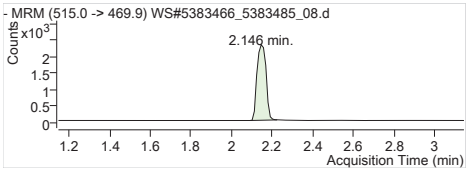


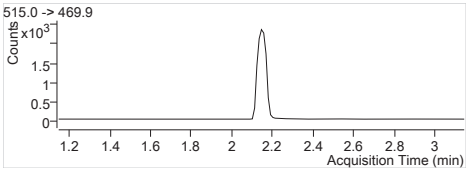
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 102.14 µg/L
Area ratio: 0.07050
Sample type: Sample



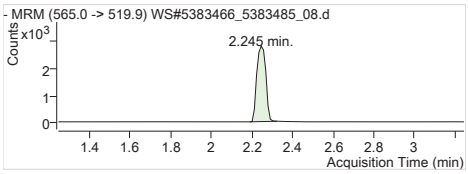


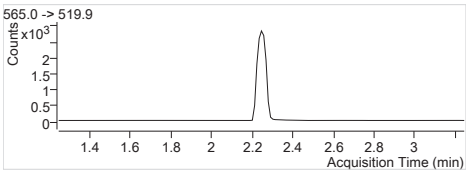
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 99.80 µg/L
Area ratio: 0.30866
Sample type: Sample



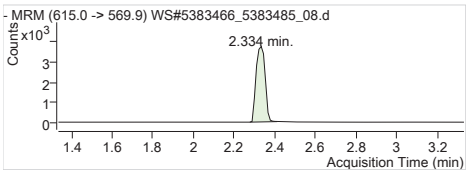


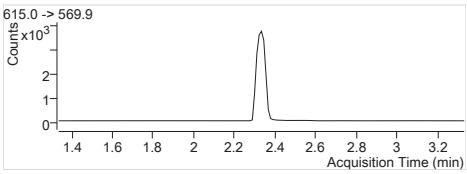
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 95.83 µg/L
Area ratio: 0.19230
Sample type: Sample



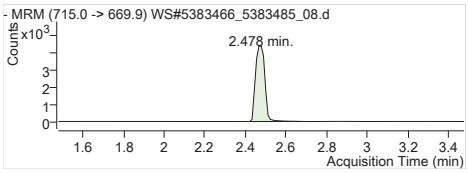


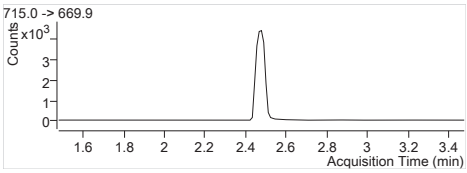
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 95.42 µg/L
Area ratio: 0.23080
Sample type: Sample



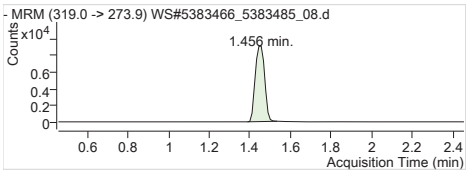


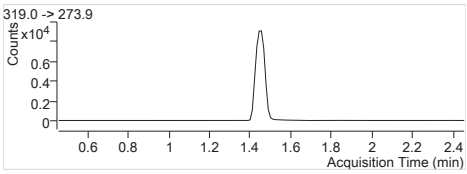
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 95.48 µg/L
Area ratio: 0.30738
Sample type: Sample



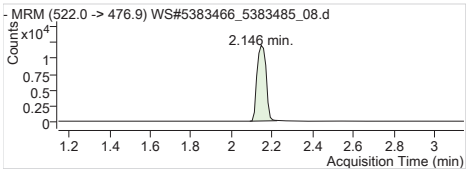


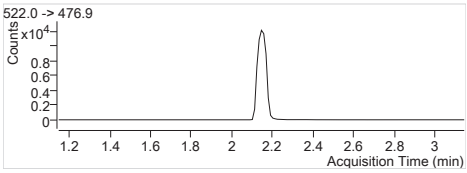
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 102.69 µg/L
Area ratio: 0.37666
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.46 µg/L
Area ratio: 0
Sample type: Sample





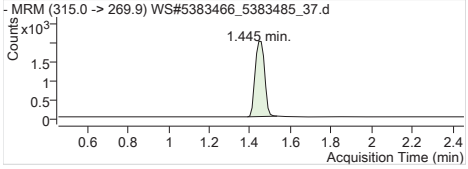
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.50 µg/L
Area ratio: 0
Sample type: Sample

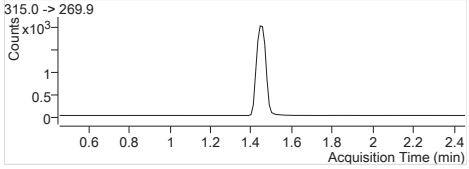
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_37.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-A8
Acq. Date	2018/02/06 9:04:36 PM	**Injection Volume**	Per Method
Sample Annotation	-		

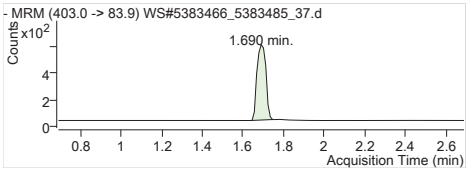
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6384	1.44	1 µg/L		
MPFHxS	1703	1.69	1 µg/L		
MPFHpA	8264	1.71	1 µg/L		
MPFOA	9053	1.89	1 µg/L		
MPFOS	1832	1.99	1 µg/L		
MPFNA	9111	2.04	1 µg/L		
MPFDA	7963	2.15	1 µg/L		
MPFUnA	8692	2.25	1 µg/L		
MPFDoA	11786	2.33	1 µg/L		
MPFTeDA	13515	2.48	1 µg/L		
13C6-PFHxA IS	28585	1.46	1 µg/L		
13C9-PFDA IS	37236	2.15	1 µg/L		

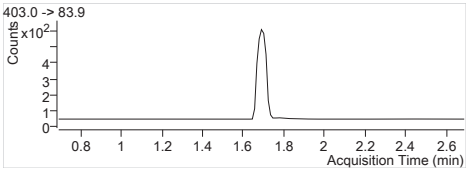
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6384	1.44	-	94.26 µg/L	-
18O2-PFHxS	1703	1.69	-	102.53 µg/L	-
13C4-PFHpA	8264	1.71	-	98.96 µg/L	-
13C4-PFOA	9053	1.89	-	100.89 µg/L	-
13C4-PFOS	1832	1.99	-	92.85 µg/L	-
13C5-PFNA	9110	2.04	-	103.04 µg/L	-
13C2-PFDA	7826	2.15	-	104.74 µg/L	-
13C2-PFUnA	8692	2.25	-	96.51 µg/L	-
13C2-PFDoA	11786	2.33	-	98.32 µg/L	-
13C2-PFTeDA	13893	2.48	-	101.72 µg/L	-
13C6-PFHxA	28585	1.46	-	2.41 µg/L	-
13C9-PFDA	37236	2.15	-	2.50 µg/L	-



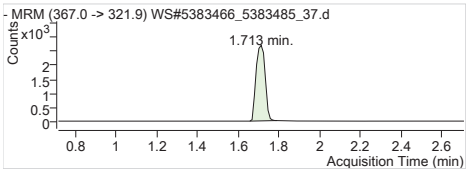


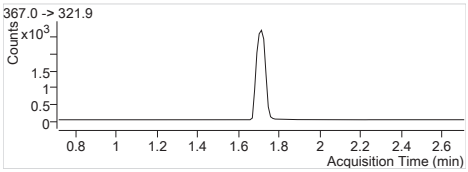
MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	Sample



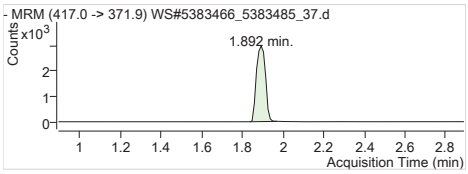


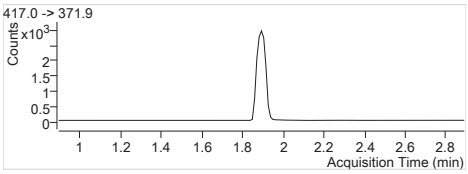
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



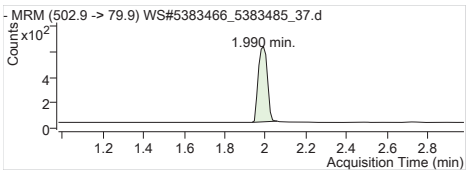


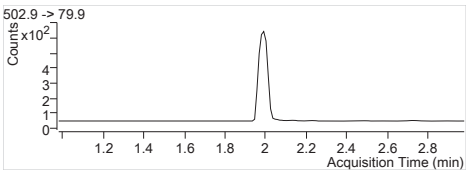
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Sample



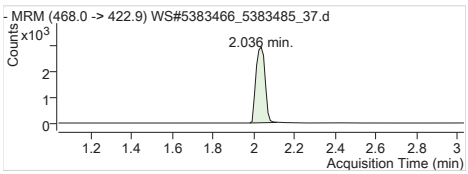


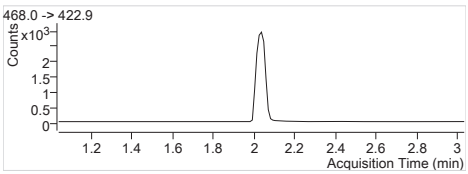
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Sample



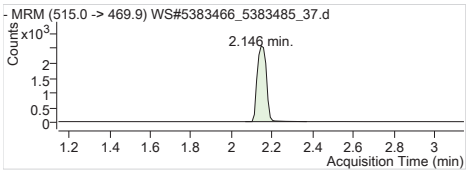


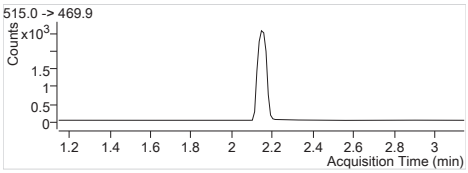
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Sample



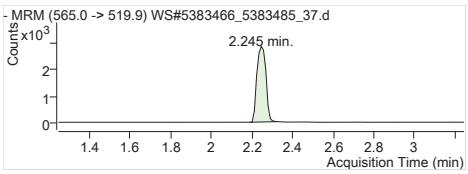


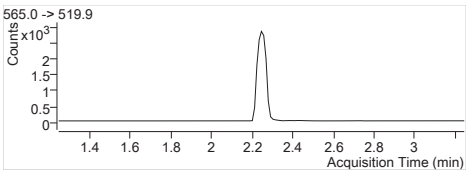
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Sample



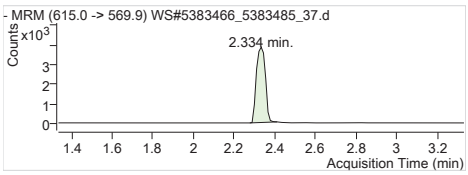


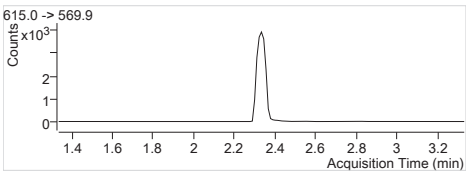
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



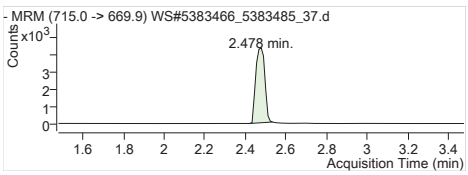


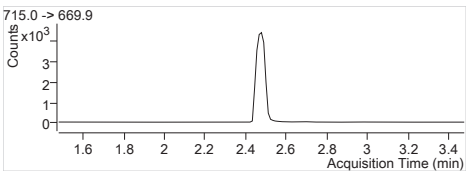
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



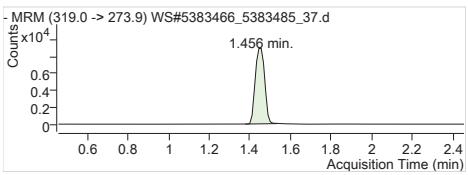


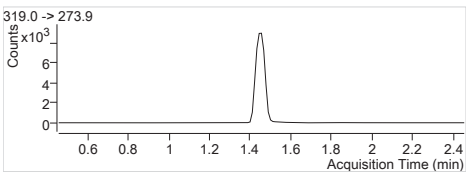
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Sample



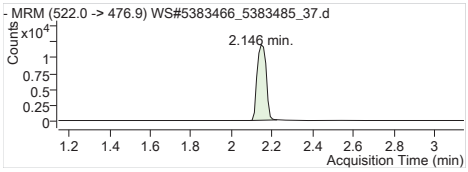


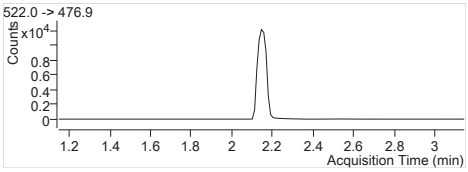
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Sample



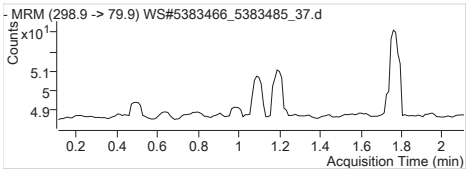


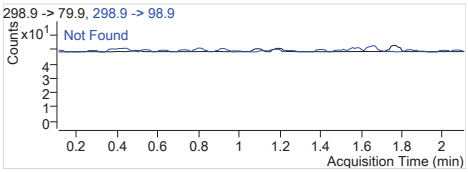
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Sample



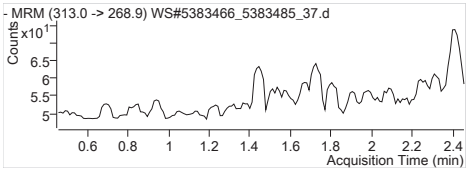


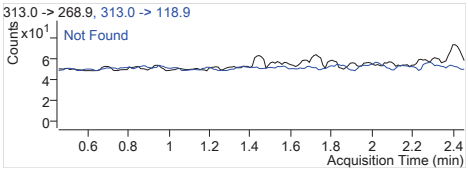
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



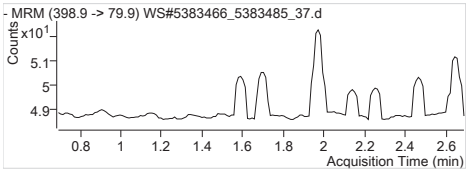


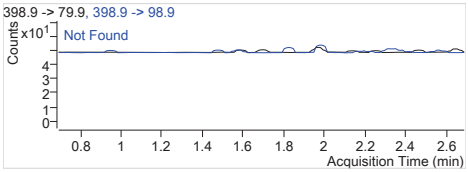
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.109)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



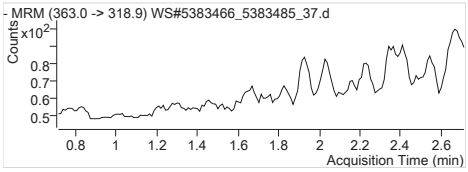


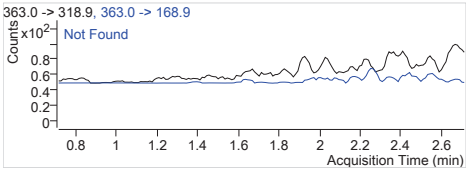
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.456)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



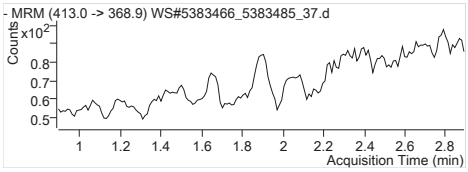


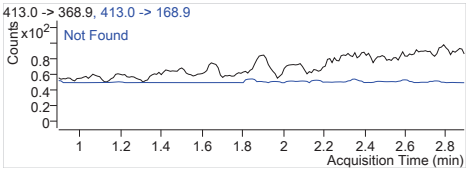
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



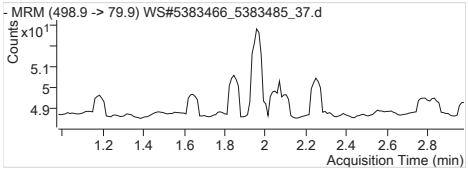


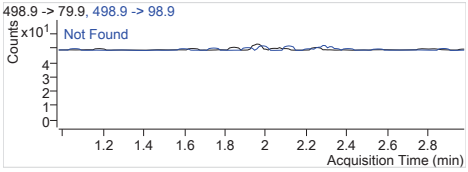
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.713)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



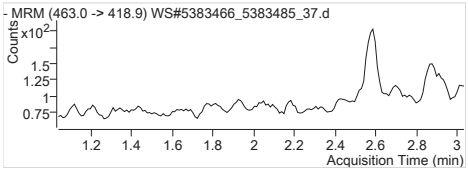


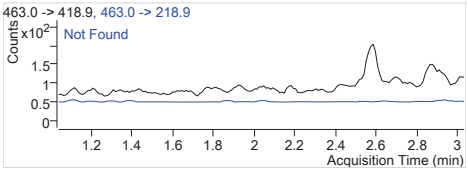
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.892)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



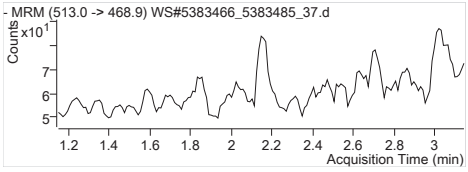


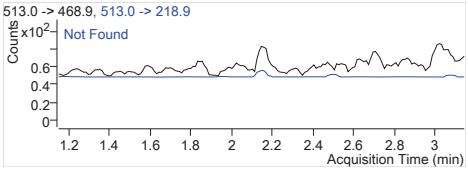
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



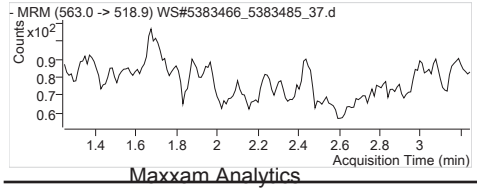


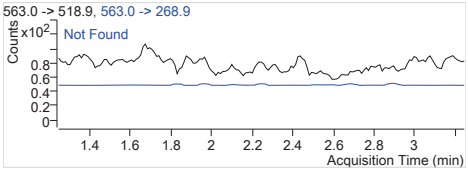
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.036)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



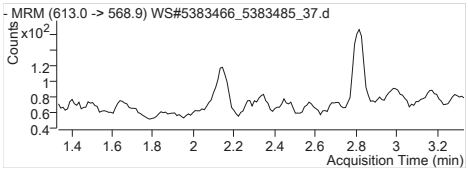


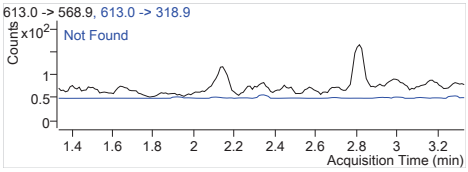
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



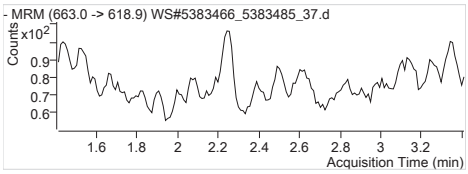


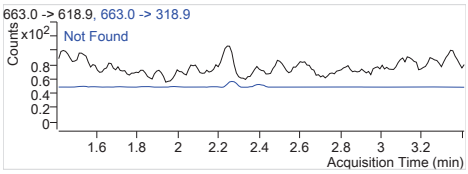
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



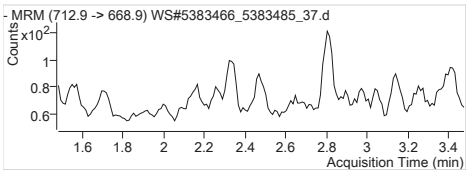


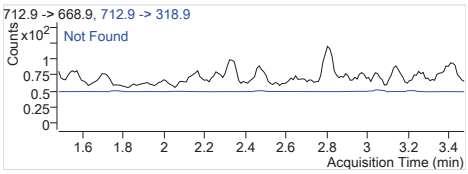
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.334)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



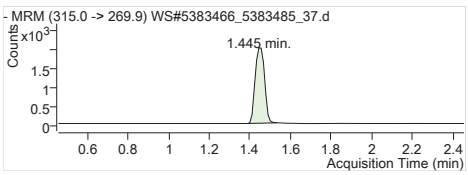


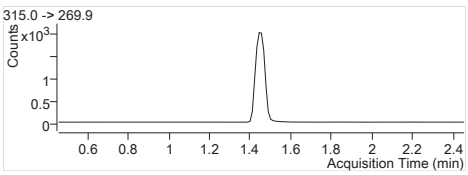
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.411)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



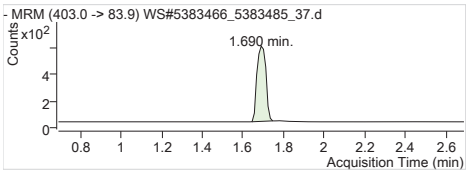


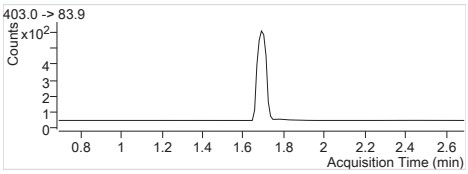
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.478)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



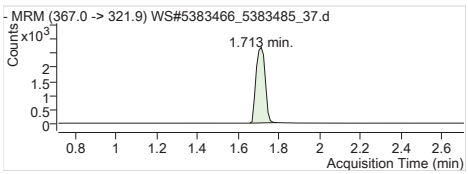


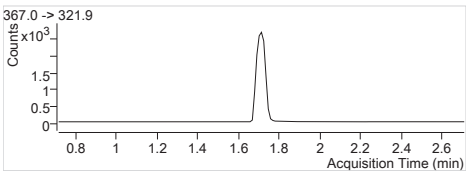
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.445 (1.456)
Calc. conc.	94.26 µg/L
Area ratio:	0.22333
Sample type:	Sample



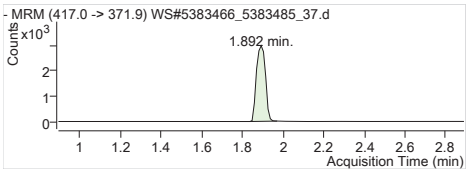


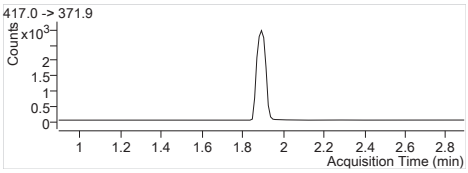
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	102.53 µg/L
Area ratio:	0.05958
Sample type:	Sample



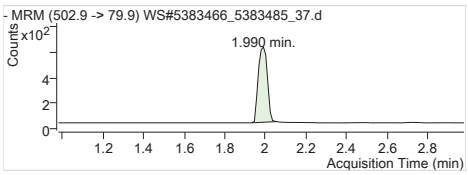


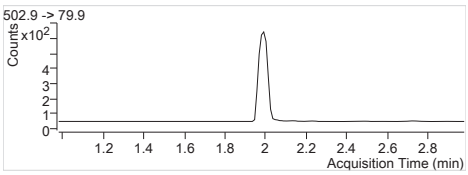
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	98.96 µg/L
Area ratio:	0.28910
Sample type:	Sample



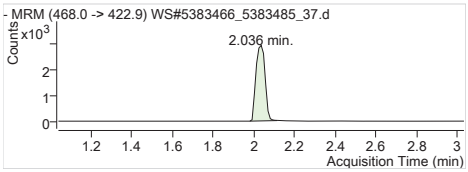


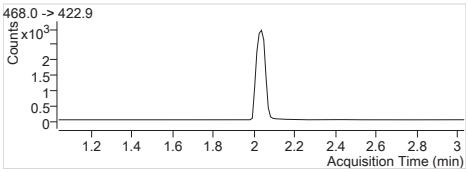
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	100.89 µg/L
Area ratio:	0.31670
Sample type:	Sample



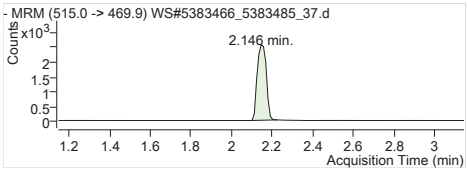


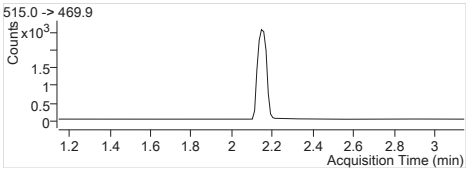
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	92.85 µg/L
Area ratio:	0.06409
Sample type:	Sample



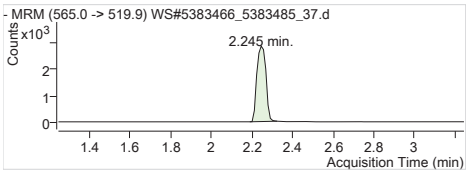


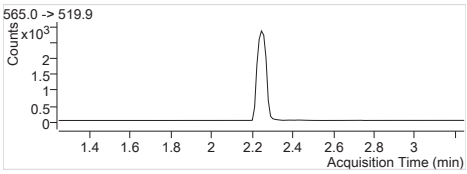
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	103.04 µg/L
Area ratio:	0.31870
Sample type:	Sample



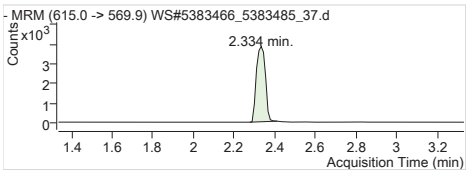


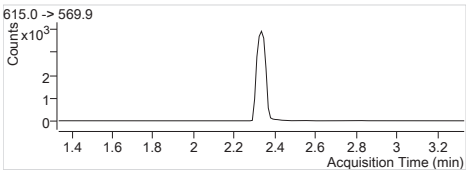
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 104.74 µg/L
Area ratio: 0.21017
Sample type: Sample



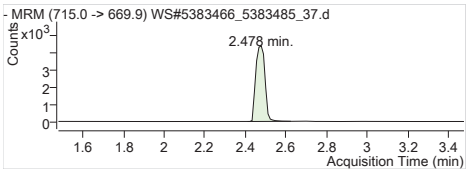


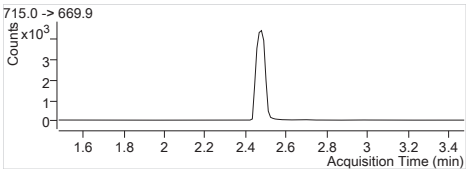
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 96.51 µg/L
Area ratio: 0.23343
Sample type: Sample



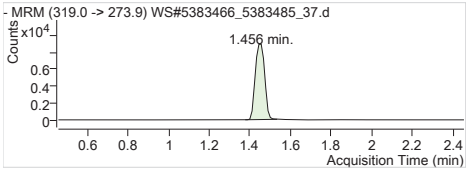


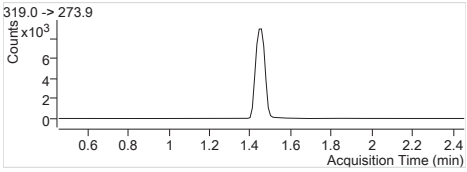
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 98.32 µg/L
Area ratio: 0.31652
Sample type: Sample



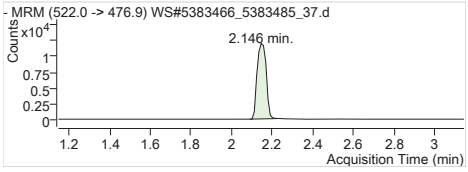


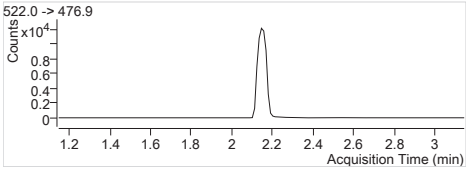
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 101.72 µg/L
Area ratio: 0.37311
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.41 µg/L
Area ratio: 0
Sample type: Sample





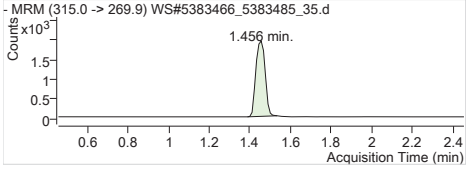
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.50 µg/L
Area ratio: 0
Sample type: Sample

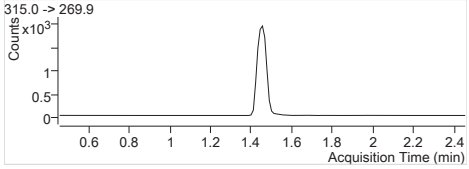
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**5383485:MTRX SPK**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_35.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D4
Acq. Date	2018/02/06 8:54:44 PM	**Injection Volume**	Per Method
Sample Annotation	FZH337		

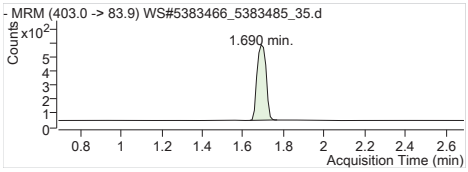
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6084	1.46	1 µg/L		
MPFHxS	1683	1.69	1 µg/L		
MPFHpA	7939	1.71	1 µg/L		
MPFOA	8752	1.89	1 µg/L		
MPFOS	1888	1.99	1 µg/L		
MPFNA	8412	2.04	1 µg/L		
MPFDA	6539	2.15	1 µg/L		
MPFUnA	7669	2.25	1 µg/L		
MPFDoA	10280	2.33	1 µg/L		
MPFTeDA	11043	2.48	1 µg/L		
13C6-PFHxA IS	23400	1.46	1 µg/L		
13C9-PFDA IS	32571	2.15	1 µg/L		

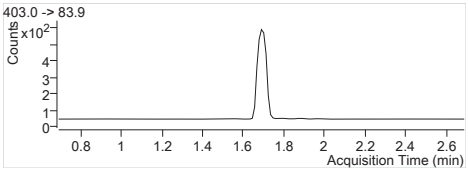
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	12767	1.12	20.80	0.42 µg/L	83.23
PFHxA 1	45362	1.46	20.80	0.45 µg/L	90.02
PFHxS 1	13539	1.69	20.80	0.44 µg/L	87.70
PFHpA 1	63345	1.71	20.80	0.46 µg/L	91.93
PFOA 1	69311	1.89	20.80	0.45 µg/L	90.07
PFOS 1	12825	1.98	20.80	0.47 µg/L	95.07
PFNA 1	60950	2.04	20.80	0.47 µg/L	93.37
PFDA 1	64065	2.15	20.80	0.50 µg/L	100.18
PFUnA 1	68904	2.25	20.80	0.51 µg/L	102.00
PFDoA 1	77999	2.33	20.80	0.45 µg/L	89.33
PFTrDA 1	87365	2.41	20.80	0.46 µg/L	92.01
PFTeDA 1	67775	2.48	20.80	0.43 µg/L	85.74
13C2-PFHxA	6084	1.46	100.00	109.74 µg/L	109.74
18O2-PFHxS	1683	1.69	100.00	123.77 µg/L	123.77
13C4-PFHpA	7939	1.71	100.00	116.13 µg/L	116.13
13C4-PFOA	8752	1.89	100.00	119.15 µg/L	119.15
13C4-PFOS	1888	1.99	100.00	116.89 µg/L	116.89
13C5-PFNA	8319	2.04	100.00	114.94 µg/L	114.94
13C2-PFDA	6460	2.15	100.00	98.84 µg/L	98.84
13C2-PFUnA	7669	2.25	100.00	97.34 µg/L	97.34
13C2-PFDoA	10280	2.33	100.00	98.04 µg/L	98.04
13C2-PFTeDA	11318	2.48	100.00	94.74 µg/L	94.74
13C6-PFHxA	23400	1.46	100.00	1.98 µg/L	82.31
13C9-PFDA	32571	2.15	100.00	2.19 µg/L	91.05



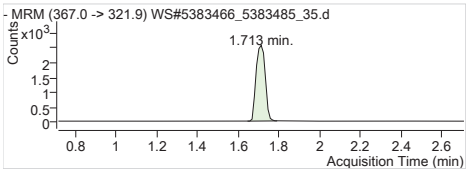


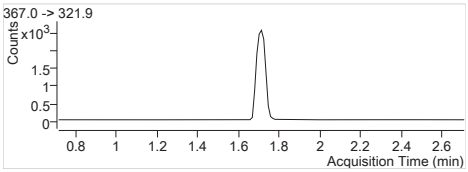
MPFHxA Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: QC



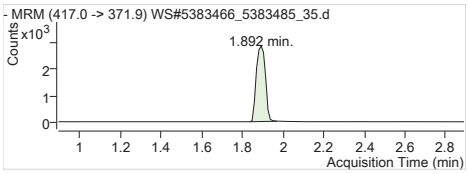


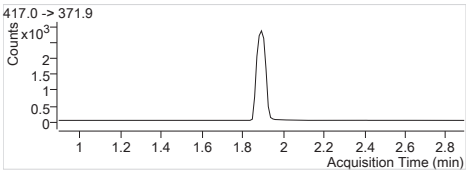
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



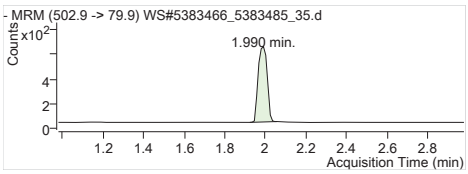


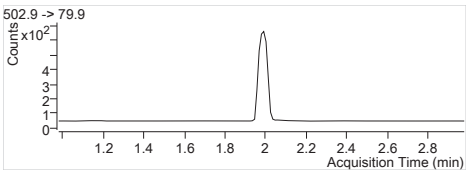
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: QC



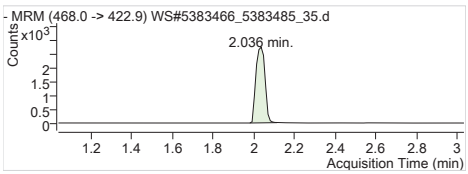


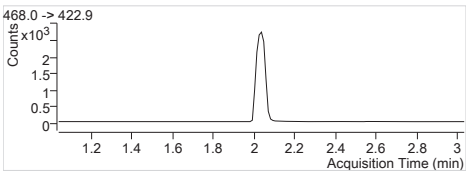
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: QC



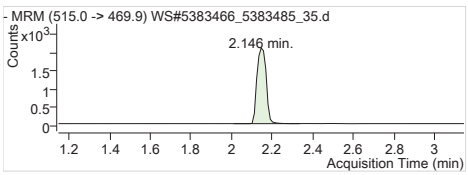


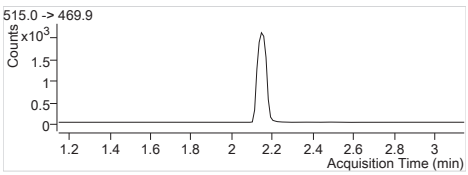
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: QC



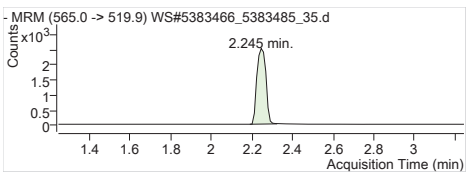


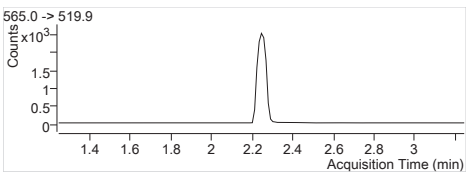
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: QC



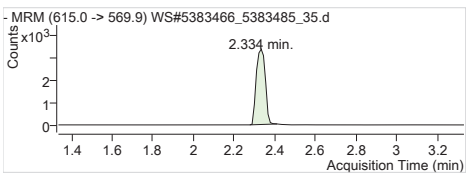


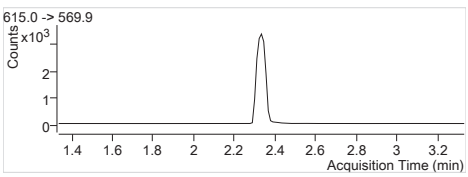
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



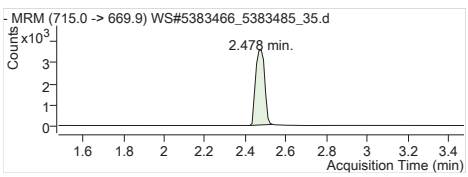


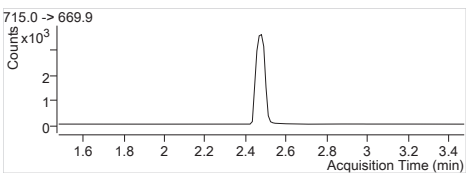
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC



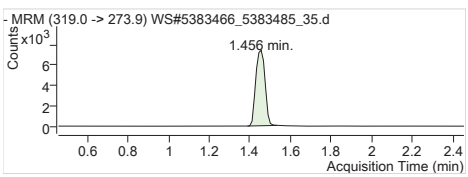


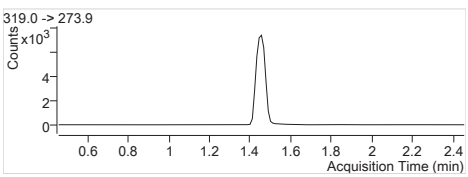
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: QC



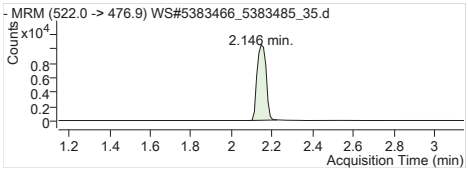


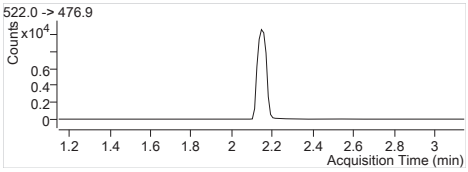
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: QC



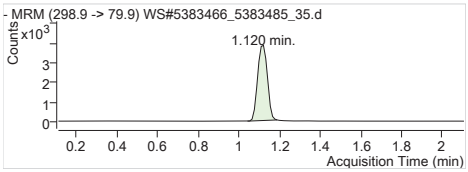


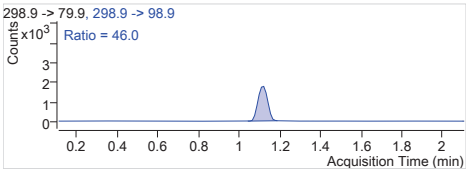
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: QC



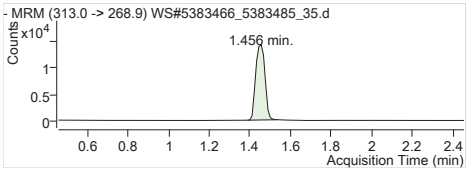


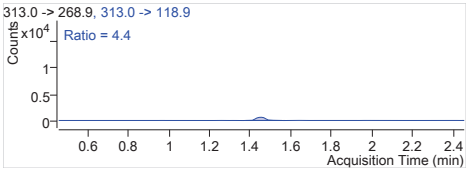
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



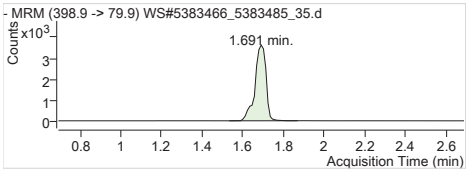


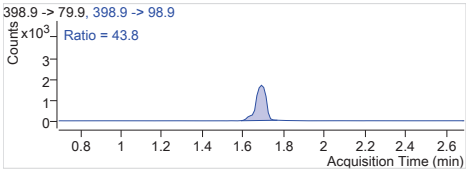
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.120 (1.109)
Calc. conc. 0.42 µg/L
Area ratio: 7.58586
Sample type: QC



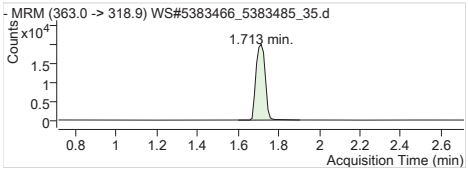


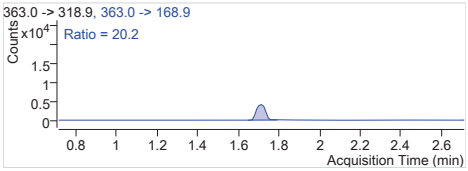
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 0.45 µg/L
Area ratio: 7.45595
Sample type: QC



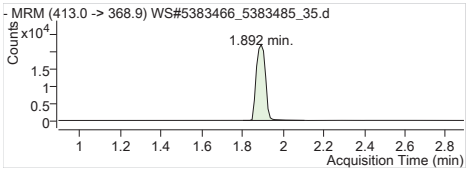


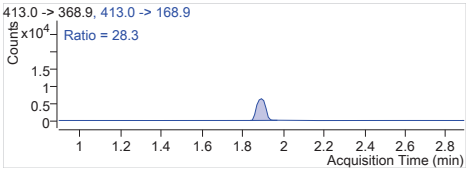
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.44 µg/L
Area ratio: 8.04456
Sample type: QC



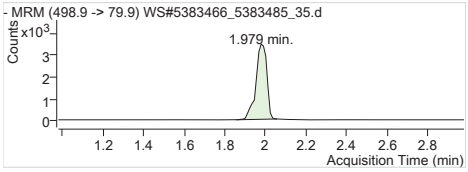


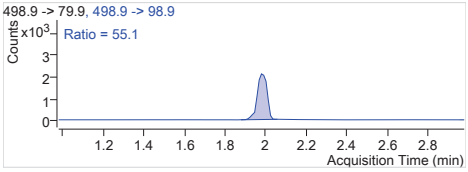
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 0.46 µg/L
Area ratio: 7.97896
Sample type: QC



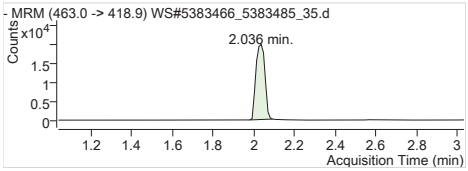


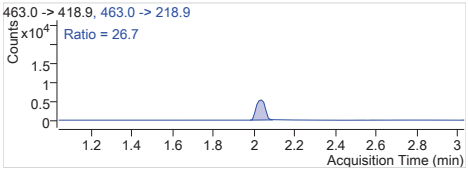
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 0.45 µg/L
Area ratio: 7.91945
Sample type: QC



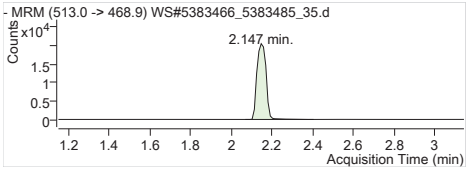


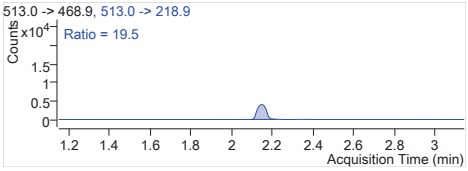
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.47 µg/L
Area ratio: 6.79290
Sample type: QC



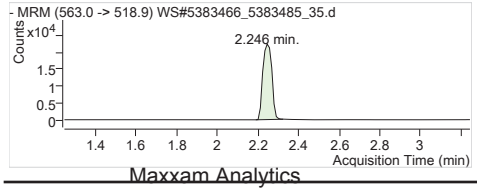


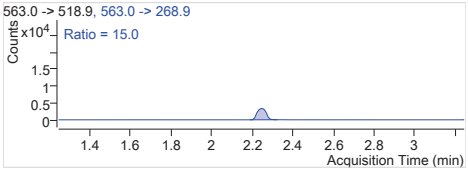
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.47 µg/L
Area ratio: 7.24560
Sample type: QC



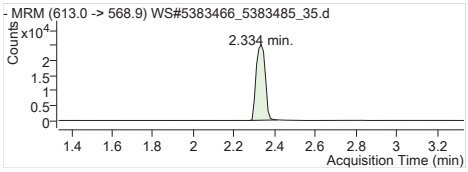


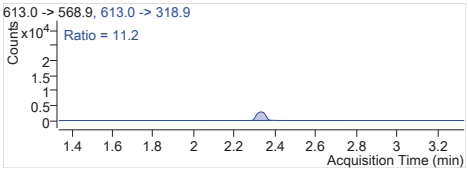
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 0.50 µg/L
Area ratio: 9.79737
Sample type: QC



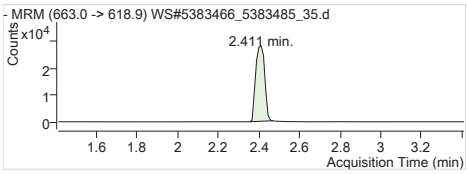


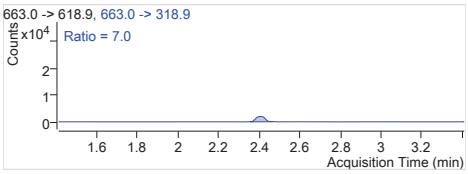
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.51 µg/L
Area ratio: 8.98474
Sample type: QC



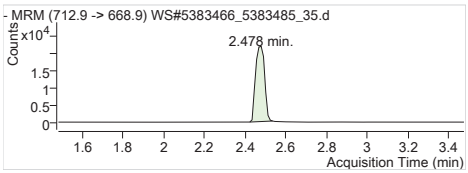


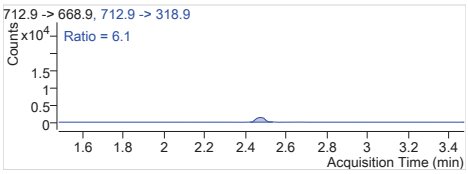
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.334 (2.334)
Calc. conc.	0.45 µg/L
Area ratio:	7.58745
Sample type:	QC



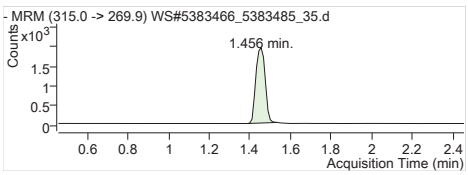


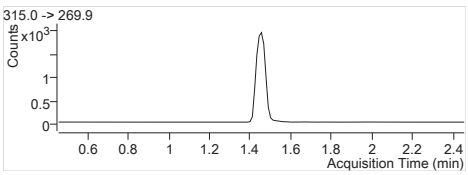
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.411 (2.411)
Calc. conc.	0.46 µg/L
Area ratio:	7.91135
Sample type:	QC



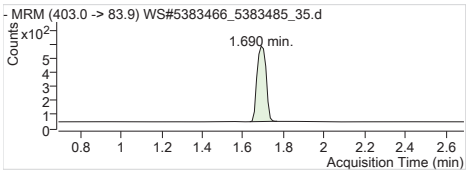


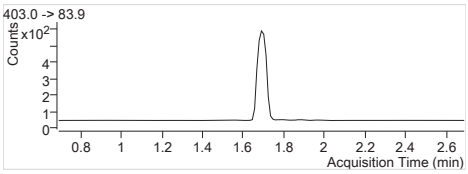
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.478 (2.478)
Calc. conc.	0.43 µg/L
Area ratio:	6.13737
Sample type:	QC



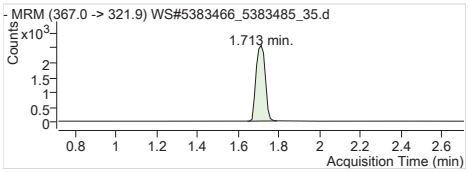


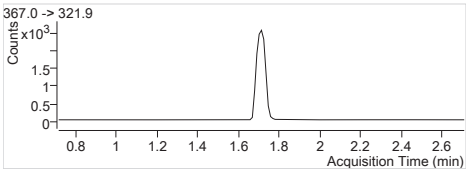
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	109.74 µg/L
Area ratio:	0.26000
Sample type:	QC



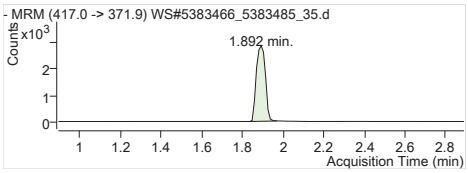


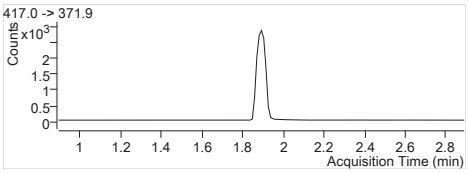
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	123.77 µg/L
Area ratio:	0.07192
Sample type:	QC



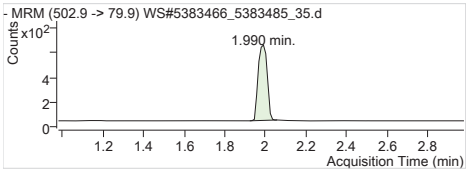


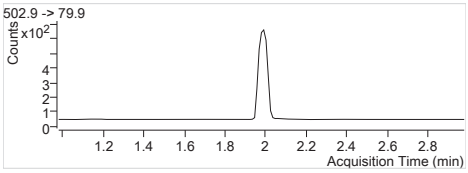
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	116.13 µg/L
Area ratio:	0.33927
Sample type:	QC



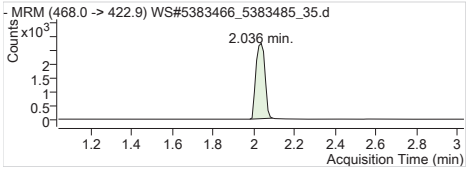


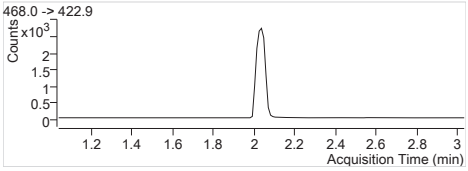
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	119.15 µg/L
Area ratio:	0.37402
Sample type:	QC



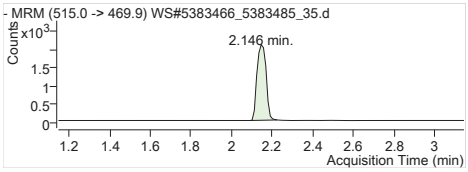


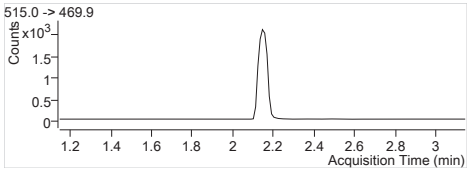
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	116.89 µg/L
Area ratio:	0.08068
Sample type:	QC



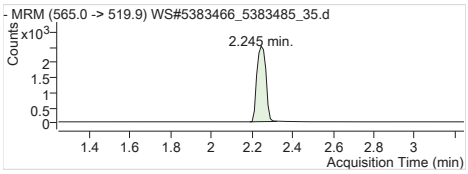


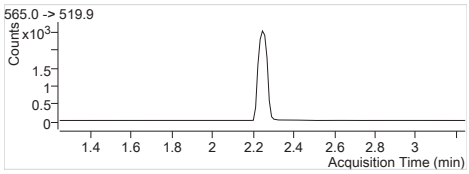
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	114.94 µg/L
Area ratio:	0.35551
Sample type:	QC



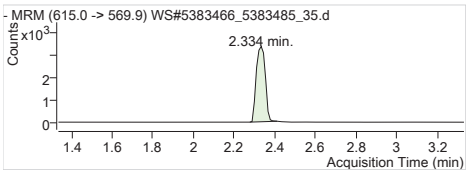


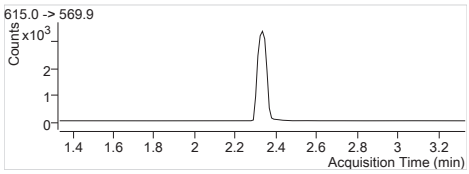
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 98.84 µg/L
Area ratio: 0.19834
Sample type: QC



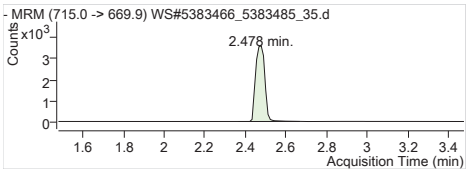


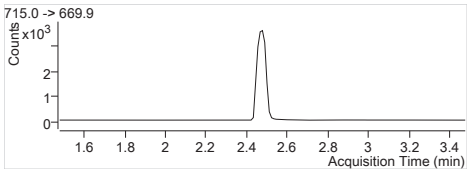
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 97.34 µg/L
Area ratio: 0.23545
Sample type: QC



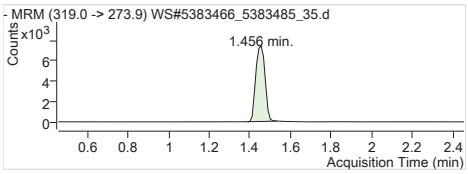


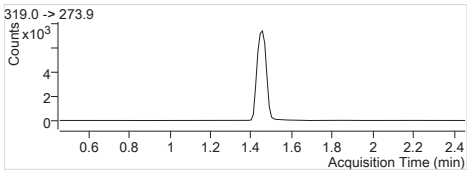
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 98.04 µg/L
Area ratio: 0.31562
Sample type: QC



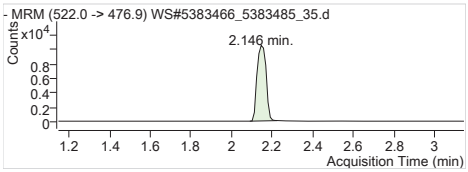


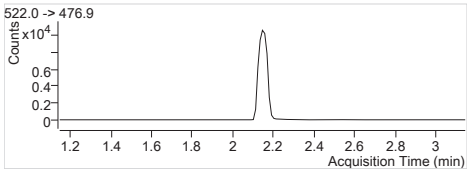
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 94.74 µg/L
Area ratio: 0.34749
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 1.98 µg/L
Area ratio: 0
Sample type: QC





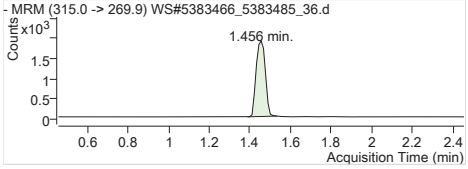
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.19 µg/L
Area ratio: 0
Sample type: QC

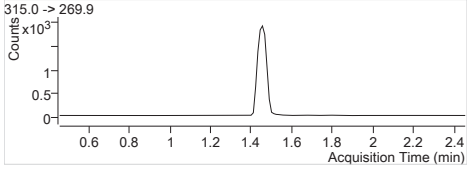
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**5383485:MTRX SPK:D1**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_36.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D5
Acq. Date	2018/02/06 8:59:40 PM	**Injection Volume**	Per Method
Sample Annotation	FZH337		

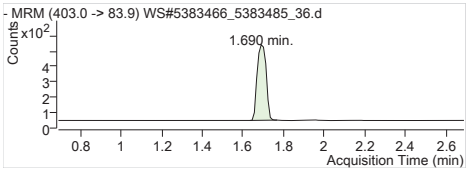
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5919	1.46	1 µg/L		
MPFHxS	1516	1.69	1 µg/L		
MPFHpA	7802	1.71	1 µg/L		
MPFOA	8144	1.89	1 µg/L		
MPFOS	1611	1.99	1 µg/L		
MPFNA	7760	2.04	1 µg/L		
MPFDA	6493	2.15	1 µg/L		
MPFUnA	7989	2.25	1 µg/L		
MPFDoA	10120	2.33	1 µg/L		
MPFTeDA	9618	2.48	1 µg/L		
13C6-PFHxA IS	26743	1.46	1 µg/L		
13C9-PFDA IS	36341	2.15	1 µg/L		

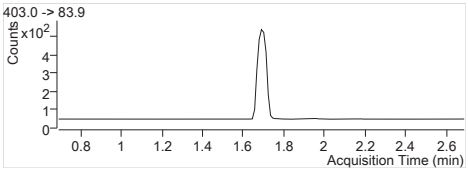
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	13797	1.12	20.80	0.50 µg/L	99.71
PFHxA 1	49548	1.46	20.80	0.50 µg/L	100.88
PFHxS 1	13704	1.69	20.80	0.49 µg/L	98.40
PFHpA 1	63462	1.71	20.80	0.47 µg/L	93.70
PFOA 1	71030	1.89	20.80	0.49 µg/L	99.11
PFOS 1	13113	1.98	20.80	0.57 µg/L	113.87
PFNA 1	63975	2.04	20.80	0.53 µg/L	106.17
PFDA 1	62366	2.15	20.80	0.49 µg/L	98.22
PFUnA 1	68812	2.25	20.80	0.49 µg/L	97.78
PFDoA 1	87356	2.33	20.80	0.51 µg/L	101.55
PFTrDA 1	90698	2.41	20.80	0.55 µg/L	109.63
PFTeDA 1	72111	2.48	20.80	0.52 µg/L	104.69
13C2-PFHxA	5919	1.46	100.00	93.42 µg/L	93.42
18O2-PFHxS	1516	1.69	100.00	97.55 µg/L	97.55
13C4-PFHpA	7802	1.71	100.00	99.86 µg/L	99.86
13C4-PFOA	8144	1.89	100.00	97.02 µg/L	97.02
13C4-PFOS	1611	1.99	100.00	87.27 µg/L	87.27
13C5-PFNA	7675	2.04	100.00	92.79 µg/L	92.79
13C2-PFDA	6399	2.15	100.00	87.75 µg/L	87.75
13C2-PFUnA	7989	2.25	100.00	90.89 µg/L	90.89
13C2-PFDoA	10120	2.33	100.00	86.51 µg/L	86.51
13C2-PFTeDA	9812	2.48	100.00	73.61 µg/L	73.61
13C6-PFHxA	26743	1.46	100.00	2.26 µg/L	94.07
13C9-PFDA	36341	2.15	100.00	2.44 µg/L	101.59



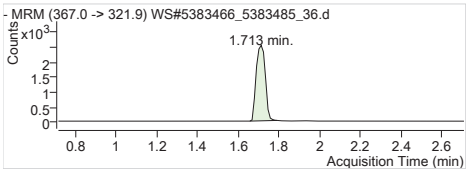


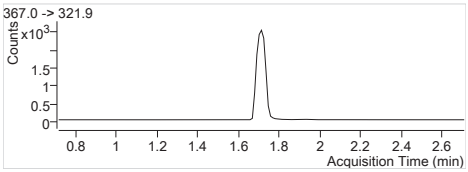
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	QC



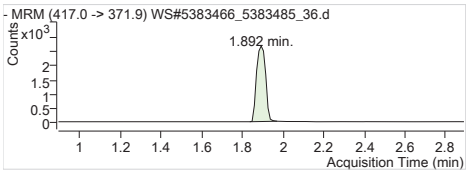


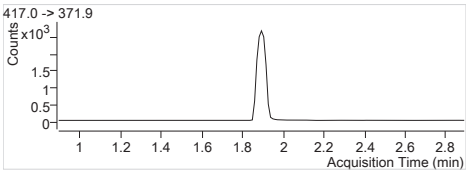
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



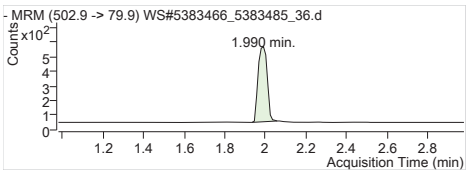


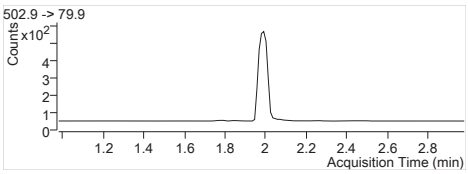
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: QC



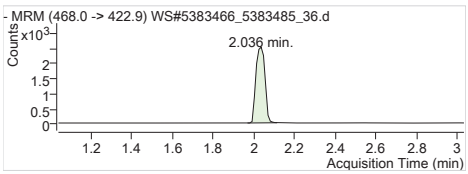


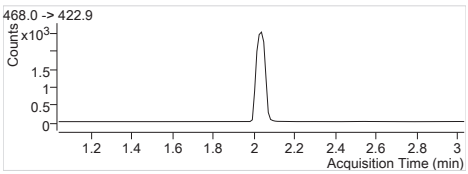
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: QC



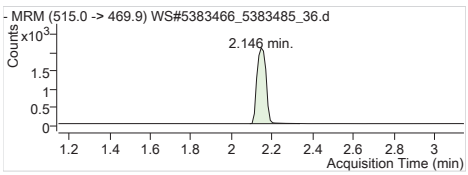


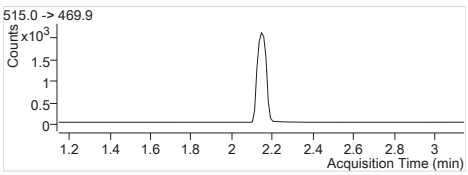
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: QC



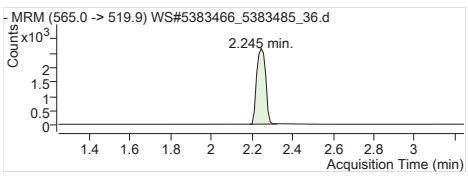


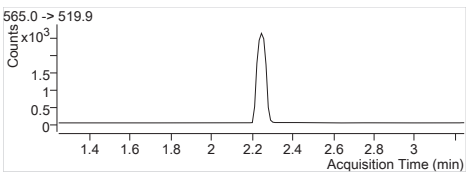
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: QC



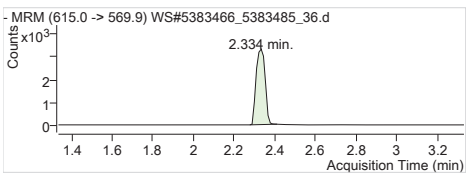


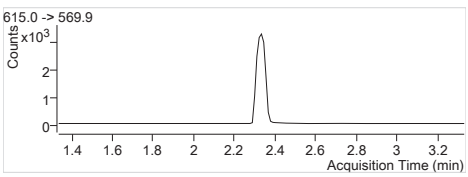
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



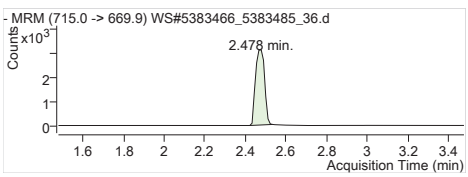


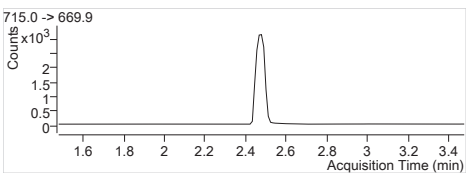
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC



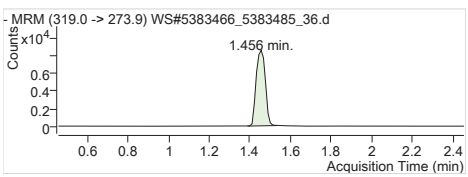


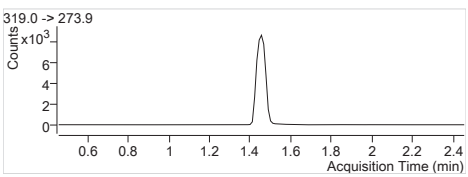
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: QC



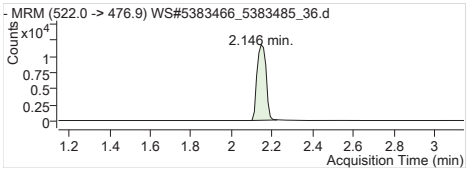


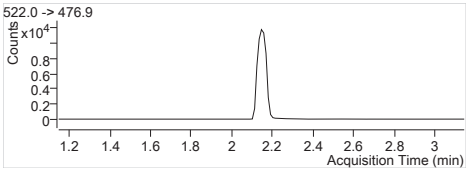
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: QC



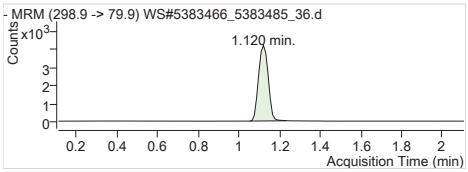


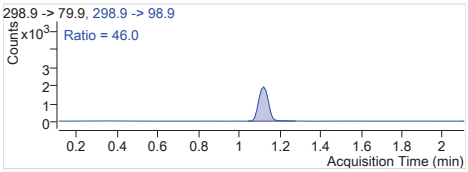
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: QC



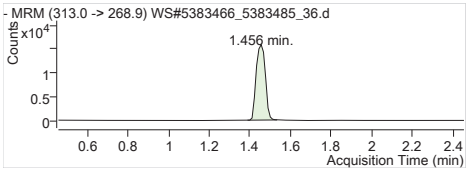


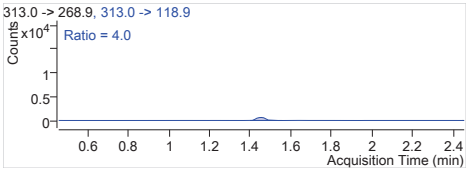
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



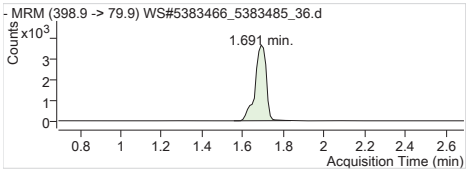


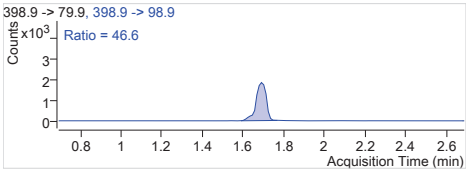
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.120 (1.109)
Calc. conc. 0.50 µg/L
Area ratio: 9.10092
Sample type: QC



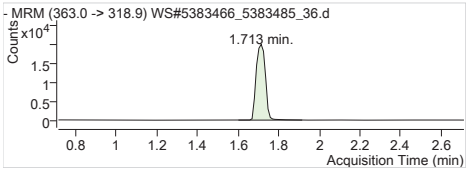


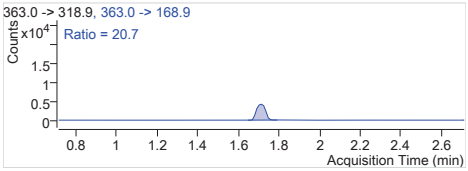
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 0.50 µg/L
Area ratio: 8.37101
Sample type: QC



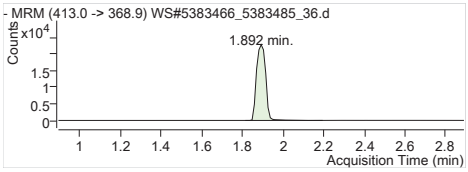


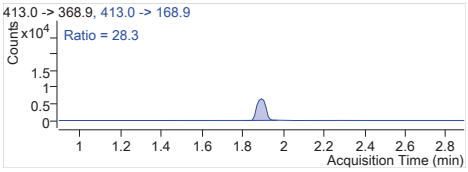
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.49 µg/L
Area ratio: 9.03958
Sample type: QC



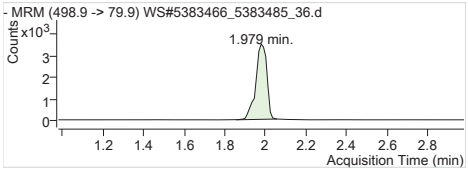


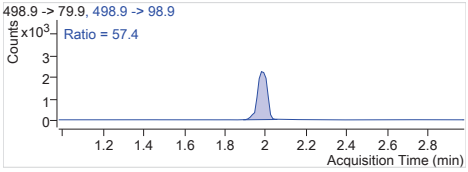
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 0.47 µg/L
Area ratio: 8.13407
Sample type: QC



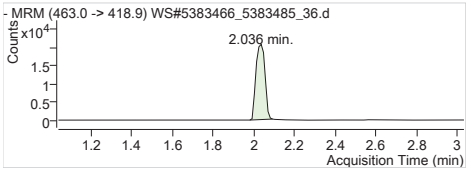


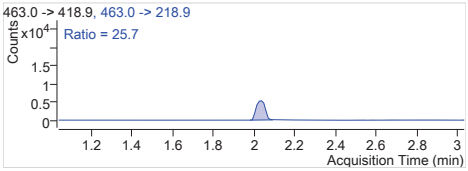
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 0.49 µg/L
Area ratio: 8.72176
Sample type: QC



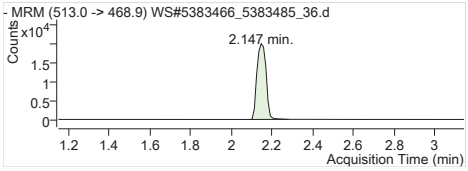


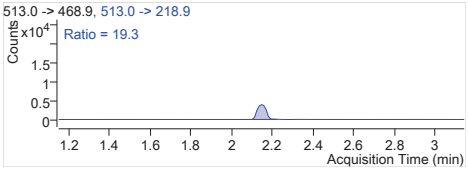
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.57 µg/L
Area ratio: 8.13966
Sample type: QC



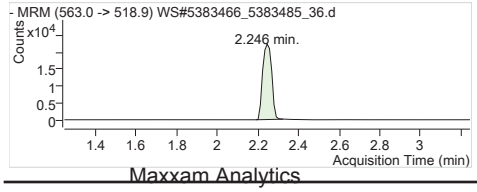


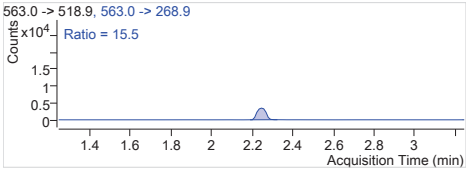
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.53 µg/L
Area ratio: 8.24420
Sample type: QC



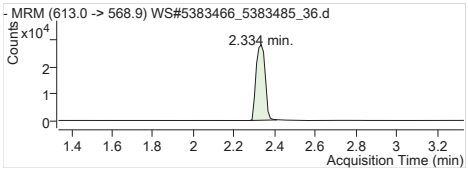


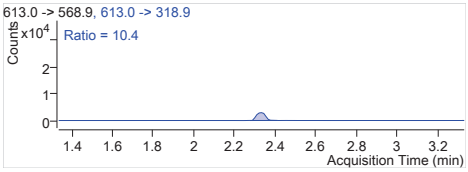
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 0.49 µg/L
Area ratio: 9.60511
Sample type: QC



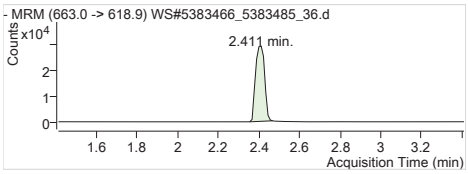


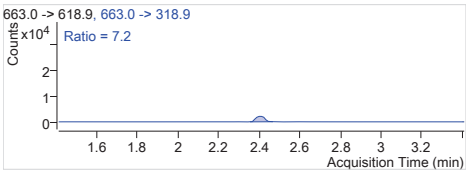
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.49 µg/L
Area ratio: 8.61334
Sample type: QC



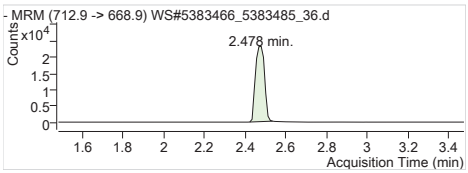


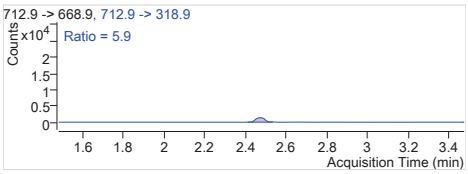
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.334 (2.334)
Calc. conc.	0.51 µg/L
Area ratio:	8.63202
Sample type:	QC



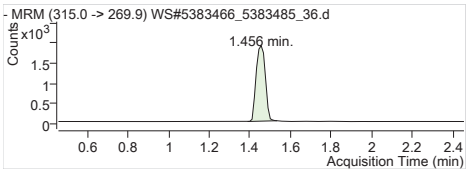


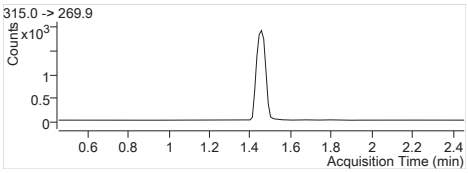
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.411 (2.411)
Calc. conc.	0.55 µg/L
Area ratio:	9.43003
Sample type:	QC



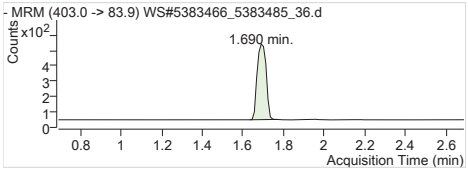


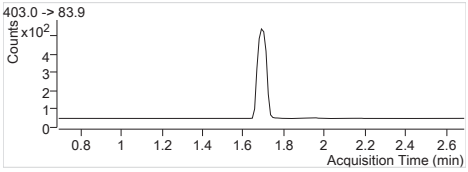
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.478 (2.478)
Calc. conc.	0.52 µg/L
Area ratio:	7.49750
Sample type:	QC



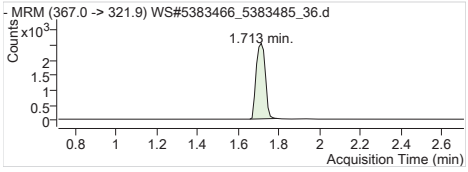


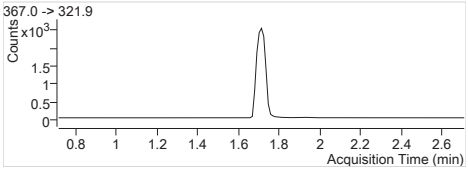
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	93.42 µg/L
Area ratio:	0.22133
Sample type:	QC



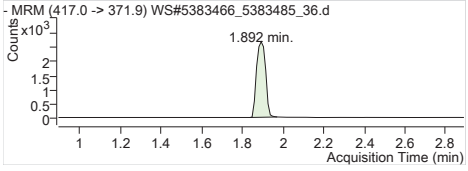


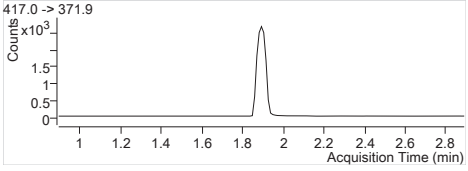
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	97.55 µg/L
Area ratio:	0.05669
Sample type:	QC



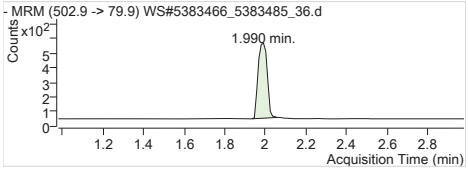


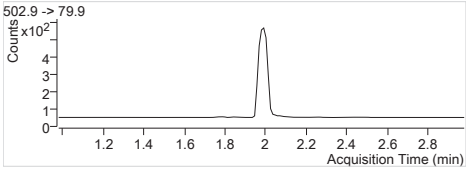
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	99.86 µg/L
Area ratio:	0.29174
Sample type:	QC



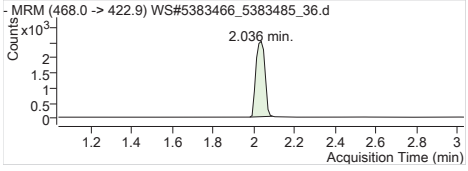


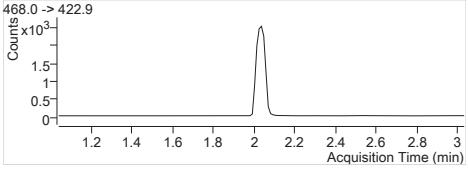
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	97.02 µg/L
Area ratio:	0.30453
Sample type:	QC



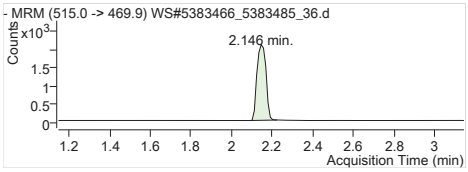


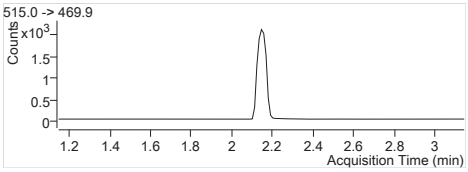
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	87.27 µg/L
Area ratio:	0.06024
Sample type:	QC



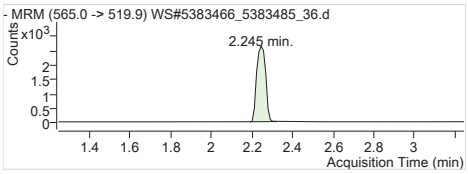


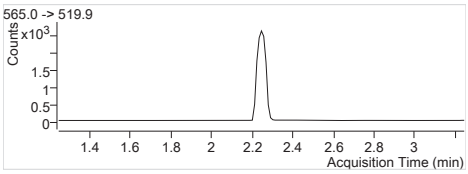
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	92.79 µg/L
Area ratio:	0.28699
Sample type:	QC



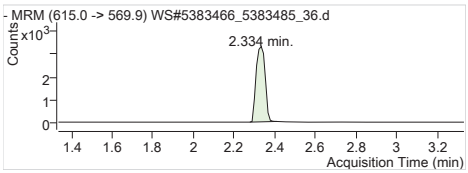


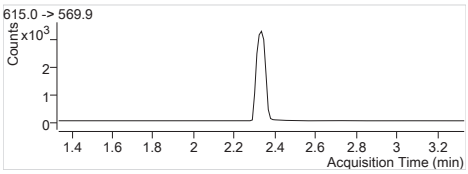
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 87.75 µg/L
Area ratio: 0.17608
Sample type: QC



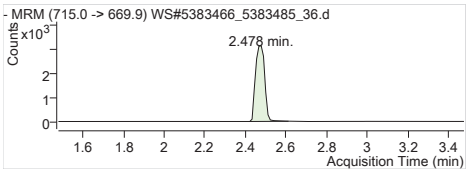


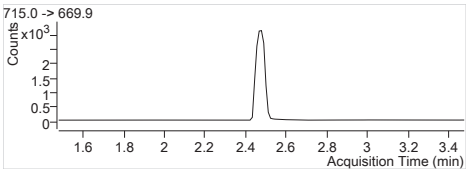
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 90.89 µg/L
Area ratio: 0.21983
Sample type: QC



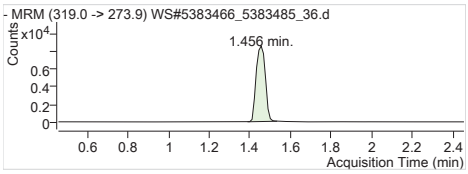


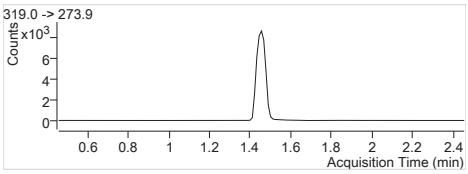
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 86.51 µg/L
Area ratio: 0.27847
Sample type: QC



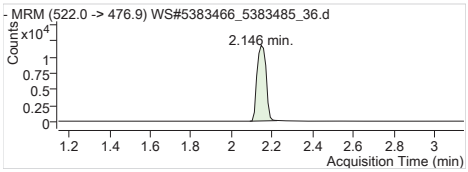


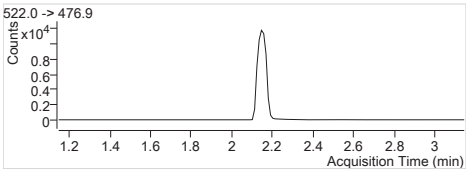
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 73.61 µg/L
Area ratio: 0.27000
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 2.26 µg/L
Area ratio: 0
Sample type: QC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.44 µg/L
Area ratio: 0
Sample type: QC

Quantitation Results

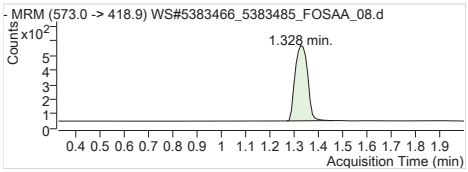
Agilent Technologies

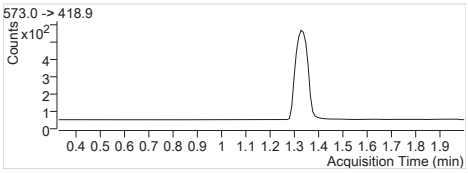
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A8
Acq. Date	2018/02/06 12:42:33 PM	**Injection Volume**	Per Method
Sample Annotation	-		

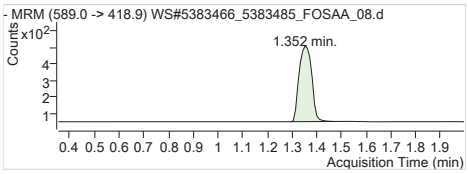
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1855	1.33	1 µg/L		
D5-EtFOSAA IS	1636	1.35	1 µg/L		
13C9-PFDA IS	28601	0.96	1 µg/L		

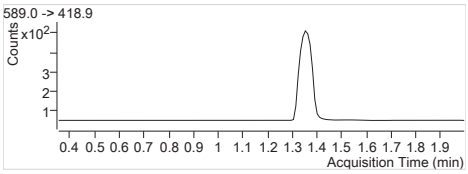
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1855	1.33	-	98.73 µg/L	-
D5-EtFOSAA	1636	1.35	-	101.07 µg/L	-
13C9-PFDA	28656	0.96	-	2.44 µg/L	-



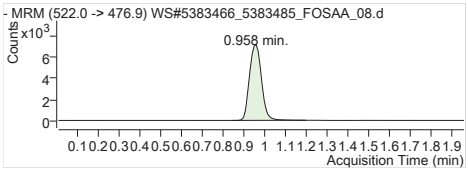


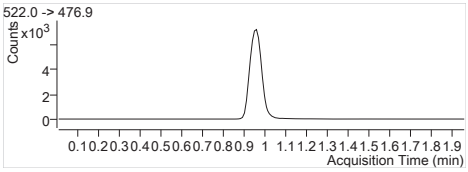
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Sample



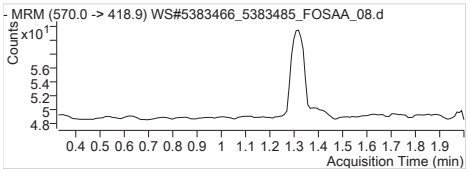


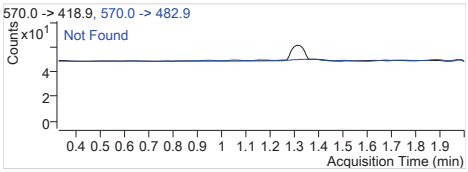
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Sample



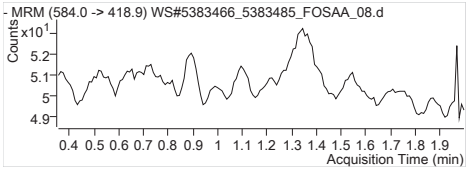


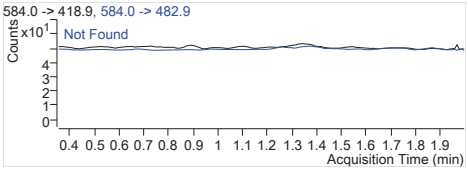
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: Sample



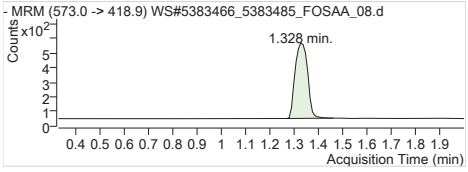


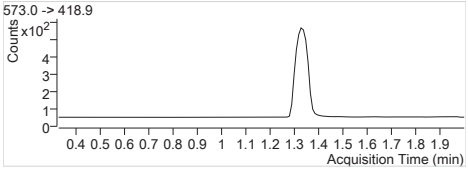
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.329)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



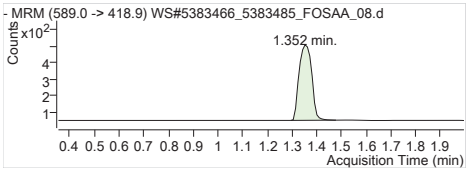


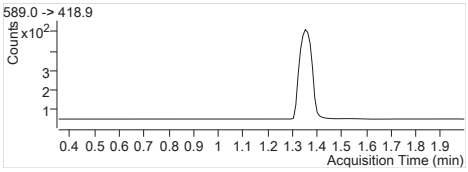
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.354)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



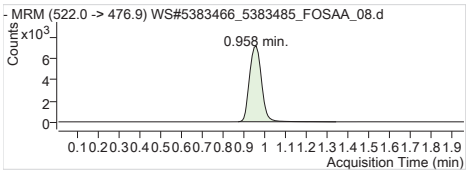


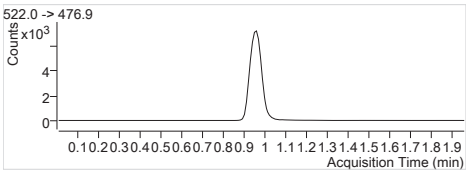
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 98.73 µg/L
Area ratio: 0.06486
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	101.07 µg/L
Area ratio:	0.05720
Sample type:	Sample





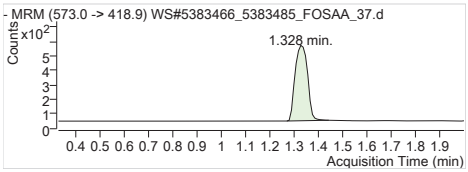
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	2.44 µg/L
Area ratio:	0
Sample type:	Sample

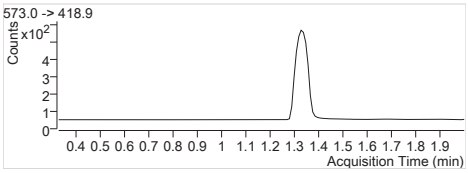
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_37.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A8
Acq. Date	2018/02/06 1:52:31 PM	**Injection Volume**	Per Method
Sample Annotation	-		

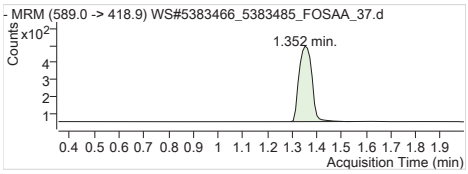
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1856	1.33	1 µg/L		
D5-EtFOSAA IS	1609	1.35	1 µg/L		
13C9-PFDA IS	28093	0.95	1 µg/L		

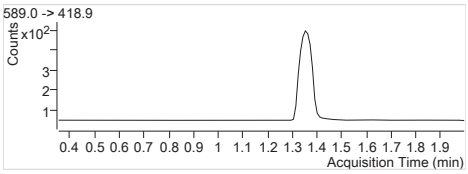
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1856	1.33	-	100.57 µg/L	-
D5-EtFOSAA	1609	1.35	-	101.20 µg/L	-
13C9-PFDA	27923	0.95	-	2.38 µg/L	-



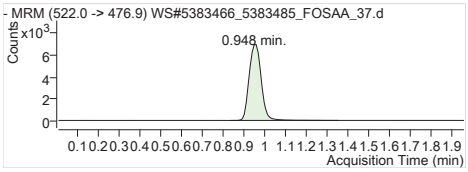


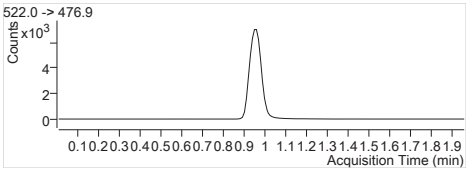
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Sample



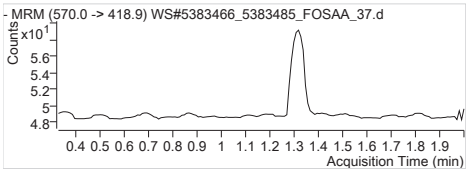


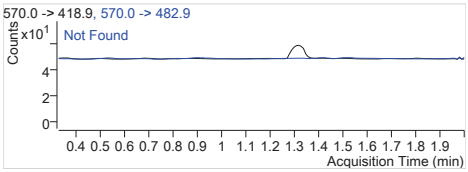
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Sample



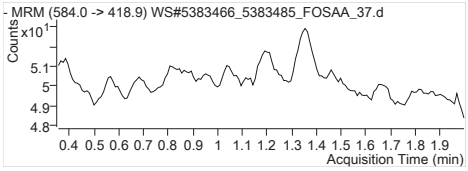


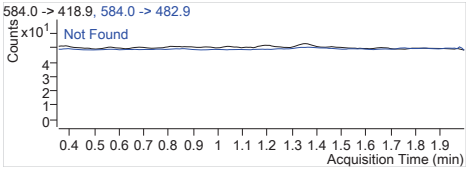
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: Sample



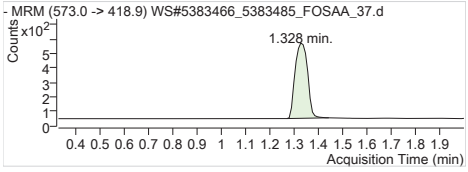


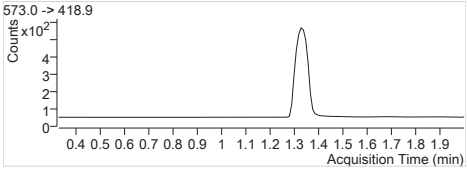
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.329)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



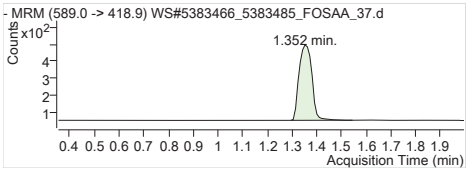


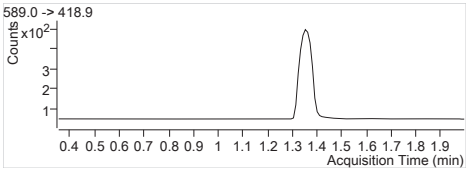
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.354)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



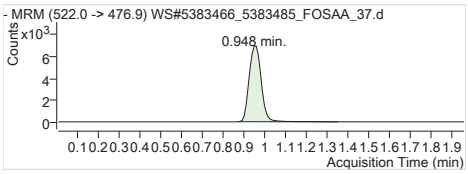


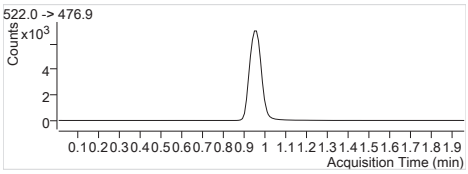
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 100.57 µg/L
Area ratio: 0.06607
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	101.20 µg/L
Area ratio:	0.05727
Sample type:	Sample





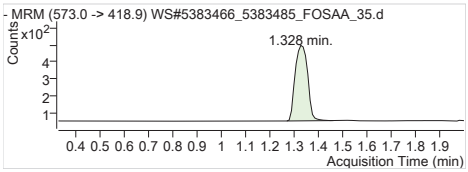
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	2.38 µg/L
Area ratio:	0
Sample type:	Sample

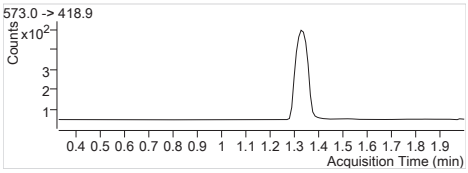
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**5383485:MTRX SPK**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_35.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D4
Acq. Date	2018/02/06 1:47:40 PM	**Injection Volume**	Per Method
Sample Annotation	FZH337		

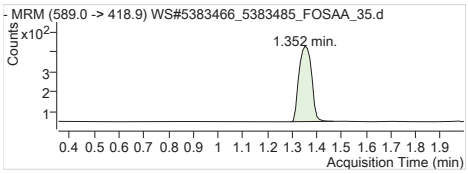
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1594	1.33	1 µg/L		
D5-EtFOSAA IS	1343	1.35	1 µg/L		
13C9-PFDA IS	24834	0.93	1 µg/L		

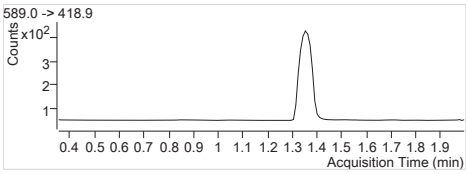
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10435	1.33	20.80	0.43 µg/L	87.02
EtFOSAA 1	10090	1.35	20.80	0.43 µg/L	85.38
D3-MeFOSAA	1594	1.33	100.00	97.71 µg/L	97.71
D5-EtFOSAA	1343	1.35	100.00	95.55 µg/L	95.55
13C9-PFDA	24818	0.93	100.00	2.11 µg/L	88.04



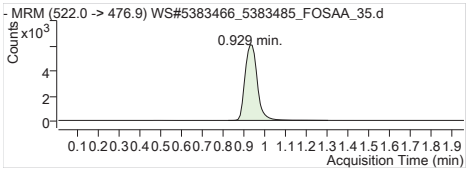


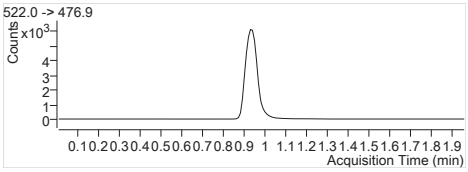
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: QC



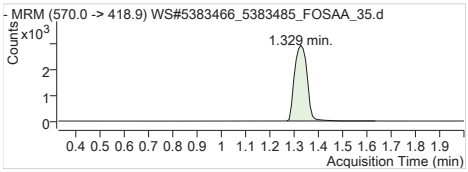


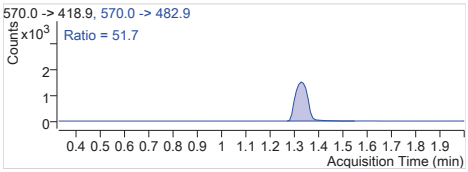
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: QC



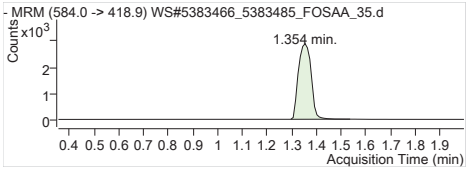


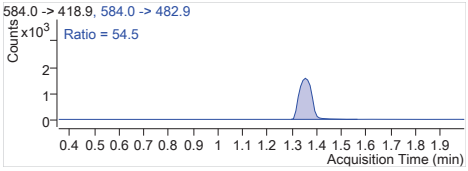
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.929 (0.958)
Concentration: 1 µg/L
Sample type: QC



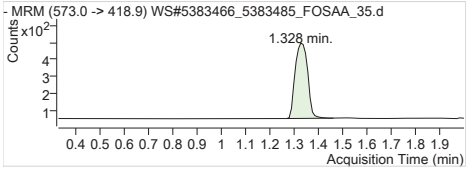


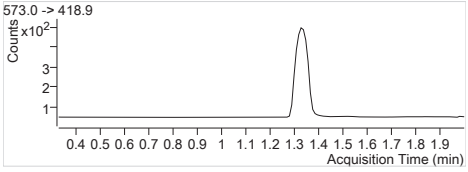
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 0.43 µg/L
Area ratio: 6.54642
Sample type: QC



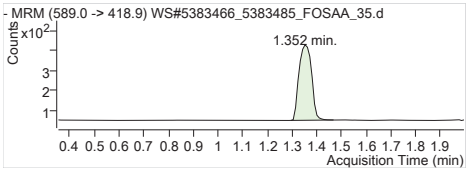


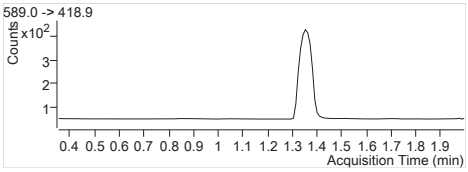
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 0.43 µg/L
Area ratio: 7.51303
Sample type: QC



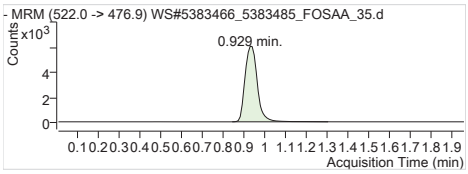


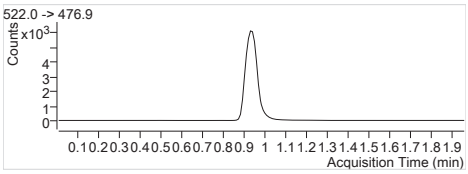
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 97.71 µg/L
Area ratio: 0.06419
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	95.55 µg/L
Area ratio:	0.05408
Sample type:	QC





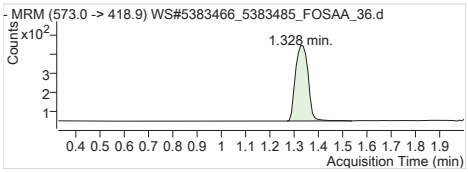
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.929 (0.958)
Calc. conc.	2.11 µg/L
Area ratio:	0
Sample type:	QC

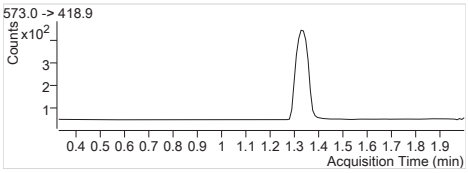
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**5383485:MTRX SPK:D1**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_36.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D5
Acq. Date	2018/02/06 1:50:05 PM	**Injection Volume**	Per Method
Sample Annotation	FZH337		

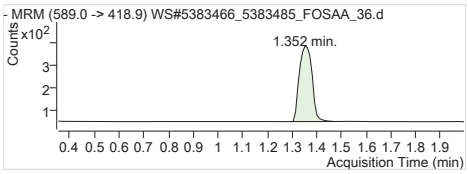
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1445	1.33	1 µg/L		
D5-EtFOSAA IS	1207	1.35	1 µg/L		
13C9-PFDA IS	26638	0.97	1 µg/L		

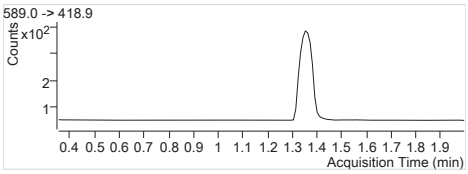
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10418	1.33	20.80	0.48 µg/L	95.82
EtFOSAA 1	10362	1.35	20.80	0.49 µg/L	97.45
D3-MeFOSAA	1445	1.33	100.00	82.58 µg/L	82.58
D5-EtFOSAA	1207	1.35	100.00	80.06 µg/L	80.06
13C9-PFDA	26099	0.97	100.00	2.22 µg/L	92.58



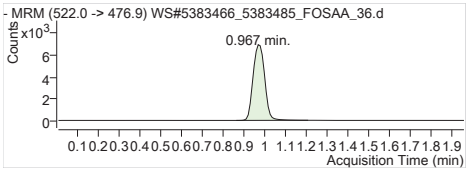


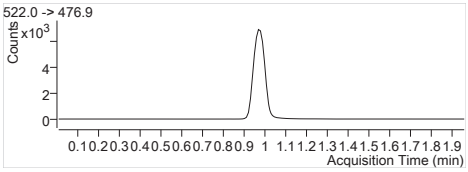
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: QC



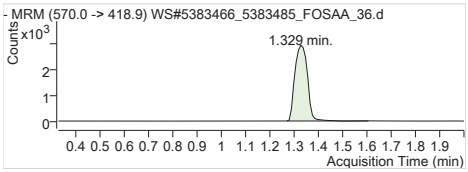


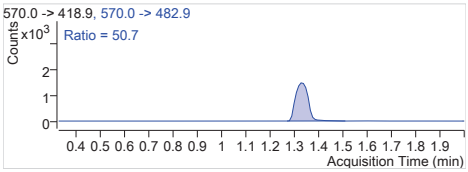
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: QC



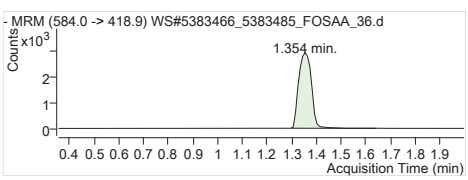


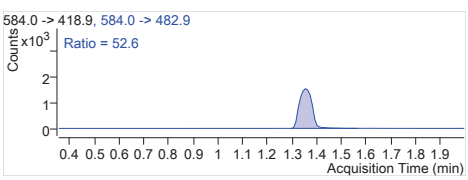
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.967 (0.958)
Concentration: 1 µg/L
Sample type: QC



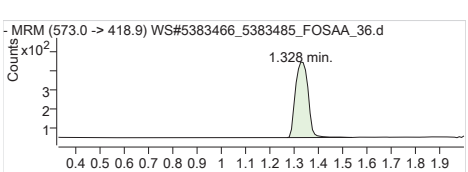


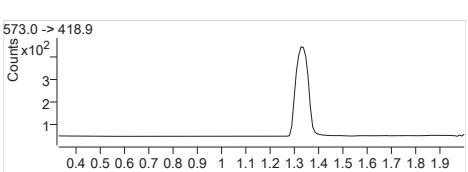
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 0.48 µg/L
Area ratio: 7.20969
Sample type: QC



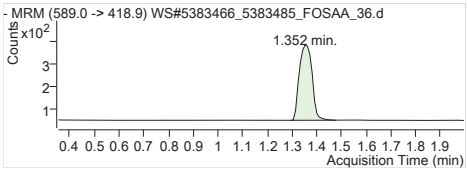


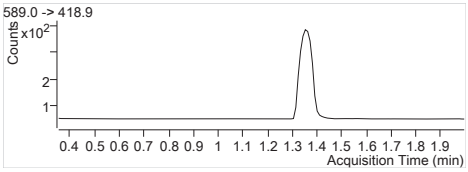
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 0.49 µg/L
Area ratio: 8.58492
Sample type: QC



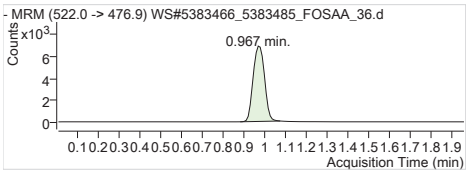


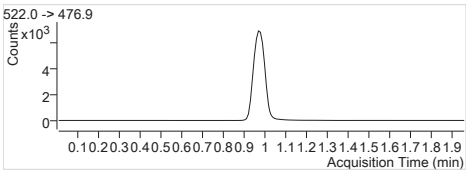
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 82.58 µg/L
Area ratio: 0.05425
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	80.06 µg/L
Area ratio:	0.04531
Sample type:	QC





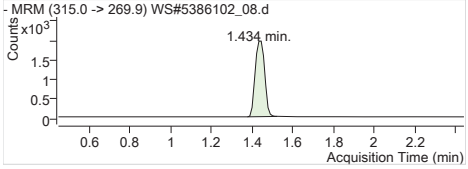
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.967 (0.958)
Calc. conc.	2.22 µg/L
Area ratio:	0
Sample type:	QC

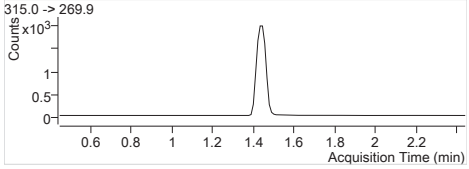
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5386102_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-D5
Acq. Date	2018/02/08 3:41:24 AM	**Injection Volume**	Per Method
Sample Annotation	-		

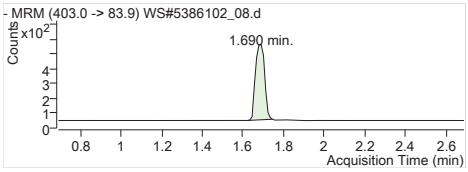
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6296	1.43	1 µg/L		
MPFHxS	1620	1.69	1 µg/L		
MPFHpA	9156	1.70	1 µg/L		
MPFOA	8586	1.88	1 µg/L		
MPFOS	1994	1.98	1 µg/L		
MPFNA	8866	2.02	1 µg/L		
MPFDA	6960	2.15	1 µg/L		
MPFUnA	8635	2.23	1 µg/L		
MPFDoA	11729	2.32	1 µg/L		
MPFTeDA	12927	2.47	1 µg/L		
13C6-PFHxA IS	29753	1.43	1 µg/L		
13C9-PFDA IS	39820	2.15	1 µg/L		

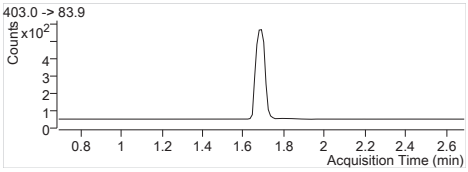
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6296	1.43	-	108.89 µg/L	-
18O2-PFHxS	1620	1.69	-	109.51 µg/L	-
13C4-PFHpA	9156	1.70	-	120.93 µg/L	-
13C4-PFOA	8586	1.88	-	107.49 µg/L	-
13C4-PFOS	1994	1.98	-	110.69 µg/L	-
13C5-PFNA	8866	2.02	-	111.21 µg/L	-
13C2-PFDA	6852	2.15	-	101.10 µg/L	-
13C2-PFUnA	8635	2.23	-	107.44 µg/L	-
13C2-PFDoA	11729	2.32	-	105.12 µg/L	-
13C2-PFTeDA	12952	2.47	-	101.76 µg/L	-
13C6-PFHxA	29753	1.43	-	2.25 µg/L	-
13C9-PFDA	39820	2.15	-	2.36 µg/L	-



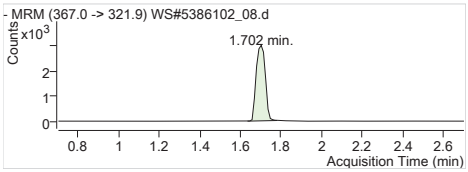


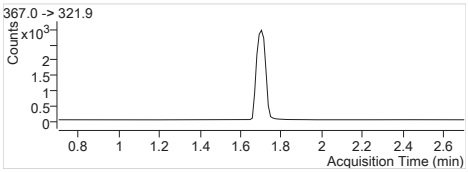
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	Sample



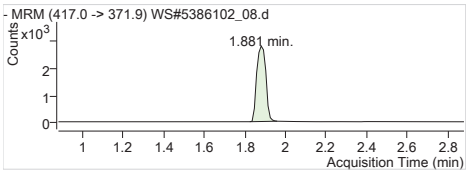


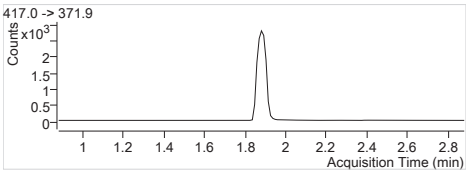
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



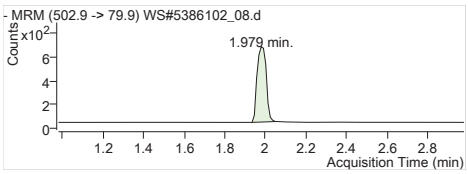


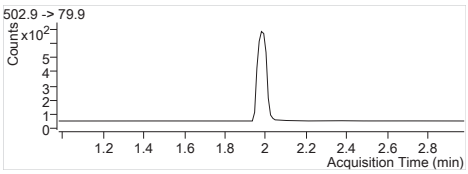
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



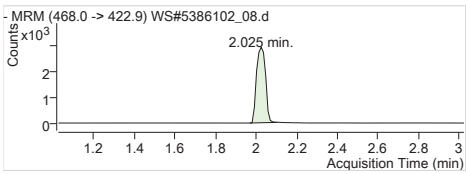


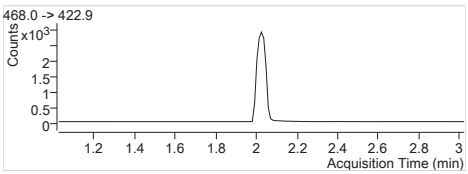
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



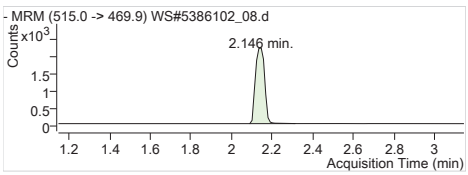


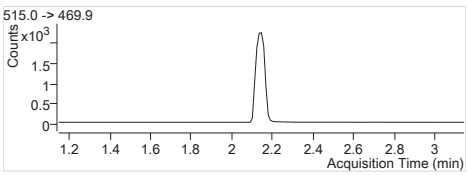
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



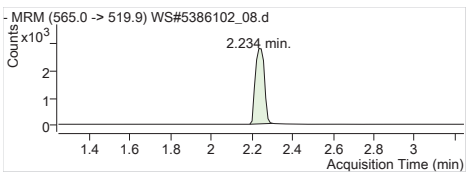


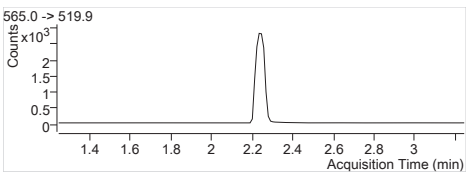
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



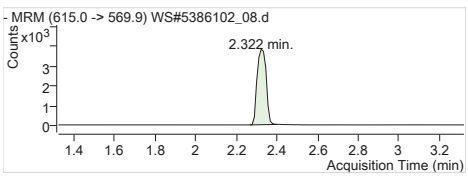


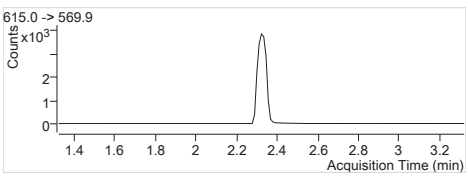
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



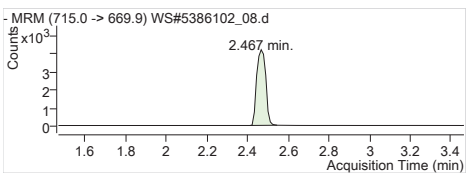


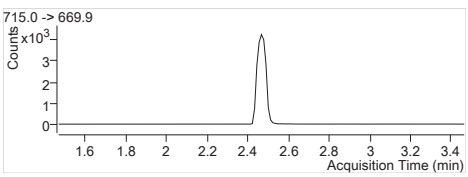
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.245)
Concentration: 1 µg/L
Sample type: Sample



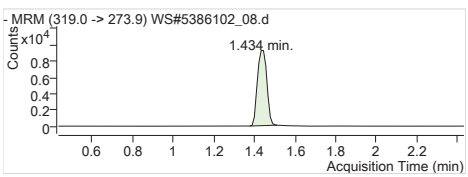


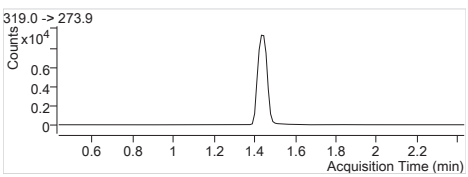
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



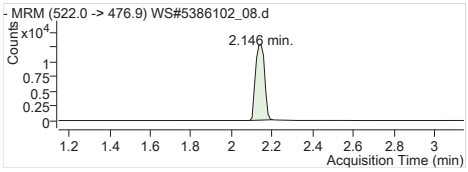


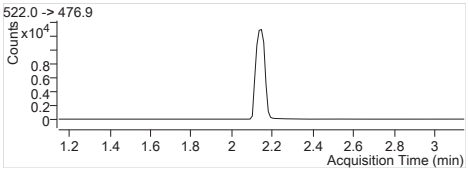
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



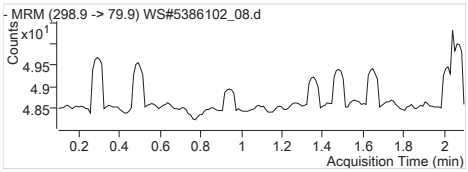


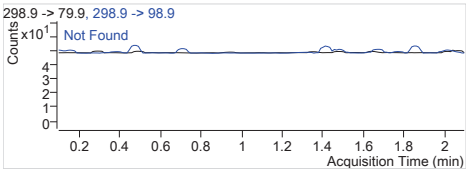
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



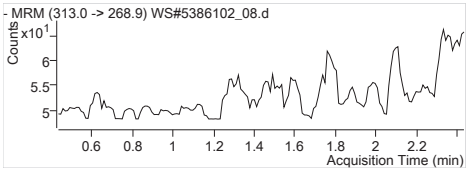


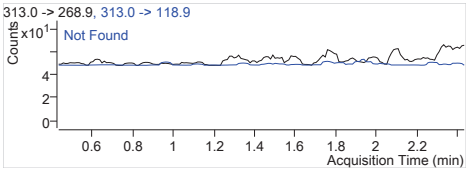
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



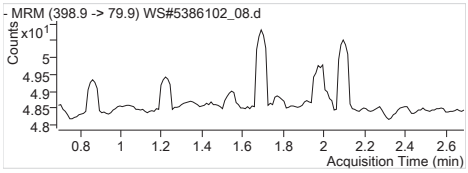


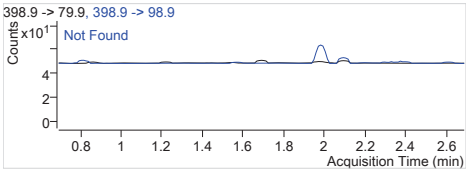
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



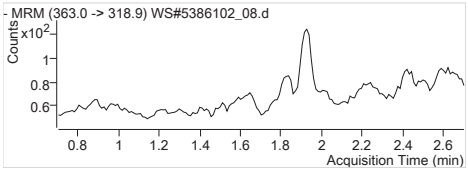


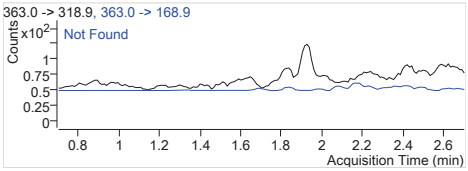
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



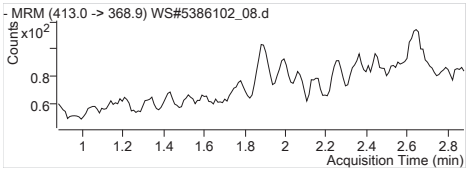


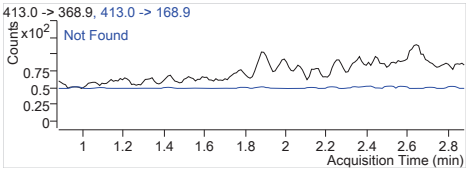
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



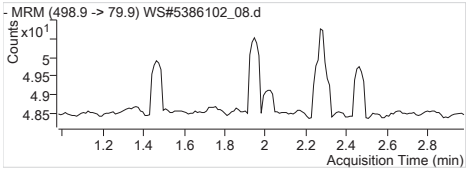


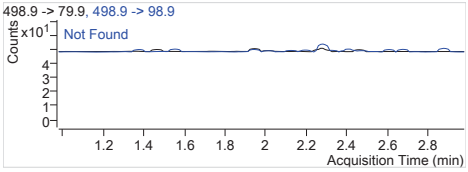
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



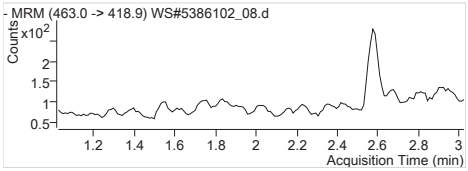


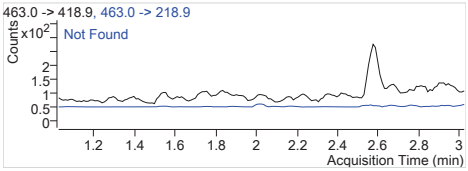
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



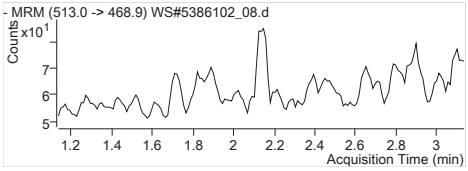


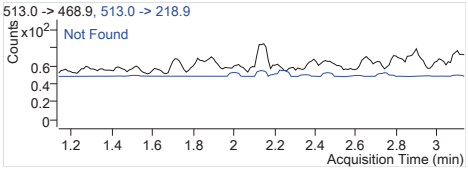
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



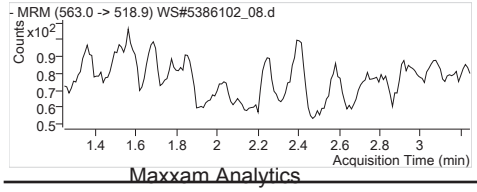


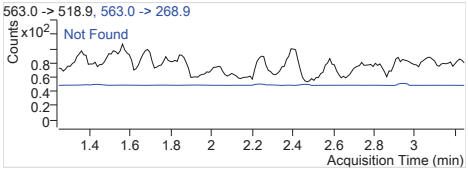
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



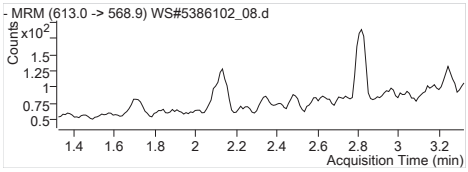


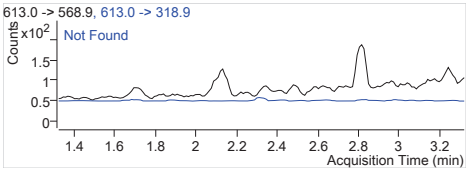
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



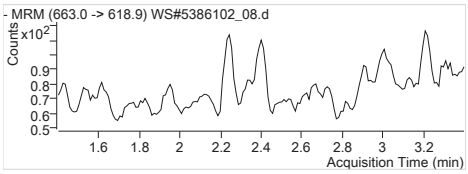


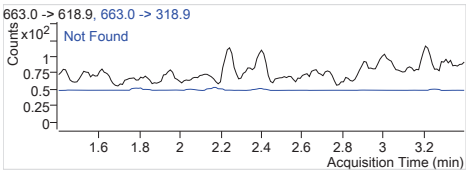
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



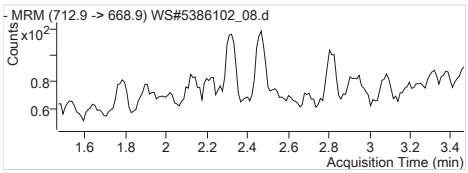


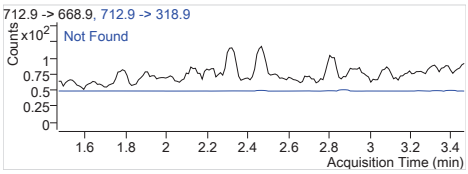
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



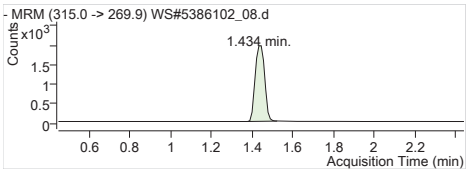


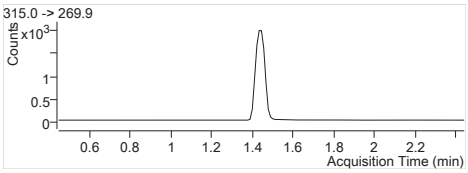
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



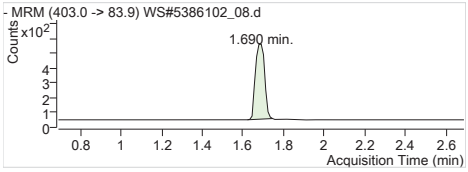


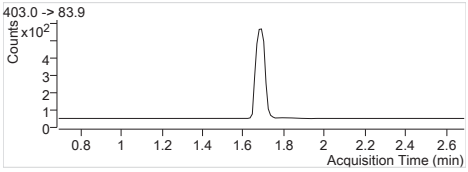
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



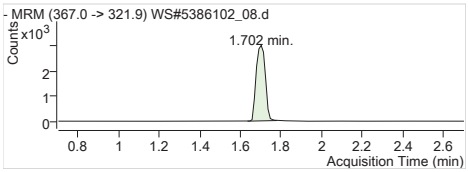


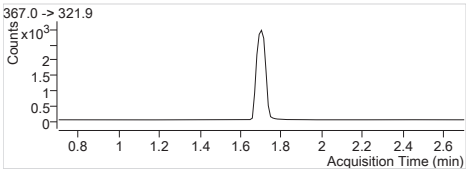
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.434 (1.445)
Calc. conc.	108.89 µg/L
Area ratio:	0.21161
Sample type:	Sample



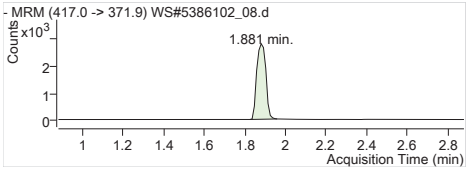


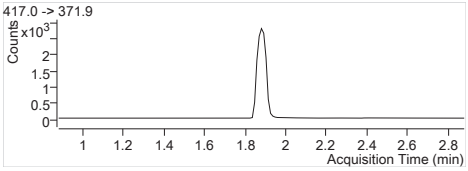
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	109.51 µg/L
Area ratio:	0.05445
Sample type:	Sample



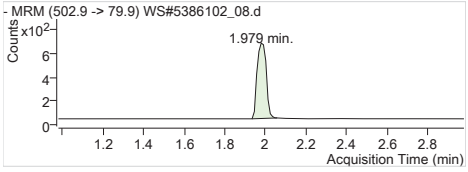


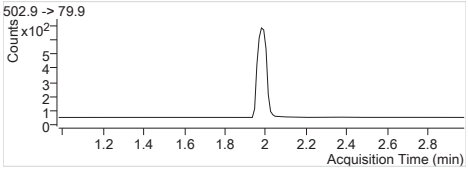
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.702 (1.702)
Calc. conc.	120.93 µg/L
Area ratio:	0.30773
Sample type:	Sample



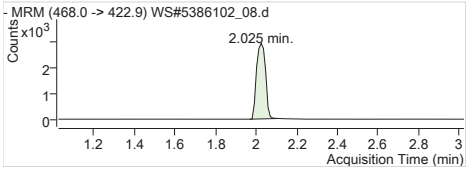


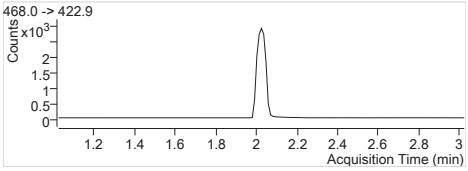
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	107.49 µg/L
Area ratio:	0.28858
Sample type:	Sample



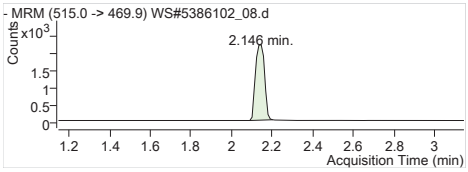


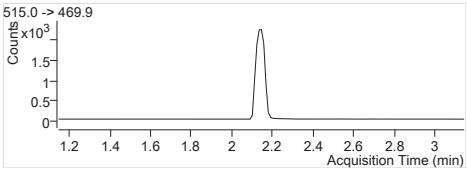
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	110.69 µg/L
Area ratio:	0.06702
Sample type:	Sample



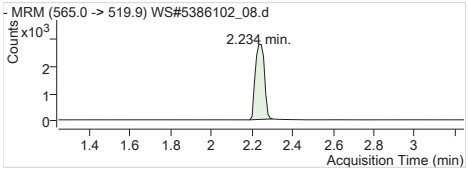


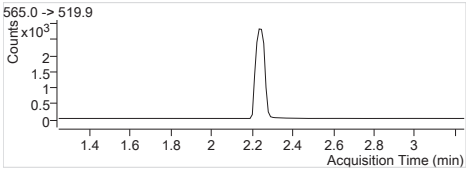
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.025 (2.025)
Calc. conc.	111.21 µg/L
Area ratio:	0.29799
Sample type:	Sample



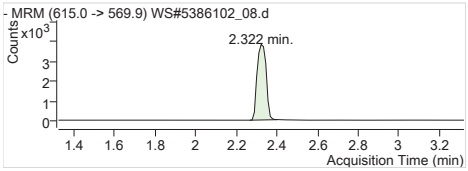


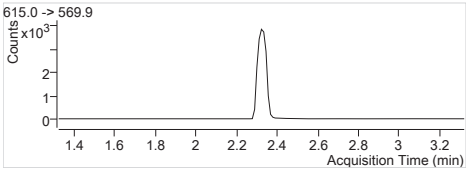
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 101.10 µg/L
Area ratio: 0.17207
Sample type: Sample



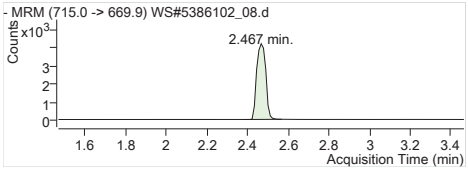


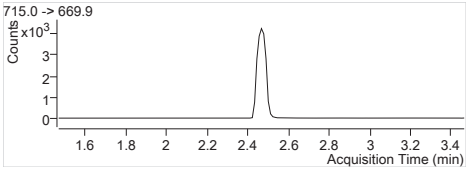
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.245)
Calc. conc. 107.44 µg/L
Area ratio: 0.21685
Sample type: Sample



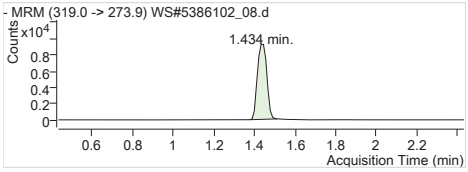


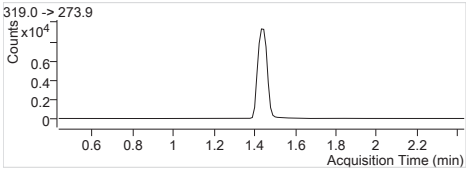
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 105.12 µg/L
Area ratio: 0.29455
Sample type: Sample



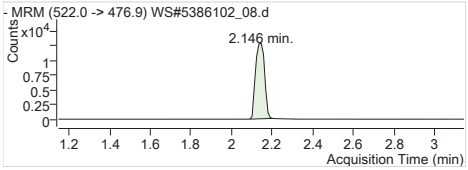


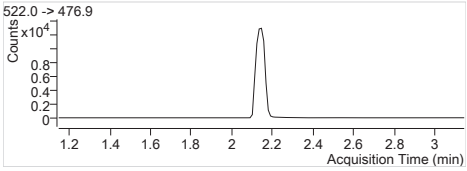
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 101.76 µg/L
Area ratio: 0.32526
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.25 µg/L
Area ratio: 0
Sample type: Sample





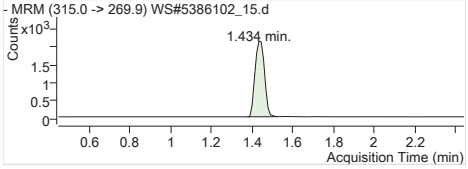
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.36 µg/L
Area ratio: 0
Sample type: Sample

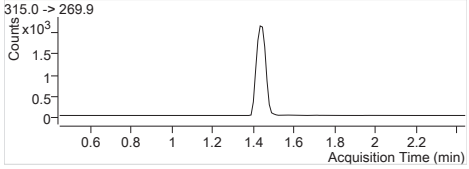
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5386102_15.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-D5
Acq. Date	2018/02/08 4:15:56 AM	**Injection Volume**	Per Method
Sample Annotation	-		

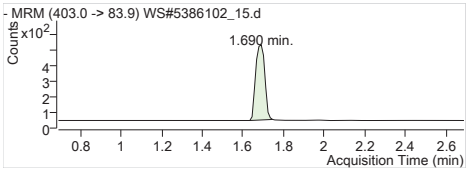
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6833	1.43	1 µg/L		
MPFHxS	1526	1.69	1 µg/L		
MPFHpA	8961	1.70	1 µg/L		
MPFOA	8841	1.88	1 µg/L		
MPFOS	1825	1.98	1 µg/L		
MPFNA	9040	2.02	1 µg/L		
MPFDA	7482	2.15	1 µg/L		
MPFUnA	8186	2.25	1 µg/L		
MPFDoA	11322	2.32	1 µg/L		
MPFTeDA	13128	2.47	1 µg/L		
13C6-PFHxA IS	32514	1.43	1 µg/L		
13C9-PFDA IS	42276	2.15	1 µg/L		

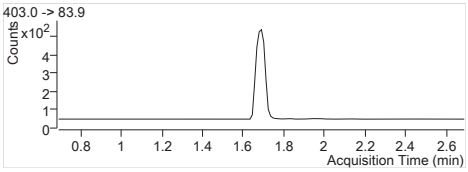
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6833	1.43	-	108.14 µg/L	-
18O2-PFHxS	1526	1.69	-	94.40 µg/L	-
13C4-PFHpA	8961	1.70	-	108.30 µg/L	-
13C4-PFOA	8841	1.88	-	101.28 µg/L	-
13C4-PFOS	1825	1.98	-	92.70 µg/L	-
13C5-PFNA	9040	2.02	-	103.77 µg/L	-
13C2-PFDA	7295	2.15	-	101.38 µg/L	-
13C2-PFUnA	8186	2.25	-	95.93 µg/L	-
13C2-PFDoA	11322	2.32	-	95.57 µg/L	-
13C2-PFTeDA	13451	2.47	-	99.54 µg/L	-
13C6-PFHxA	32514	1.43	-	2.46 µg/L	-
13C9-PFDA	42276	2.15	-	2.50 µg/L	-



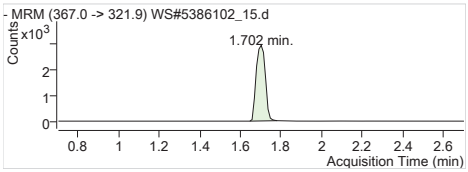


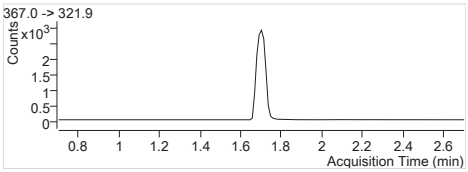
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	Sample



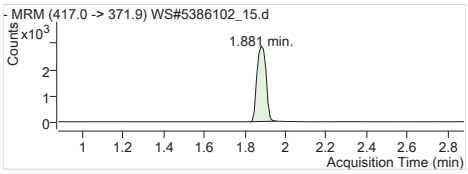


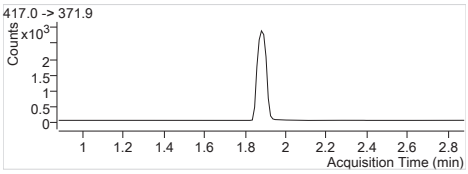
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



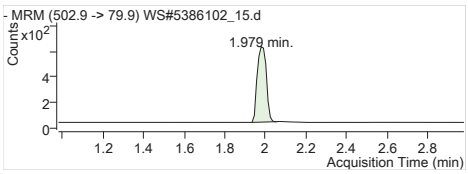


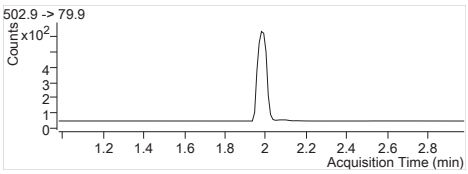
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



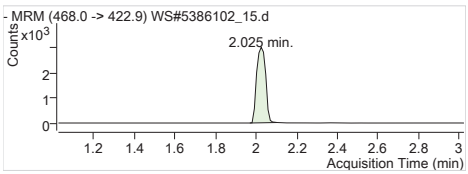


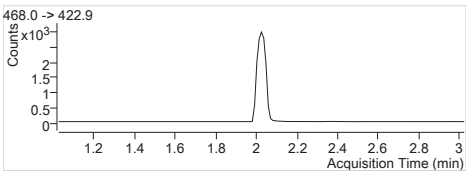
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



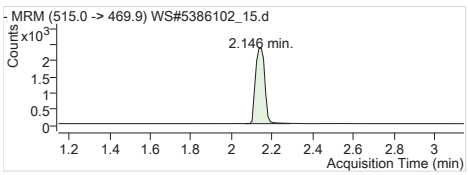


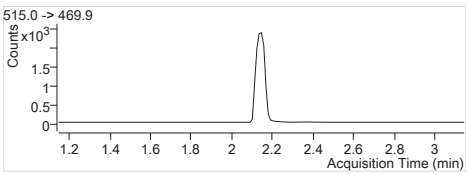
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



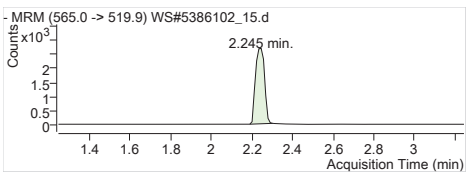


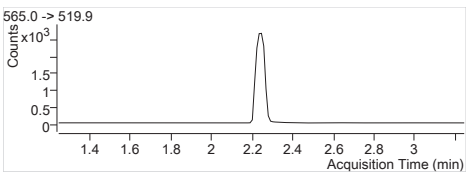
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



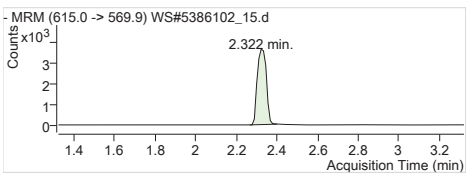


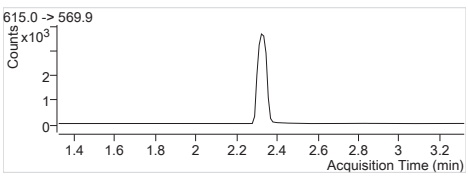
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



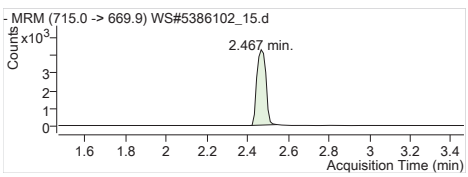


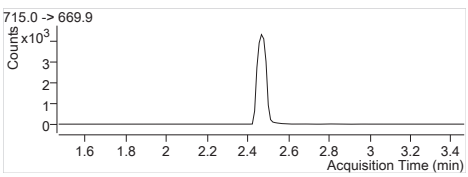
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



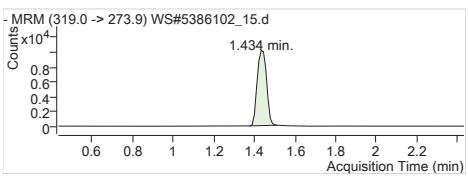


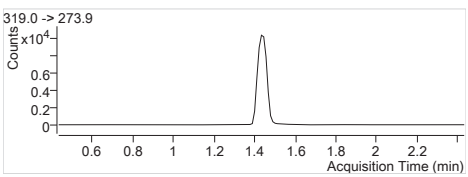
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



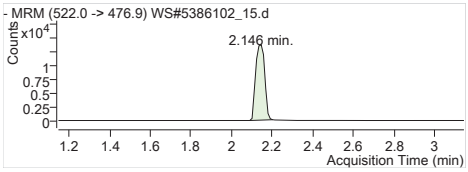


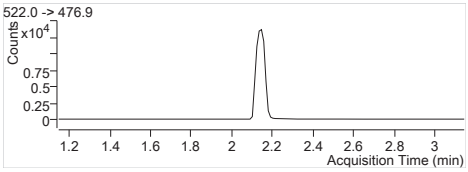
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



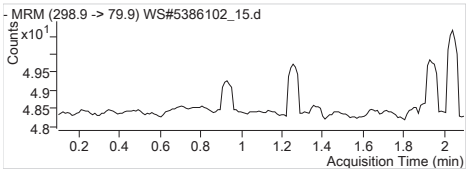


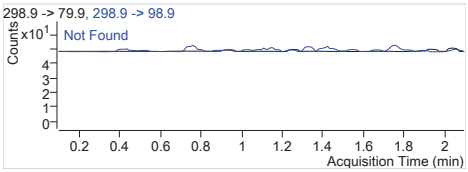
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



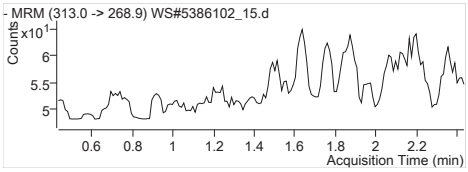


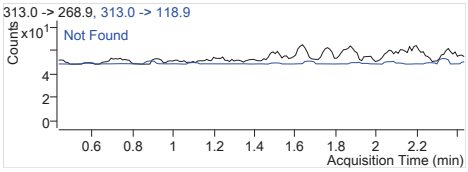
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



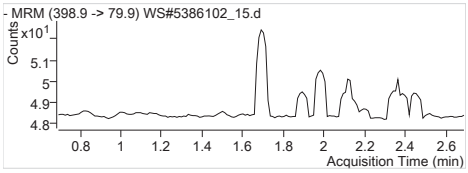


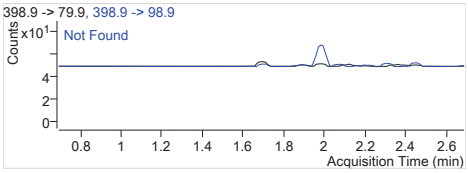
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



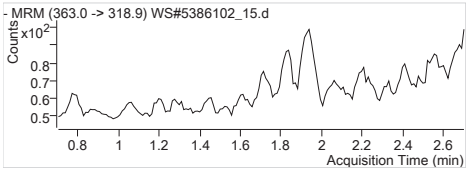


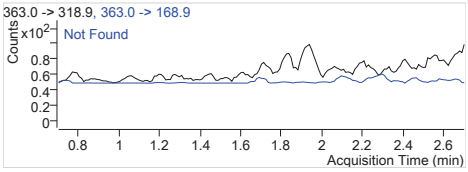
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



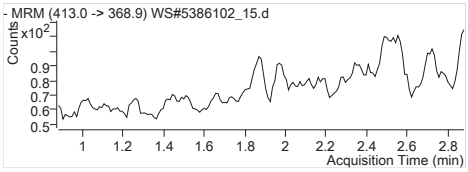


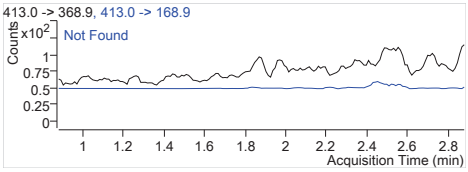
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



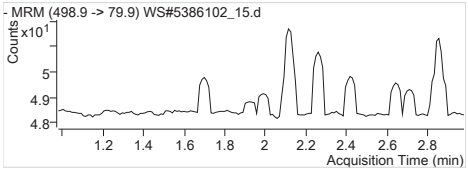


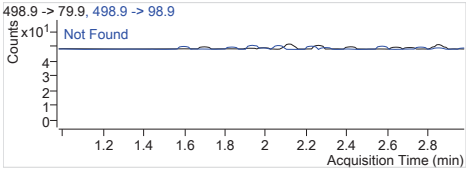
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



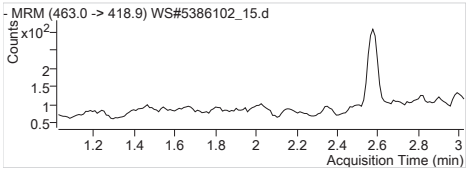


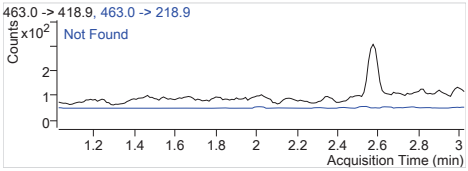
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



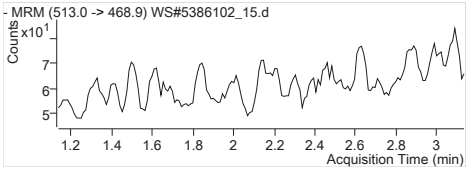


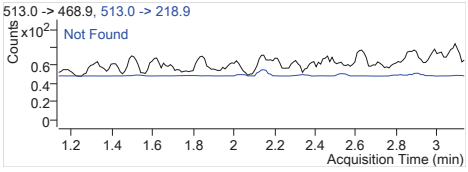
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



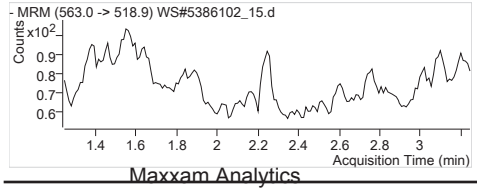


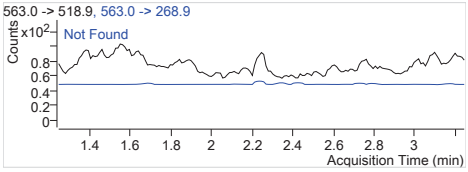
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



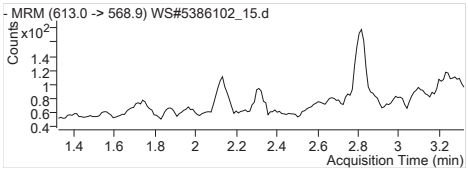


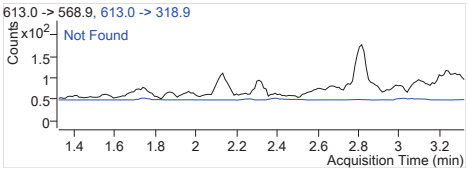
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



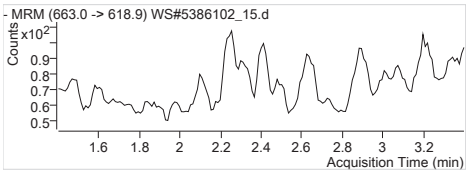


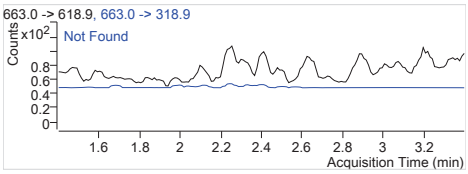
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



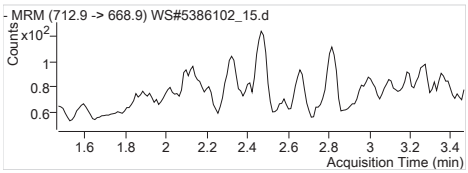


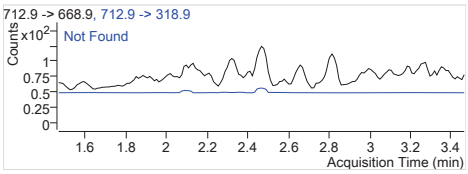
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



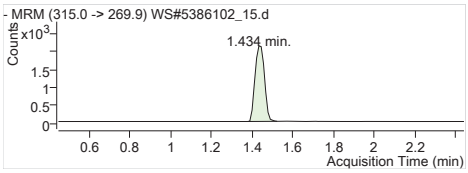


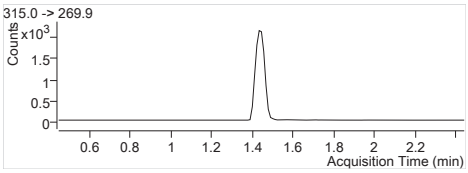
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



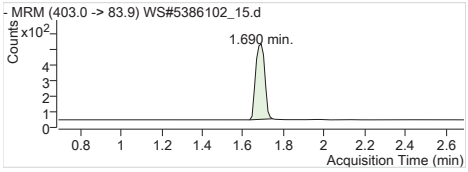


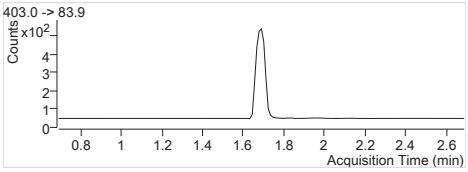
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



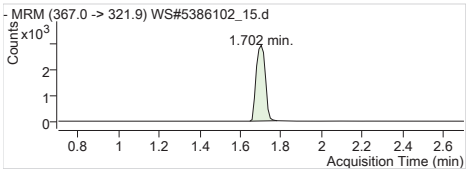


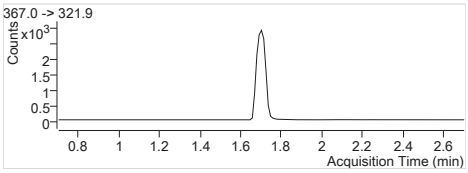
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 108.14 µg/L
Area ratio: 0.21016
Sample type: Sample



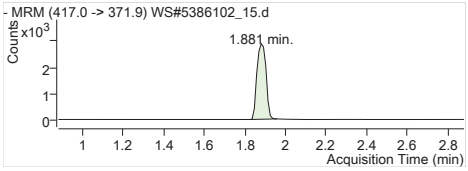


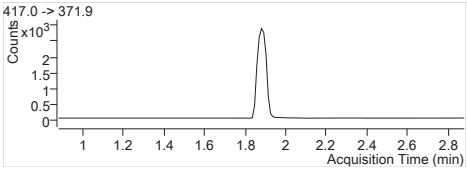
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 94.40 µg/L
Area ratio: 0.04693
Sample type: Sample



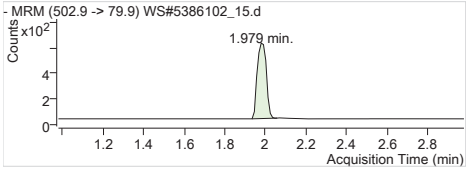


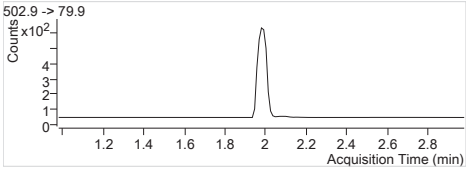
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 108.30 µg/L
Area ratio: 0.27560
Sample type: Sample



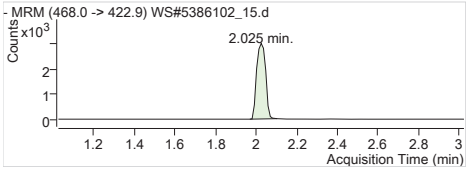


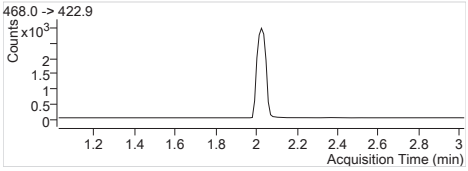
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 101.28 µg/L
Area ratio: 0.27191
Sample type: Sample



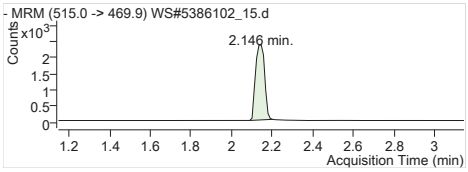


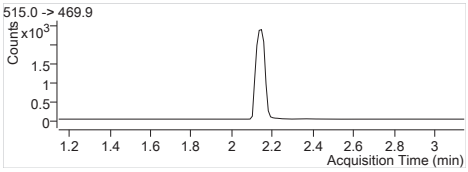
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 92.70 µg/L
Area ratio: 0.05613
Sample type: Sample



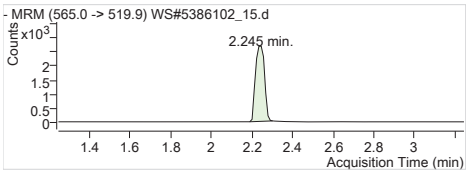


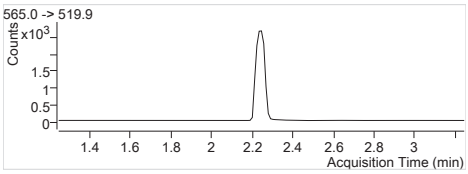
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 103.77 µg/L
Area ratio: 0.27803
Sample type: Sample



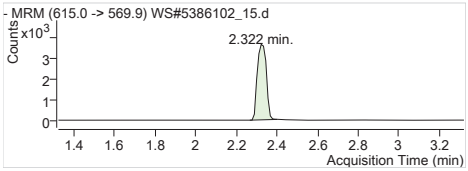


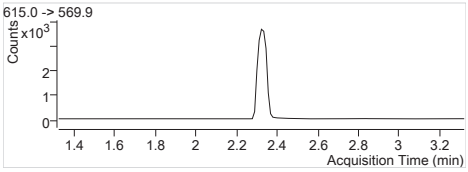
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 101.38 µg/L
Area ratio: 0.17256
Sample type: Sample



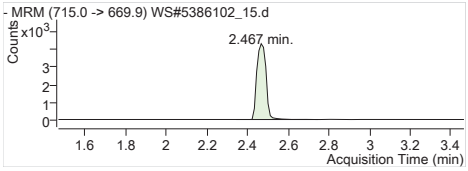


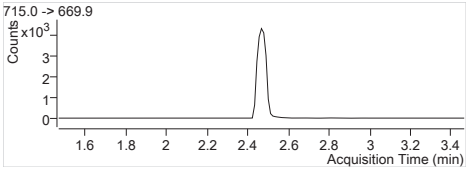
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 95.93 µg/L
Area ratio: 0.19363
Sample type: Sample



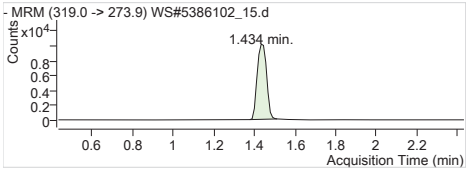


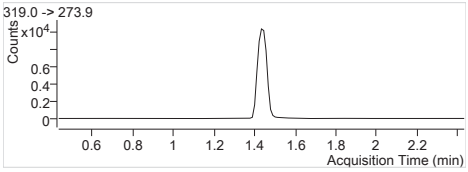
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 95.57 µg/L
Area ratio: 0.26781
Sample type: Sample



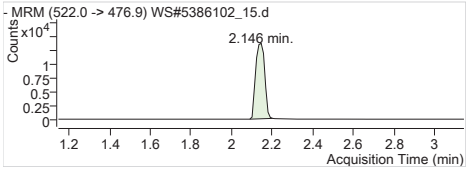


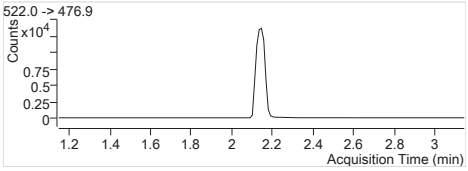
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 99.54 µg/L
Area ratio: 0.31817
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.46 µg/L
Area ratio: 0
Sample type: Sample





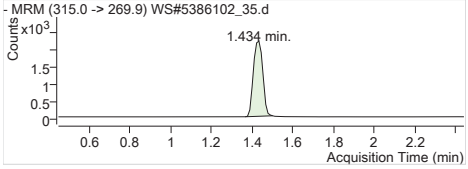
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.50 µg/L
Area ratio: 0
Sample type: Sample

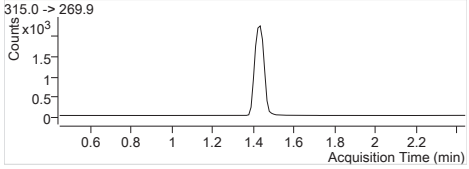
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5386102_35.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-D5
Acq. Date	2018/02/08 3:52:06 PM	**Injection Volume**	Per Method
Sample Annotation	-		

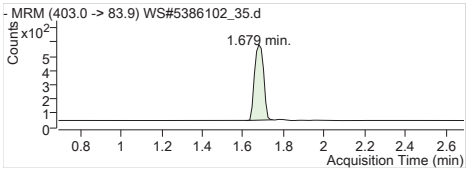
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7067	1.43	1 µg/L		
MPFHxS	1648	1.68	1 µg/L		
MPFHpA	8807	1.69	1 µg/L		
MPFOA	9682	1.88	1 µg/L		
MPFOS	2157	1.98	1 µg/L		
MPFNA	9750	2.02	1 µg/L		
MPFDA	7579	2.14	1 µg/L		
MPFUnA	8543	2.23	1 µg/L		
MPFDoA	12146	2.32	1 µg/L		
MPFTeDA	13728	2.47	1 µg/L		
13C6-PFHxA IS	33420	1.43	1 µg/L		
13C9-PFDA IS	42585	2.13	1 µg/L		

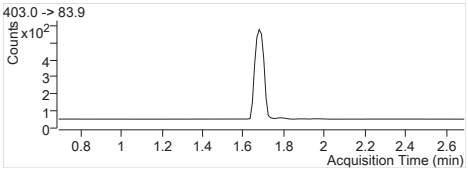
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	7067	1.43	-	108.82 µg/L	-
18O2-PFHxS	1648	1.68	-	99.18 µg/L	-
13C4-PFHpA	8807	1.69	-	103.55 µg/L	-
13C4-PFOA	9682	1.88	-	107.91 µg/L	-
13C4-PFOS	2157	1.98	-	106.60 µg/L	-
13C5-PFNA	9685	2.02	-	108.15 µg/L	-
13C2-PFDA	7425	2.14	-	102.44 µg/L	-
13C2-PFUnA	8543	2.23	-	99.39 µg/L	-
13C2-PFDoA	12146	2.32	-	101.79 µg/L	-
13C2-PFTeDA	13953	2.47	-	102.50 µg/L	-
13C6-PFHxA	33420	1.43	-	2.53 µg/L	-
13C9-PFDA	42585	2.13	-	2.52 µg/L	-



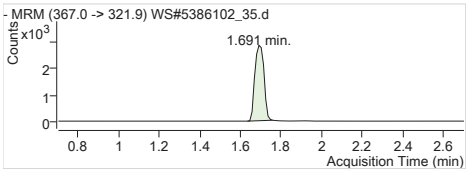


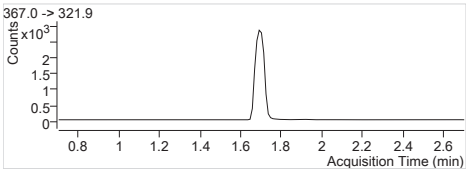
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	Sample



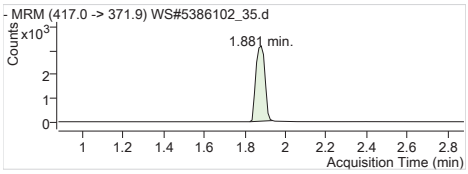


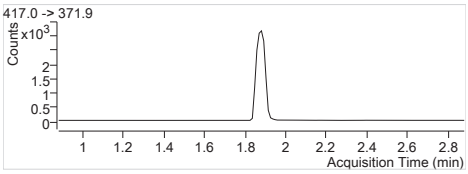
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.690)
Concentration: 1 µg/L
Sample type: Sample



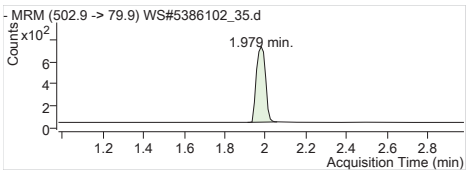


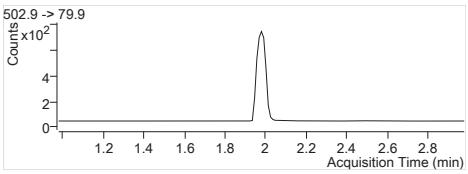
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.702)
Concentration: 1 µg/L
Sample type: Sample



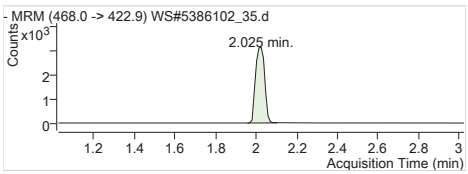


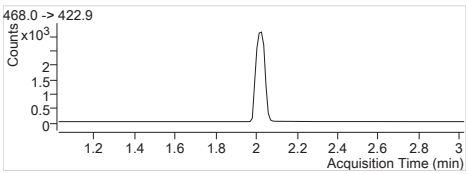
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



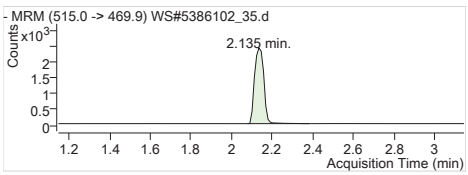


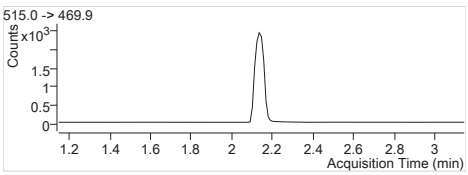
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



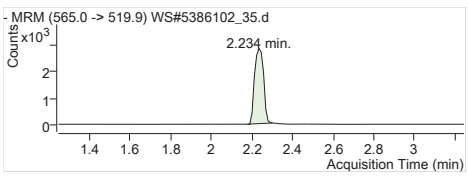


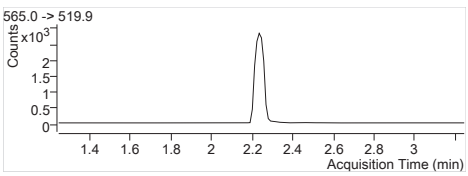
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



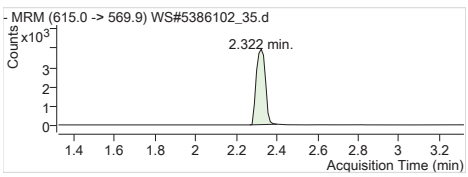


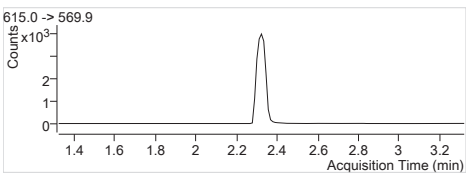
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: Sample



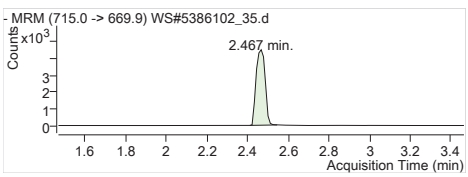


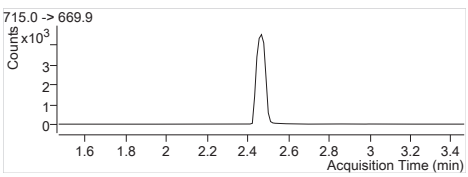
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.245)
Concentration: 1 µg/L
Sample type: Sample



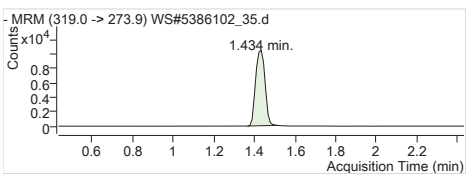


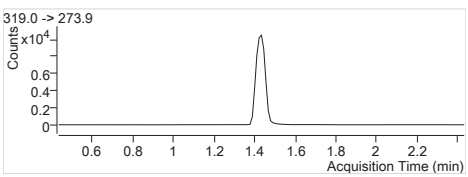
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



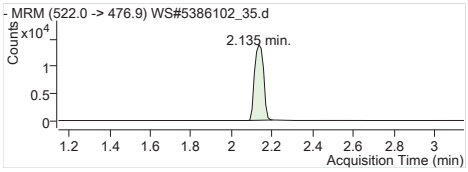


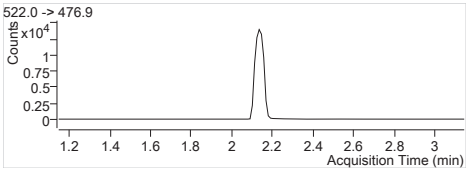
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



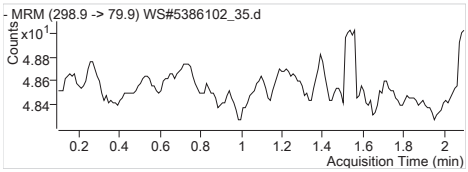


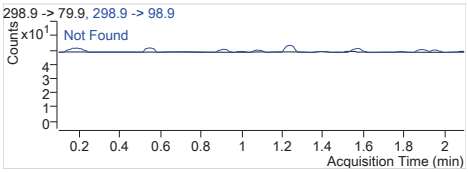
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



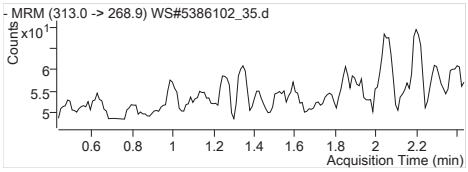


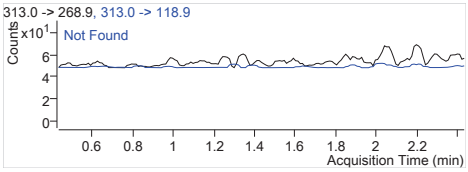
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: Sample



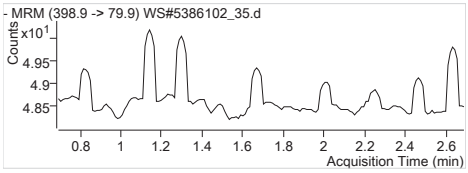


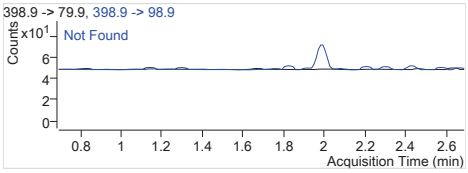
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



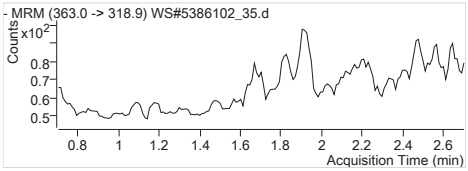


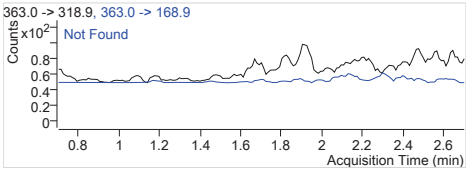
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



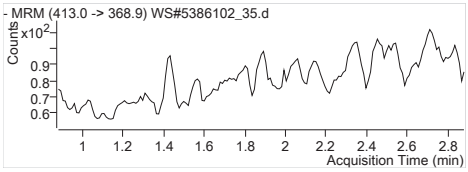


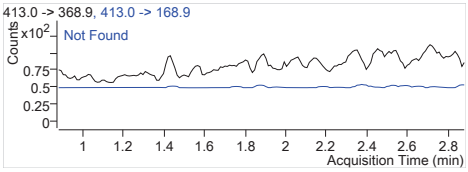
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



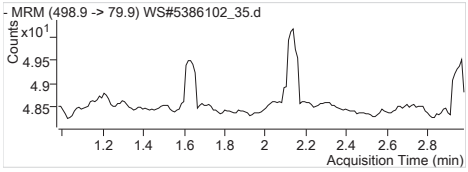


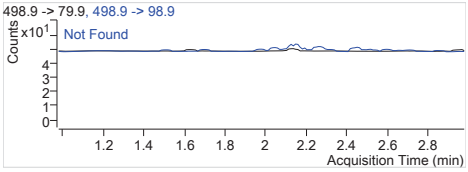
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



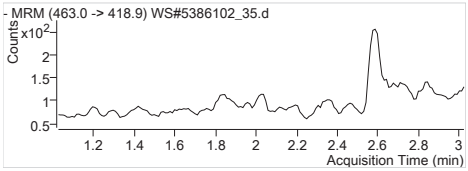


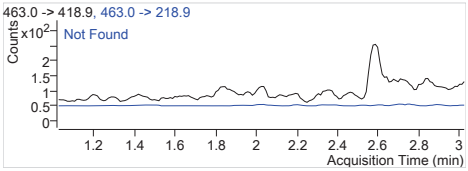
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



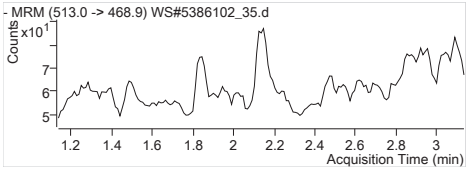


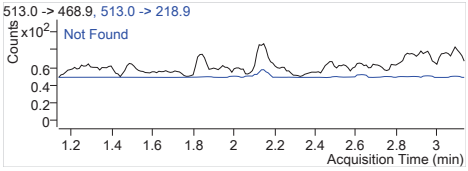
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



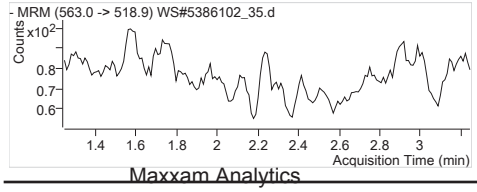


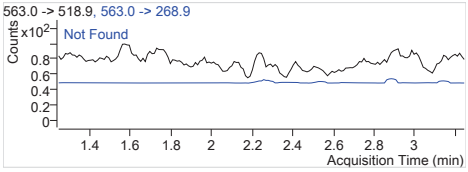
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



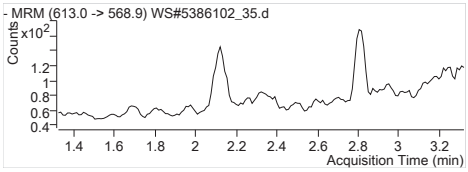


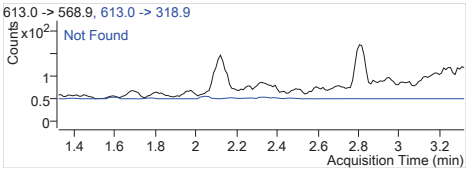
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



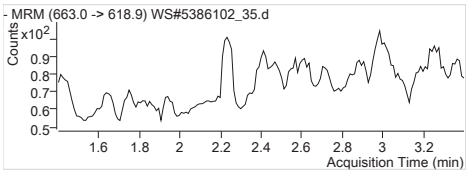


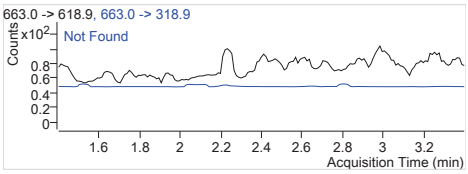
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



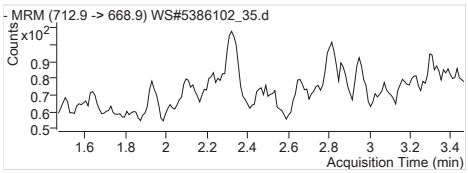


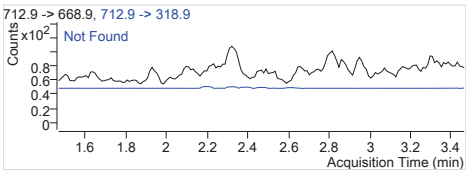
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



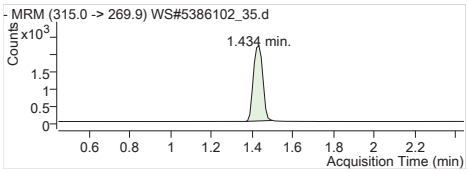


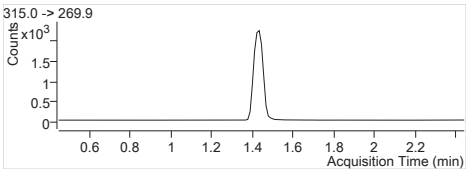
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



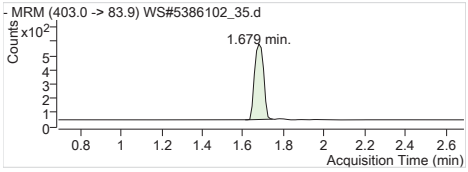


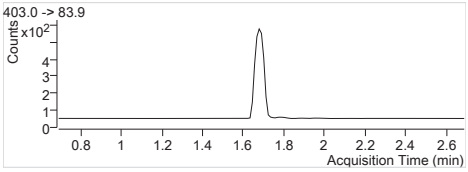
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



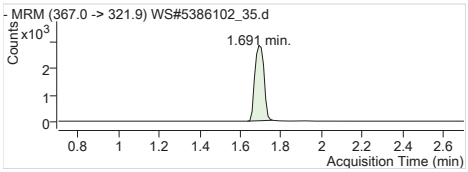


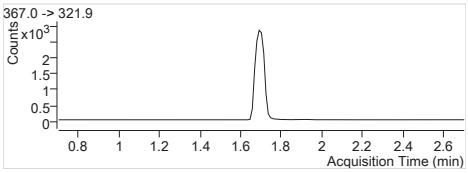
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 108.82 µg/L
Area ratio: 0.21146
Sample type: Sample



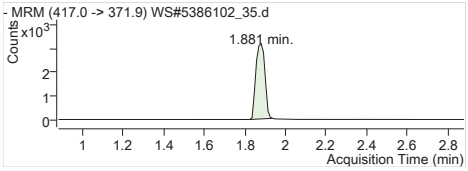


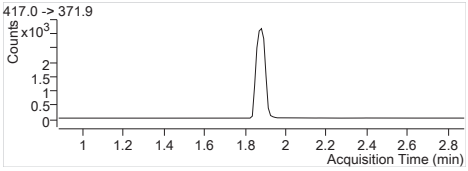
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.690)
Calc. conc. 99.18 µg/L
Area ratio: 0.04931
Sample type: Sample



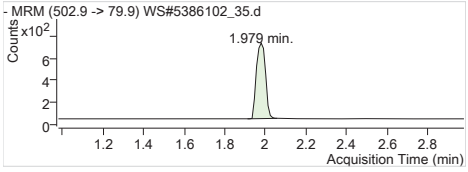


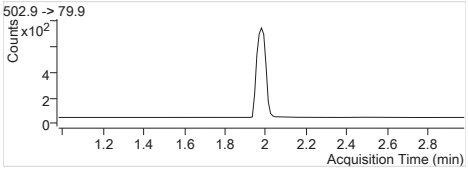
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.702)
Calc. conc. 103.55 µg/L
Area ratio: 0.26352
Sample type: Sample



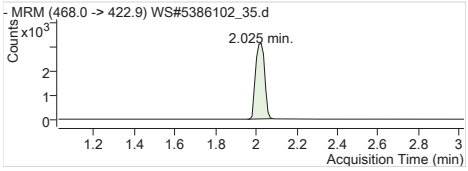


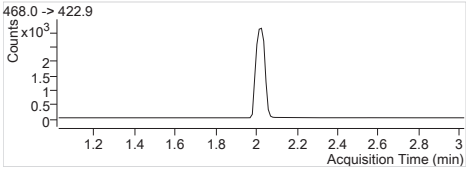
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 107.91 µg/L
Area ratio: 0.28971
Sample type: Sample



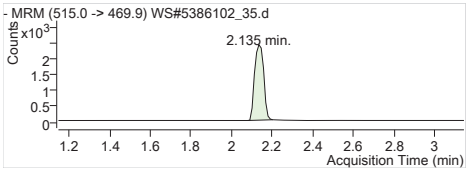


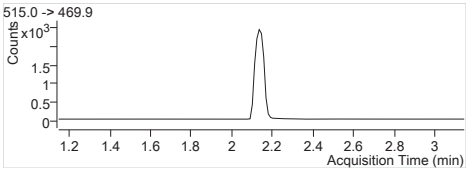
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 106.60 µg/L
Area ratio: 0.06454
Sample type: Sample



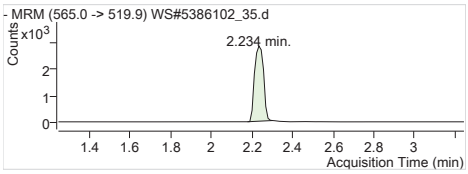


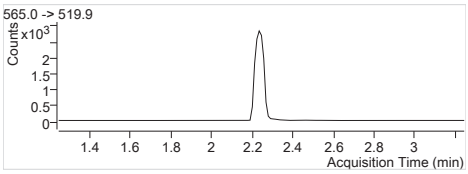
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 108.15 µg/L
Area ratio: 0.28980
Sample type: Sample



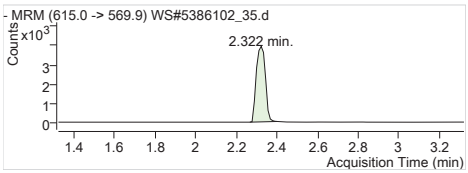


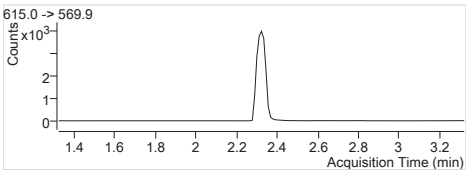
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 102.44 µg/L
Area ratio: 0.17436
Sample type: Sample



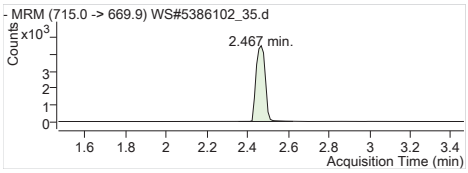


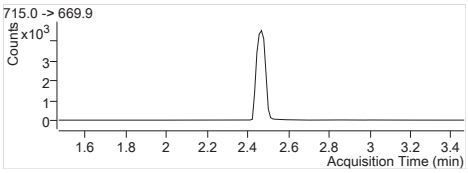
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.245)
Calc. conc. 99.39 µg/L
Area ratio: 0.20061
Sample type: Sample



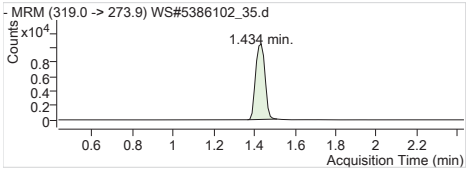


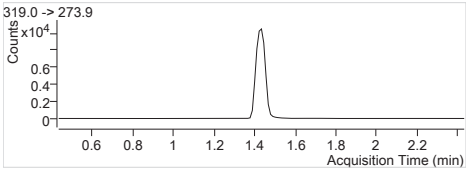
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 101.79 µg/L
Area ratio: 0.28522
Sample type: Sample



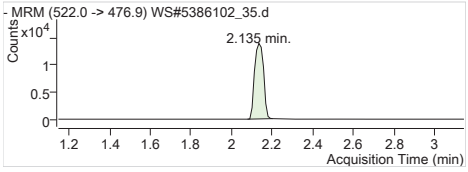


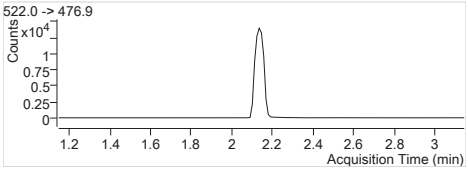
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 102.50 µg/L
Area ratio: 0.32765
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.53 µg/L
Area ratio: 0
Sample type: Sample





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 2.52 µg/L
Area ratio: 0
Sample type: Sample

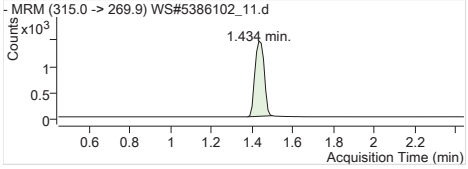
Quantitation Results

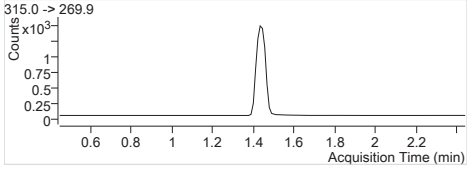
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics		
Sample Name	**5386102:BLANK**	**Instrument**	LCMS04
Data File	WS#5386102_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-D7
Acq. Date	2018/02/08 3:56:12 AM	**Injection Volume**	Per Method
Sample Annotation	-		

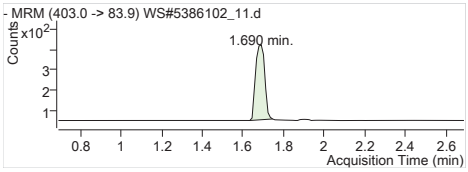
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4499	1.43	1 µg/L		
MPFHxS	1164	1.69	1 µg/L		
MPFHpA	5568	1.70	1 µg/L		
MPFOA	5650	1.88	1 µg/L		
MPFOS	1459	1.98	1 µg/L		
MPFNA	5525	2.02	1 µg/L		
MPFDA	4056	2.15	1 µg/L		
MPFUnA	5044	2.25	1 µg/L		
MPFDoA	6622	2.32	1 µg/L		
MPFTeDA	6873	2.47	1 µg/L		
13C6-PFHxA IS	32505	1.43	1 µg/L		
13C9-PFDA IS	40494	2.15	1 µg/L		

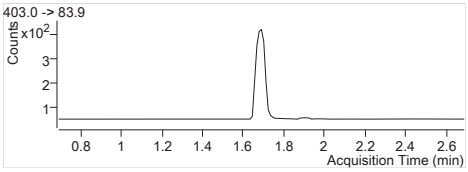
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	4499	1.43	-	71.22 µg/L	-
18O2-PFHxS	1164	1.69	-	72.02 µg/L	-
13C4-PFHpA	5568	1.70	-	67.31 µg/L	-
13C4-PFOA	5650	1.88	-	64.74 µg/L	-
13C4-PFOS	1459	1.98	-	74.13 µg/L	-
13C5-PFNA	5524	2.02	-	63.42 µg/L	-
13C2-PFDA	4032	2.15	-	58.50 µg/L	-
13C2-PFUnA	5044	2.25	-	61.71 µg/L	-
13C2-PFDoA	6622	2.32	-	58.36 µg/L	-
13C2-PFTeDA	6966	2.47	-	53.82 µg/L	-
13C6-PFHxA	32505	1.43	-	2.46 µg/L	-
13C9-PFDA	40494	2.15	-	2.40 µg/L	-



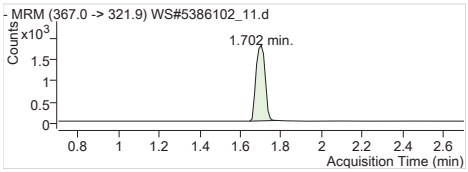


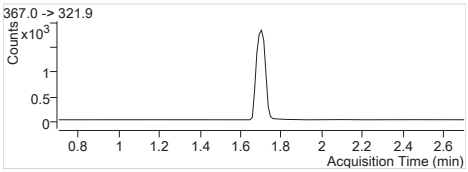
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	Sample



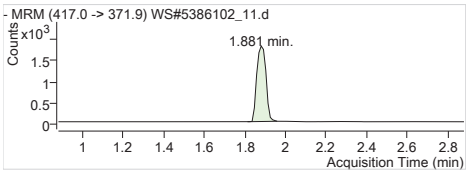


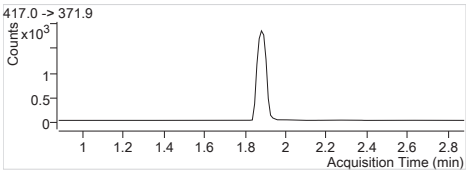
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



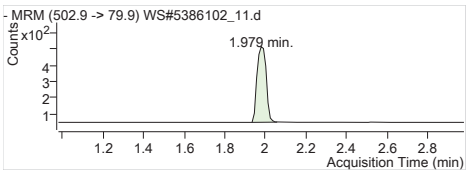


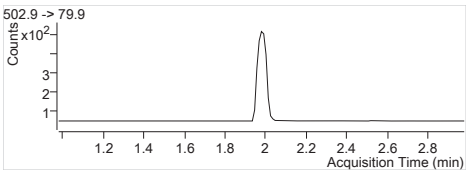
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



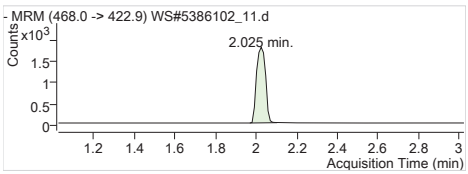


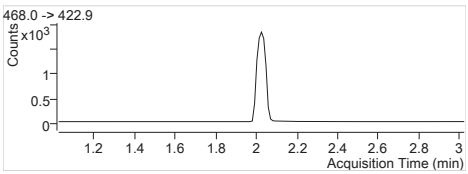
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



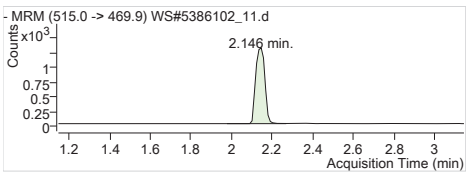


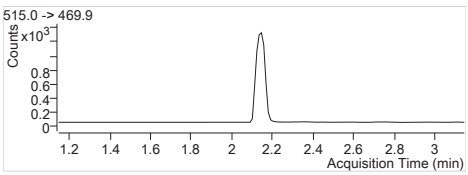
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



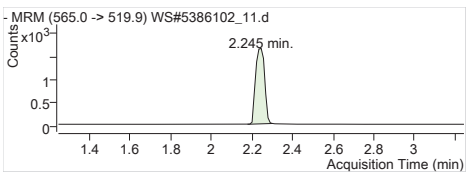


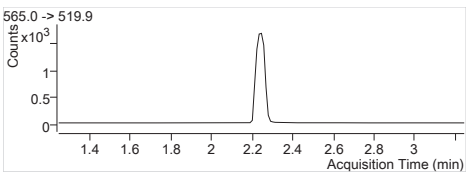
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



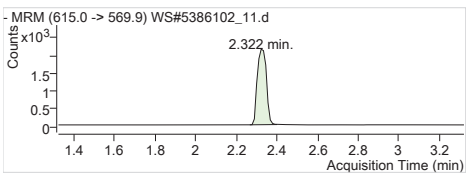


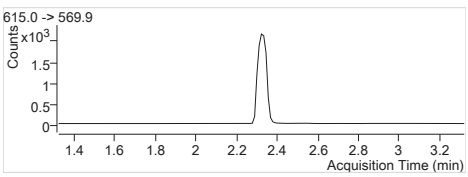
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



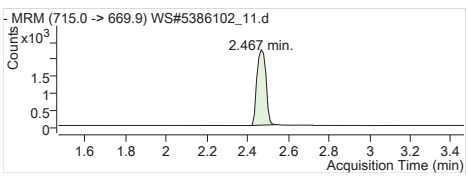


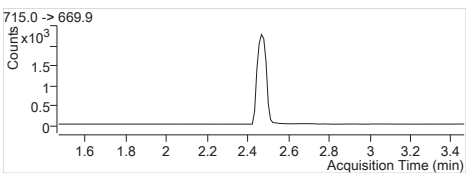
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Sample



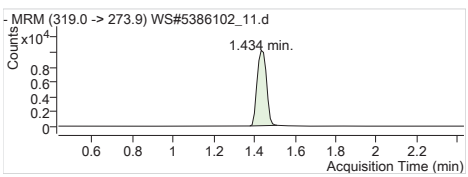


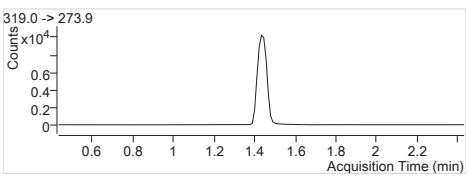
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



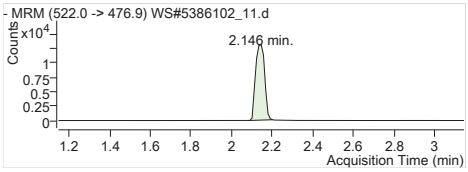


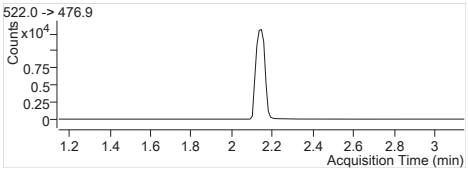
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



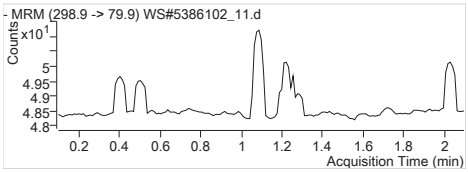


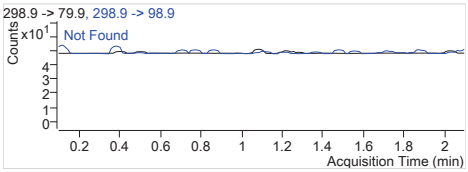
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



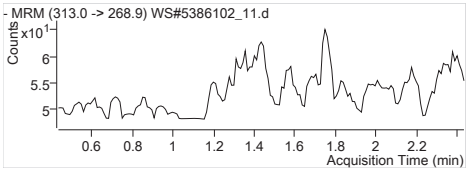


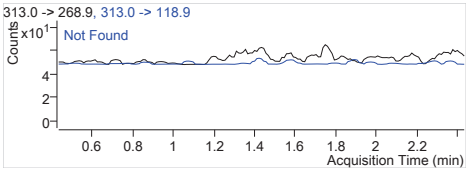
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



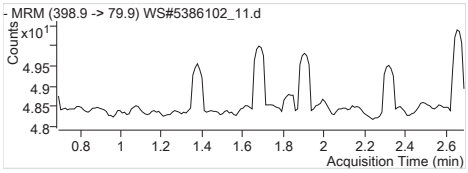


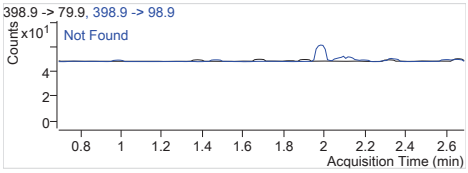
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



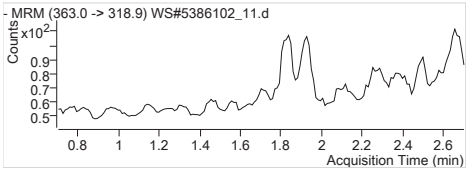


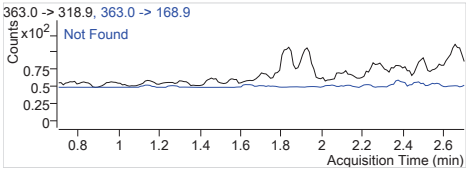
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



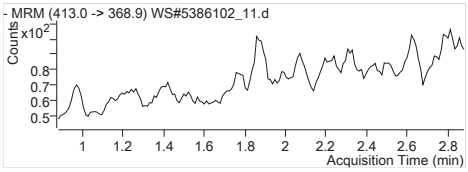


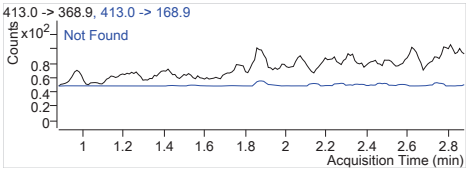
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



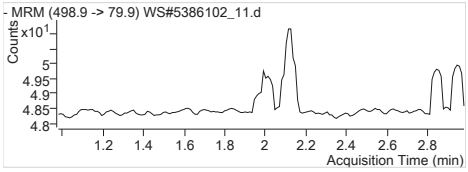


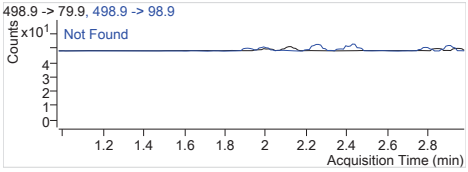
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



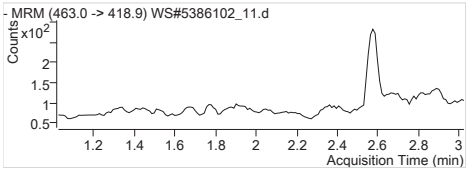


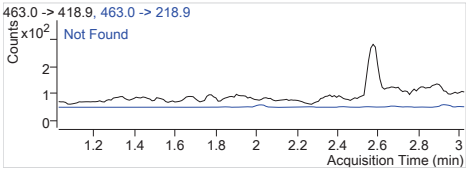
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



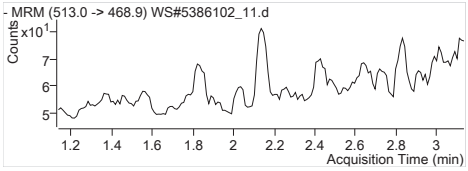


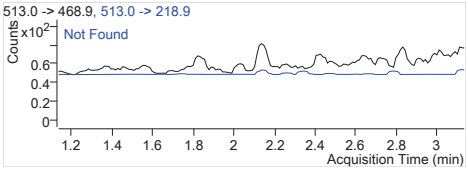
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



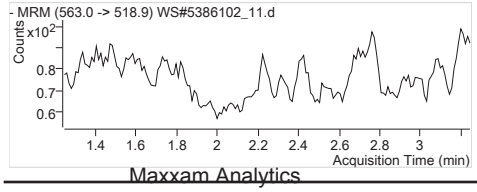


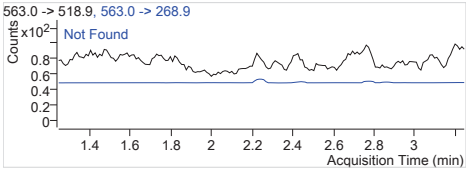
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



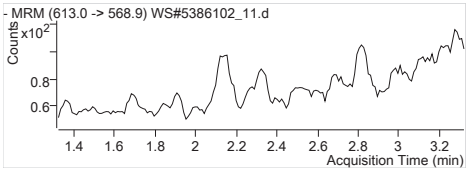


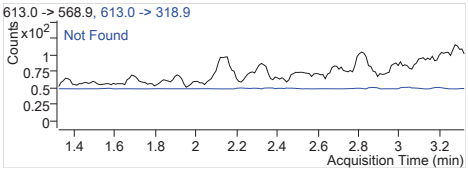
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



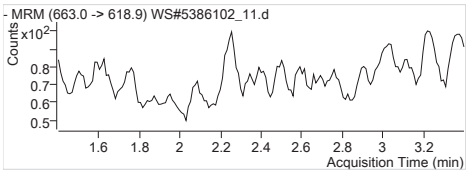


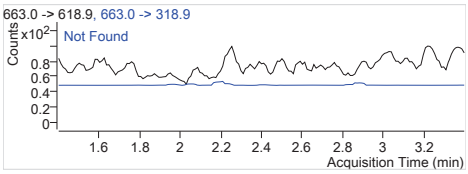
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



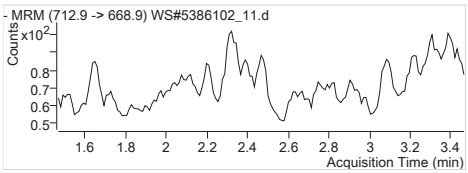


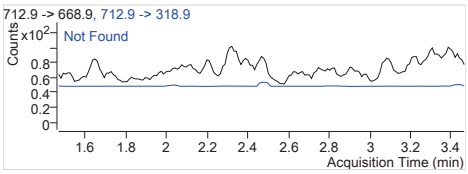
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



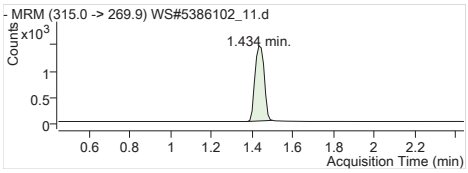


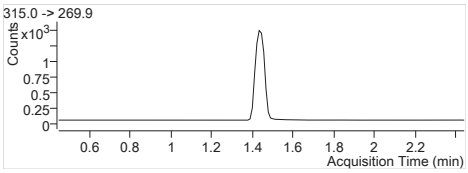
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



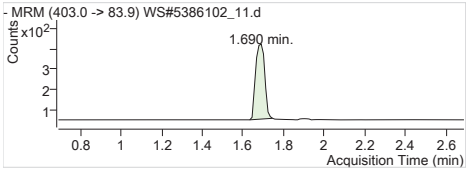


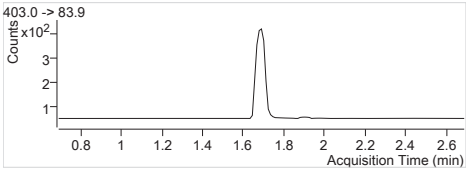
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



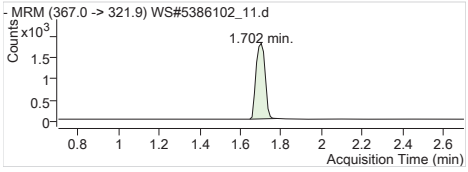


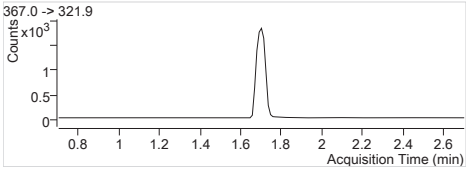
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 71.22 µg/L
Area ratio: 0.13841
Sample type: Sample



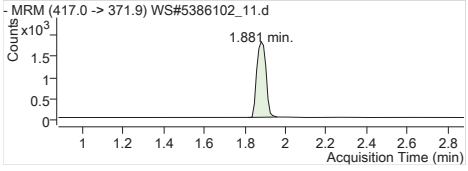


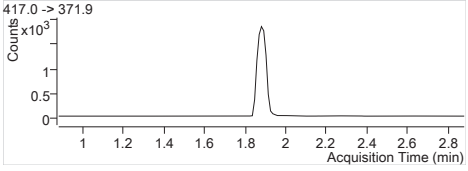
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 72.02 µg/L
Area ratio: 0.03581
Sample type: Sample



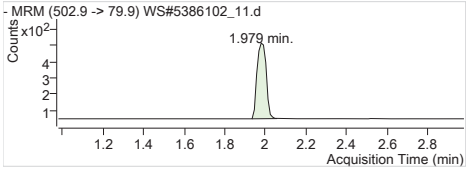


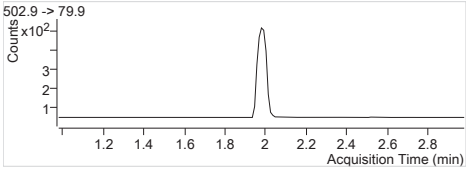
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 67.31 µg/L
Area ratio: 0.17130
Sample type: Sample



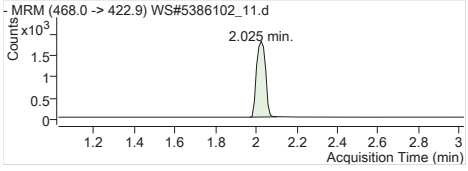


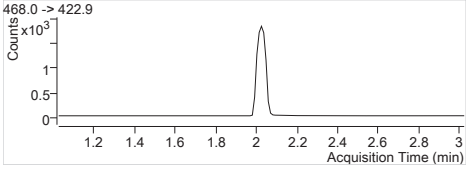
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 64.74 µg/L
Area ratio: 0.17382
Sample type: Sample



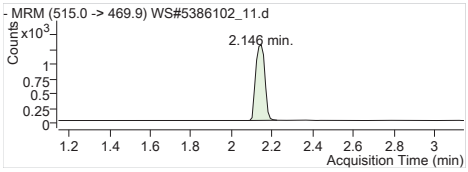


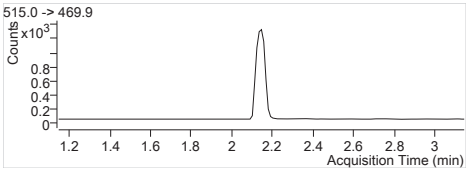
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 74.13 µg/L
Area ratio: 0.04489
Sample type: Sample



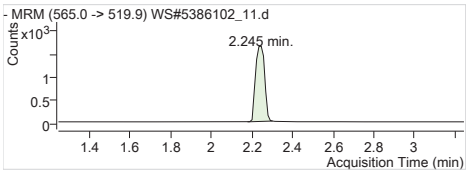


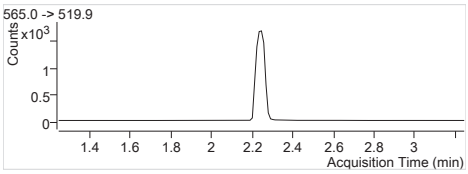
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 63.42 µg/L
Area ratio: 0.16994
Sample type: Sample



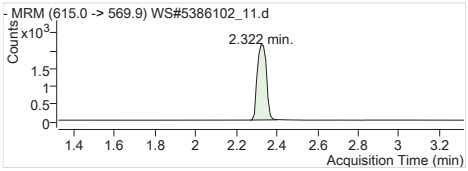


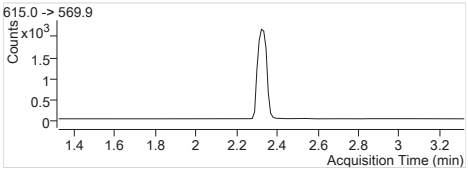
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 58.50 µg/L
Area ratio: 0.09957
Sample type: Sample



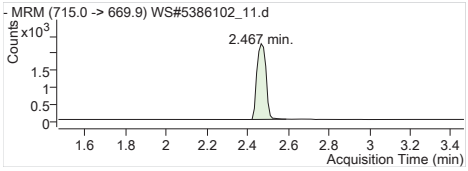


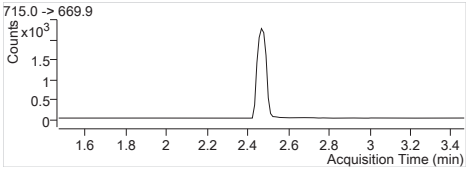
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 61.71 µg/L
Area ratio: 0.12456
Sample type: Sample



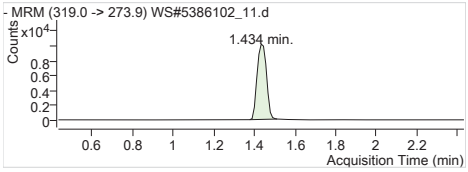


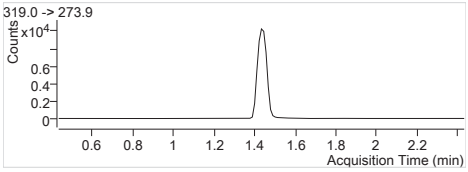
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 58.36 µg/L
Area ratio: 0.16353
Sample type: Sample



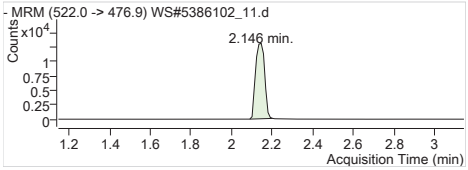


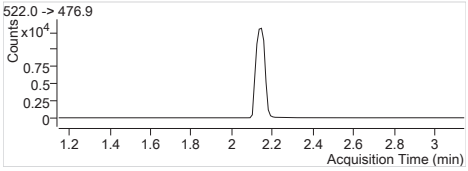
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 53.82 µg/L
Area ratio: 0.17203
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.46 µg/L
Area ratio: 0
Sample type: Sample





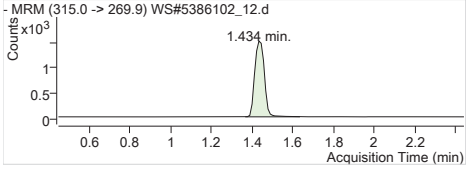
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.40 µg/L
Area ratio: 0
Sample type: Sample

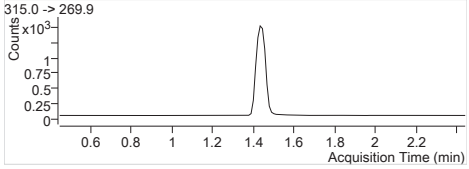
Batch Path	T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**5386102:SPIKE**	**Instrument**	LCMS04
Data File	WS#5386102_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-D8
Acq. Date	2018/02/08 4:01:09 AM	**Injection Volume**	Per Method
Sample Annotation	-		

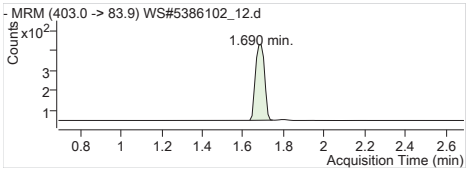
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4868	1.43	1 µg/L		
MPFHxS	1186	1.69	1 µg/L		
MPFHpA	6260	1.70	1 µg/L		
MPFOA	6178	1.88	1 µg/L		
MPFOS	1393	1.98	1 µg/L		
MPFNA	6249	2.02	1 µg/L		
MPFDA	4691	2.15	1 µg/L		
MPFUnA	5681	2.25	1 µg/L		
MPFDoA	6977	2.32	1 µg/L		
MPFTeDA	8459	2.47	1 µg/L		
13C6-PFHxA IS	32560	1.43	1 µg/L		
13C9-PFDA IS	42455	2.13	1 µg/L		

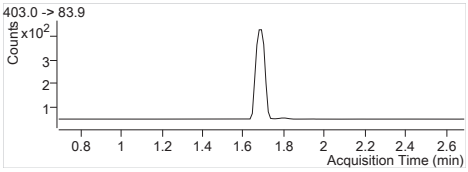
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	12269	1.10	20.80	0.59 µg/L	117.21
PFHxA 1	40084	1.43	20.80	0.49 µg/L	97.57
PFHxS 1	11213	1.69	20.80	0.55 µg/L	109.72
PFHpA 1	50894	1.70	20.80	0.49 µg/L	98.65
PFOA 1	56390	1.88	20.80	0.53 µg/L	105.18
PFOS 1	10996	1.98	20.80	0.52 µg/L	103.22
PFNA 1	50420	2.03	20.80	0.53 µg/L	106.22
PFDA 1	52320	2.14	20.80	0.55 µg/L	110.82
PFUnA 1	53728	2.23	20.80	0.48 µg/L	97.05
PFDoA 1	68507	2.32	20.80	0.57 µg/L	113.43
PFTrDA 1	75923	2.40	20.80	0.52 µg/L	104.45
PFTeDA 1	62672	2.47	20.80	0.51 µg/L	102.11
13C2-PFHxA	4868	1.43	100.00	76.94 µg/L	76.94
18O2-PFHxS	1186	1.69	100.00	73.26 µg/L	73.26
13C4-PFHpA	6260	1.70	100.00	75.55 µg/L	75.55
13C4-PFOA	6178	1.88	100.00	70.68 µg/L	70.68
13C4-PFOS	1393	1.98	100.00	70.66 µg/L	70.66
13C5-PFNA	6249	2.02	100.00	71.63 µg/L	71.63
13C2-PFDA	4604	2.15	100.00	63.71 µg/L	63.71
13C2-PFUnA	5681	2.25	100.00	66.30 µg/L	66.30
13C2-PFDoA	6977	2.32	100.00	58.65 µg/L	58.65
13C2-PFTeDA	8616	2.47	100.00	63.49 µg/L	63.49
13C6-PFHxA	32560	1.43	100.00	2.46 µg/L	102.64
13C9-PFDA	42455	2.13	100.00	2.51 µg/L	104.69



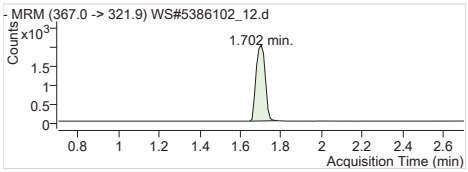


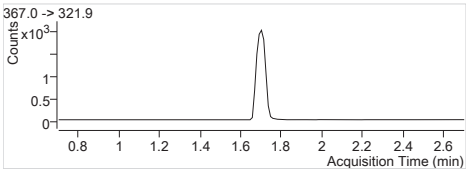
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	QC



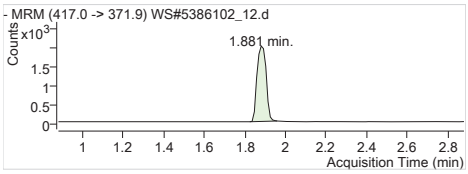


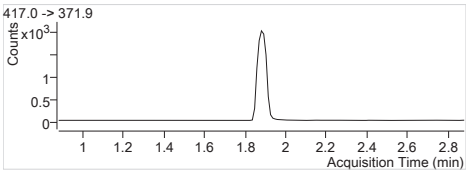
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



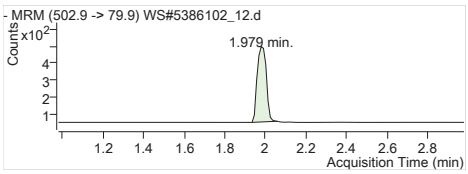


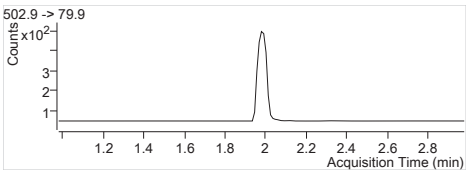
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: QC



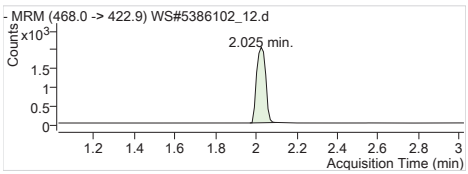


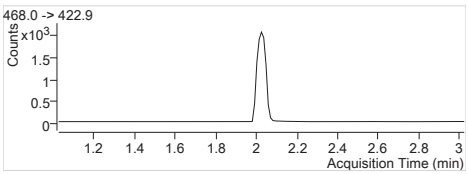
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: QC



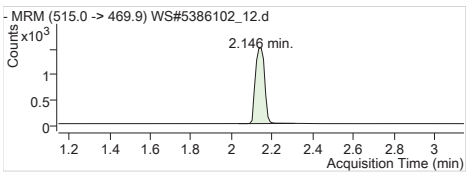


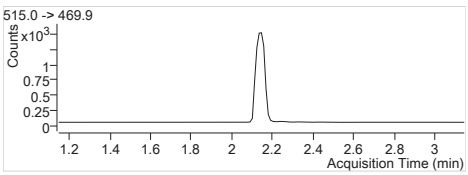
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



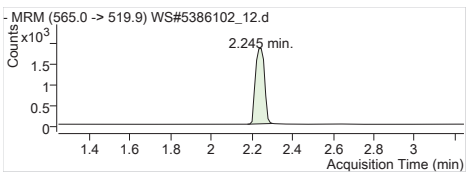


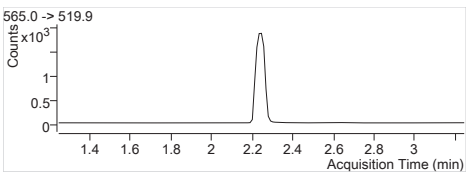
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: QC



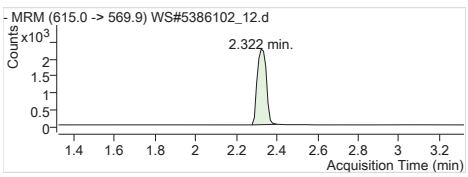


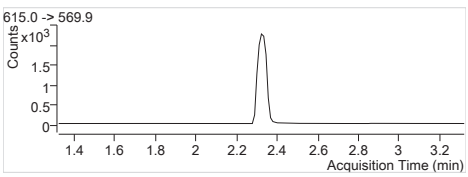
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



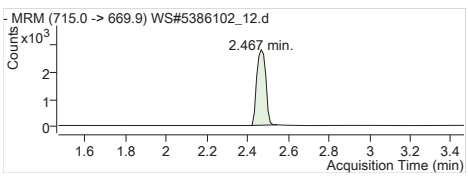


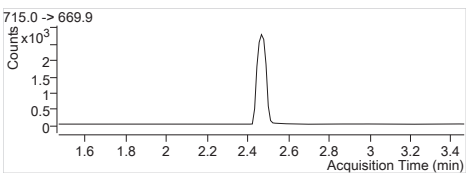
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC



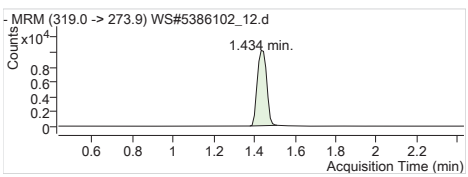


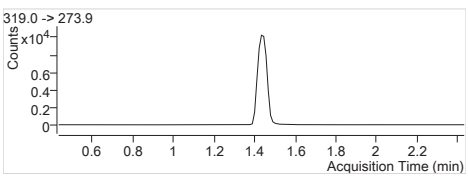
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



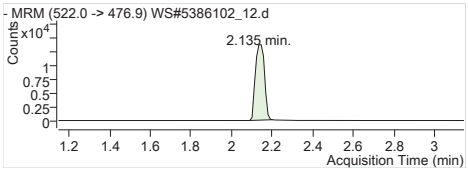


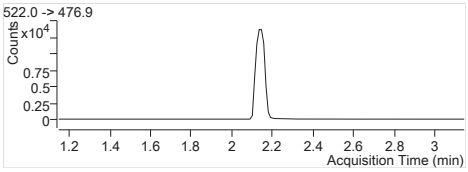
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



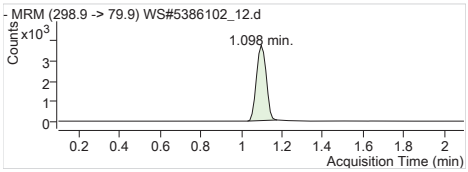


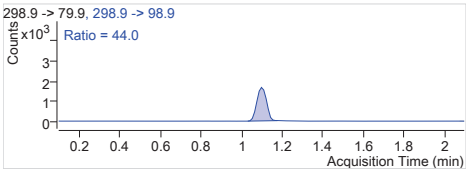
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: QC



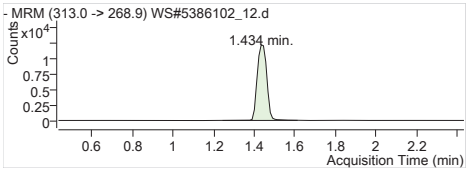


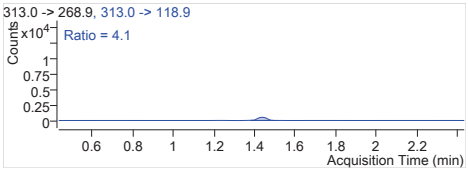
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: QC



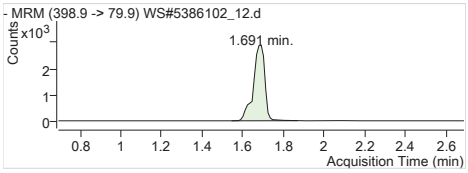


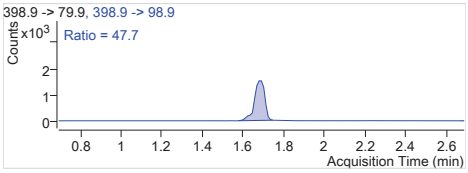
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 0.59 µg/L
Area ratio: 10.34486
Sample type: QC



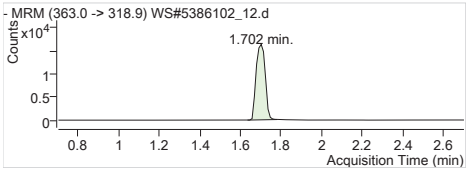


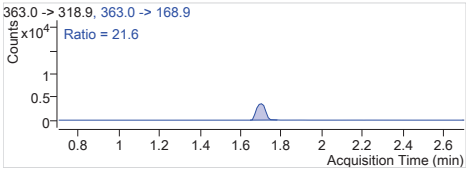
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.49 µg/L
Area ratio: 8.23418
Sample type: QC



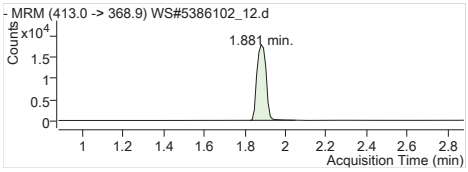


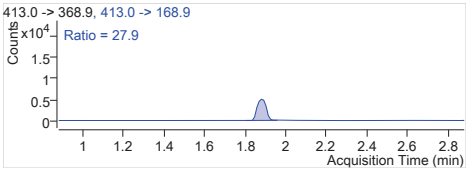
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.55 µg/L
Area ratio: 9.45447
Sample type: QC



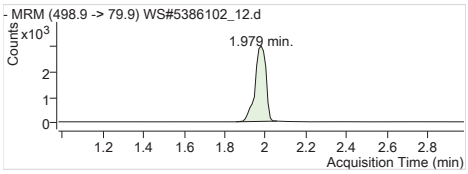


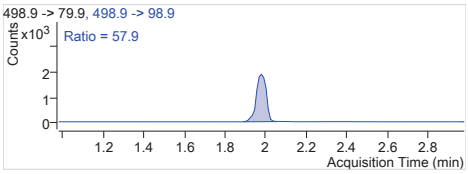
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.49 µg/L
Area ratio: 8.13003
Sample type: QC



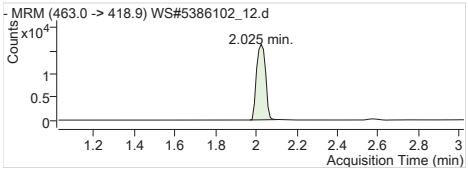


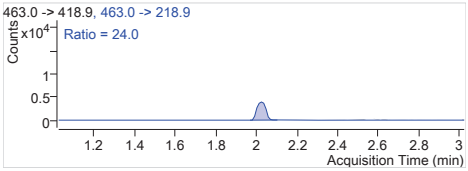
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.53 µg/L
Area ratio: 9.12755
Sample type: QC



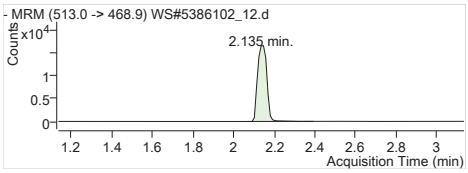


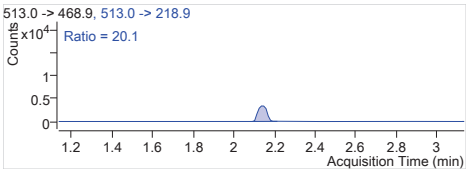
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.52 µg/L
Area ratio: 7.89375
Sample type: QC



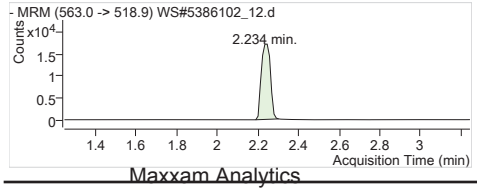


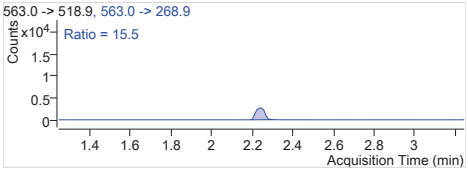
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 0.53 µg/L
Area ratio: 8.06849
Sample type: QC



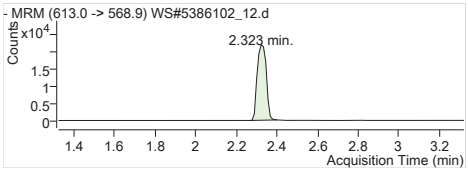


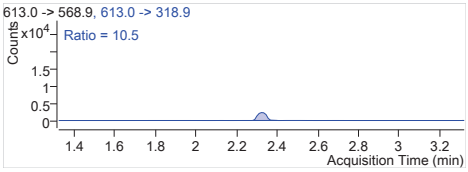
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.55 µg/L
Area ratio: 11.15327
Sample type: QC



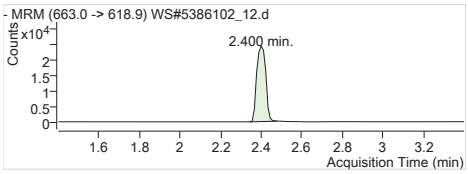


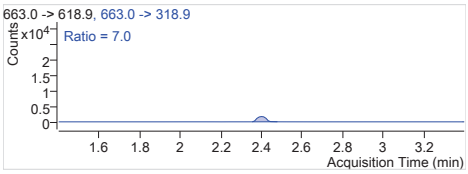
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.246)
Calc. conc. 0.48 µg/L
Area ratio: 9.45749
Sample type: QC



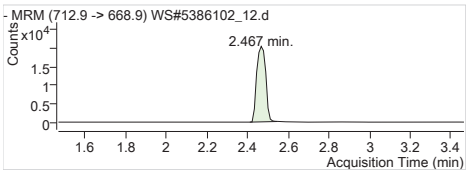


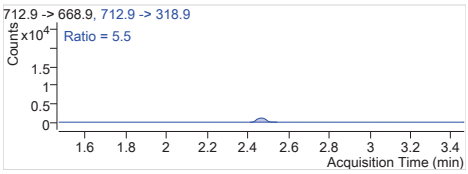
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.57 µg/L
Area ratio: 9.81898
Sample type: QC



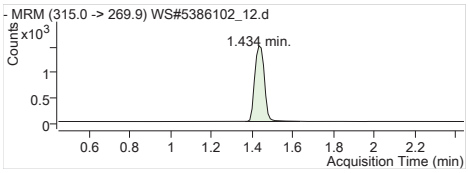


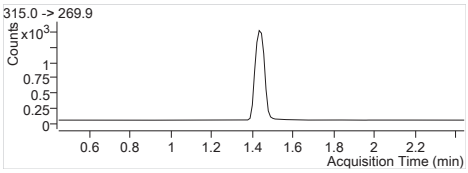
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.52 µg/L
Area ratio: 8.97541
Sample type: QC



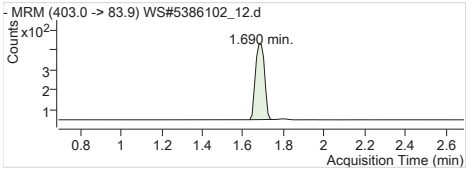


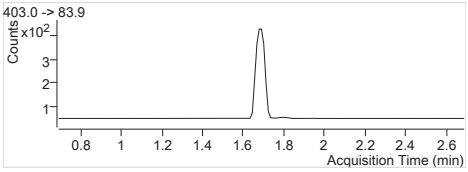
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.51 µg/L
Area ratio: 7.40891
Sample type: QC



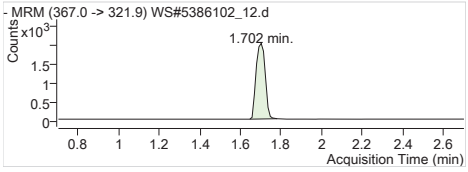


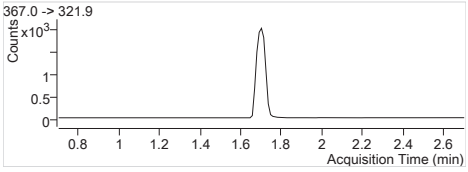
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 76.94 µg/L
Area ratio: 0.14951
Sample type: QC



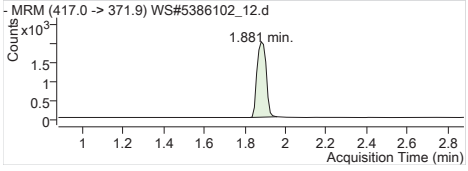


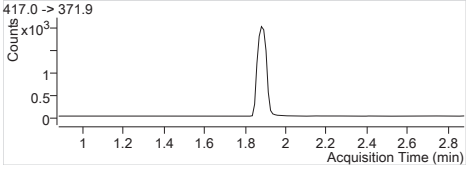
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 73.26 µg/L
Area ratio: 0.03643
Sample type: QC



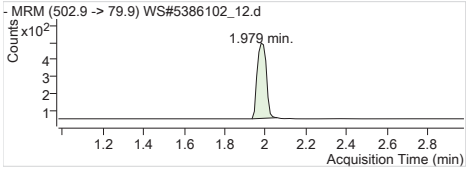


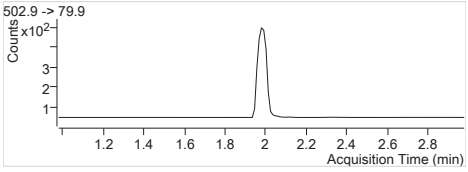
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 75.55 µg/L
Area ratio: 0.19226
Sample type: QC



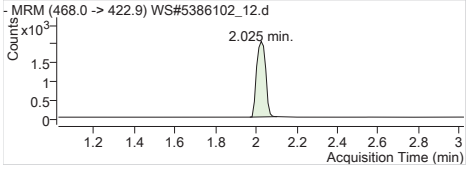


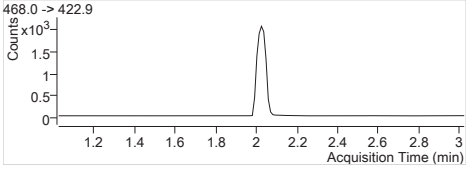
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 70.68 µg/L
Area ratio: 0.18974
Sample type: QC



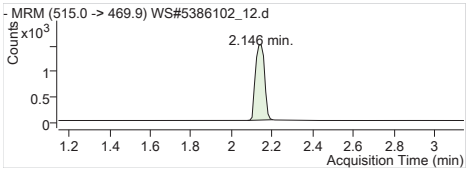


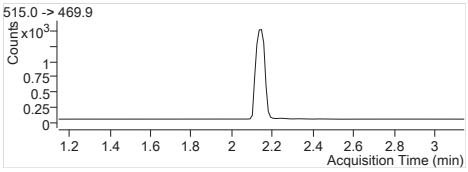
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 70.66 µg/L
Area ratio: 0.04278
Sample type: QC



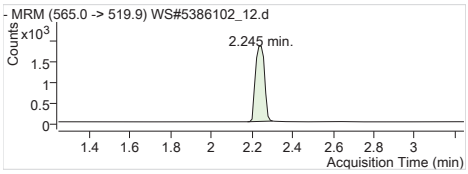


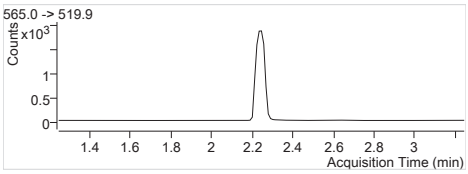
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 71.63 µg/L
Area ratio: 0.19192
Sample type: QC



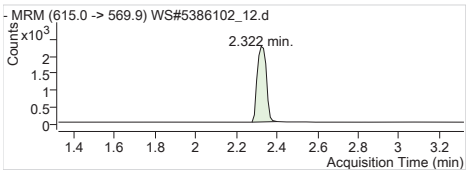


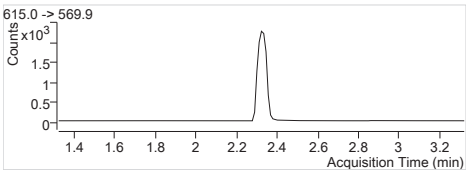
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 63.71 µg/L
Area ratio: 0.10844
Sample type: QC



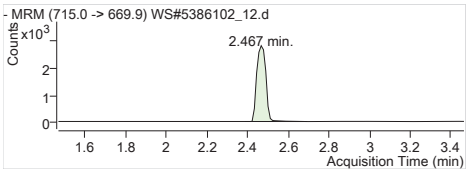


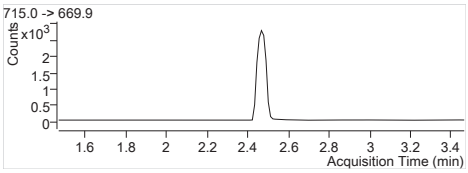
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 66.30 µg/L
Area ratio: 0.13381
Sample type: QC



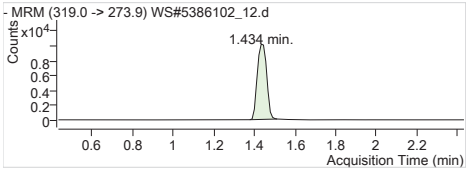


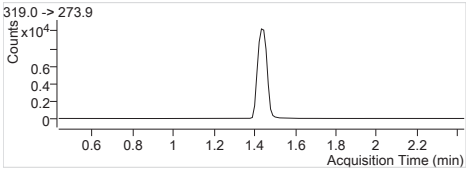
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 58.65 µg/L
Area ratio: 0.16434
Sample type: QC



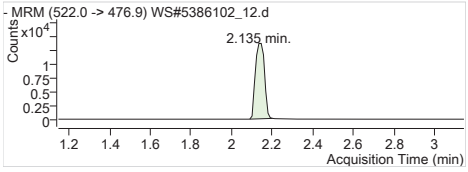


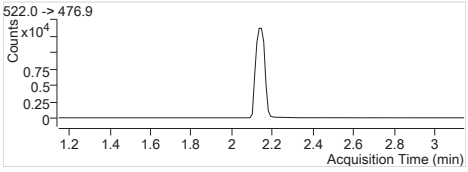
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 63.49 µg/L
Area ratio: 0.20294
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.46 µg/L
Area ratio: 0
Sample type: QC





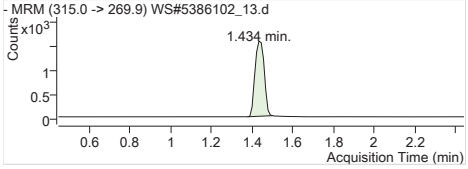
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 2.51 µg/L
Area ratio: 0
Sample type: QC

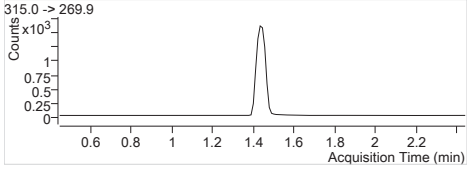
Batch Path	T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**5386102:MTRX SPK**	**Instrument**	LCMS04
Data File	WS#5386102_13.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-D9
Acq. Date	2018/02/08 4:06:05 AM	**Injection Volume**	Per Method
Sample Annotation	FZH347		

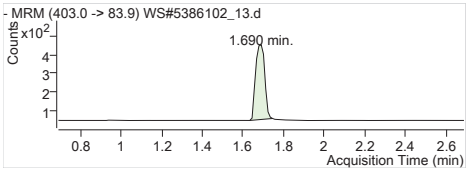
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4890	1.43	1 µg/L		
MPFHxS	1253	1.69	1 µg/L		
MPFHpA	6222	1.70	1 µg/L		
MPFOA	6766	1.88	1 µg/L		
MPFOS	1543	1.98	1 µg/L		
MPFNA	6828	2.02	1 µg/L		
MPFDA	5262	2.15	1 µg/L		
MPFUnA	5610	2.25	1 µg/L		
MPFDoA	7380	2.32	1 µg/L		
MPFTeDA	5060	2.47	1 µg/L		
13C6-PFHxA IS	29803	1.43	1 µg/L		
13C9-PFDA IS	37721	2.15	1 µg/L		

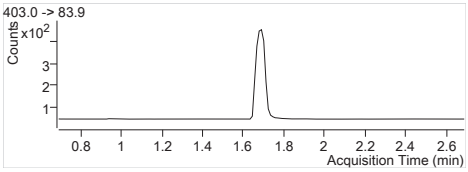
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	12447	1.10	20.80	0.56 µg/L	112.57
PFHxA 1	40734	1.43	20.80	0.49 µg/L	98.70
PFHxS 1	11506	1.68	20.80	0.53 µg/L	106.56
PFHpA 1	51765	1.70	20.80	0.50 µg/L	100.94
PFOA 1	57953	1.88	20.80	0.49 µg/L	98.74
PFOS 1	11261	1.98	20.80	0.48 µg/L	95.47
PFNA 1	49357	2.03	20.80	0.48 µg/L	95.18
PFDA 1	51987	2.14	20.80	0.49 µg/L	98.16
PFUnA 1	53717	2.23	20.80	0.49 µg/L	98.25
PFDoA 1	67583	2.32	20.80	0.53 µg/L	105.81
PFTrDA 1	69032	2.40	20.80	0.79 µg/L	158.52
PFTeDA 1	56924	2.47	20.80	0.77 µg/L	154.91
13C2-PFHxA	4890	1.43	100.00	84.43 µg/L	84.43
18O2-PFHxS	1253	1.69	100.00	84.56 µg/L	84.56
13C4-PFHpA	6222	1.70	100.00	82.04 µg/L	82.04
13C4-PFOA	6766	1.88	100.00	84.56 µg/L	84.56
13C4-PFOS	1543	1.98	100.00	85.51 µg/L	85.51
13C5-PFNA	6828	2.02	100.00	85.50 µg/L	85.50
13C2-PFDA	5112	2.15	100.00	79.62 µg/L	79.62
13C2-PFUnA	5610	2.25	100.00	73.68 µg/L	73.68
13C2-PFDoA	7380	2.32	100.00	69.82 µg/L	69.82
13C2-PFTeDA	5165	2.47	100.00	42.84 µg/L	42.84
13C6-PFHxA	29803	1.43	100.00	2.25 µg/L	93.95
13C9-PFDA	37721	2.15	100.00	2.23 µg/L	93.01



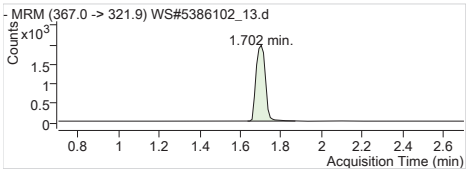


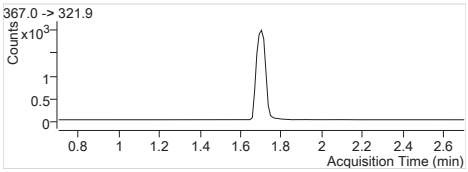
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	QC



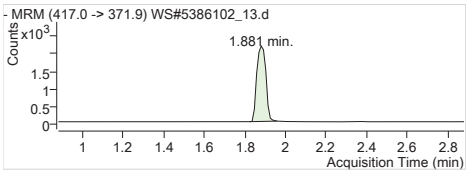


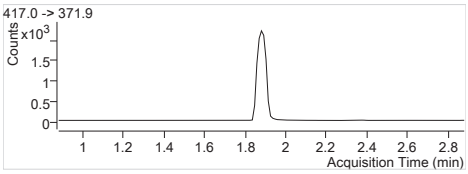
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



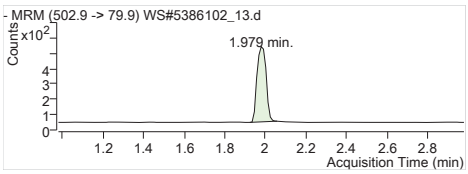


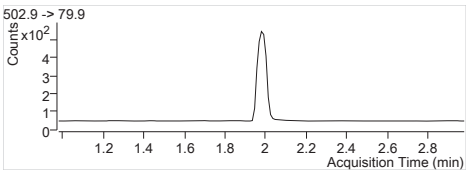
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: QC



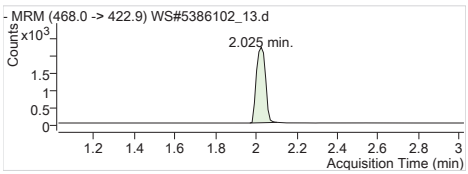


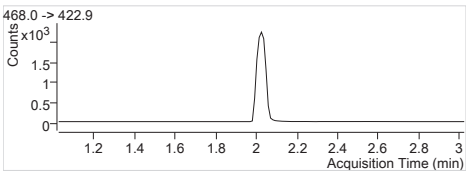
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: QC



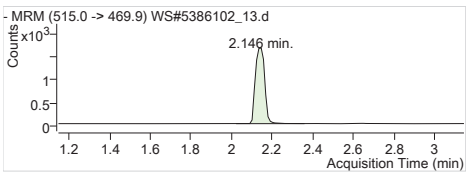


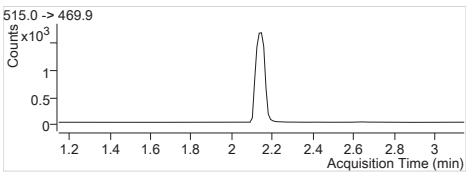
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



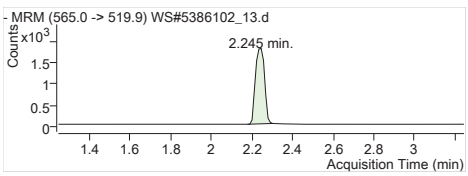


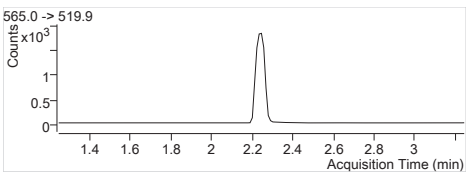
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: QC



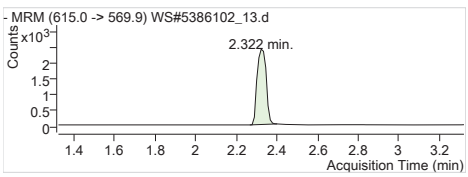


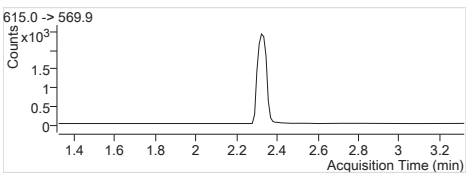
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



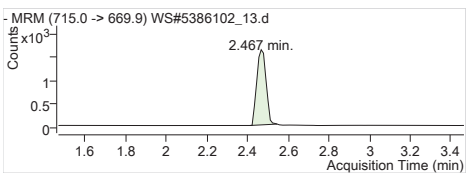


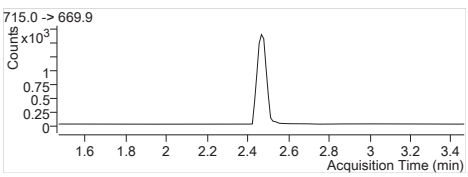
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC



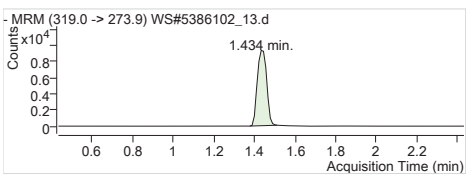


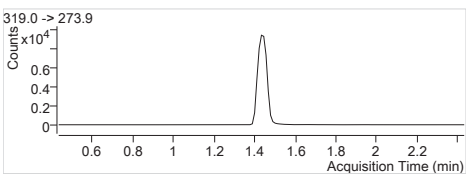
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



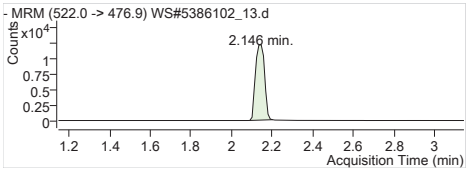


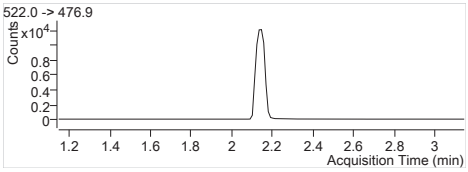
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



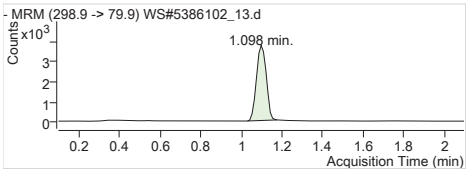


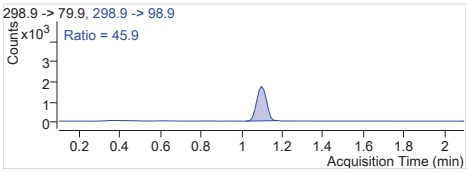
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: QC



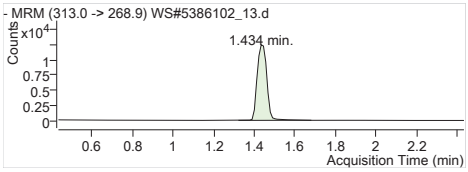


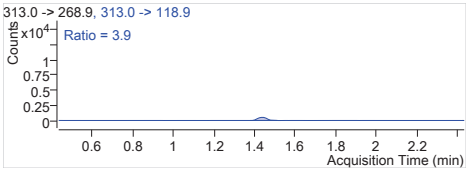
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



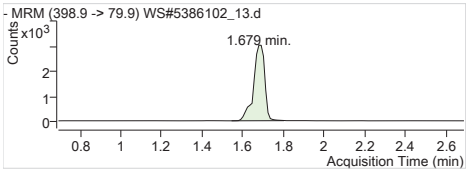


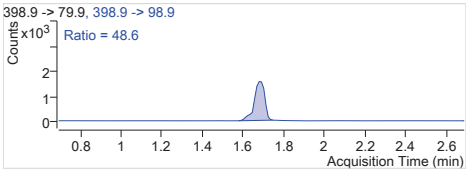
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 0.56 µg/L
Area ratio: 9.93376
Sample type: QC



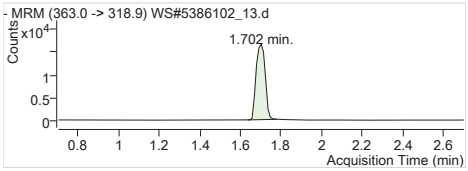


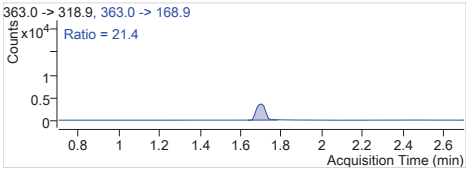
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.49 µg/L
Area ratio: 8.33006
Sample type: QC



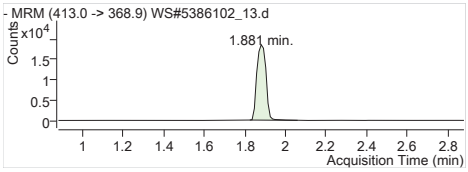


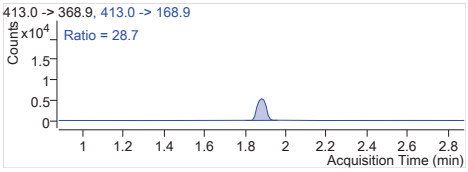
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 0.53 µg/L
Area ratio: 9.18276
Sample type: QC



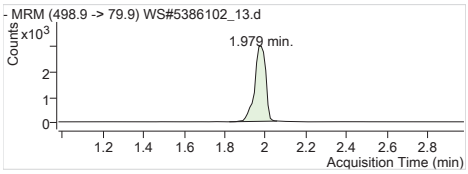


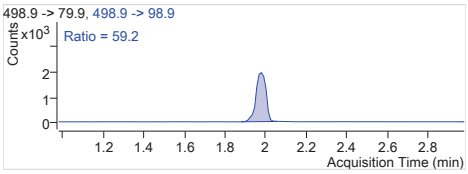
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.50 µg/L
Area ratio: 8.31967
Sample type: QC



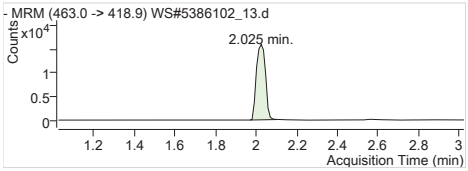


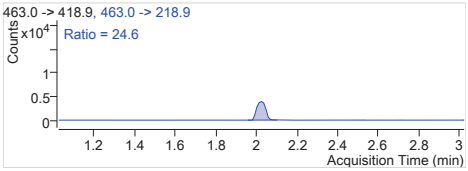
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.49 µg/L
Area ratio: 8.56533
Sample type: QC



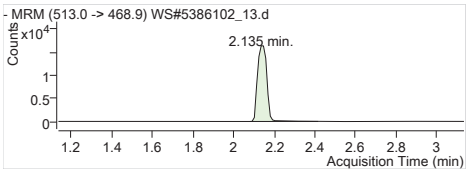


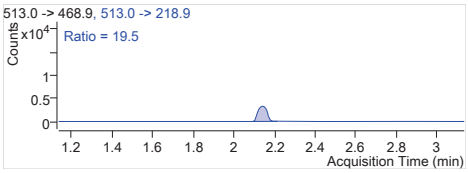
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.48 µg/L
Area ratio: 7.29812
Sample type: QC



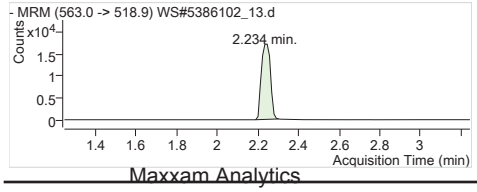


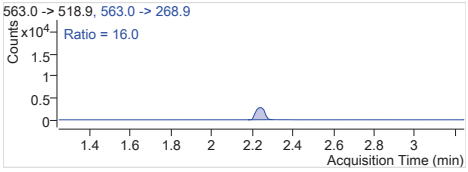
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 0.48 µg/L
Area ratio: 7.22862
Sample type: QC



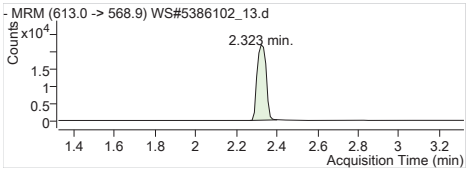


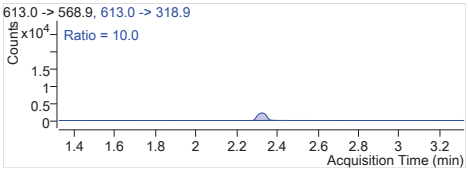
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.49 µg/L
Area ratio: 9.87970
Sample type: QC



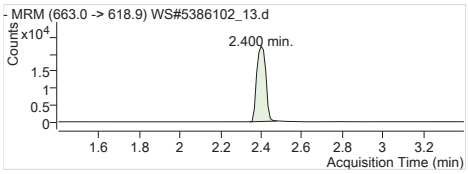


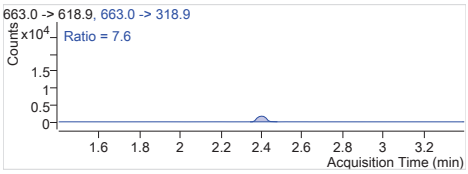
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.246)
Calc. conc. 0.49 µg/L
Area ratio: 9.57522
Sample type: QC



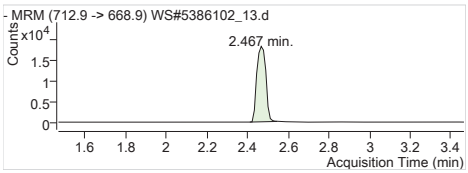


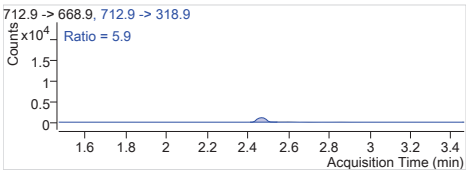
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.53 µg/L
Area ratio: 9.15759
Sample type: QC



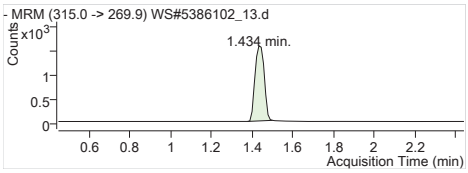


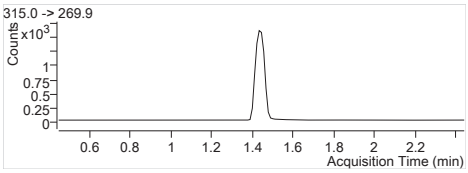
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.79 µg/L
Area ratio: 13.64269
Sample type: QC



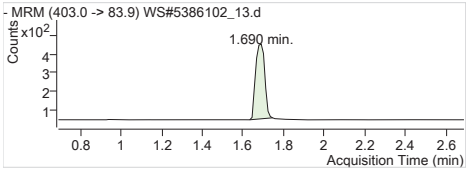


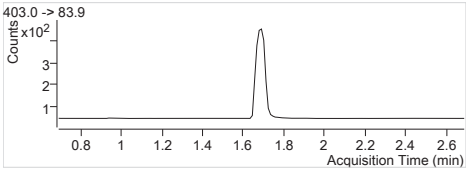
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.77 µg/L
Area ratio: 11.24980
Sample type: QC



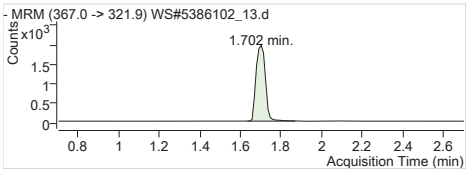


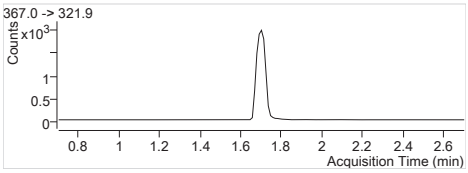
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 84.43 µg/L
Area ratio: 0.16408
Sample type: QC



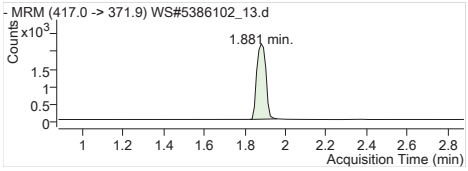


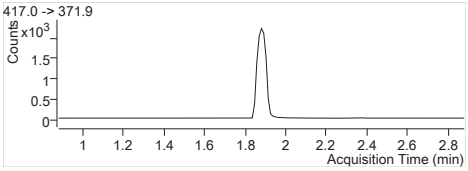
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 84.56 µg/L
Area ratio: 0.04204
Sample type: QC



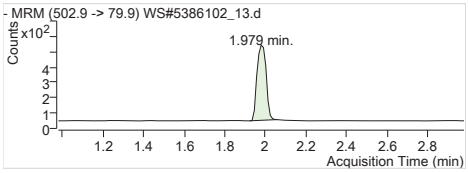


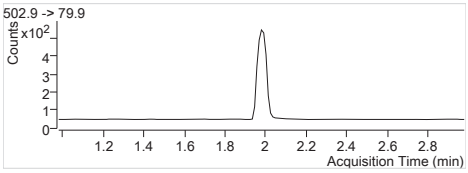
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 82.04 µg/L
Area ratio: 0.20877
Sample type: QC



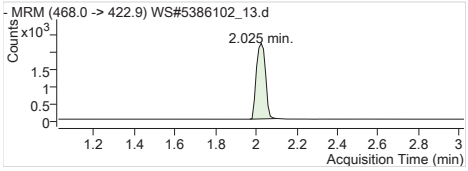


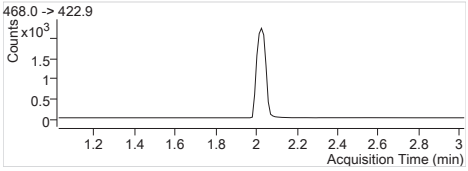
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 84.56 µg/L
Area ratio: 0.22702
Sample type: QC



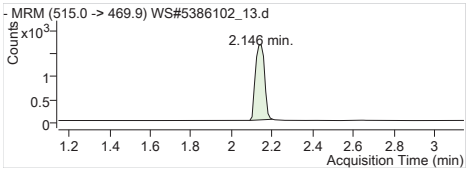


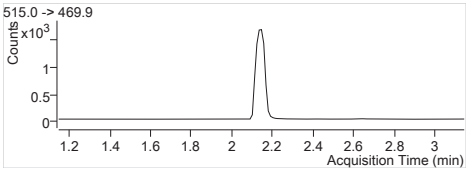
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 85.51 µg/L
Area ratio: 0.05177
Sample type: QC



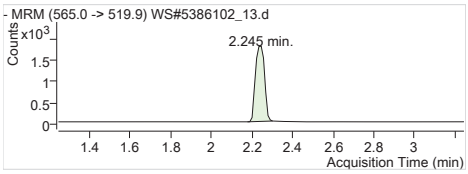


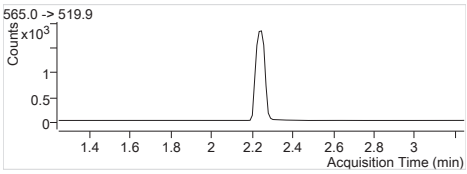
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 85.50 µg/L
Area ratio: 0.22910
Sample type: QC



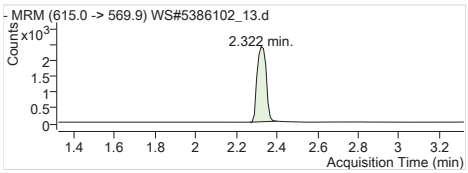


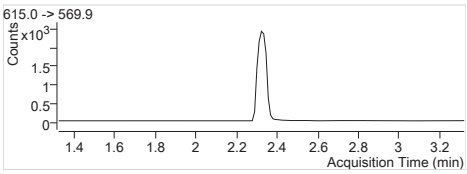
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 79.62 µg/L
Area ratio: 0.13552
Sample type: QC



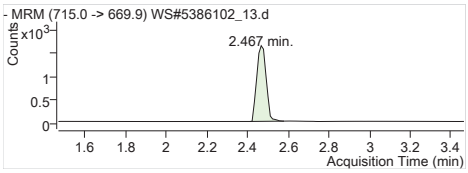


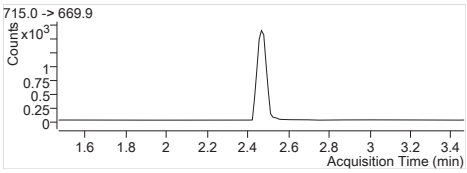
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 73.68 µg/L
Area ratio: 0.14872
Sample type: QC



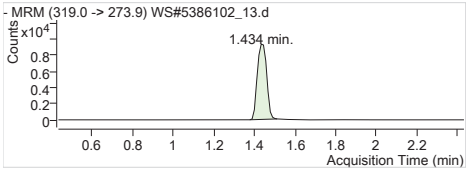


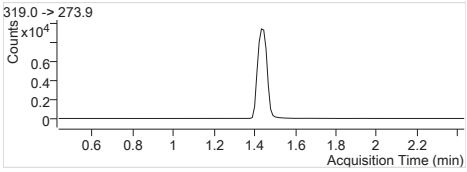
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 69.82 µg/L
Area ratio: 0.19565
Sample type: QC



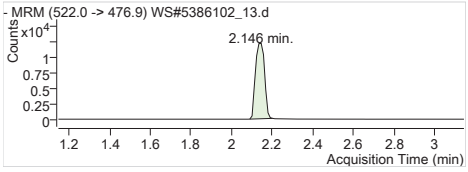


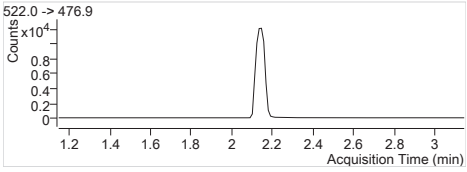
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 42.84 µg/L
Area ratio: 0.13693
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.25 µg/L
Area ratio: 0
Sample type: QC





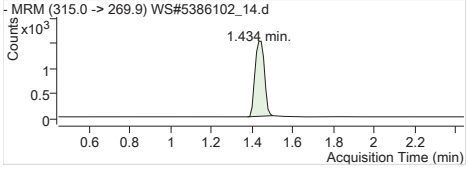
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 2.23 µg/L
Area ratio: 0
Sample type: QC

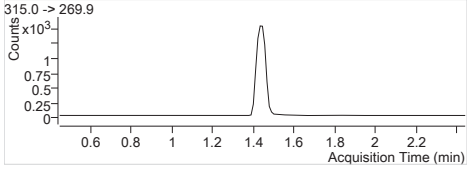
Batch Path	T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**5386102:MTRX SPK:D1**	**Instrument**	LCMS04
Data File	WS#5386102_14.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-E1
Acq. Date	2018/02/08 4:11:00 AM	**Injection Volume**	Per Method
Sample Annotation	FZH347		

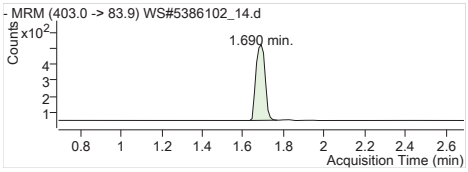
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4778	1.43	1 µg/L		
MPFHxS	1487	1.69	1 µg/L		
MPFHpA	6260	1.70	1 µg/L		
MPFOA	6356	1.88	1 µg/L		
MPFOS	1600	1.98	1 µg/L		
MPFNA	5866	2.02	1 µg/L		
MPFDA	4886	2.14	1 µg/L		
MPFUnA	5546	2.23	1 µg/L		
MPFDoA	7713	2.32	1 µg/L		
MPFTeDA	7596	2.47	1 µg/L		
13C6-PFHxA IS	29149	1.43	1 µg/L		
13C9-PFDA IS	36576	2.13	1 µg/L		

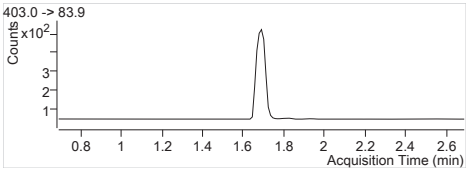
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	13220	1.10	20.80	0.50 µg/L	100.77
PFHxA 1	40987	1.43	20.80	0.51 µg/L	101.63
PFHxS 1	11982	1.69	20.80	0.47 µg/L	93.48
PFHpA 1	52062	1.70	20.80	0.50 µg/L	100.91
PFOA 1	56543	1.88	20.80	0.51 µg/L	102.53
PFOS 1	11160	1.98	20.80	0.46 µg/L	91.26
PFNA 1	46602	2.03	20.80	0.52 µg/L	104.59
PFDA 1	49371	2.14	20.80	0.50 µg/L	100.40
PFUnA 1	54852	2.23	20.80	0.51 µg/L	101.46
PFDoA 1	62046	2.32	20.80	0.46 µg/L	92.99
PFTrDA 1	73215	2.40	20.80	0.56 µg/L	112.13
PFTeDA 1	58092	2.47	20.80	0.53 µg/L	105.39
13C2-PFHxA	4778	1.43	100.00	84.35 µg/L	84.35
18O2-PFHxS	1487	1.69	100.00	102.60 µg/L	102.60
13C4-PFHpA	6260	1.70	100.00	84.39 µg/L	84.39
13C4-PFOA	6356	1.88	100.00	81.22 µg/L	81.22
13C4-PFOS	1600	1.98	100.00	90.66 µg/L	90.66
13C5-PFNA	5866	2.02	100.00	75.11 µg/L	75.11
13C2-PFDA	4794	2.14	100.00	77.01 µg/L	77.01
13C2-PFUnA	5546	2.23	100.00	75.12 µg/L	75.12
13C2-PFDoA	7713	2.32	100.00	75.26 µg/L	75.26
13C2-PFTeDA	7722	2.47	100.00	66.05 µg/L	66.05
13C6-PFHxA	29149	1.43	100.00	2.21 µg/L	91.89
13C9-PFDA	36576	2.13	100.00	2.16 µg/L	90.19



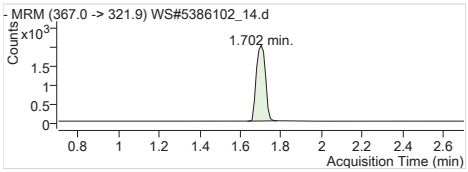


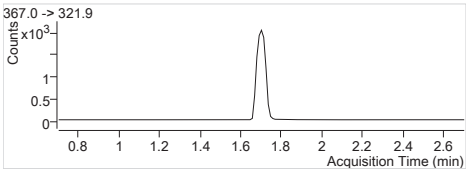
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	QC



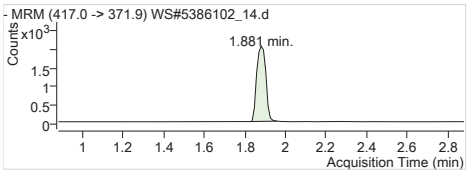


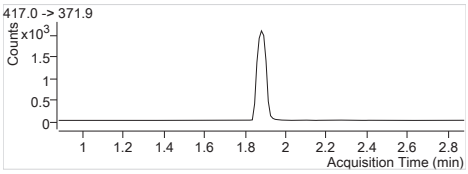
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



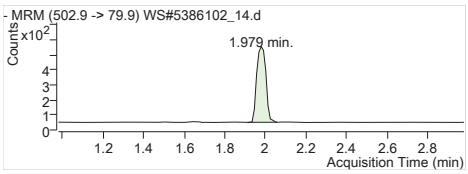


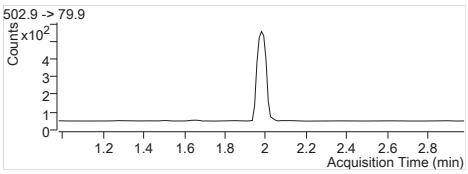
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: QC



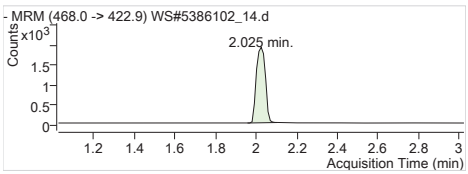


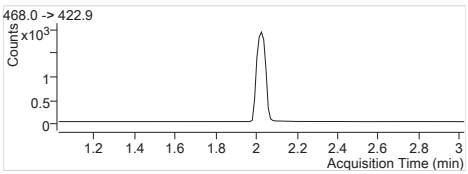
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: QC



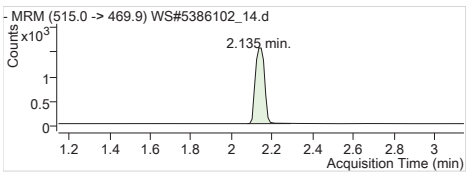


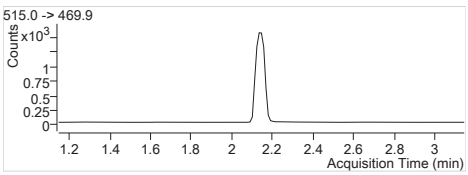
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



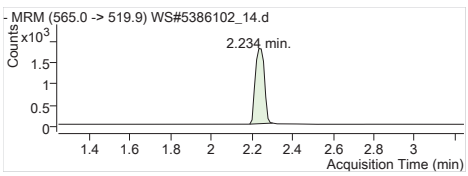


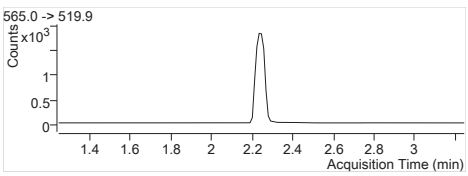
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: QC



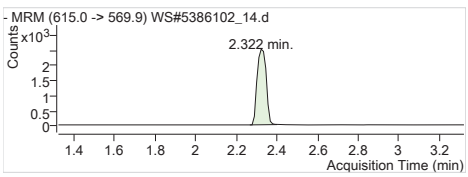


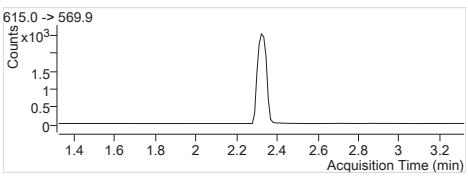
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: QC



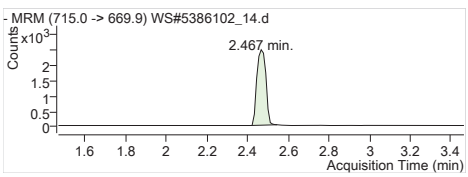


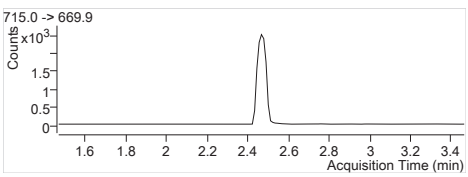
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.245)
Concentration: 1 µg/L
Sample type: QC



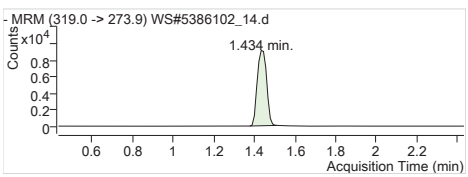


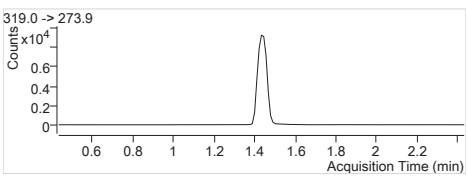
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



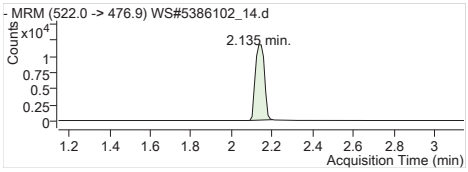


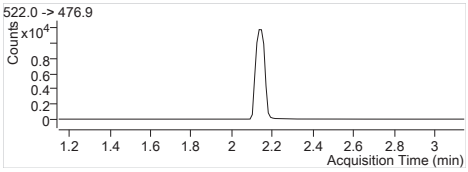
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



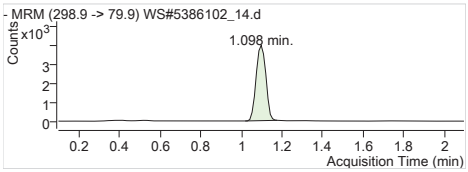


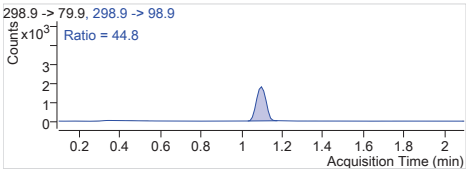
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: QC



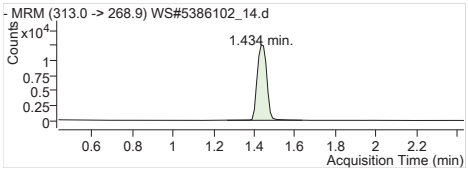


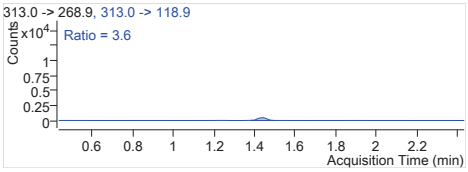
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: QC



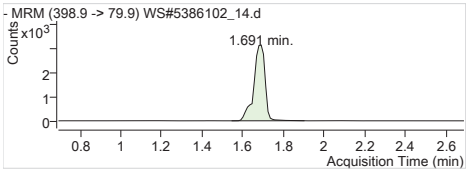


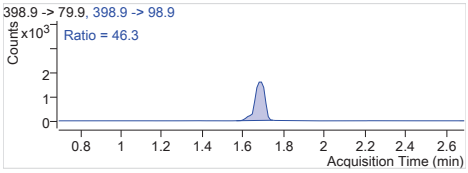
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 0.50 µg/L
Area ratio: 8.89038
Sample type: QC



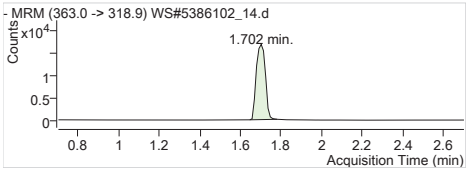


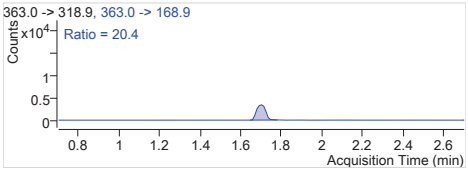
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.51 µg/L
Area ratio: 8.57828
Sample type: QC



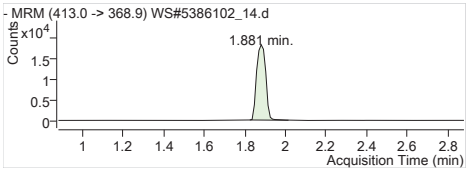


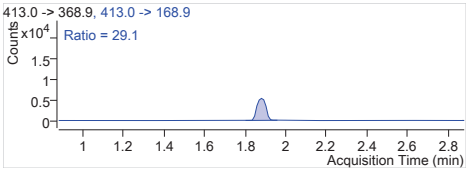
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.47 µg/L
Area ratio: 8.05783
Sample type: QC



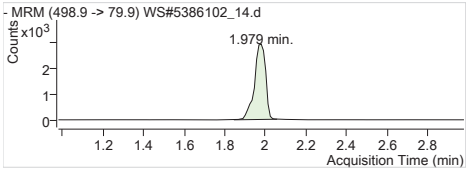


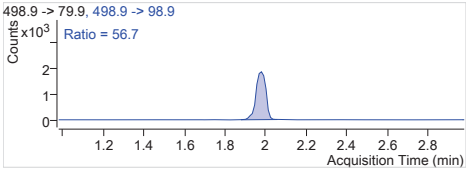
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.50 µg/L
Area ratio: 8.31661
Sample type: QC



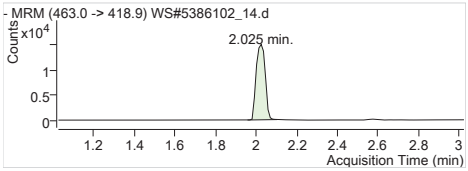


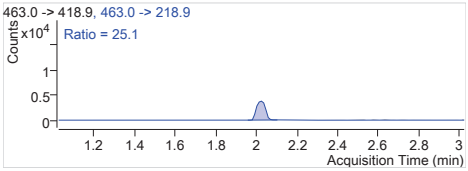
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.51 µg/L
Area ratio: 8.89600
Sample type: QC



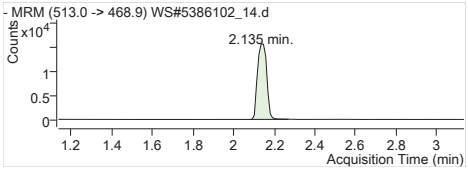


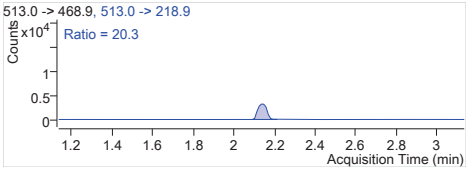
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.46 µg/L
Area ratio: 6.97500
Sample type: QC



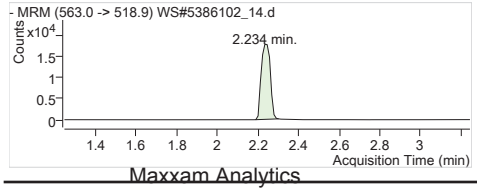


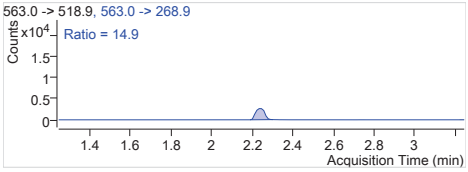
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 0.52 µg/L
Area ratio: 7.94443
Sample type: QC



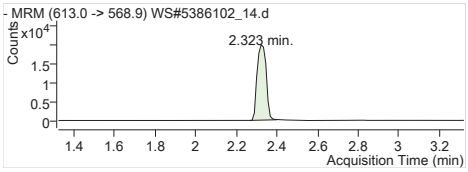


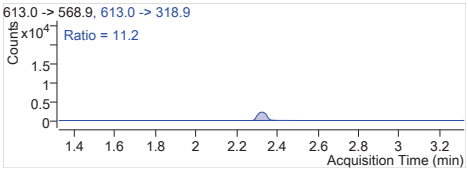
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.50 µg/L
Area ratio: 10.10458
Sample type: QC



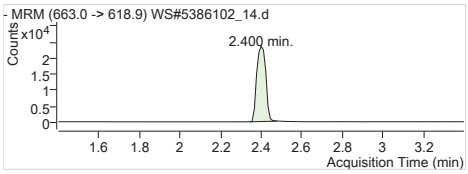


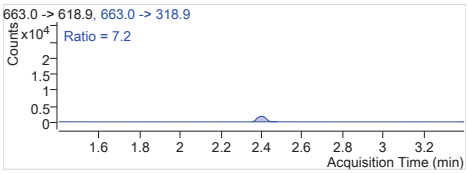
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.246)
Calc. conc. 0.51 µg/L
Area ratio: 9.89037
Sample type: QC



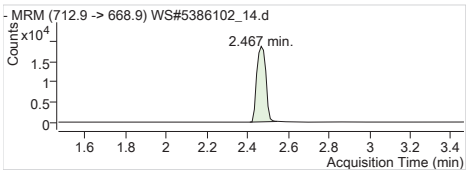


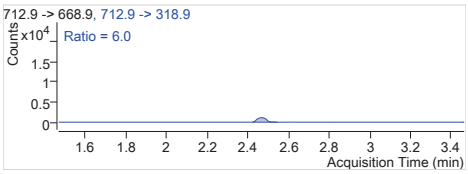
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.46 µg/L
Area ratio: 8.04434
Sample type: QC



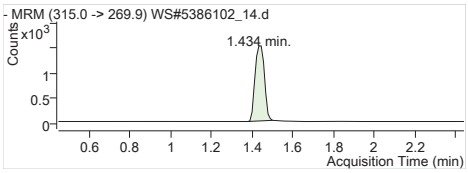


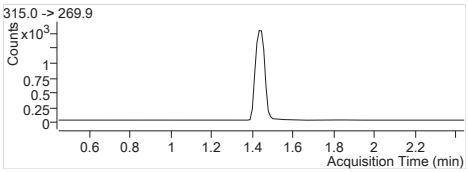
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.56 µg/L
Area ratio: 9.63863
Sample type: QC



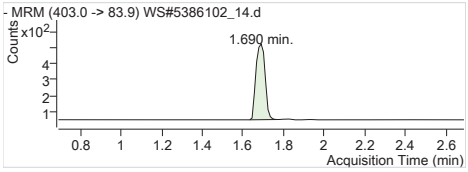


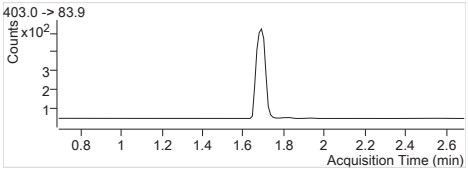
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.53 µg/L
Area ratio: 7.64771
Sample type: QC



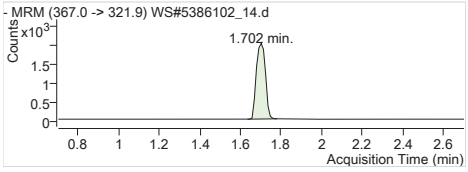


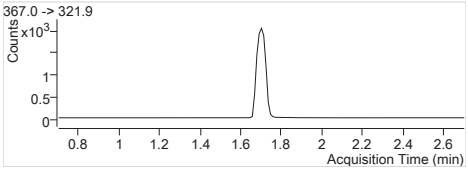
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 84.35 µg/L
Area ratio: 0.16392
Sample type: QC



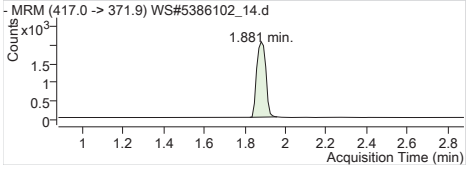


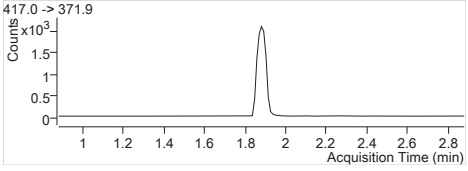
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 102.60 µg/L
Area ratio: 0.05101
Sample type: QC



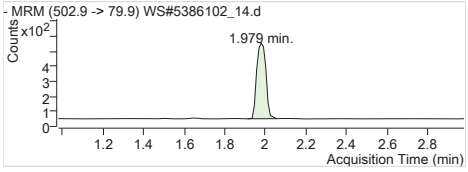


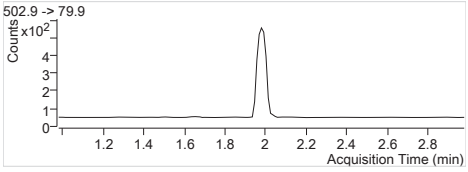
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 84.39 µg/L
Area ratio: 0.21476
Sample type: QC



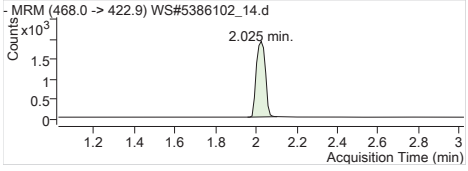


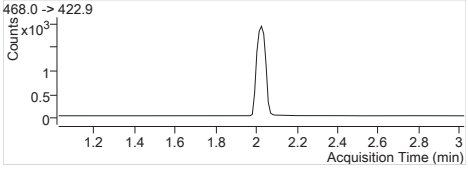
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 81.22 µg/L
Area ratio: 0.21805
Sample type: QC



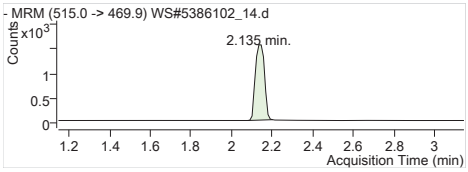


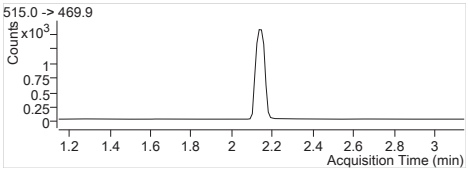
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 90.66 µg/L
Area ratio: 0.05489
Sample type: QC



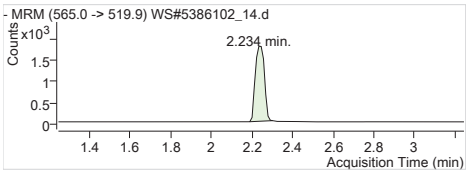


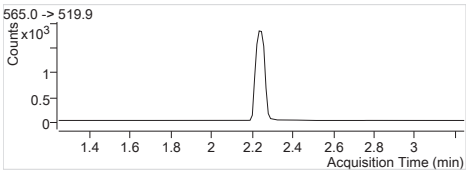
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 75.11 µg/L
Area ratio: 0.20124
Sample type: QC



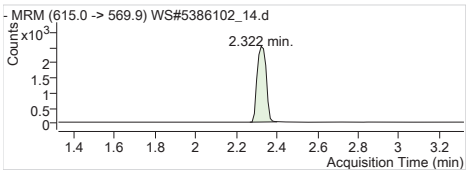


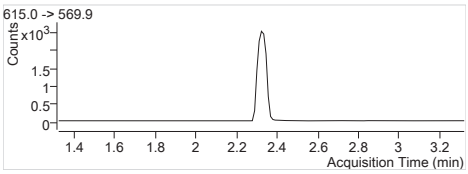
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 77.01 µg/L
Area ratio: 0.13107
Sample type: QC



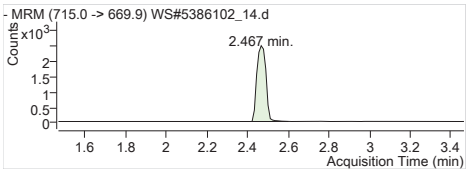


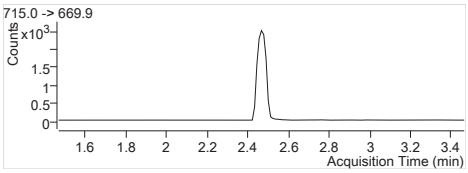
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.245)
Calc. conc. 75.12 µg/L
Area ratio: 0.15163
Sample type: QC



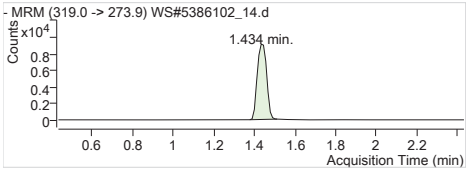


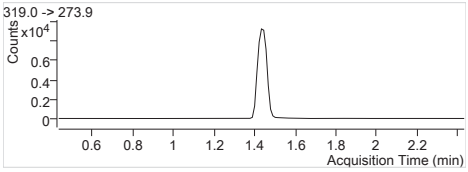
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 75.26 µg/L
Area ratio: 0.21088
Sample type: QC



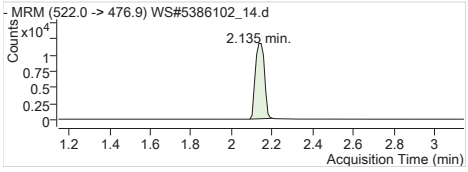


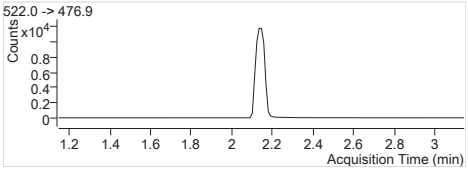
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 66.05 µg/L
Area ratio: 0.21112
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.21 µg/L
Area ratio: 0
Sample type: QC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 2.16 µg/L
Area ratio: 0
Sample type: QC

Quantitation Results

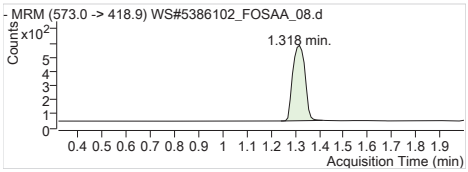
Agilent Technologies

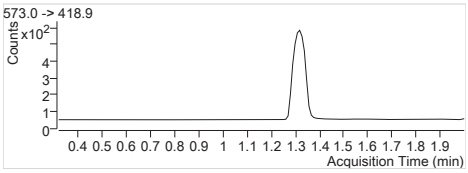
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D5
Acq. Date	2018/02/08 9:50:50 AM	**Injection Volume**	Per Method
Sample Annotation	-		

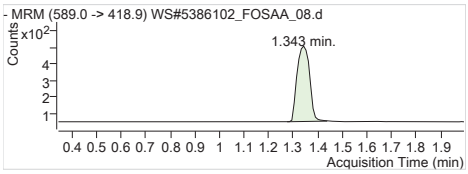
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1882	1.32	1 µg/L		
D5-EtFOSAA IS	1626	1.34	1 µg/L		
13C9-PFDA IS	33293	0.92	1 µg/L		

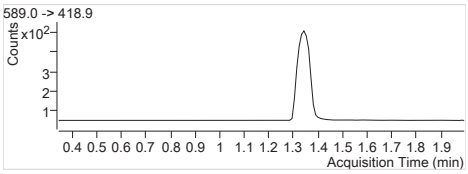
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1882	1.32	-	106.23 µg/L	-
D5-EtFOSAA	1640	1.34	-	106.69 µg/L	-
13C9-PFDA	32617	0.92	-	2.34 µg/L	-



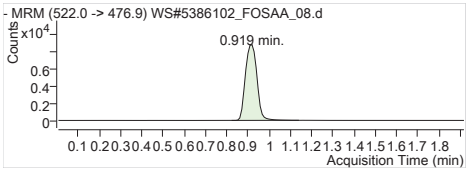


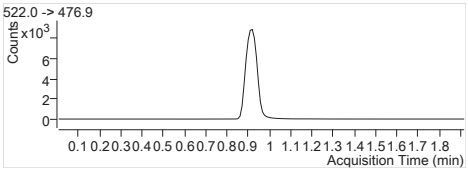
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



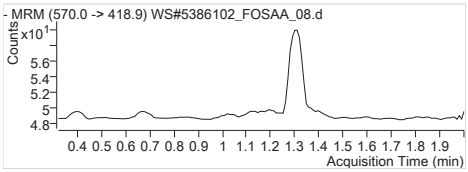


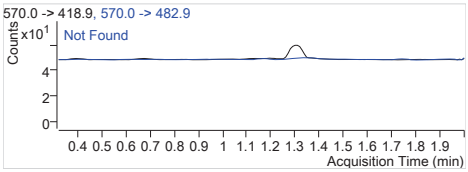
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



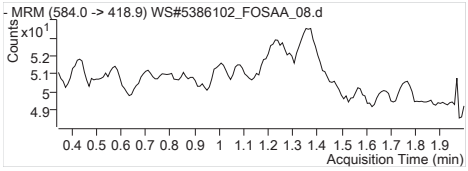


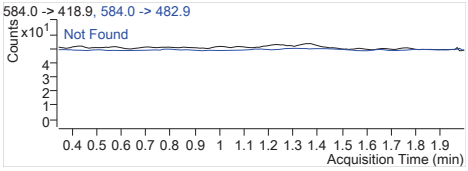
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Sample



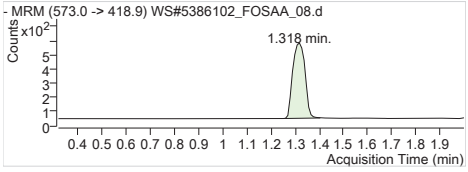


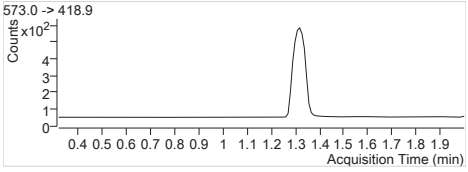
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



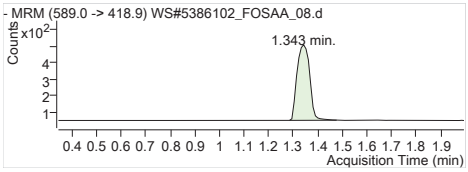


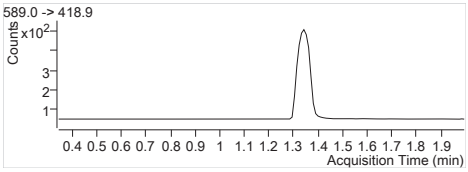
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



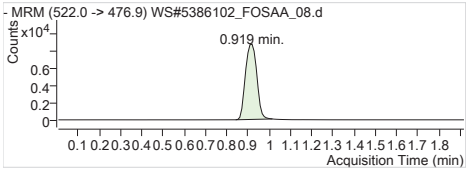


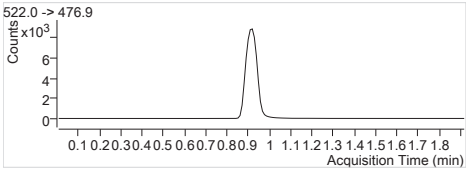
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 106.23 µg/L
Area ratio: 0.05653
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	106.69 µg/L
Area ratio:	0.04926
Sample type:	Sample





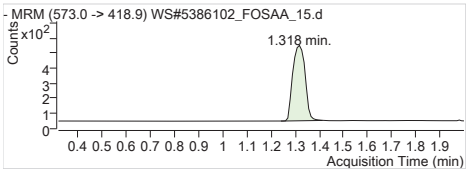
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	2.34 µg/L
Area ratio:	0
Sample type:	Sample

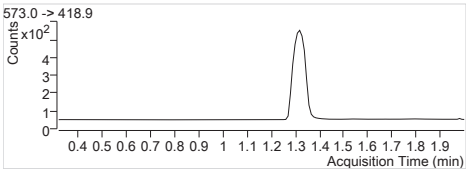
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_15.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D5
Acq. Date	2018/02/08 10:07:43 AM	**Injection Volume**	Per Method
Sample Annotation	-		

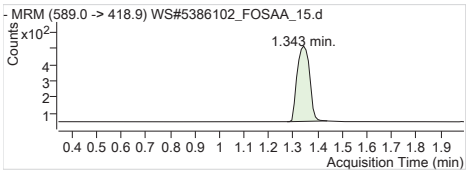
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1782	1.32	1 µg/L		
D5-EtFOSAA IS	1632	1.34	1 µg/L		
13C9-PFDA IS	33061	0.92	1 µg/L		

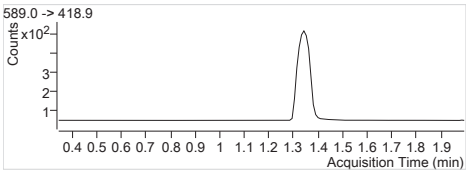
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1796	1.32	-	102.09 µg/L	-
D5-EtFOSAA	1659	1.34	-	108.68 µg/L	-
13C9-PFDA	32431	0.92	-	2.33 µg/L	-



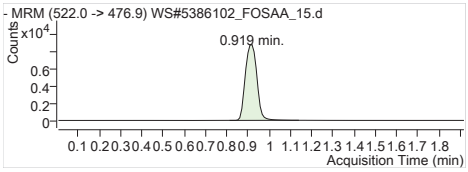


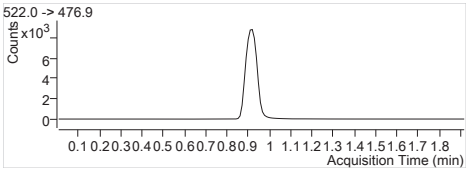
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



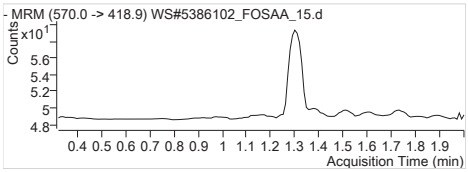


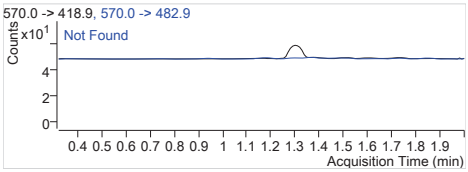
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



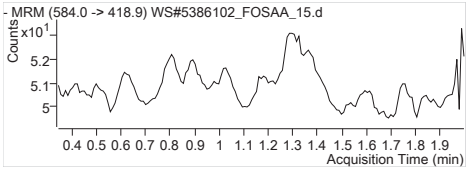


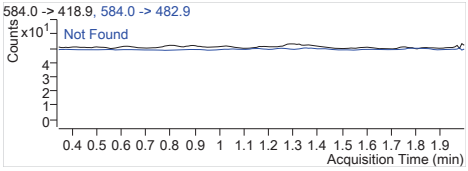
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Sample



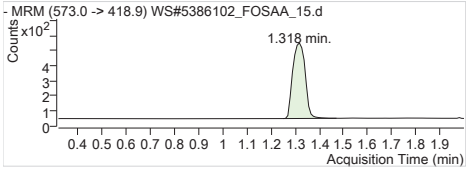


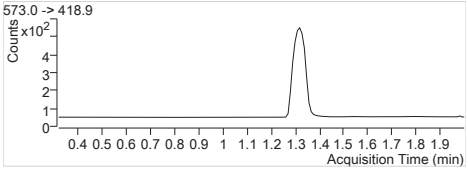
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



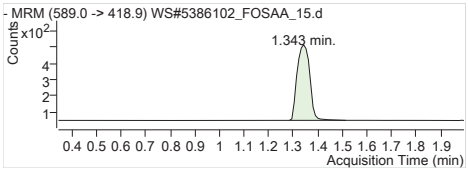


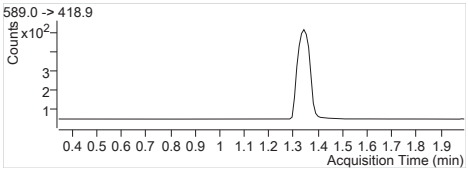
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



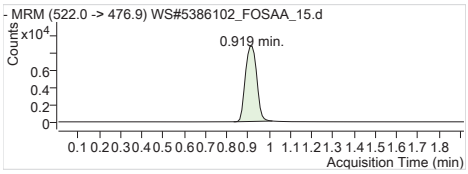


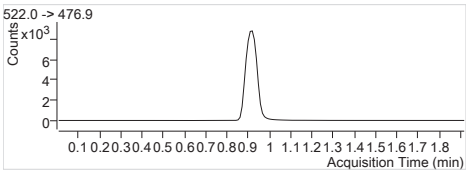
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 102.09 µg/L
Area ratio: 0.05432
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	108.68 µg/L
Area ratio:	0.05018
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	2.33 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

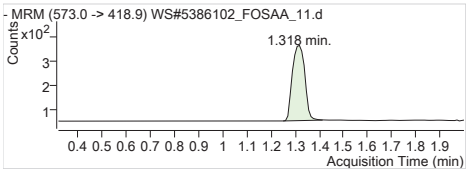
Agilent Technologies

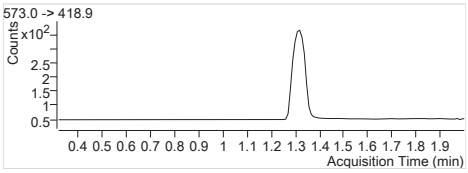
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**5386102:BLANK**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D7
Acq. Date	2018/02/08 9:58:04 AM	**Injection Volume**	Per Method
Sample Annotation	-		

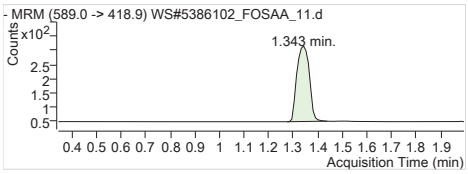
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1124	1.32	1 µg/L		
D5-EtFOSAA IS	940	1.34	1 µg/L		
13C9-PFDA IS	34795	0.89	1 µg/L		

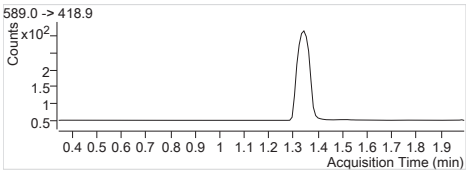
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1126	1.32	-	60.82 µg/L	-
D5-EtFOSAA	944	1.34	-	58.76 µg/L	-
13C9-PFDA	33885	0.89	-	2.43 µg/L	-



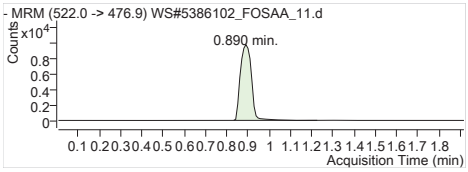


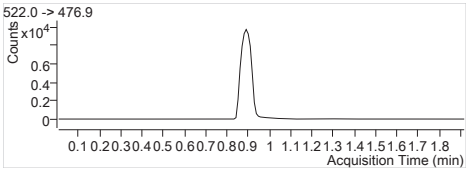
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



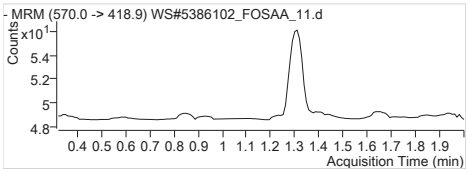


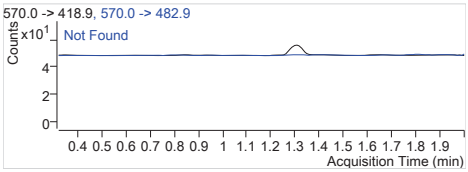
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



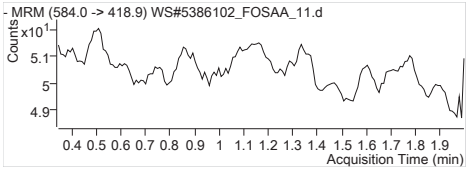


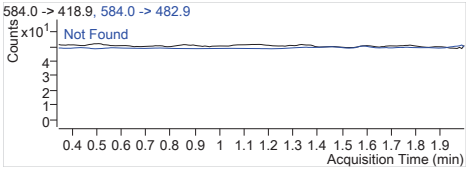
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.919)
Concentration: 1 µg/L
Sample type: Sample



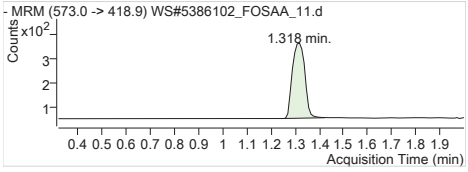


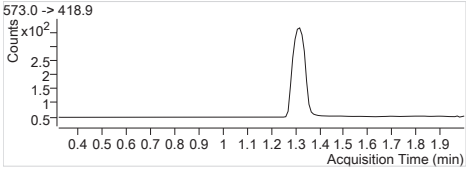
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



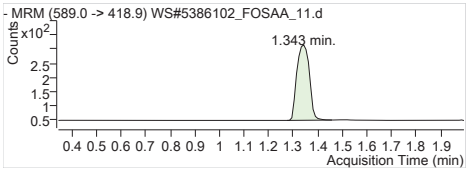


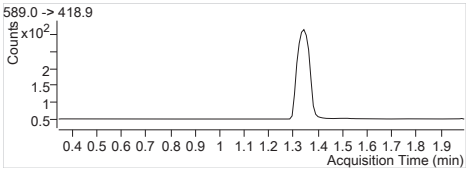
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



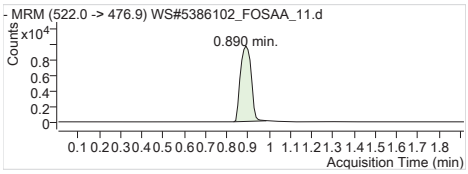


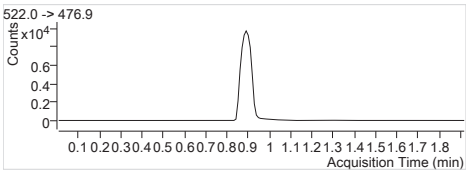
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 60.82 µg/L
Area ratio: 0.03236
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	58.76 µg/L
Area ratio:	0.02713
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.919)
Calc. conc.	2.43 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

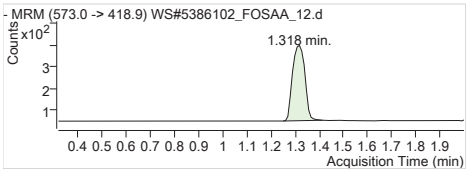
Agilent Technologies

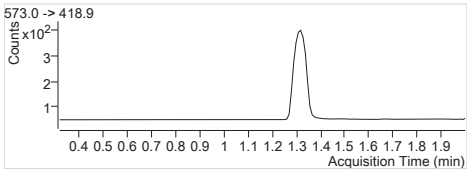
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**5386102:SPIKE**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D8
Acq. Date	2018/02/08 10:00:30 AM	**Injection Volume**	Per Method
Sample Annotation	-		

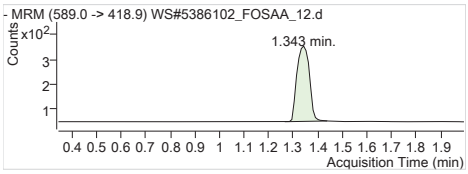
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1239	1.32	1 µg/L		
D5-EtFOSAA IS	1077	1.34	1 µg/L		
13C9-PFDA IS	34284	0.89	1 µg/L		

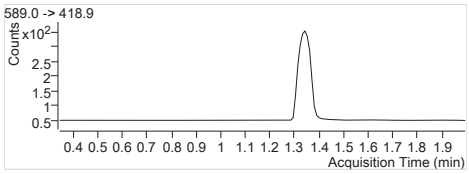
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8955	1.31	20.80	0.49 µg/L	97.94
EtFOSAA 1	9281	1.34	20.80	0.49 µg/L	98.26
D3-MeFOSAA	1248	1.32	100.00	68.41 µg/L	68.41
D5-EtFOSAA	1089	1.34	100.00	68.80 µg/L	68.80
13C9-PFDA	33412	0.89	100.00	2.40 µg/L	100.01



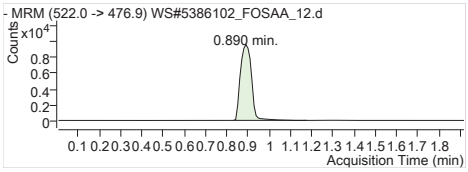


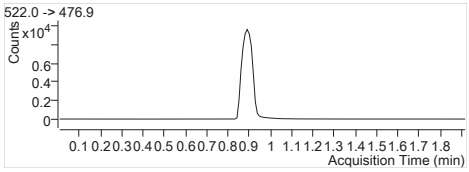
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: QC



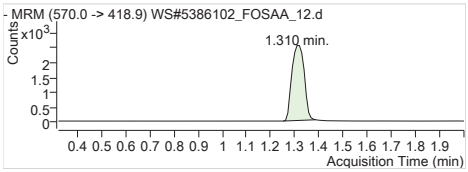


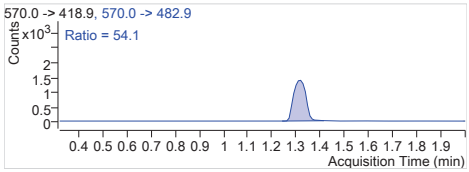
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: QC



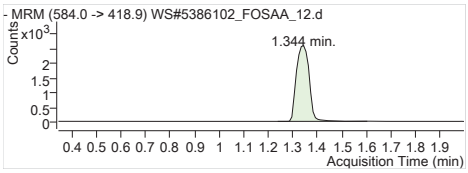


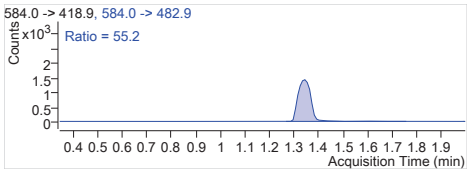
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.919)
Concentration: 1 µg/L
Sample type: QC



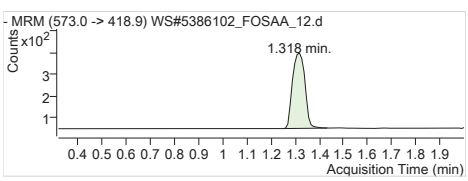


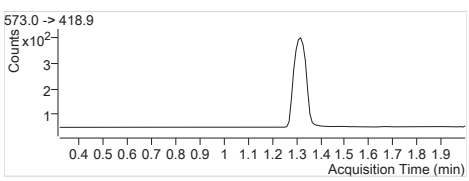
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.319)
Calc. conc. 0.49 µg/L
Area ratio: 7.22760
Sample type: QC



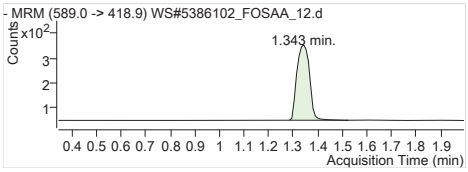


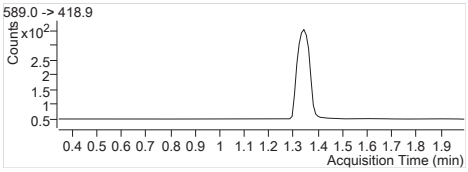
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.49 µg/L
Area ratio: 8.61746
Sample type: QC



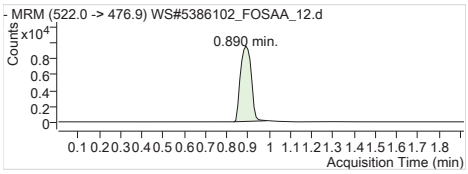


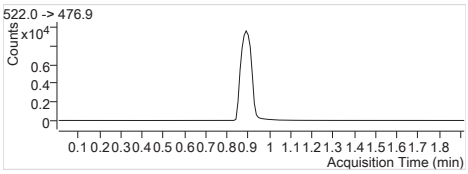
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 68.41 µg/L
Area ratio: 0.03640
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	68.80 µg/L
Area ratio:	0.03176
Sample type:	QC





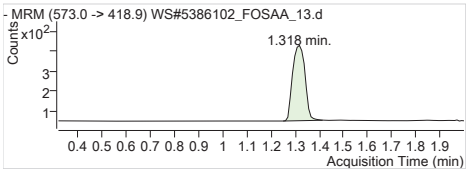
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.919)
Calc. conc.	2.40 µg/L
Area ratio:	0
Sample type:	QC

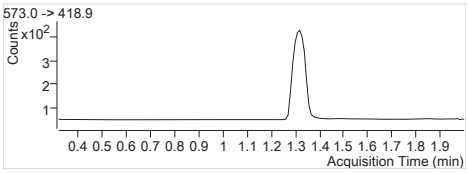
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**5386102:MTRX SPK**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_13.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D9
Acq. Date	2018/02/08 10:02:55 AM	**Injection Volume**	Per Method
Sample Annotation	FZH347		

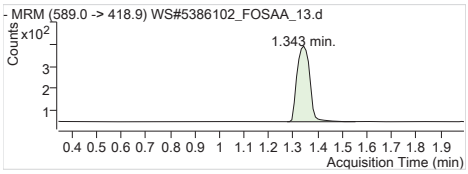
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1350	1.32	1 µg/L		
D5-EtFOSAA IS	1246	1.34	1 µg/L		
13C9-PFDA IS	32623	0.90	1 µg/L		

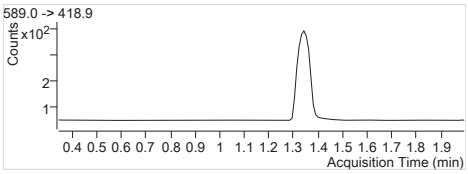
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10156	1.31	20.80	0.51 µg/L	101.94
EtFOSAA 1	10434	1.34	20.80	0.48 µg/L	95.49
D3-MeFOSAA	1354	1.32	100.00	78.00 µg/L	78.00
D5-EtFOSAA	1229	1.34	100.00	81.59 µg/L	81.59
13C9-PFDA	31685	0.90	100.00	2.28 µg/L	94.84



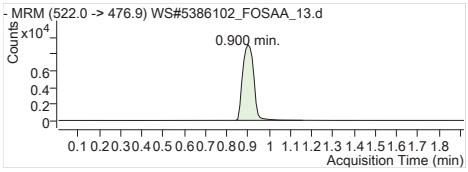


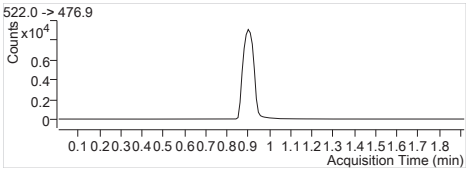
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: QC



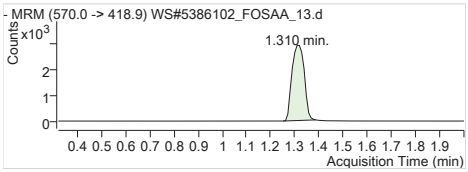


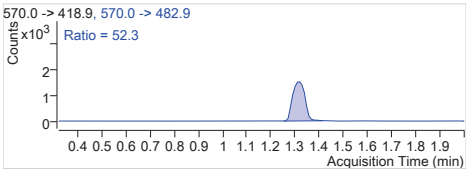
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: QC



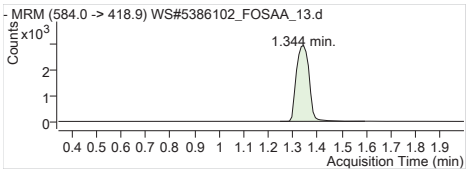


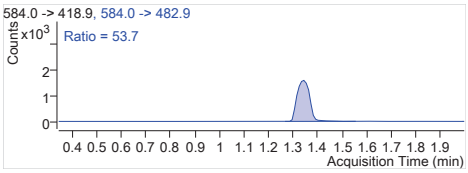
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.919)
Concentration: 1 µg/L
Sample type: QC



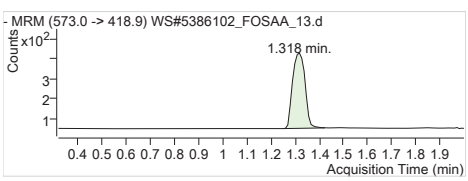


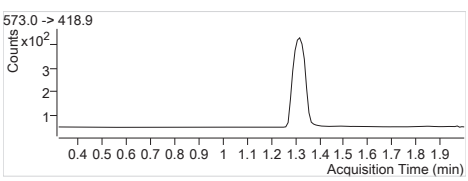
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.319)
Calc. conc. 0.51 µg/L
Area ratio: 7.52296
Sample type: QC



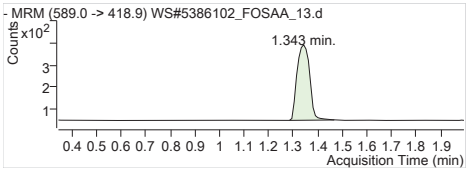


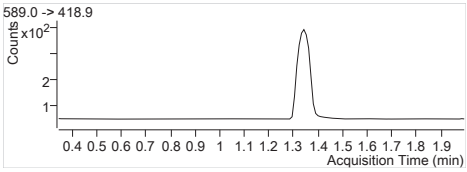
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.48 µg/L
Area ratio: 8.37400
Sample type: QC



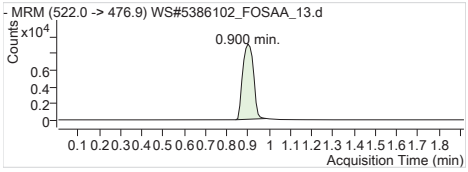


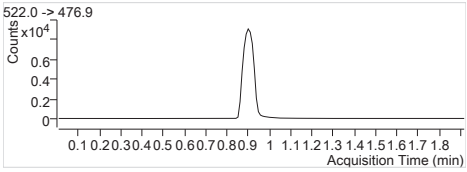
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 78.00 µg/L
Area ratio: 0.04150
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	81.59 µg/L
Area ratio:	0.03767
Sample type:	QC





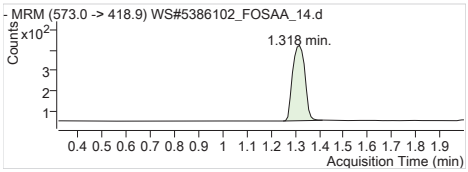
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.919)
Calc. conc.	2.28 µg/L
Area ratio:	0
Sample type:	QC

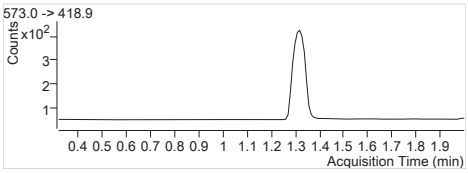
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**5386102:MTRX SPK:D1**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_14.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-E1
Acq. Date	2018/02/08 10:05:20 AM	**Injection Volume**	Per Method
Sample Annotation	FZH347		

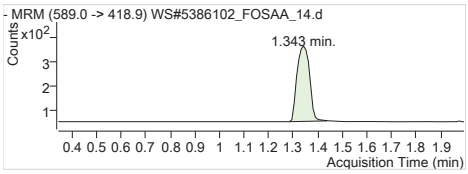
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1331	1.32	1 µg/L		
D5-EtFOSAA IS	1117	1.34	1 µg/L		
13C9-PFDA IS	32730	0.89	1 µg/L		

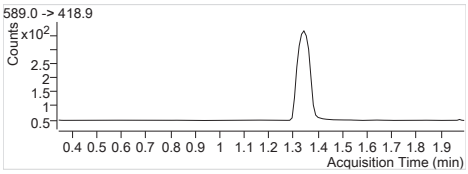
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	9835	1.31	-	0.50 µg/L	-
EtFOSAA 1	10248	1.34	-	0.52 µg/L	-
D3-MeFOSAA	1331	1.32	-	76.42 µg/L	-
D5-EtFOSAA	1131	1.34	-	74.84 µg/L	-
13C9-PFDA	31716	0.89	-	2.28 µg/L	-



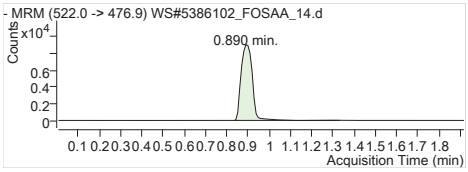


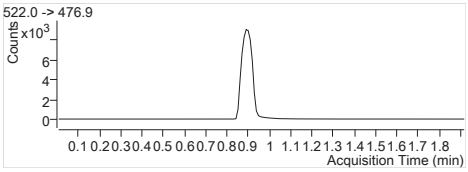
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



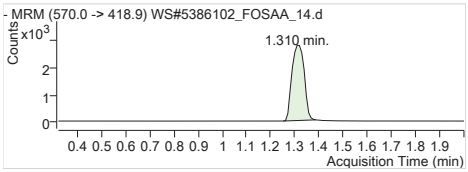


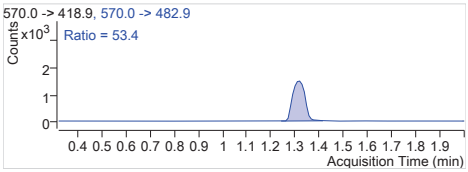
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



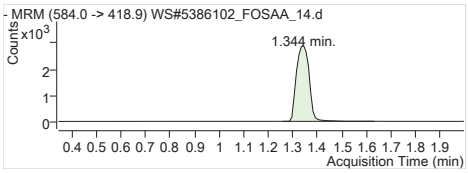


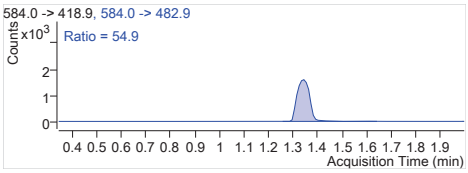
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.919)
Concentration: 1 µg/L
Sample type: Sample



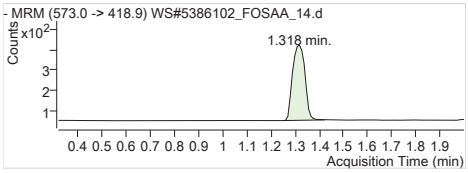


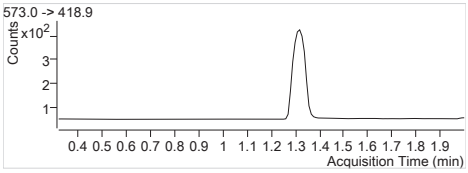
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.319)
Calc. conc. 0.50 µg/L
Area ratio: 7.38918
Sample type: Sample



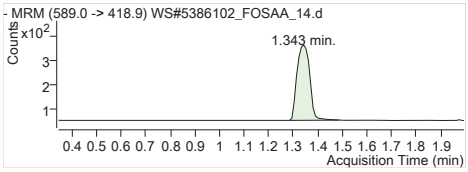


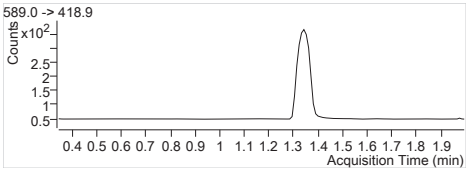
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.52 µg/L
Area ratio: 9.17457
Sample type: Sample



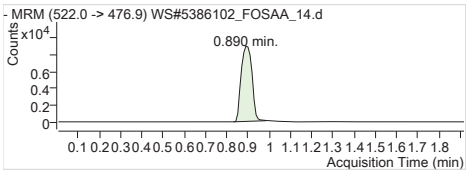


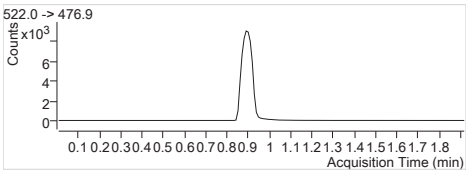
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 76.42 µg/L
Area ratio: 0.04067
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	74.84 µg/L
Area ratio:	0.03456
Sample type:	Sample





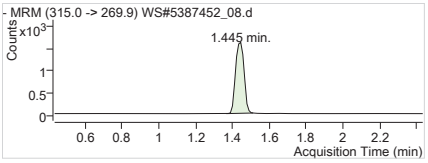
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.919)
Calc. conc.	2.28 µg/L
Area ratio:	0
Sample type:	Sample

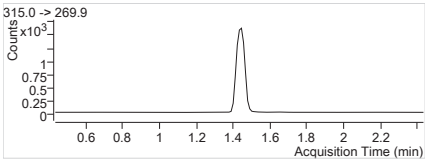
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	IB	**Instrument**	LCMS04
Data File	WS#5387452_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-A8
Acq. Date	2018/02/08 1:03:33 AM	**Injection Volume**	Per Method
Sample Annotation	-		

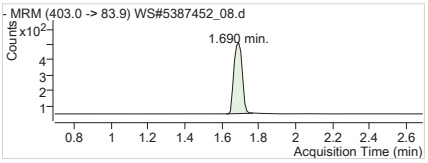
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5074	1.44	1 µg/L		
MPFHxS	1447	1.69	1 µg/L		
MPFHpA	7082	1.70	1 µg/L		
MPFOA	7836	1.88	1 µg/L		
MPFOS	1880	1.98	1 µg/L		
MPFNA	7416	2.02	1 µg/L		
MPFDA	6461	2.15	1 µg/L		
MPFUnA	7676	2.25	1 µg/L		
MPFDoA	10628	2.32	1 µg/L		
MPFTeDA	11322	2.47	1 µg/L		
13C6-PFHxA IS	26633	1.44	1 µg/L		
13C9-PFDA IS	35487	2.15	1 µg/L		

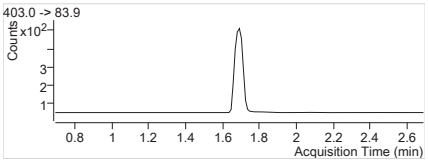
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5074	1.44	-	89.14 µg/L	-
18O2-PFHxS	1447	1.69	-	93.68 µg/L	-
13C4-PFHpA	7082	1.70	-	96.44 µg/L	-
13C4-PFOA	7836	1.88	-	99.17 µg/L	-
13C4-PFOS	1880	1.98	-	98.73 µg/L	-
13C5-PFNA	7415	2.02	-	91.83 µg/L	-
13C2-PFDA	6372	2.15	-	98.49 µg/L	-
13C2-PFUnA	7676	2.25	-	94.58 µg/L	-
13C2-PFDoA	10628	2.32	-	96.42 µg/L	-
13C2-PFTeDA	11484	2.47	-	88.18 µg/L	-
13C6-PFHxA	26633	1.44	-	2.74 µg/L	-
13C9-PFDA	35487	2.15	-	2.70 µg/L	-



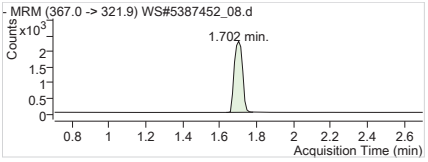


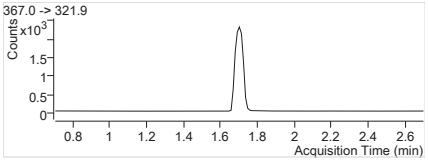
MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.434)
Concentration: 1 µg/L
Sample type: Sample



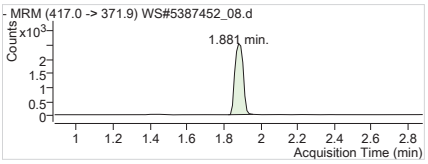


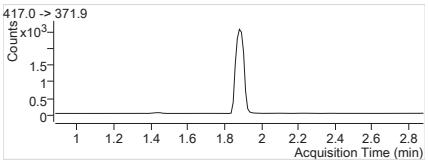
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



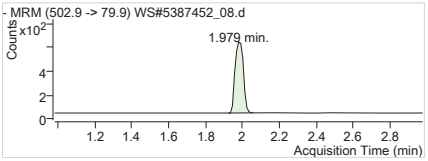


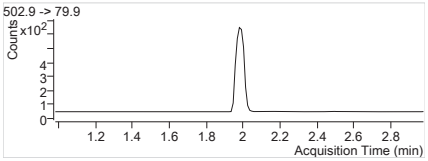
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



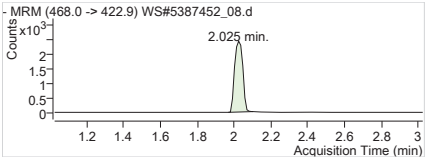


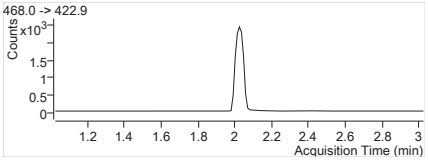
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



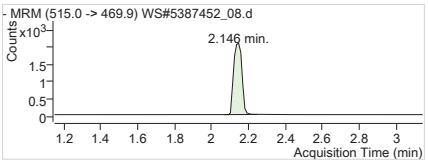


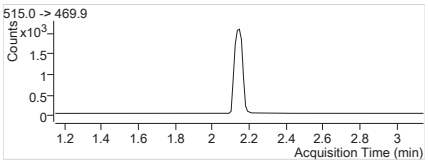
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



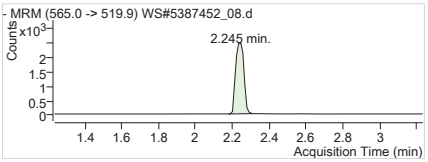


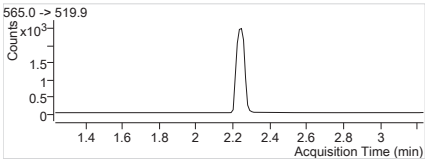
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



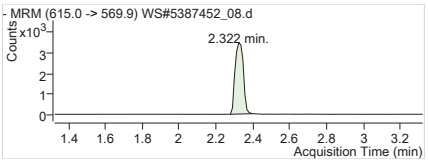


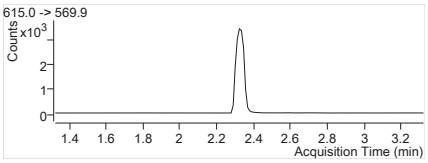
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



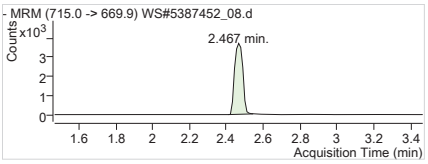


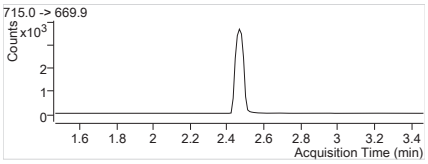
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



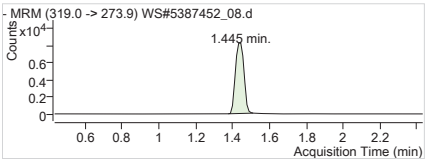


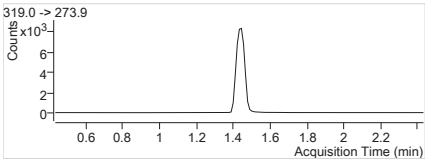
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



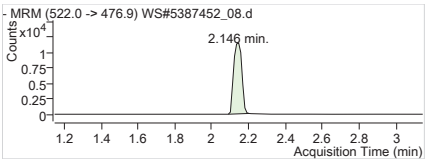


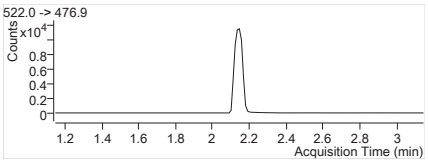
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



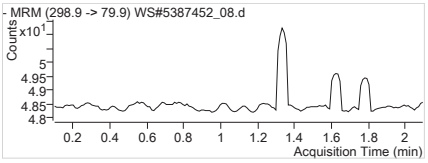


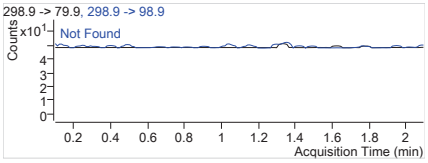
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.434)
Concentration: 1 µg/L
Sample type: Sample



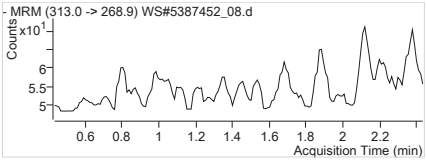


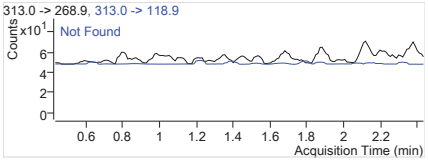
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



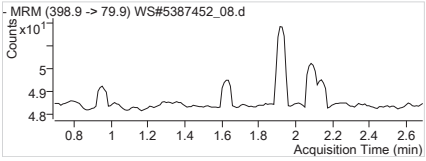


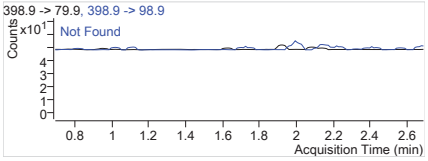
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



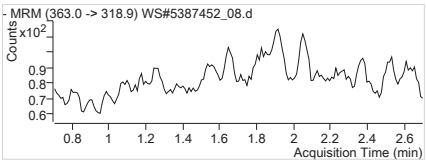


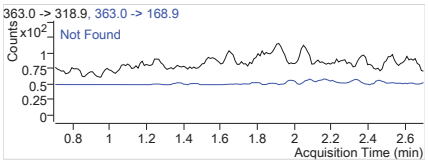
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



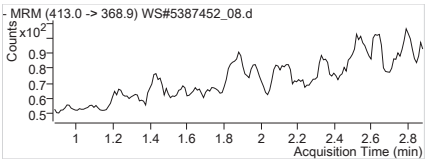


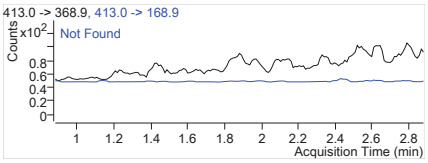
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



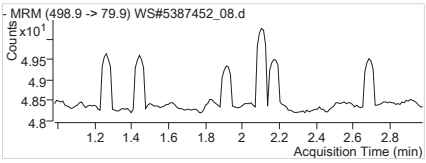


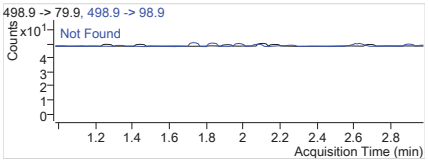
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



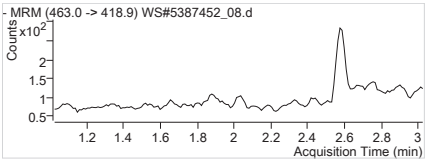


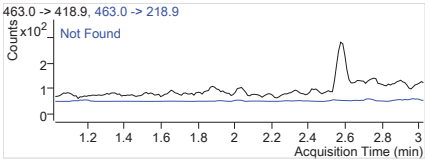
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



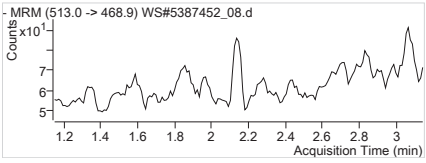


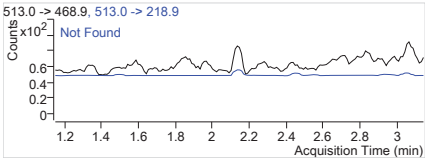
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



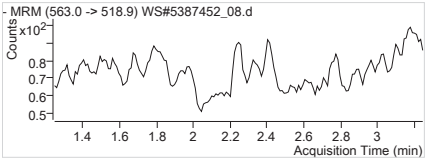


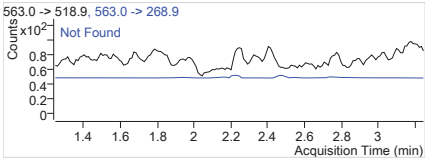
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



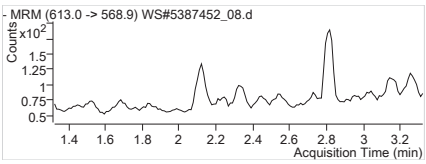


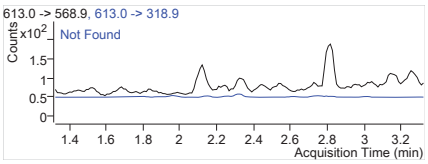
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



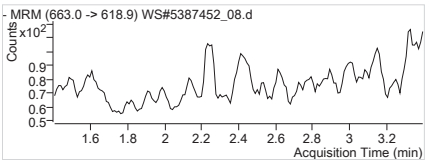


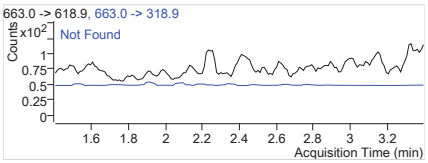
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



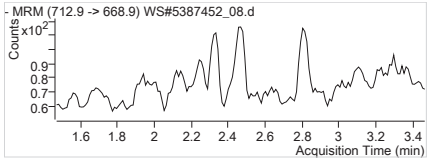


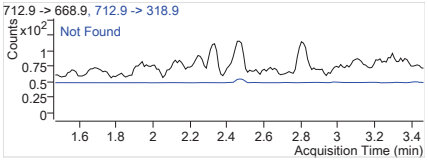
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



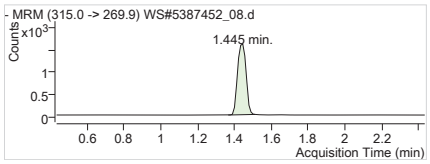


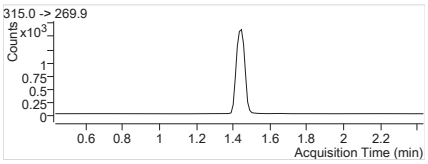
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



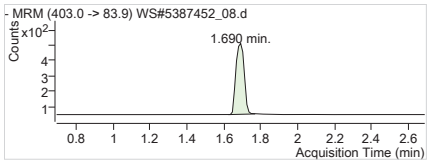


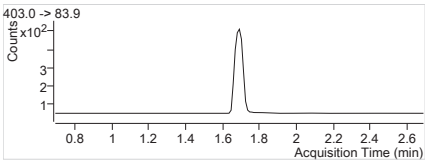
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



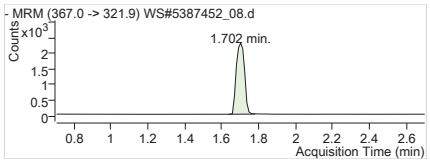


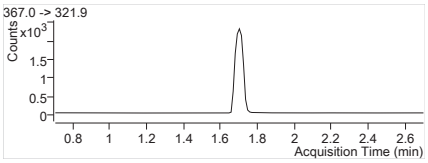
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.434)
Calc. conc. 89.14 µg/L
Area ratio: 0.19052
Sample type: Sample



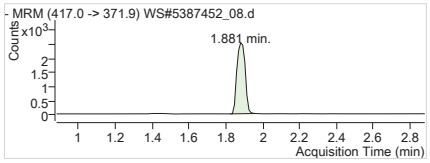


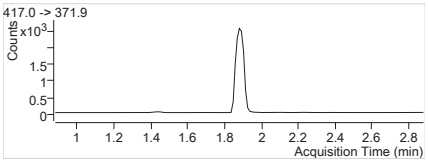
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 93.68 µg/L
Area ratio: 0.05433
Sample type: Sample



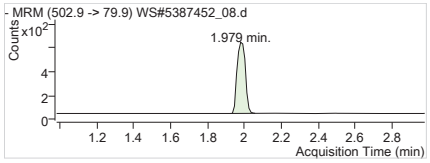


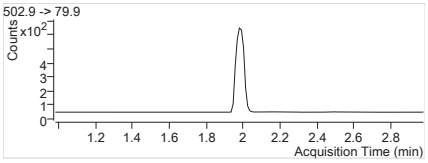
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 96.44 µg/L
Area ratio: 0.26591
Sample type: Sample



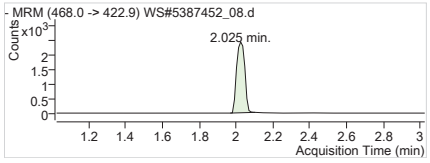


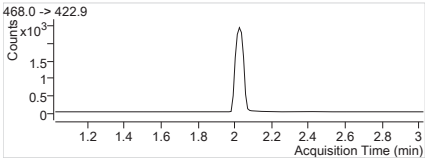
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 99.17 µg/L
Area ratio: 0.29422
Sample type: Sample



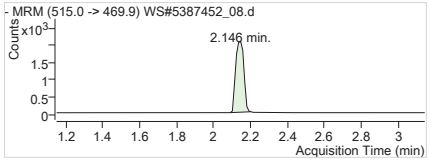


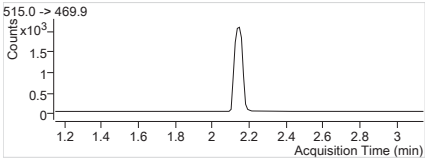
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 98.73 µg/L
Area ratio: 0.07059
Sample type: Sample



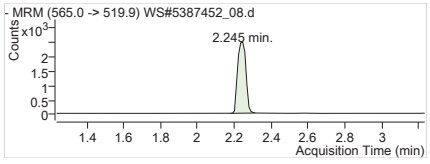


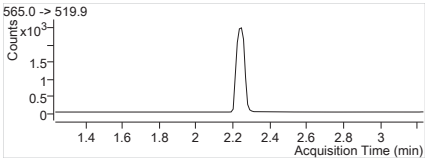
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 91.83 µg/L
Area ratio: 0.27841
Sample type: Sample



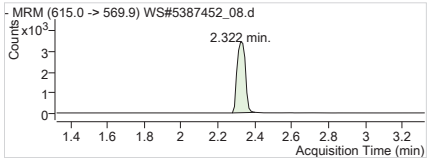


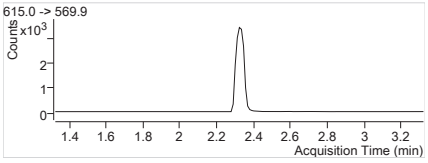
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 98.49 µg/L
Area ratio: 0.17956
Sample type: Sample



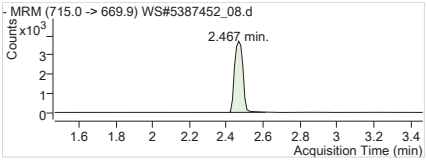


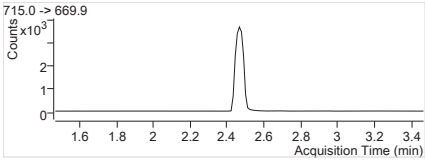
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 94.58 µg/L
Area ratio: 0.21630
Sample type: Sample



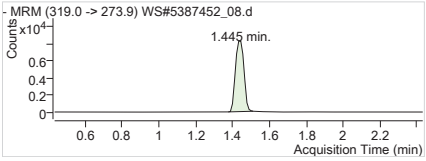


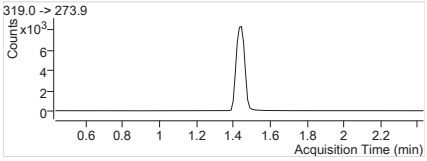
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 96.42 µg/L
Area ratio: 0.29949
Sample type: Sample



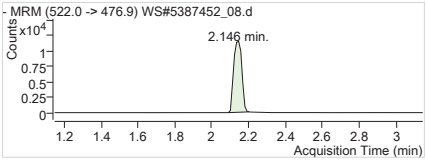


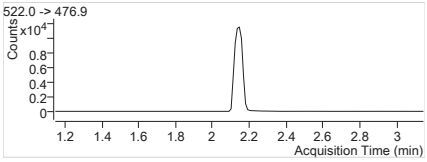
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	88.18 µg/L
Area ratio:	0.32361
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.445 (1.434)
Calc. conc.	2.74 µg/L
Area ratio:	0
Sample type:	Sample





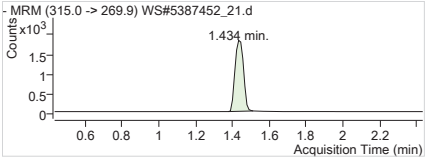
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.70 µg/L
Area ratio:	0
Sample type:	Sample

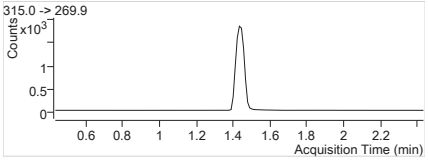
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	IB	**Instrument**	LCMS04
Data File	WS#5387452_21.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-A8
Acq. Date	2018/02/08 2:07:41 AM	**Injection Volume**	Per Method
Sample Annotation	-		

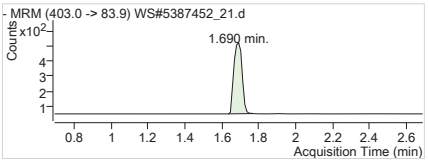
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5763	1.43	1 µg/L		
MPFHxS	1480	1.69	1 µg/L		
MPFHpA	7639	1.70	1 µg/L		
MPFOA	8022	1.88	1 µg/L		
MPFOS	1475	1.98	1 µg/L		
MPFNA	8414	2.02	1 µg/L		
MPFDA	7034	2.15	1 µg/L		
MPFUnA	7536	2.25	1 µg/L		
MPFDoA	10518	2.32	1 µg/L		
MPFTeDA	12028	2.47	1 µg/L		
13C6-PFHxA IS	29708	1.43	1 µg/L		
13C9-PFDA IS	37977	2.15	1 µg/L		

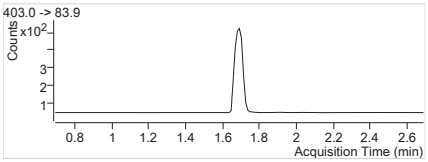
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5763	1.43	-	90.77 µg/L	-
18O2-PFHxS	1480	1.69	-	85.90 µg/L	-
13C4-PFHpA	7639	1.70	-	93.25 µg/L	-
13C4-PFOA	8022	1.88	-	91.02 µg/L	-
13C4-PFOS	1475	1.98	-	69.44 µg/L	-
13C5-PFNA	8414	2.02	-	93.42 µg/L	-
13C2-PFDA	6879	2.15	-	99.36 µg/L	-
13C2-PFUnA	7536	2.25	-	86.77 µg/L	-
13C2-PFDoA	10518	2.32	-	89.17 µg/L	-
13C2-PFTeDA	12189	2.47	-	87.45 µg/L	-
13C6-PFHxA	29708	1.43	-	3.06 µg/L	-
13C9-PFDA	37977	2.15	-	2.89 µg/L	-



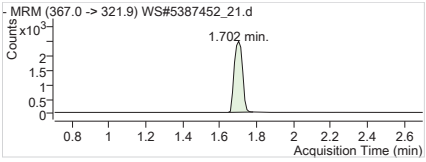


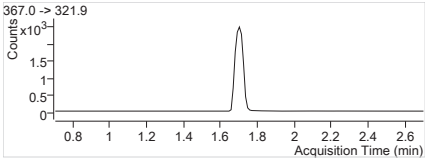
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



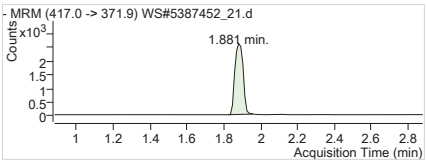


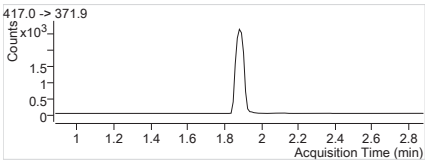
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



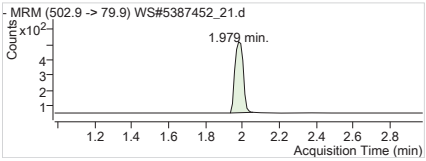


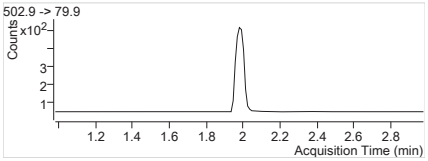
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



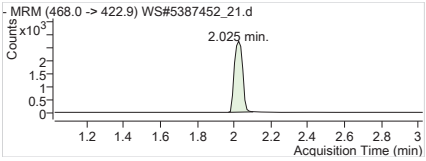


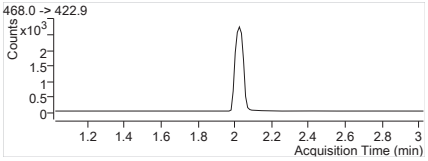
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



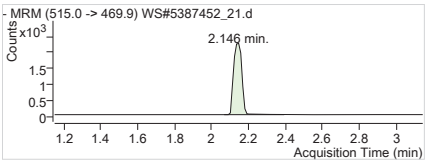


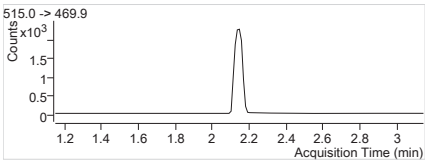
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



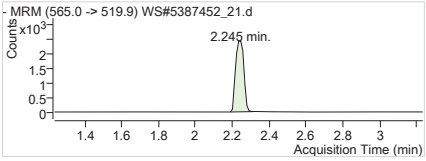


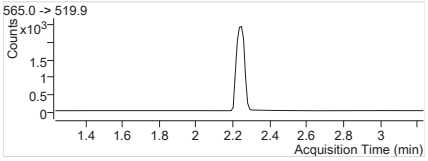
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



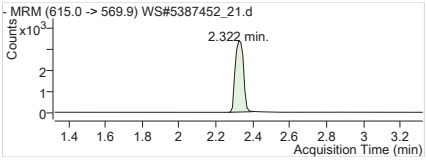


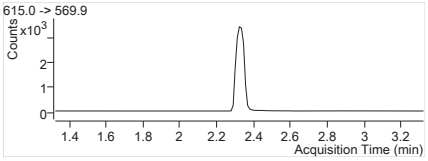
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



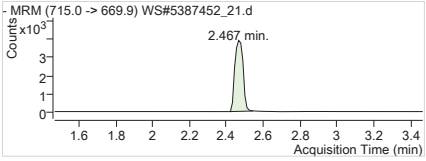


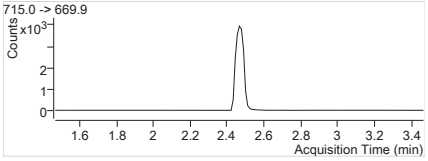
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



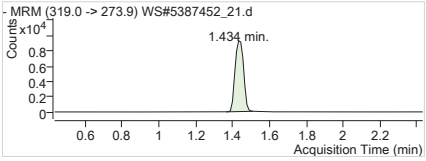


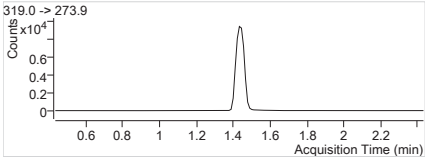
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



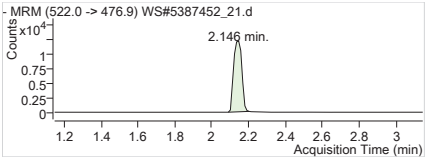


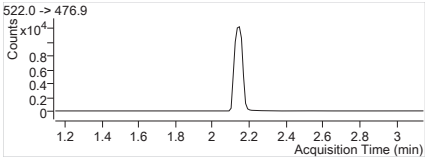
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



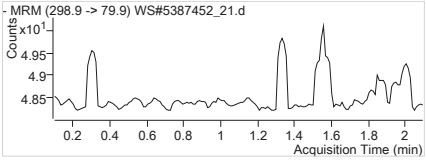


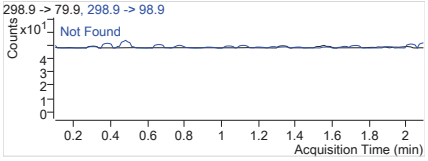
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



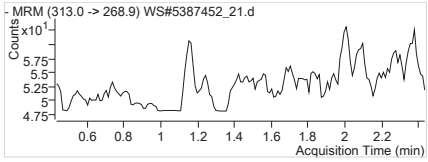


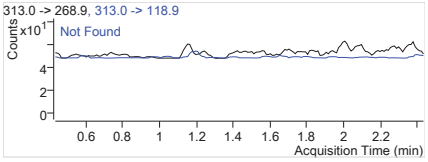
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



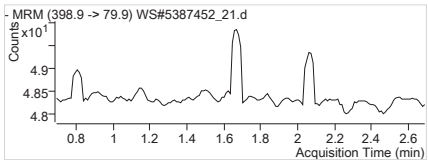


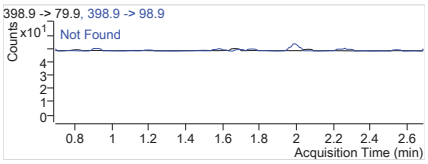
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



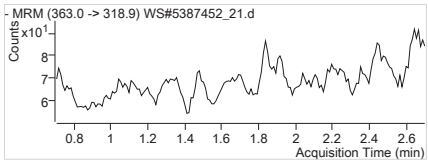


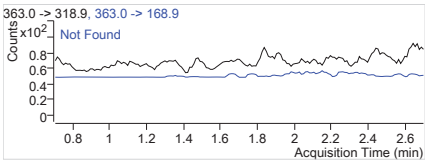
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



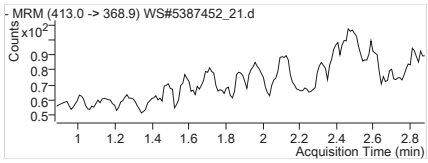


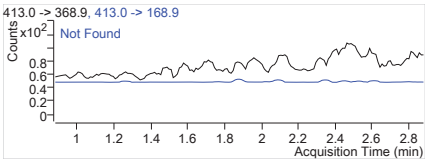
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



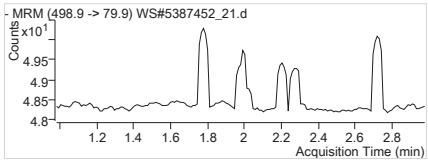


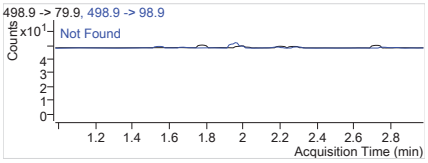
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



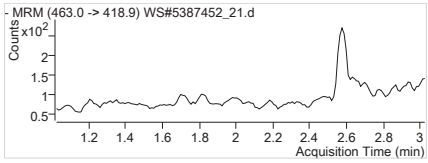


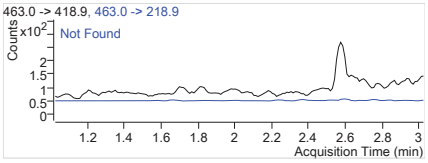
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



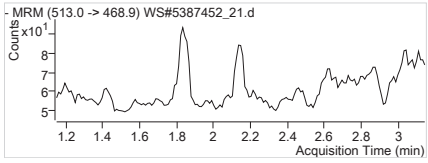


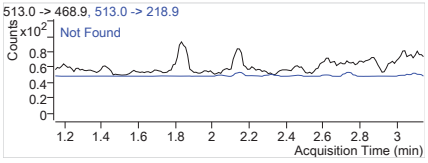
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



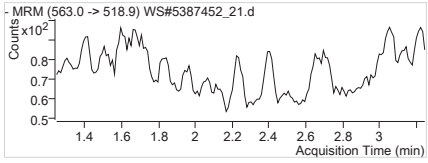


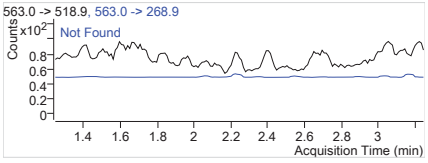
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



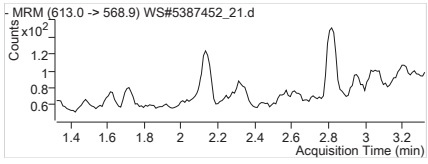


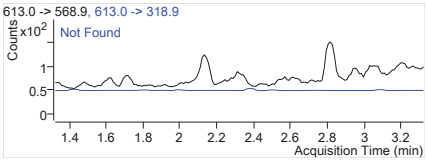
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



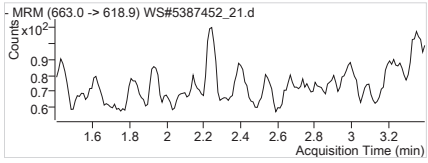


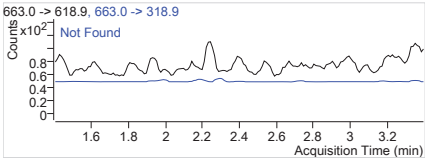
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



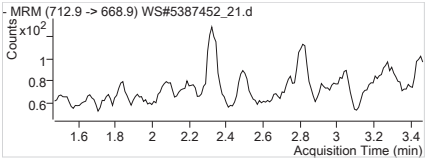


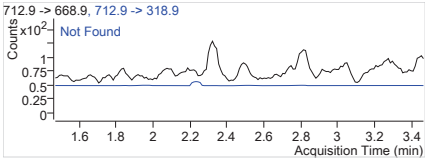
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



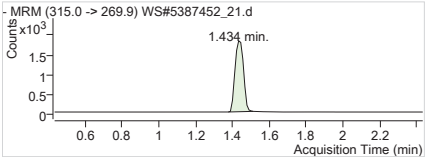


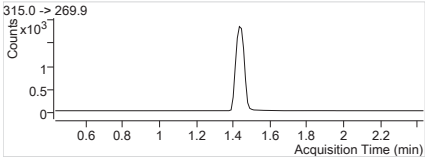
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



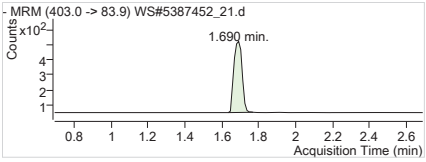


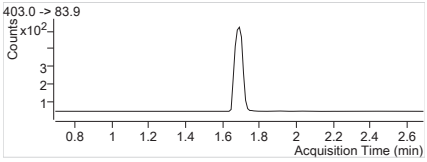
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



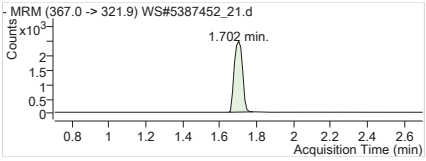


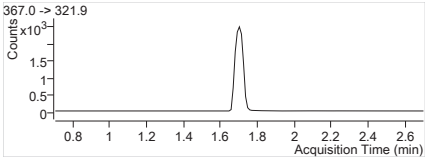
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 90.77 µg/L
Area ratio: 0.19399
Sample type: Sample



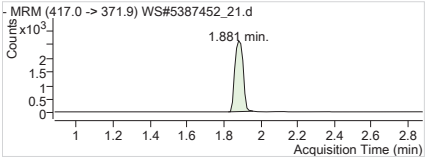


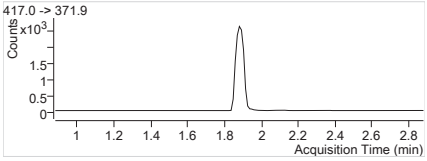
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 85.90 µg/L
Area ratio: 0.04982
Sample type: Sample



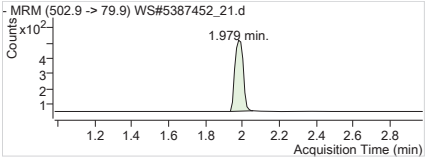


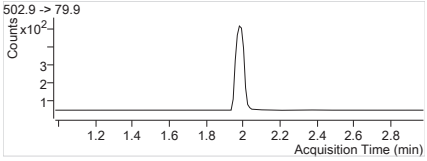
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 93.25 µg/L
Area ratio: 0.25714
Sample type: Sample



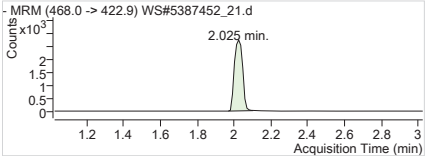


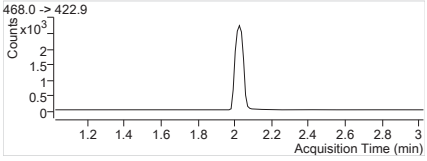
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 91.02 µg/L
Area ratio: 0.27003
Sample type: Sample



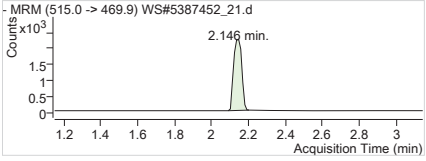


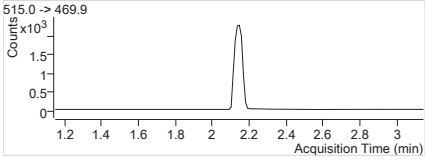
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 69.44 µg/L
Area ratio: 0.04965
Sample type: Sample



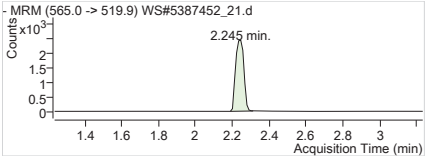


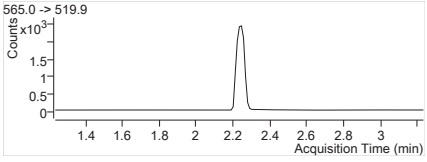
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 93.42 µg/L
Area ratio: 0.28322
Sample type: Sample



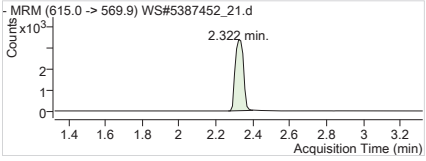


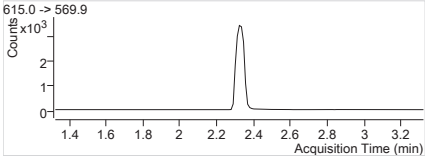
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 99.36 µg/L
Area ratio: 0.18114
Sample type: Sample



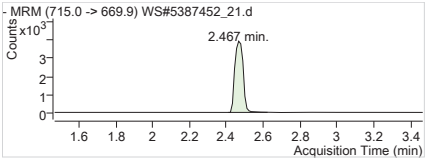


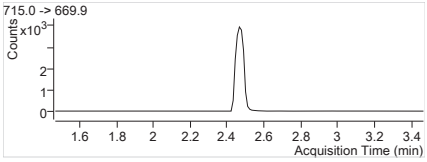
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 86.77 µg/L
Area ratio: 0.19844
Sample type: Sample



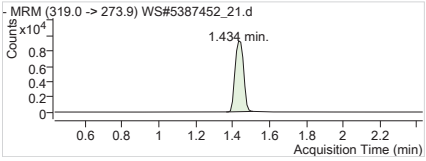


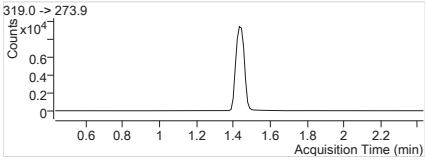
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 89.17 µg/L
Area ratio: 0.27696
Sample type: Sample



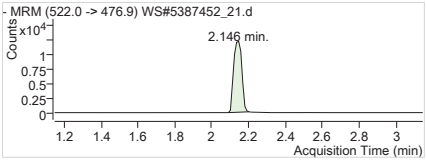


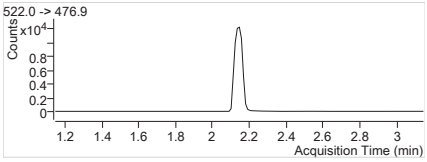
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	87.45 µg/L
Area ratio:	0.32096
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	3.06 µg/L
Area ratio:	0
Sample type:	Sample





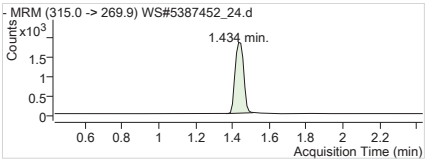
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.89 µg/L
Area ratio:	0
Sample type:	Sample

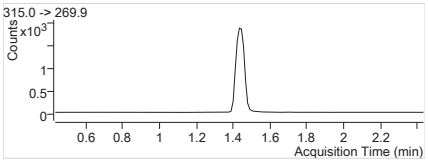
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5387452_24.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-A8
Acq. Date	2018/02/08 2:22:29 AM	**Injection Volume**	Per Method
Sample Annotation	-		

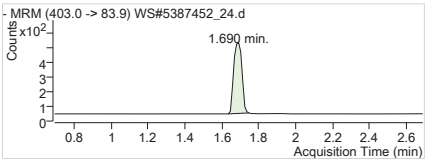
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5923	1.43	1 µg/L		
MPFHxS	1492	1.69	1 µg/L		
MPFHpA	8480	1.70	1 µg/L		
MPFOA	8448	1.88	1 µg/L		
MPFOS	1803	1.98	1 µg/L		
MPFNA	8146	2.02	1 µg/L		
MPFDA	6336	2.15	1 µg/L		
MPFUnA	8228	2.25	1 µg/L		
MPFDoA	10858	2.32	1 µg/L		
MPFTeDA	12730	2.47	1 µg/L		
13C6-PFHxA IS	29480	1.43	1 µg/L		
13C9-PFDA IS	38322	2.15	1 µg/L		

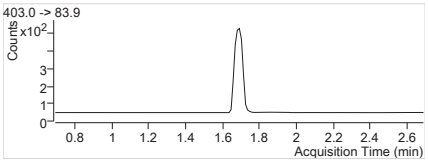
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5923	1.43	-	94.01 µg/L	-
18O2-PFHxS	1492	1.69	-	87.27 µg/L	-
13C4-PFHpA	8480	1.70	-	104.32 µg/L	-
13C4-PFOA	8448	1.88	-	96.59 µg/L	-
13C4-PFOS	1803	1.98	-	85.54 µg/L	-
13C5-PFNA	8146	2.02	-	91.14 µg/L	-
13C2-PFDA	6336	2.15	-	90.69 µg/L	-
13C2-PFUnA	8228	2.25	-	93.89 µg/L	-
13C2-PFDoA	10858	2.32	-	91.22 µg/L	-
13C2-PFTeDA	12967	2.47	-	92.20 µg/L	-
13C6-PFHxA	29480	1.43	-	3.04 µg/L	-
13C9-PFDA	38322	2.15	-	2.92 µg/L	-



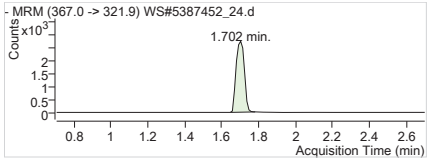


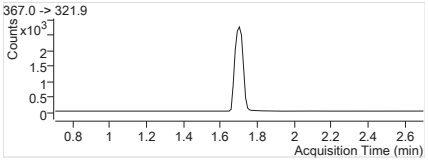
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



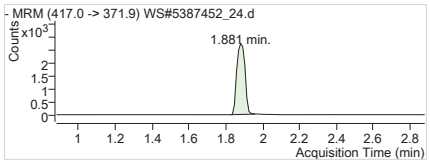


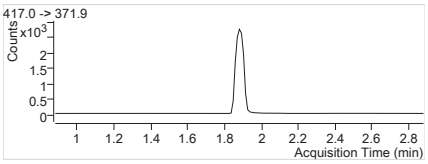
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



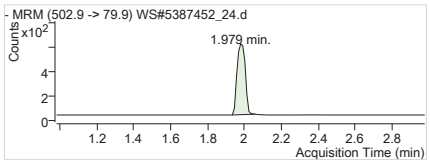


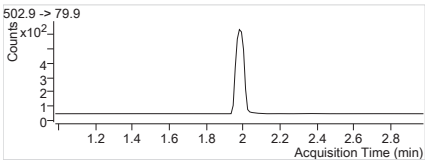
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



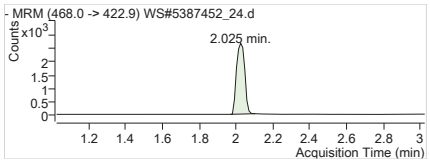


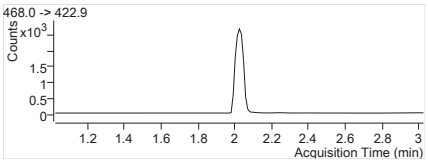
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



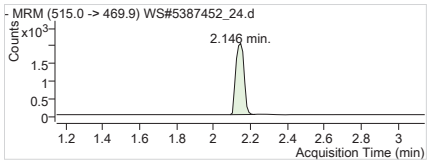


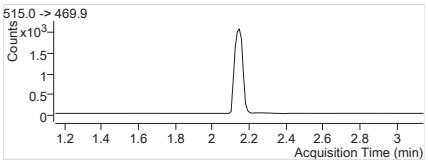
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



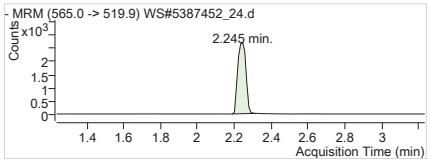


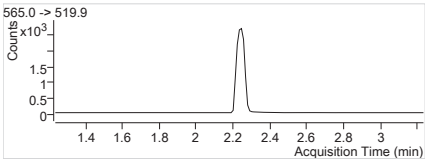
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



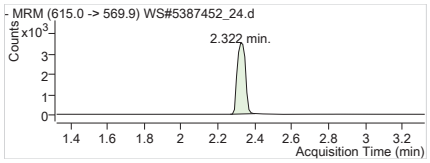


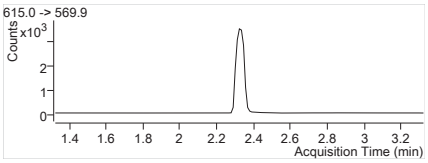
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



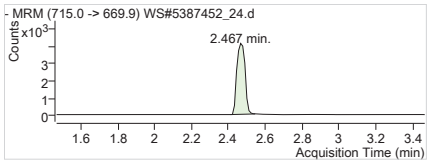


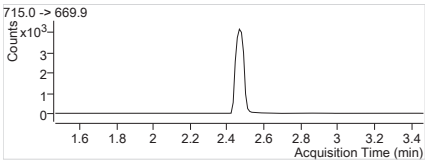
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



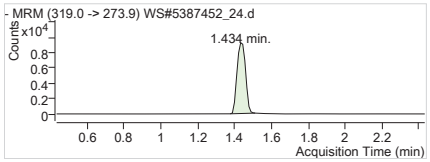


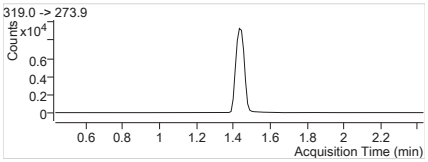
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



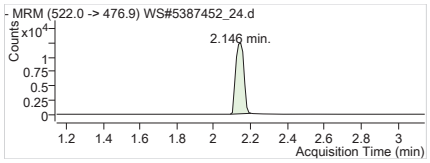


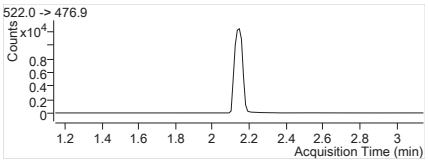
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



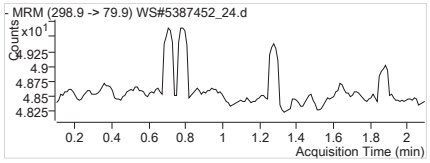


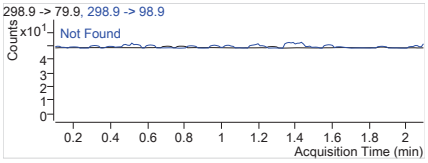
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



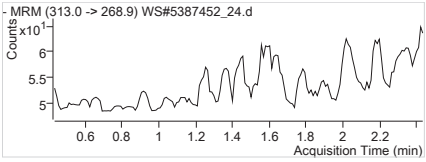


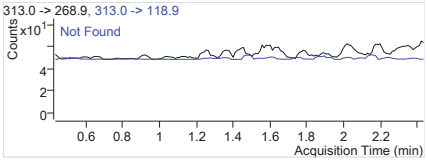
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



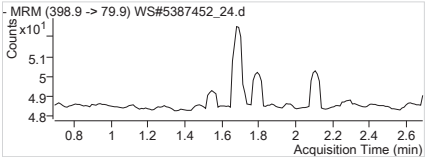


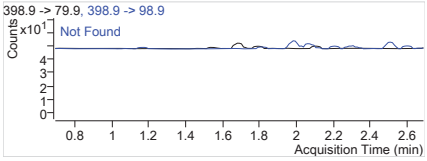
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



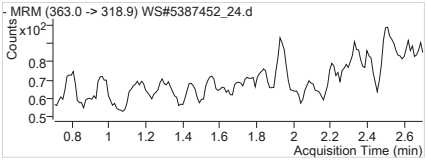


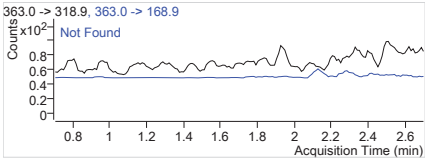
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



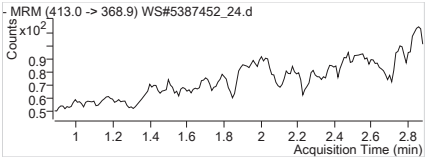


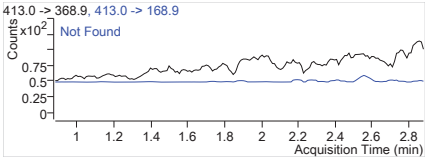
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



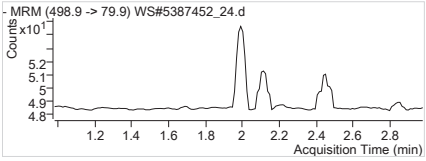


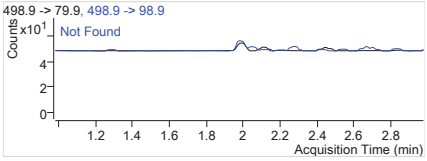
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



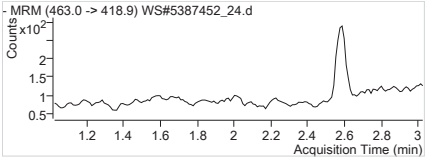


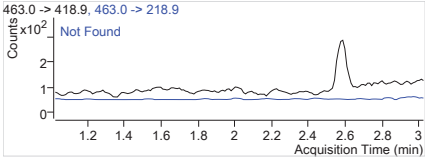
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



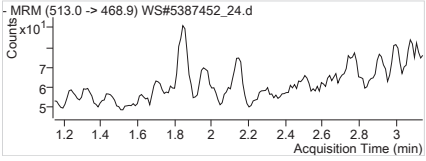


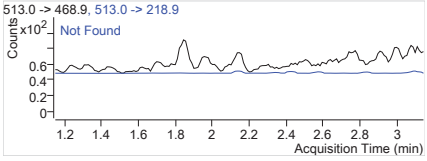
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



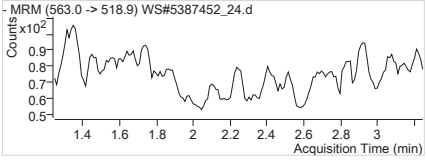


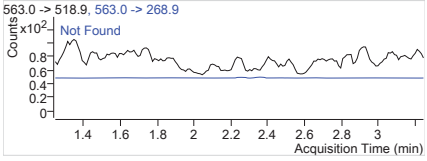
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



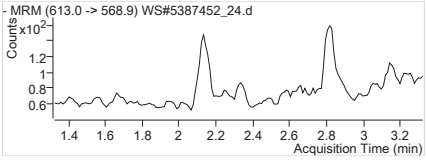


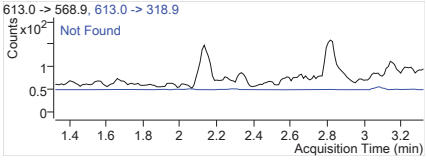
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



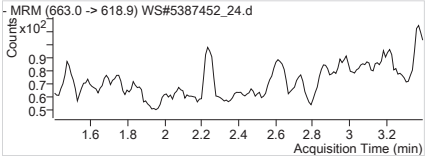


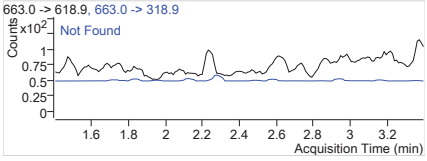
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



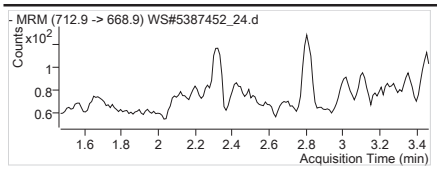


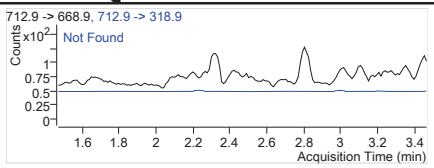
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



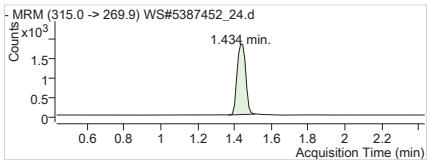


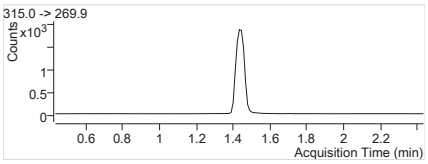
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



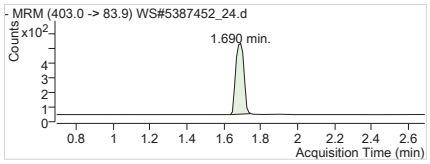


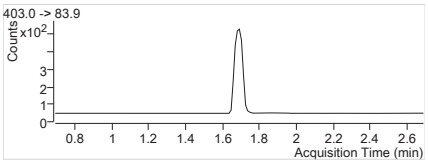
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



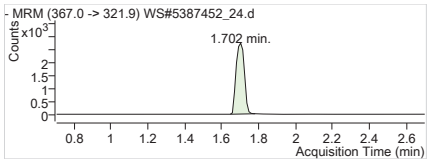


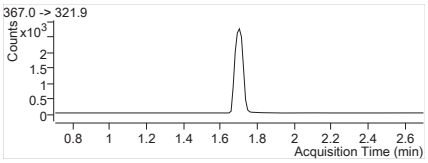
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 94.01 µg/L
Area ratio: 0.20092
Sample type: Sample



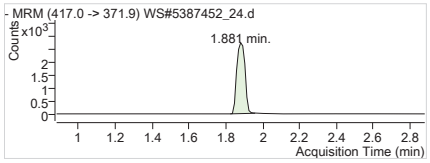


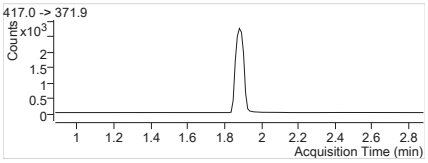
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 87.27 µg/L
Area ratio: 0.05061
Sample type: Sample



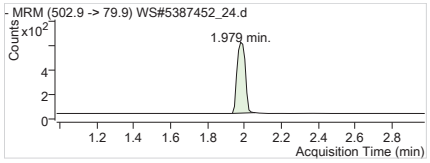


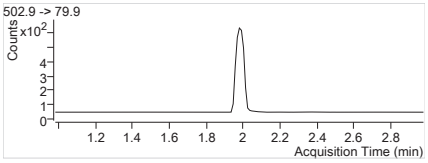
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 104.32 µg/L
Area ratio: 0.28765
Sample type: Sample



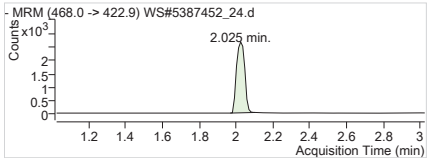


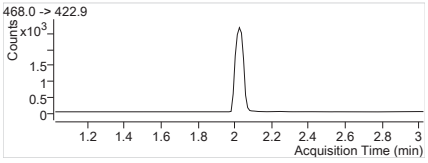
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 96.59 µg/L
Area ratio: 0.28657
Sample type: Sample



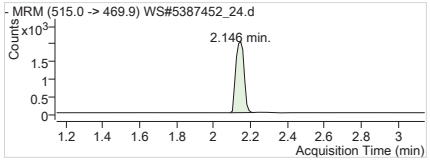


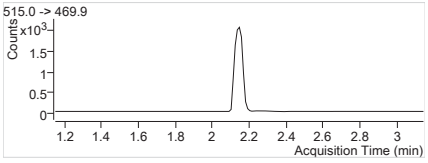
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 85.54 µg/L
Area ratio: 0.06116
Sample type: Sample



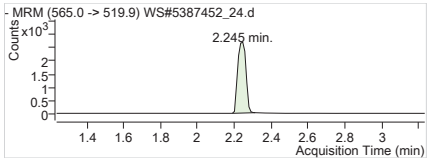


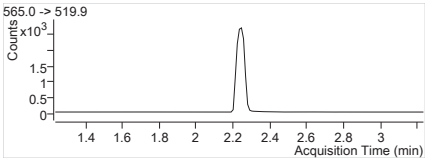
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 91.14 µg/L
Area ratio: 0.27632
Sample type: Sample



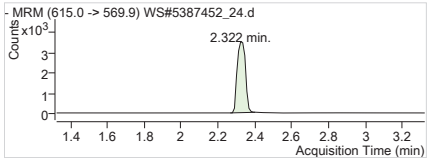


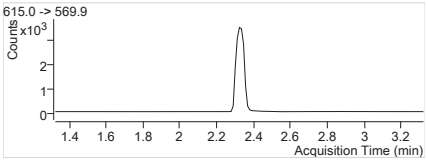
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 90.69 µg/L
Area ratio: 0.16534
Sample type: Sample



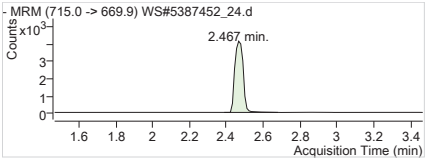


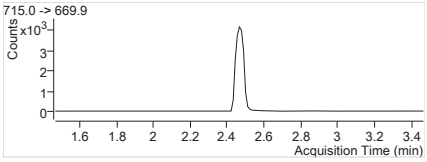
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 93.89 µg/L
Area ratio: 0.21471
Sample type: Sample



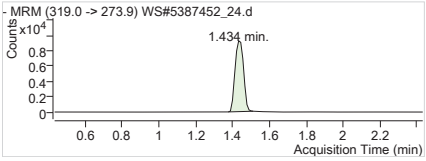


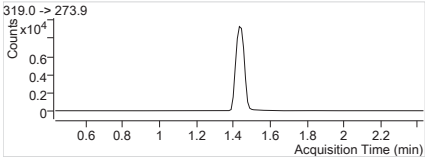
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 91.22 µg/L
Area ratio: 0.28334
Sample type: Sample



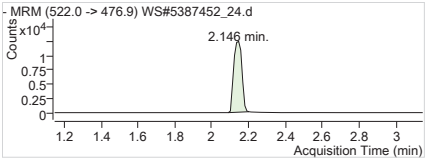


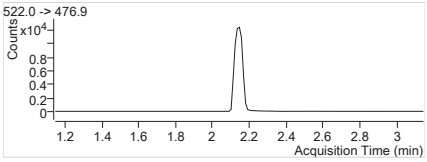
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	92.20 µg/L
Area ratio:	0.33837
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	3.04 µg/L
Area ratio:	0
Sample type:	Sample





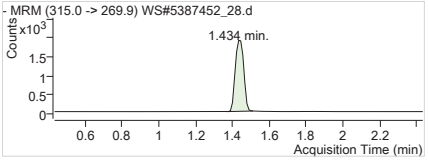
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.92 µg/L
Area ratio:	0
Sample type:	Sample

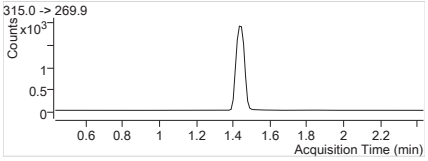
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	IB	**Instrument**	LCMS04
Data File	WS#5387452_28.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-A8
Acq. Date	2018/02/08 2:42:13 AM	**Injection Volume**	Per Method
Sample Annotation	-		

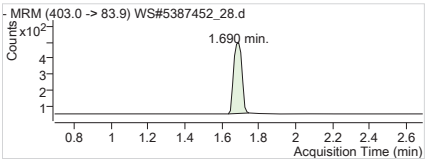
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6029	1.43	1 µg/L		
MPFHxS	1394	1.69	1 µg/L		
MPFHpA	8208	1.70	1 µg/L		
MPFOA	7945	1.88	1 µg/L		
MPFOS	1806	1.98	1 µg/L		
MPFNA	8095	2.02	1 µg/L		
MPFDA	6845	2.15	1 µg/L		
MPFUnA	8268	2.25	1 µg/L		
MPFDoA	10615	2.32	1 µg/L		
MPFTeDA	11792	2.47	1 µg/L		
13C6-PFHxA IS	30398	1.43	1 µg/L		
13C9-PFDA IS	38604	2.15	1 µg/L		

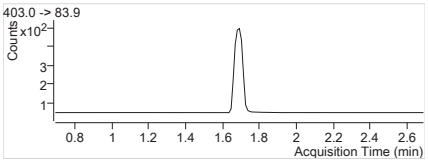
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6029	1.43	-	92.80 µg/L	-
18O2-PFHxS	1394	1.69	-	79.07 µg/L	-
13C4-PFHpA	8208	1.70	-	97.93 µg/L	-
13C4-PFOA	7945	1.88	-	88.10 µg/L	-
13C4-PFOS	1806	1.98	-	83.10 µg/L	-
13C5-PFNA	8095	2.02	-	87.84 µg/L	-
13C2-PFDA	6673	2.15	-	94.82 µg/L	-
13C2-PFUnA	8268	2.25	-	93.65 µg/L	-
13C2-PFDoA	10615	2.32	-	88.53 µg/L	-
13C2-PFTeDA	12012	2.47	-	84.78 µg/L	-
13C6-PFHxA	30398	1.43	-	3.13 µg/L	-
13C9-PFDA	38604	2.15	-	2.94 µg/L	-



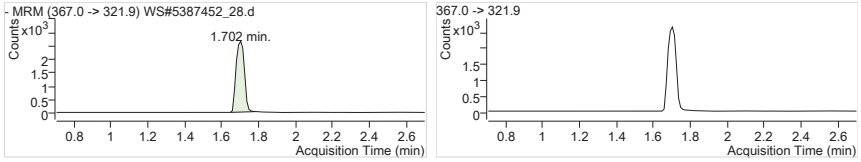


MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample

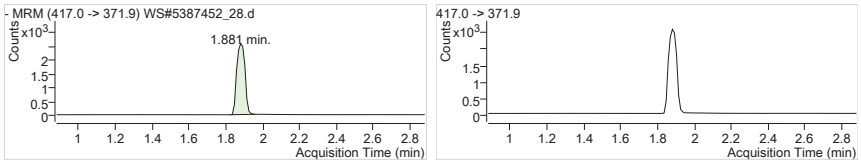




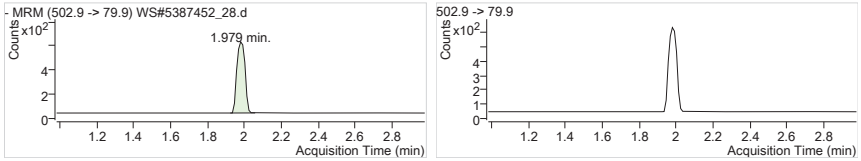
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



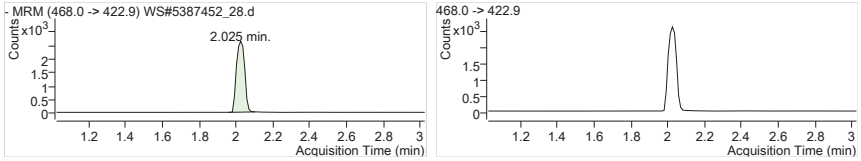
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



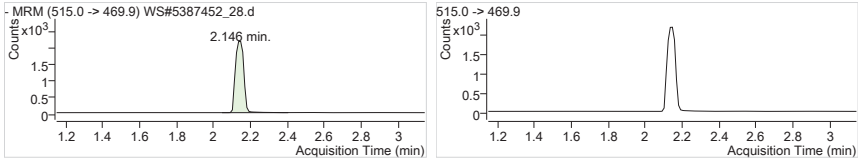
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



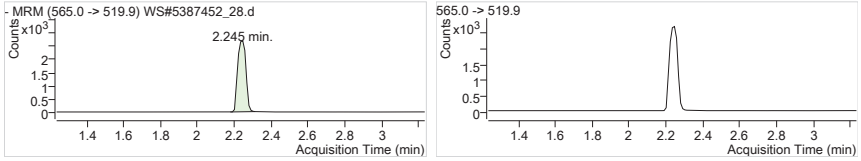
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



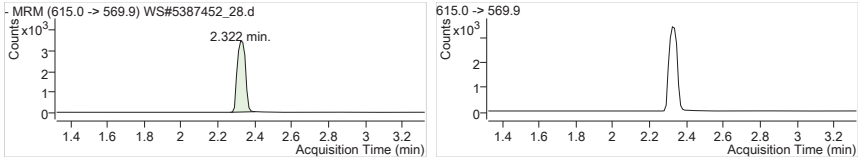
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



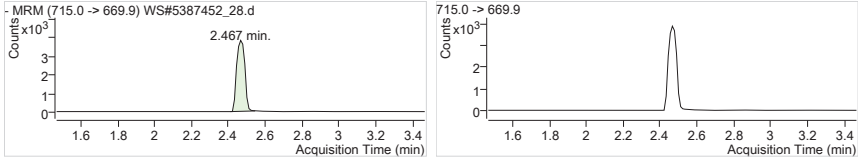
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



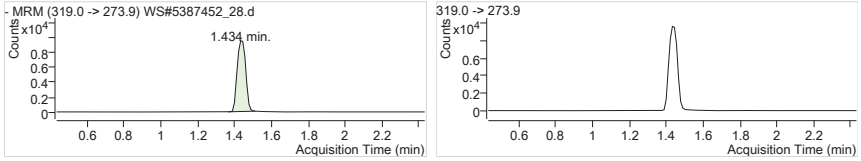
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



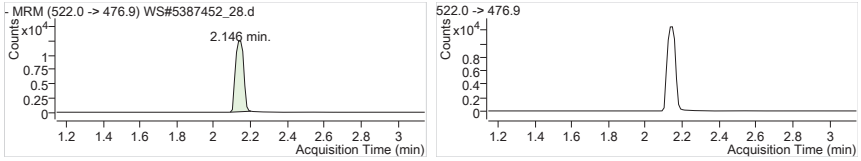
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



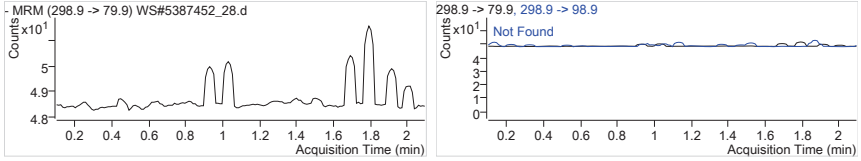
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



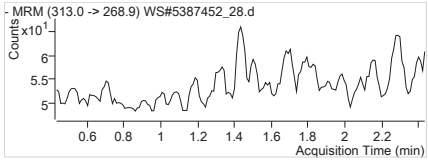
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample

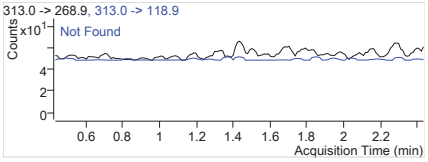


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample

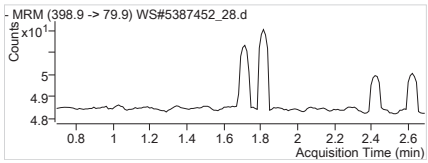


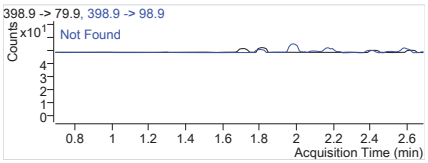
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



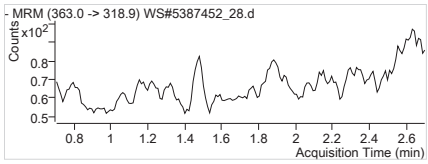


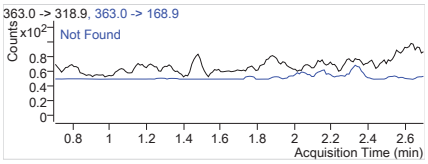
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



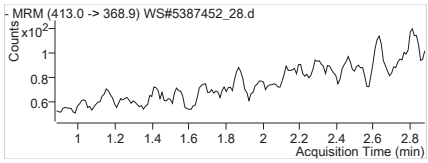


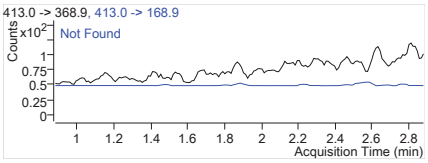
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



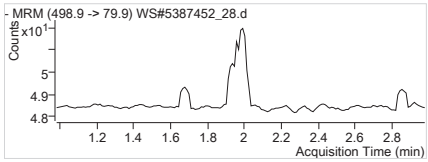


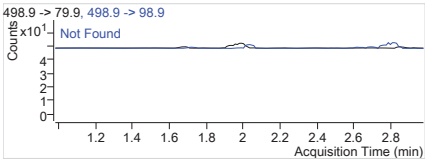
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



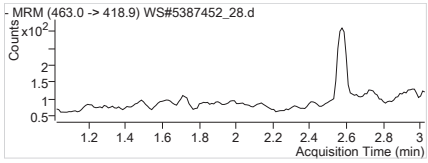


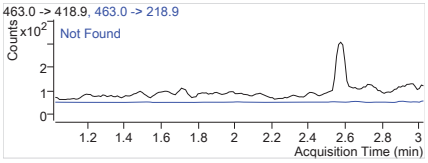
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



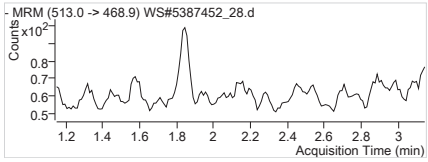


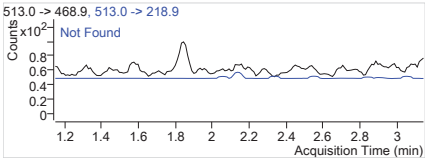
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



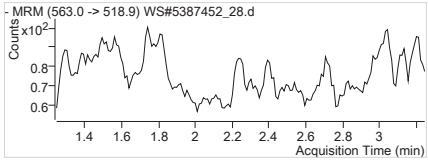


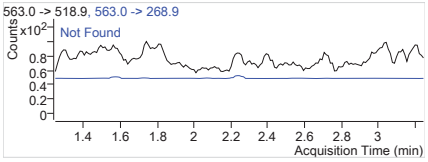
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



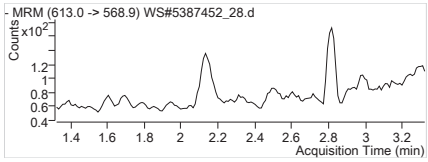


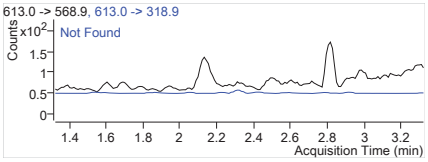
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



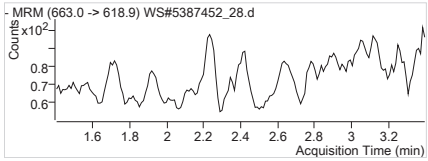


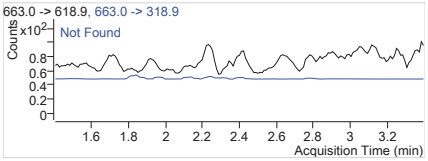
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



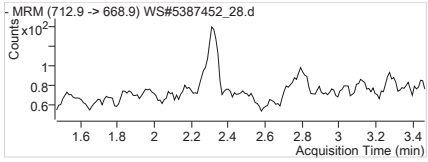


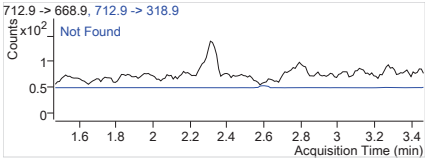
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



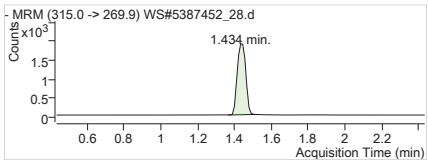


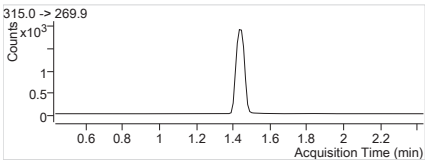
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



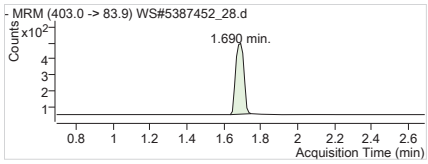


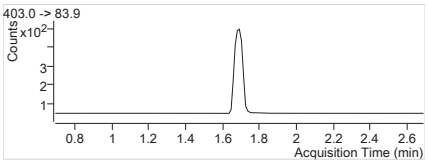
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



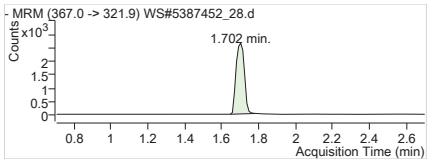


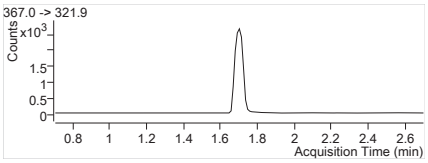
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 92.80 µg/L
Area ratio: 0.19834
Sample type: Sample



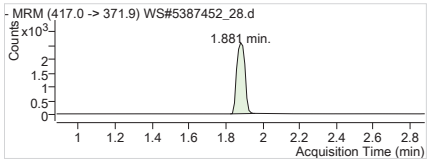


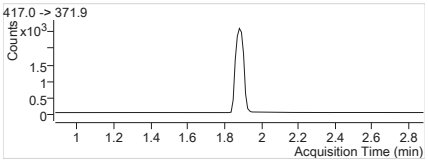
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 79.07 µg/L
Area ratio: 0.04586
Sample type: Sample



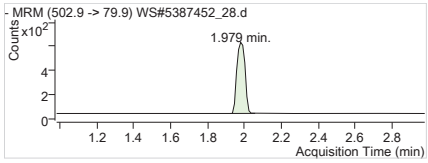


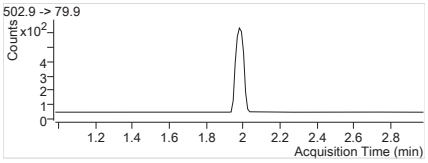
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 97.93 µg/L
Area ratio: 0.27002
Sample type: Sample



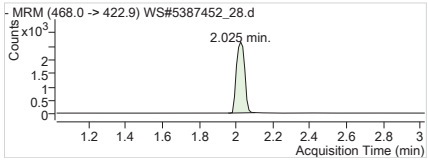


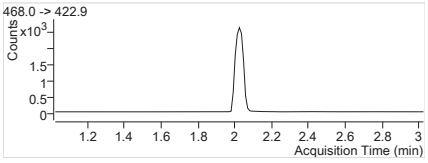
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 88.10 µg/L
Area ratio: 0.26137
Sample type: Sample



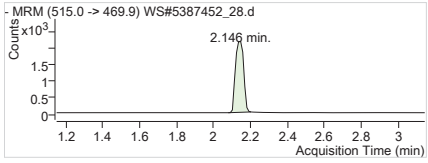


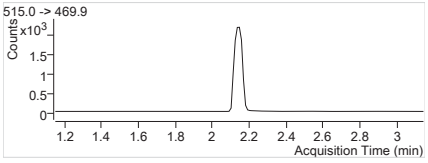
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 83.10 µg/L
Area ratio: 0.05941
Sample type: Sample



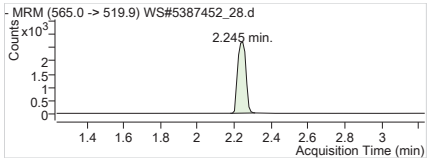


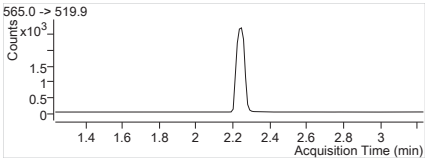
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 87.84 µg/L
Area ratio: 0.26630
Sample type: Sample



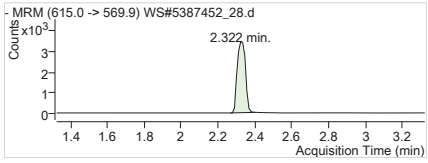


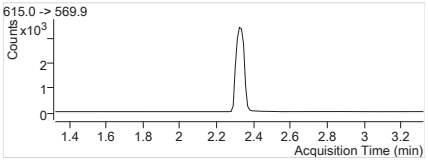
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 94.82 µg/L
Area ratio: 0.17286
Sample type: Sample



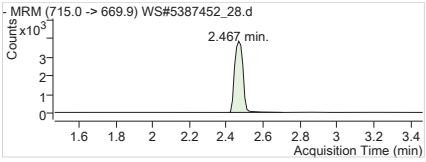


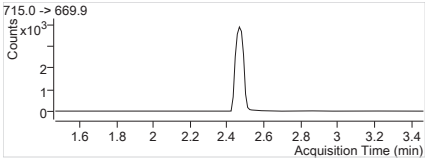
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 93.65 µg/L
Area ratio: 0.21417
Sample type: Sample



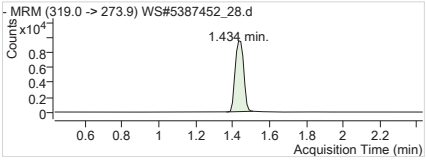


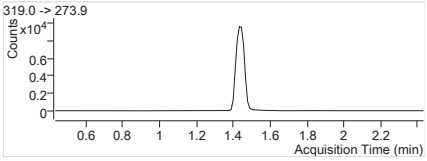
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 88.53 µg/L
Area ratio: 0.27497
Sample type: Sample



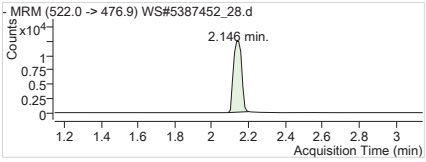


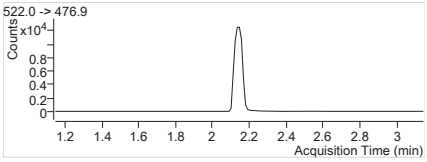
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	84.78 µg/L
Area ratio:	0.31116
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	3.13 µg/L
Area ratio:	0
Sample type:	Sample





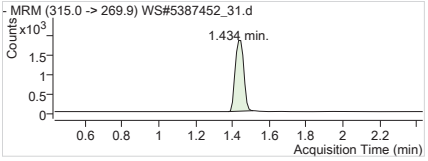
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.94 µg/L
Area ratio:	0
Sample type:	Sample

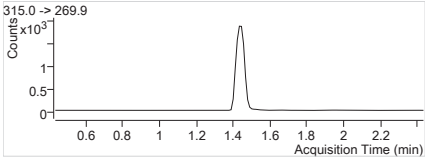
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	IB	**Instrument**	LCMS04
Data File	WS#5387452_31.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-A8
Acq. Date	2018/02/08 2:57:01 AM	**Injection Volume**	Per Method
Sample Annotation	-		

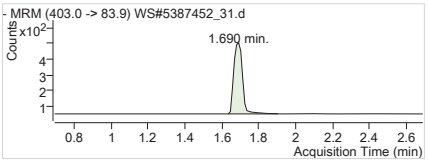
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5924	1.43	1 µg/L		
MPFHxS	1498	1.69	1 µg/L		
MPFHpA	8313	1.70	1 µg/L		
MPFOA	8370	1.88	1 µg/L		
MPFOS	1874	1.98	1 µg/L		
MPFNA	8488	2.02	1 µg/L		
MPFDA	7301	2.15	1 µg/L		
MPFUnA	8336	2.23	1 µg/L		
MPFDoA	10939	2.32	1 µg/L		
MPFTeDA	12137	2.47	1 µg/L		
13C6-PFHxA IS	30795	1.43	1 µg/L		
13C9-PFDA IS	38294	2.13	1 µg/L		

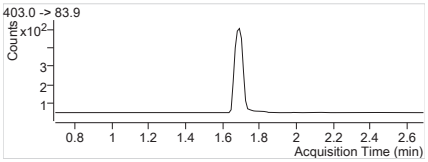
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5924	1.43	-	90.01 µg/L	-
18O2-PFHxS	1498	1.69	-	83.88 µg/L	-
13C4-PFHpA	8313	1.70	-	97.90 µg/L	-
13C4-PFOA	8370	1.88	-	91.62 µg/L	-
13C4-PFOS	1874	1.98	-	85.11 µg/L	-
13C5-PFNA	8487	2.02	-	90.90 µg/L	-
13C2-PFDA	7125	2.15	-	102.06 µg/L	-
13C2-PFUnA	8336	2.23	-	95.19 µg/L	-
13C2-PFDoA	10939	2.32	-	91.97 µg/L	-
13C2-PFTeDA	12349	2.47	-	87.87 µg/L	-
13C6-PFHxA	30795	1.43	-	3.17 µg/L	-
13C9-PFDA	38294	2.13	-	2.92 µg/L	-



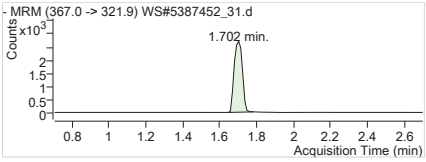


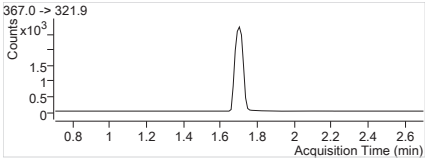
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



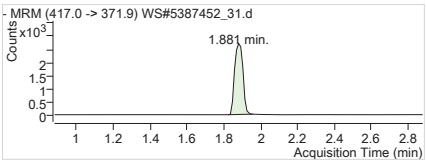


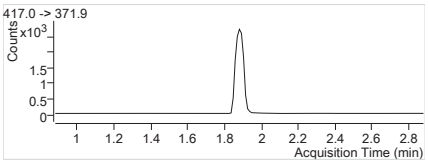
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



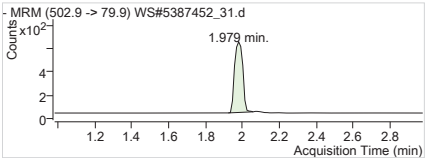


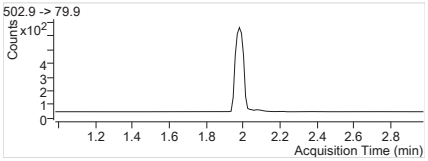
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



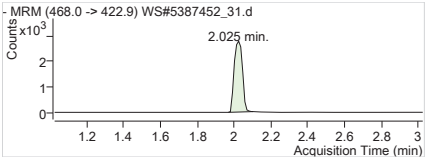


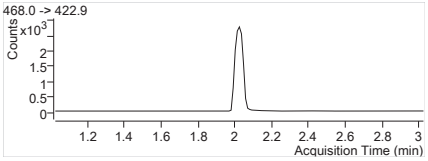
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



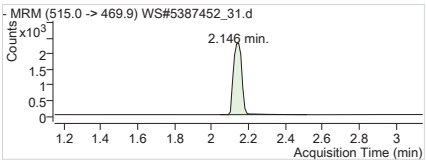


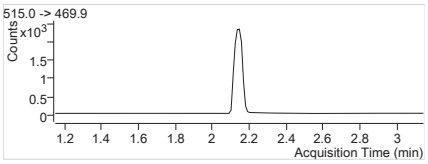
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



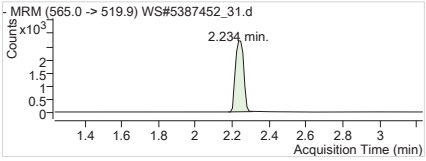


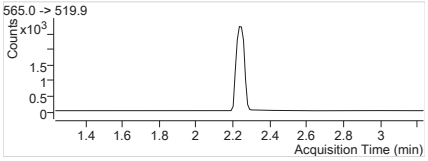
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



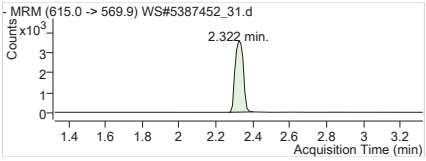


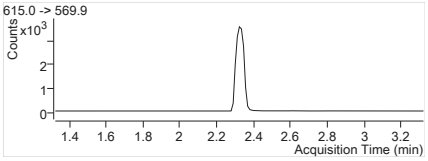
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



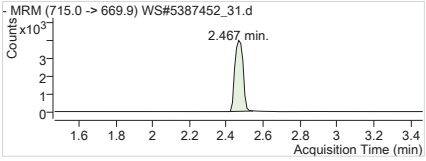


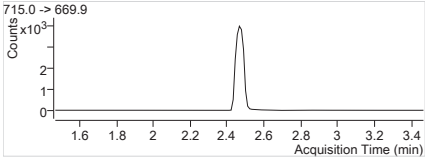
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



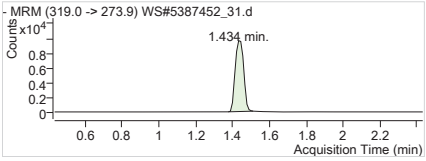


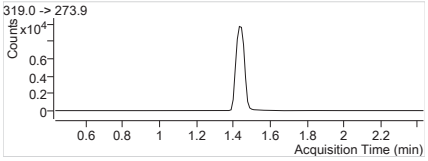
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



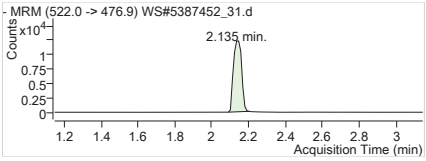


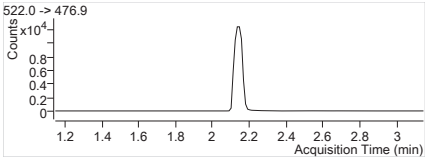
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



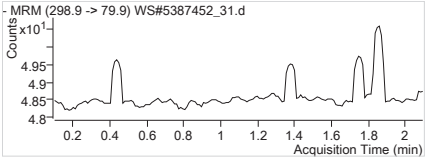


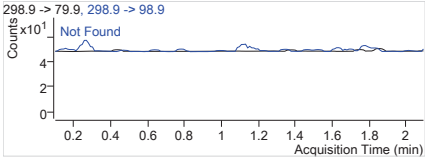
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



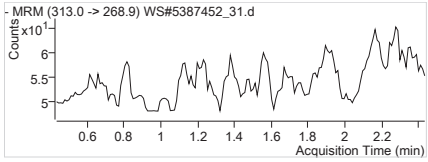


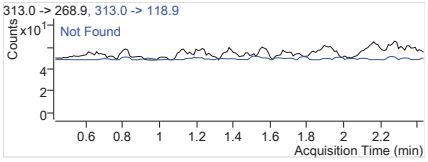
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: Sample



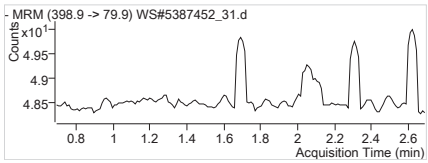


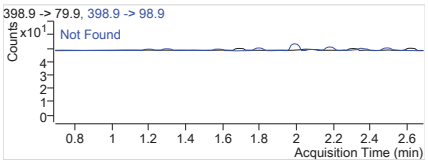
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



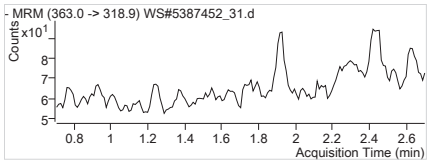


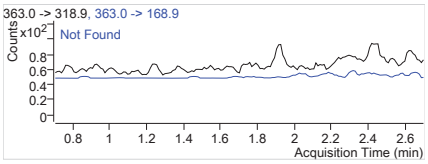
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



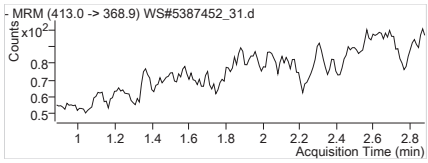


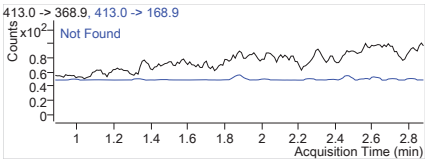
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



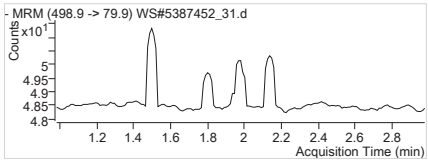


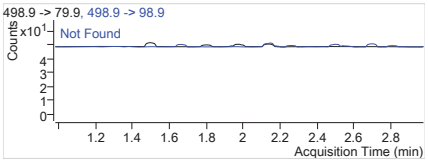
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



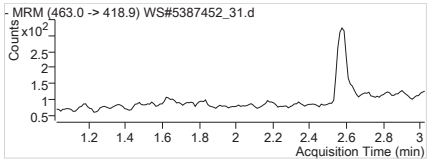


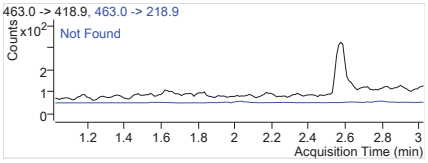
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



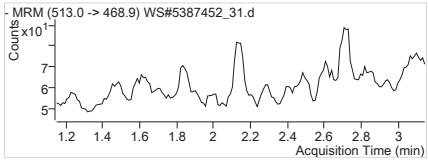


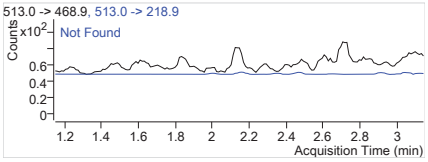
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



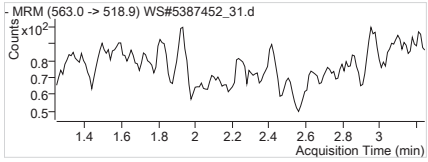


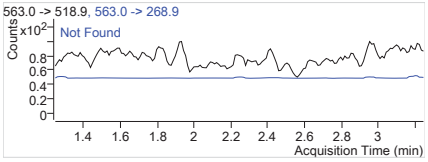
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



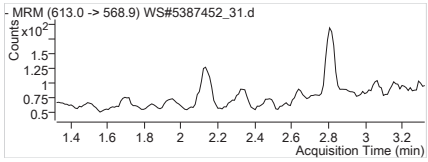


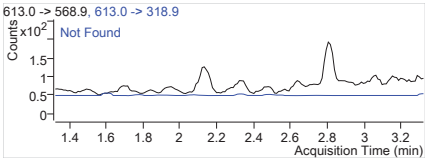
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



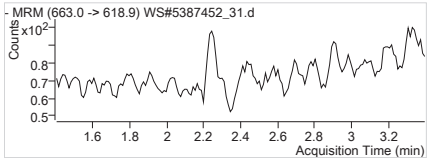


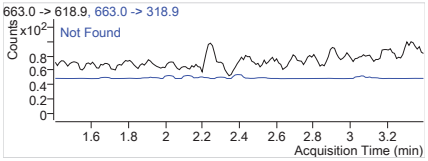
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



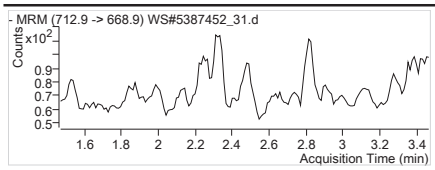


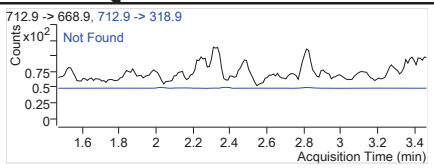
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



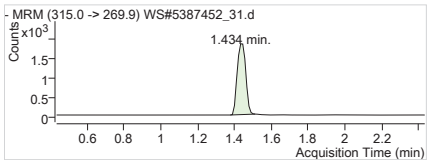


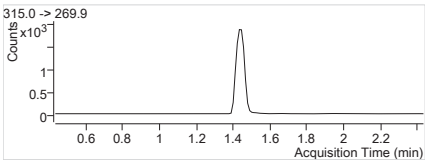
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



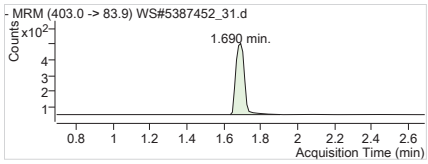


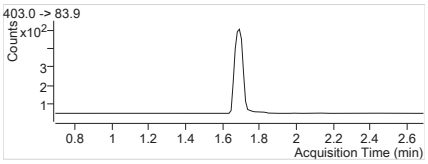
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



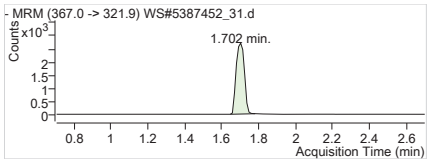


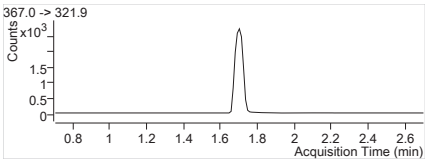
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 90.01 µg/L
Area ratio: 0.19237
Sample type: Sample



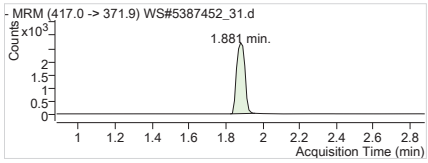


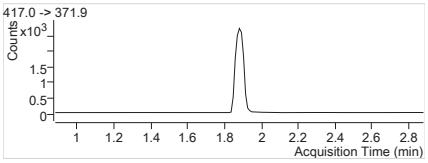
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 83.88 µg/L
Area ratio: 0.04864
Sample type: Sample



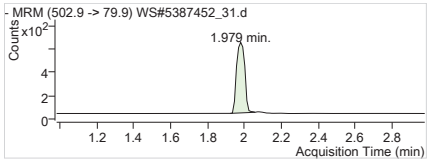


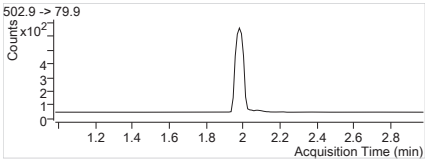
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 97.90 µg/L
Area ratio: 0.26995
Sample type: Sample



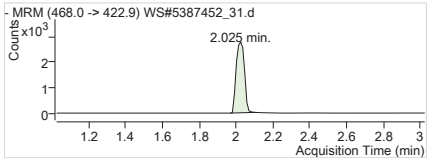


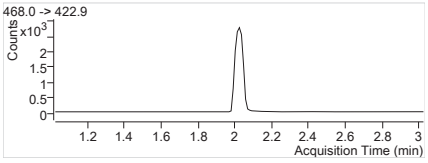
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 91.62 µg/L
Area ratio: 0.27180
Sample type: Sample



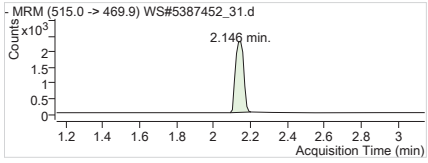


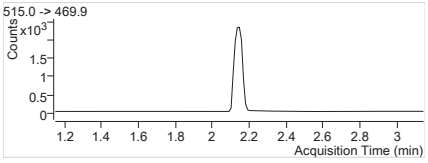
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 85.11 µg/L
Area ratio: 0.06085
Sample type: Sample



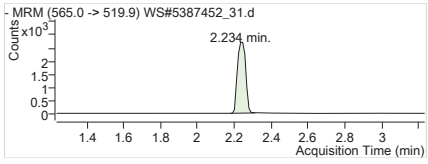


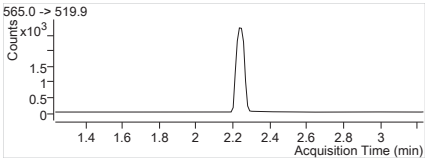
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 90.90 µg/L
Area ratio: 0.27560
Sample type: Sample



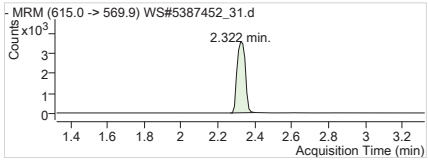


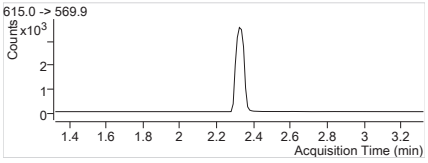
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 102.06 µg/L
Area ratio: 0.18606
Sample type: Sample



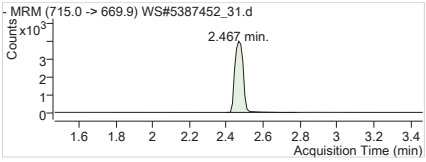


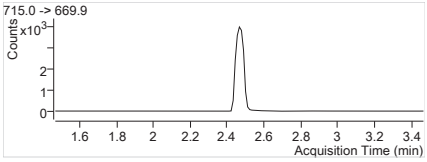
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 95.19 µg/L
Area ratio: 0.21768
Sample type: Sample



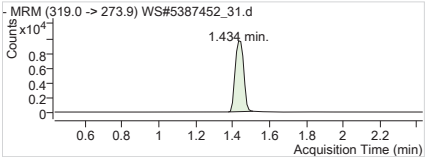


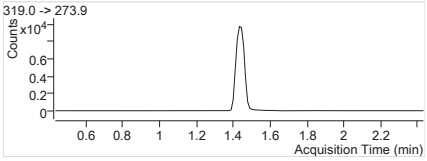
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 91.97 µg/L
Area ratio: 0.28566
Sample type: Sample



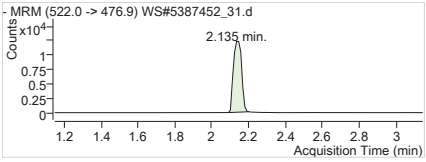


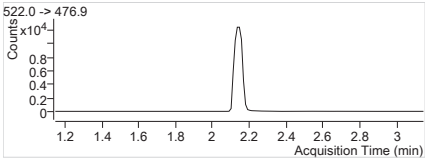
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	87.87 µg/L
Area ratio:	0.32248
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	3.17 µg/L
Area ratio:	0
Sample type:	Sample





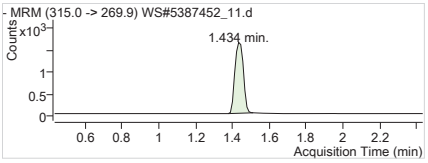
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.146)
Calc. conc.	2.92 µg/L
Area ratio:	0
Sample type:	Sample

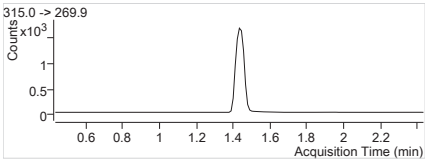
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:BLANK**	**Instrument**	LCMS04
Data File	WS#5387452_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-B1
Acq. Date	2018/02/08 1:18:20 AM	**Injection Volume**	Per Method
Sample Annotation	-		

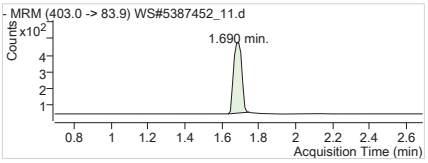
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5187	1.43	1 µg/L		
MPFHxS	1317	1.69	1 µg/L		
MPFHpA	6788	1.70	1 µg/L		
MPFOA	7609	1.88	1 µg/L		
MPFOS	1575	1.98	1 µg/L		
MPFNA	7016	2.02	1 µg/L		
MPFDA	5814	2.15	1 µg/L		
MPFUnA	6828	2.25	1 µg/L		
MPFDoA	8990	2.32	1 µg/L		
MPFTeDA	10101	2.47	1 µg/L		
13C6-PFHxA IS	26906	1.43	1 µg/L		
13C9-PFDA IS	38785	2.15	1 µg/L		

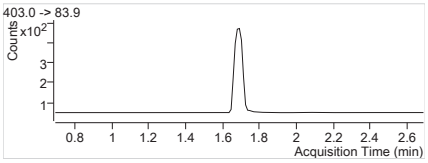
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5187	1.43	-	90.21 µg/L	-
18O2-PFHxS	1317	1.69	-	84.40 µg/L	-
13C4-PFHpA	6788	1.70	-	91.49 µg/L	-
13C4-PFOA	7609	1.88	-	95.32 µg/L	-
13C4-PFOS	1575	1.98	-	81.87 µg/L	-
13C5-PFNA	7015	2.02	-	86.00 µg/L	-
13C2-PFDA	5671	2.15	-	80.20 µg/L	-
13C2-PFUnA	6828	2.25	-	76.98 µg/L	-
13C2-PFDoA	8990	2.32	-	74.63 µg/L	-
13C2-PFTeDA	10282	2.47	-	72.24 µg/L	-
13C6-PFHxA	26906	1.43	-	2.77 µg/L	-
13C9-PFDA	38785	2.15	-	2.95 µg/L	-



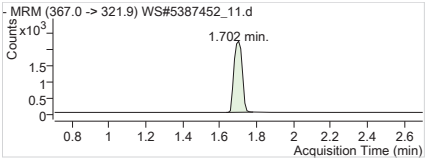


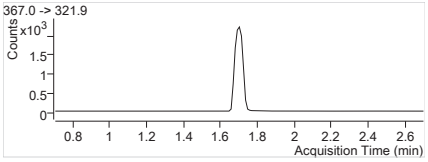
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



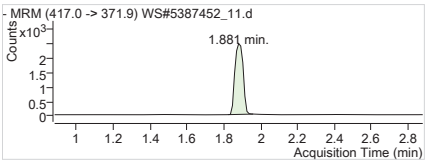


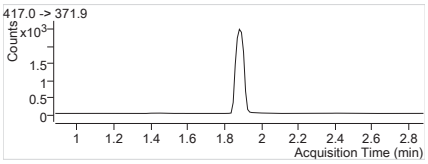
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



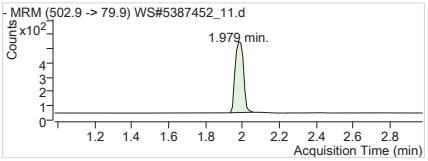


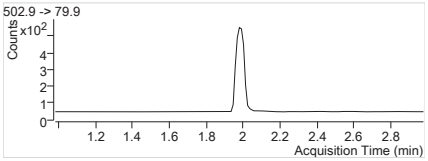
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



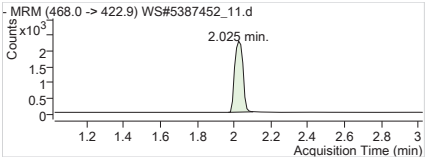


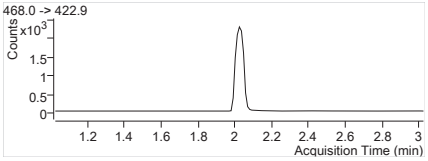
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



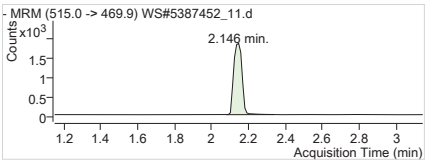


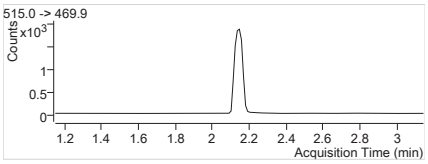
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



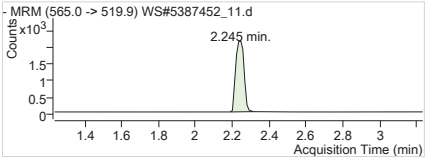


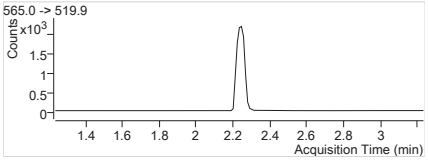
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



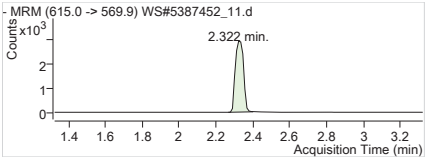


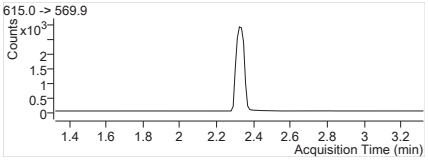
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



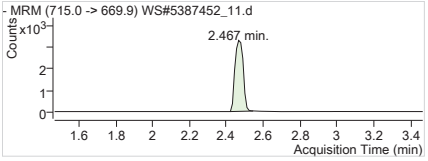


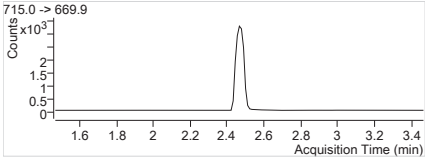
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



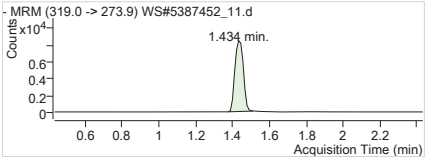


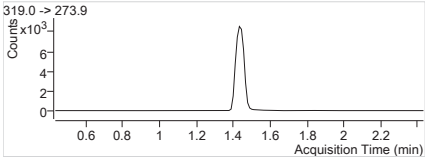
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



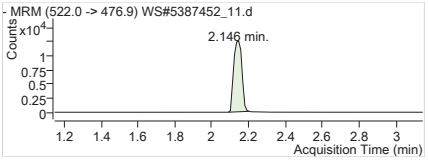


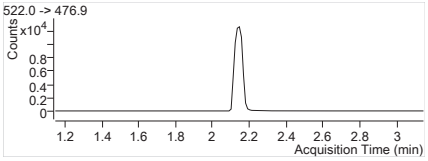
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



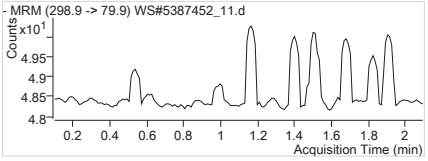


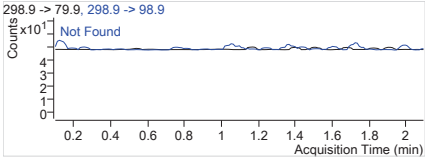
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



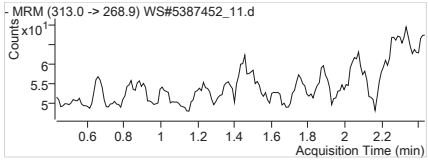


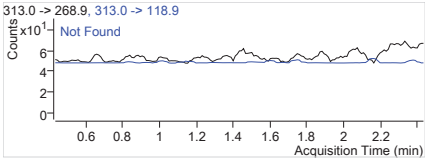
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



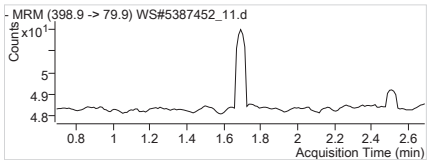


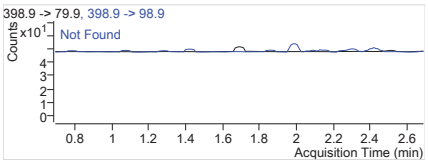
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



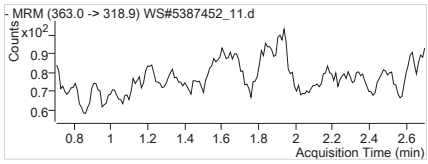


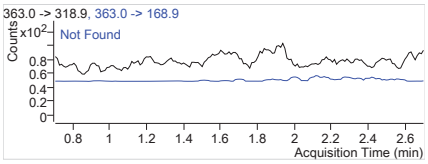
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



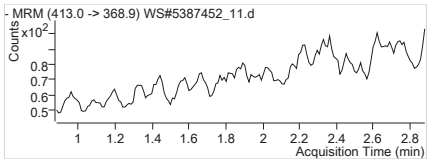


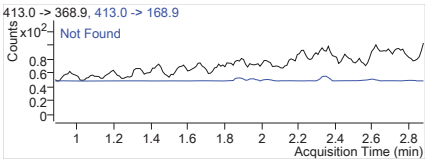
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



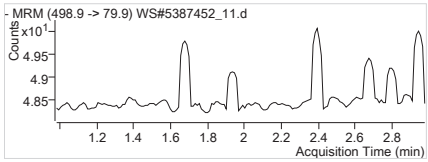


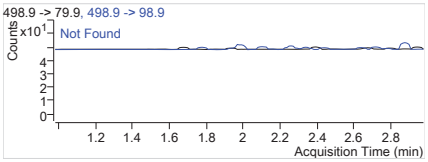
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.702)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



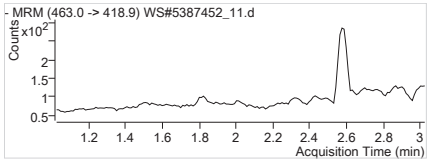


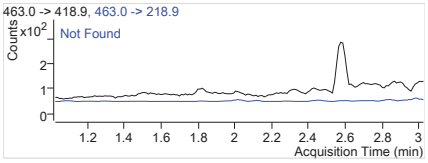
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



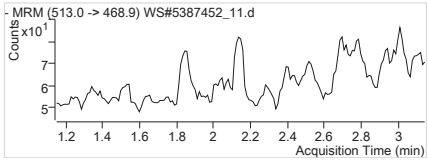


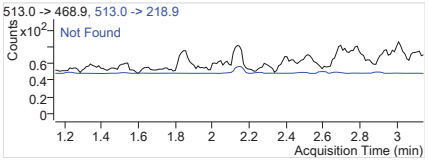
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.979)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



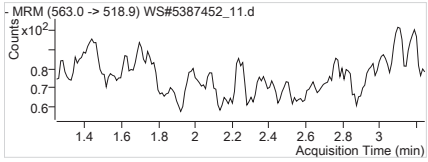


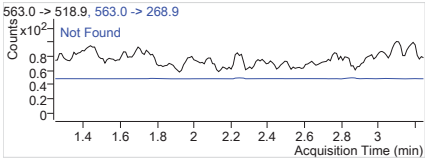
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.025)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



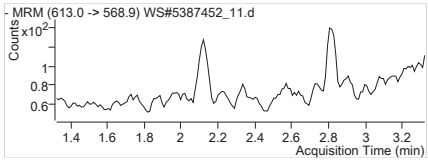


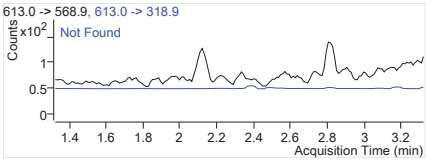
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.147)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



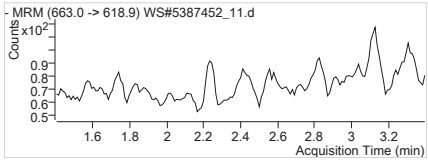


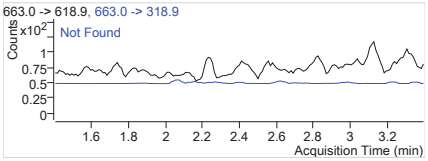
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.246)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



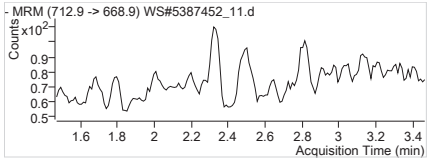


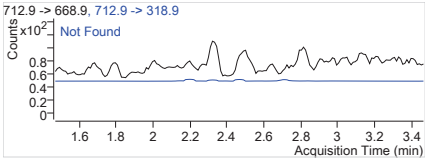
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



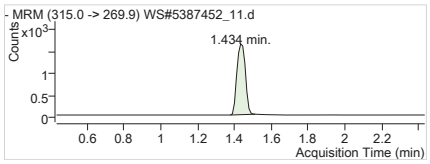


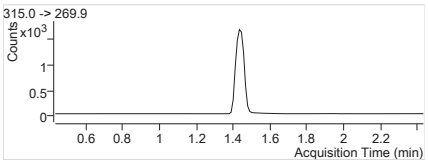
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



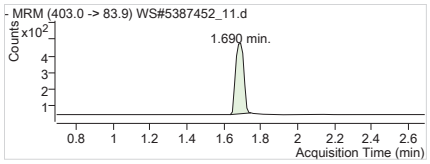


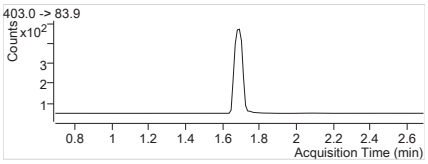
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



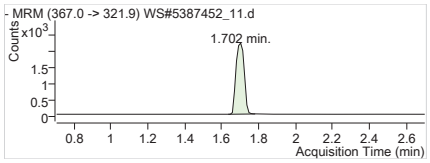


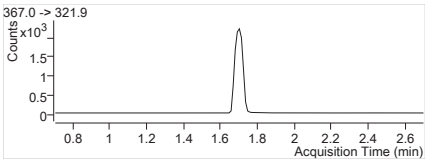
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 90.21 µg/L
Area ratio: 0.19278
Sample type: Sample



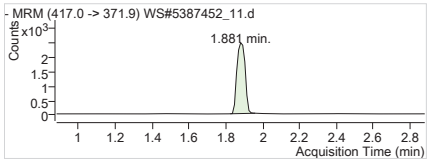


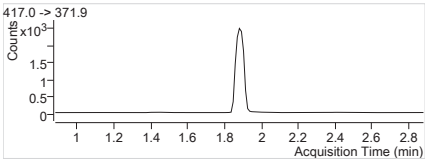
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 84.40 µg/L
Area ratio: 0.04895
Sample type: Sample



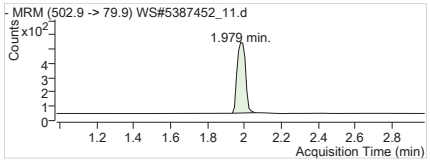


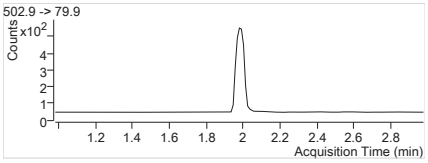
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 91.49 µg/L
Area ratio: 0.25229
Sample type: Sample



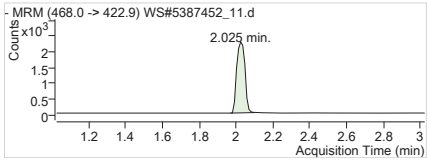


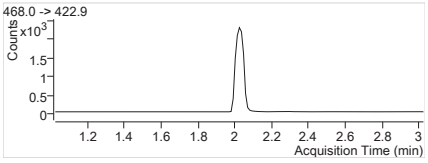
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 95.32 µg/L
Area ratio: 0.28280
Sample type: Sample



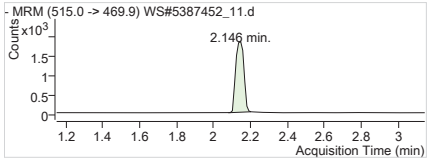


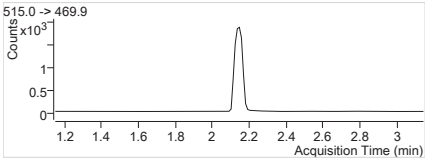
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 81.87 µg/L
Area ratio: 0.05854
Sample type: Sample



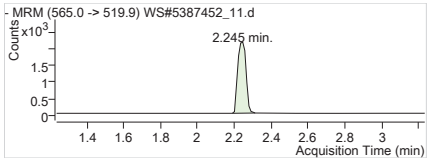


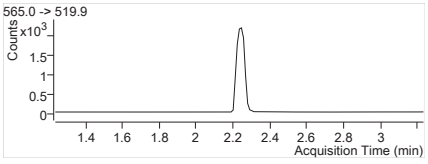
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 86.00 µg/L
Area ratio: 0.26072
Sample type: Sample



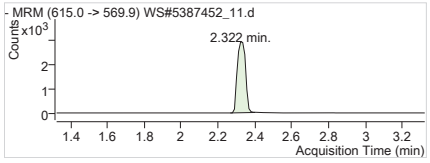


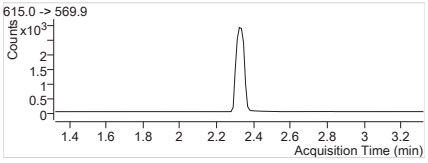
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 80.20 µg/L
Area ratio: 0.14622
Sample type: Sample



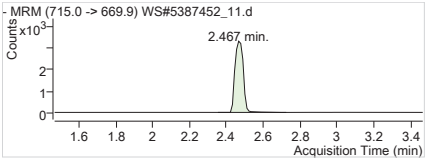


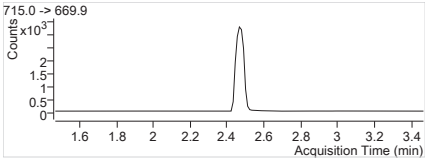
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 76.98 µg/L
Area ratio: 0.17605
Sample type: Sample



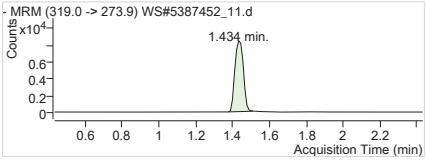


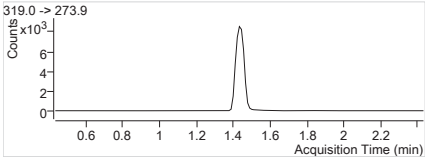
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 74.63 µg/L
Area ratio: 0.23179
Sample type: Sample



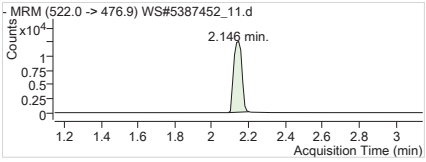


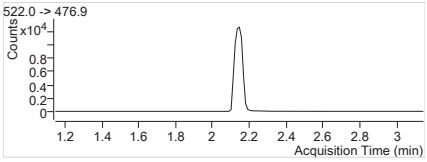
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	72.24 µg/L
Area ratio:	0.26510
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	2.77 µg/L
Area ratio:	0
Sample type:	Sample





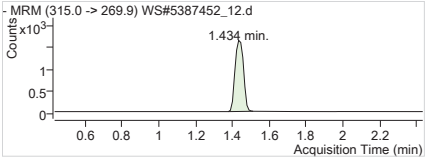
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.95 µg/L
Area ratio:	0
Sample type:	Sample

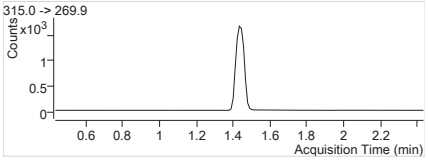
Batch Path	T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:SPIKE**	**Instrument**	LCMS04
Data File	WS#5387452_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-B2
Acq. Date	2018/02/08 1:23:17 AM	**Injection Volume**	Per Method
Sample Annotation	-		

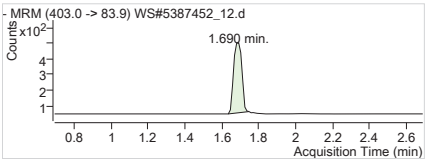
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5151	1.43	1 µg/L		
MPFHxS	1402	1.69	1 µg/L		
MPFHpA	7537	1.70	1 µg/L		
MPFOA	7812	1.88	1 µg/L		
MPFOS	1776	1.98	1 µg/L		
MPFNA	7254	2.02	1 µg/L		
MPFDA	6176	2.15	1 µg/L		
MPFUnA	7473	2.25	1 µg/L		
MPFDoA	9864	2.32	1 µg/L		
MPFTeDA	10323	2.47	1 µg/L		
13C6-PFHxA IS	27268	1.43	1 µg/L		
13C9-PFDA IS	36952	2.15	1 µg/L		

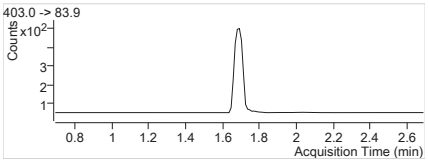
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	11915	1.10	20.80	0.39 µg/L	78.28
PFHxA 1	41649	1.43	20.80	0.46 µg/L	91.65
PFHxS 1	11593	1.68	20.80	0.40 µg/L	79.47
PFHpA 1	54947	1.70	20.80	0.43 µg/L	85.89
PFOA 1	61893	1.88	20.80	0.43 µg/L	86.56
PFOS 1	11754	1.98	20.80	0.41 µg/L	82.17
PFNA 1	57041	2.03	20.80	0.48 µg/L	95.69
PFDA 1	62732	2.15	20.80	0.47 µg/L	93.93
PFUnA 1	68016	2.25	20.80	0.47 µg/L	94.73
PFDoA 1	80044	2.32	20.80	0.44 µg/L	88.66
PFTrDA 1	84005	2.40	20.80	0.44 µg/L	88.60
PFTeDA 1	75684	2.47	20.80	0.47 µg/L	93.54
13C2-PFHxA	5151	1.43	100.00	88.39 µg/L	88.39
18O2-PFHxS	1402	1.69	100.00	88.66 µg/L	88.66
13C4-PFHpA	7537	1.70	100.00	100.24 µg/L	100.24
13C4-PFOA	7812	1.88	100.00	96.57 µg/L	96.57
13C4-PFOS	1776	1.98	100.00	91.10 µg/L	91.10
13C5-PFNA	7253	2.02	100.00	87.73 µg/L	87.73
13C2-PFDA	6016	2.15	100.00	89.30 µg/L	89.30
13C2-PFUnA	7473	2.25	100.00	88.43 µg/L	88.43
13C2-PFDoA	9864	2.32	100.00	85.94 µg/L	85.94
13C2-PFTeDA	10566	2.47	100.00	77.91 µg/L	77.91
13C6-PFHxA	27268	1.43	100.00	2.81 µg/L	116.98
13C9-PFDA	36952	2.15	100.00	2.81 µg/L	117.25



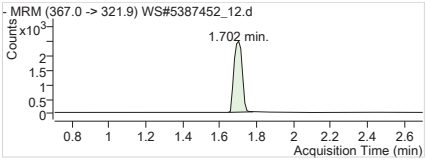


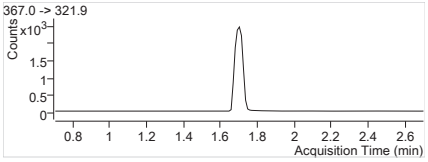
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: QC



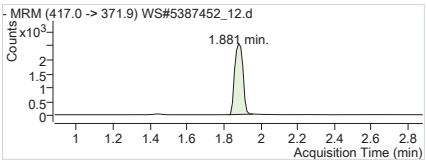


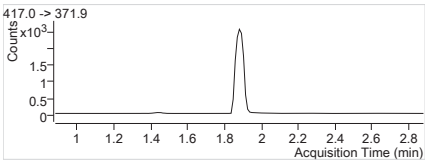
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



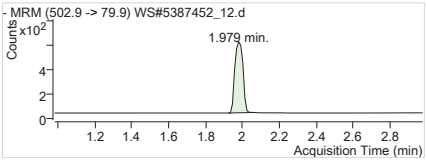


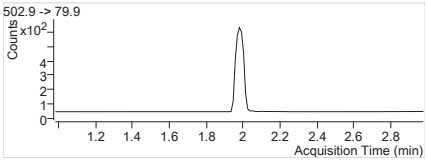
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: QC



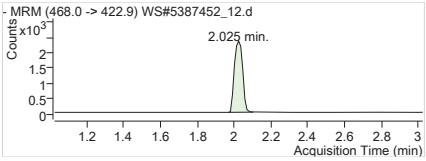


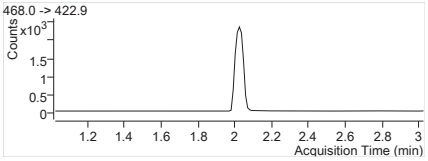
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: QC



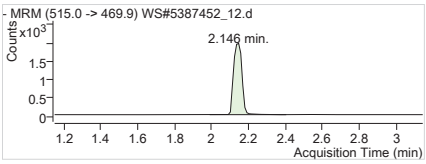


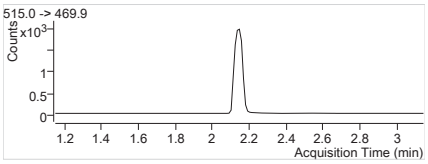
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



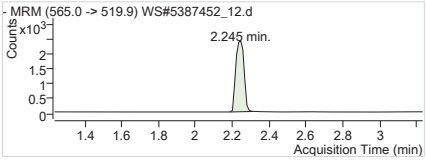


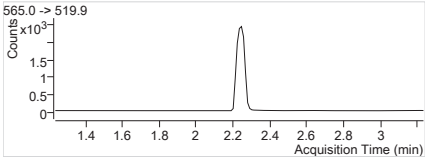
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: QC



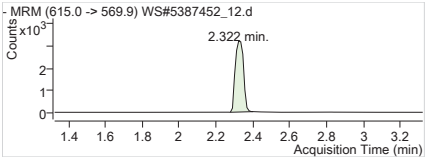


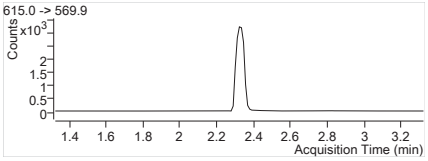
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



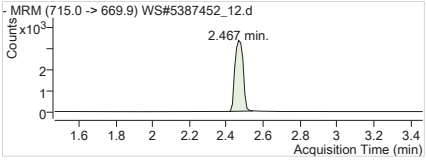


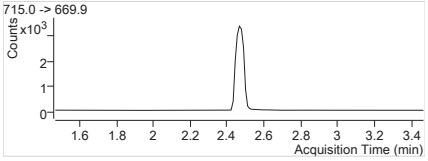
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: QC



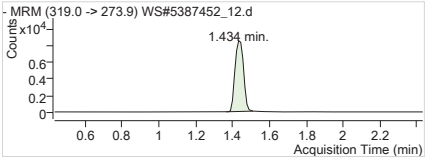


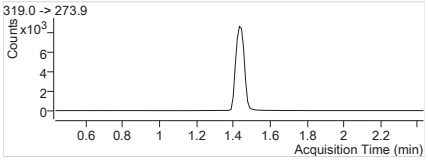
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



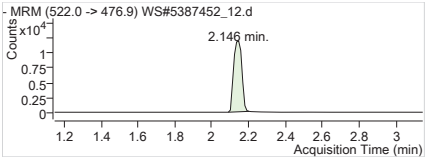


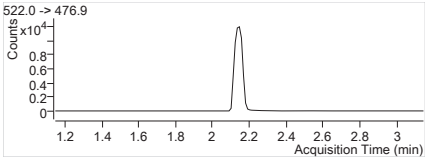
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



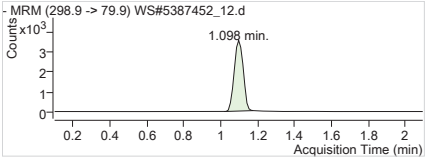


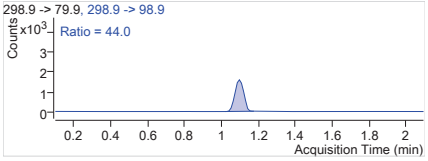
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: QC



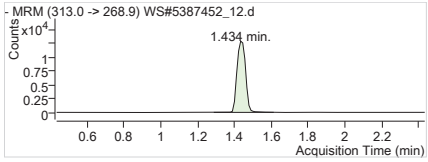


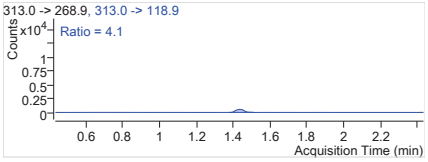
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



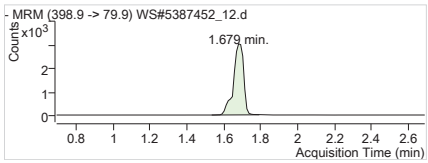


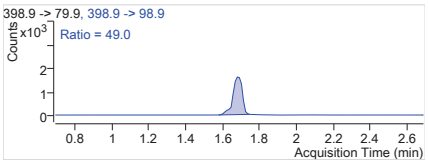
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 0.39 µg/L
Area ratio: 8.49857
Sample type: QC



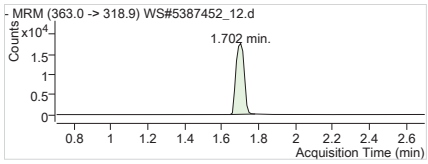


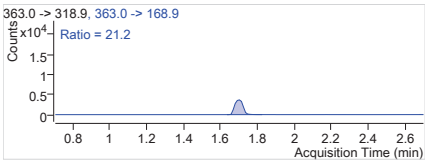
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.46 µg/L
Area ratio: 8.08561
Sample type: QC



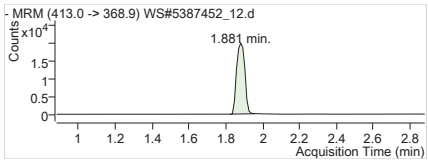


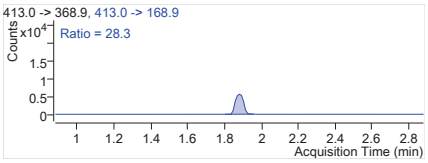
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 0.40 µg/L
Area ratio: 8.26890
Sample type: QC



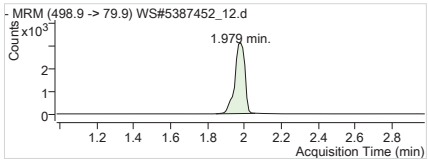


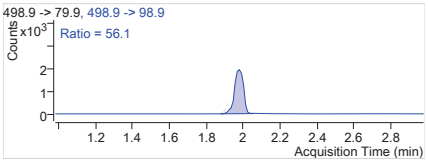
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.43 µg/L
Area ratio: 7.29030
Sample type: QC



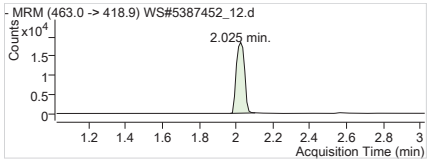


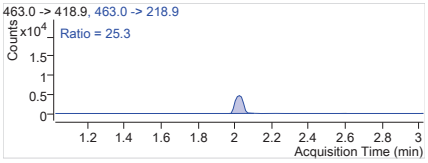
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.43 µg/L
Area ratio: 7.92281
Sample type: QC



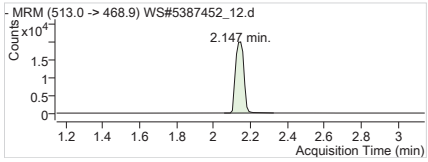


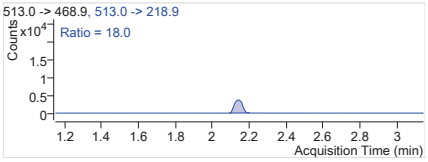
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.41 µg/L
Area ratio: 6.61824
Sample type: QC



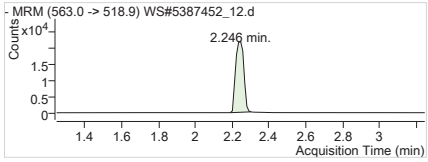


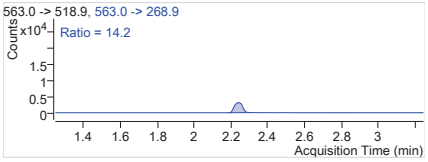
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 0.48 µg/L
Area ratio: 7.86339
Sample type: QC



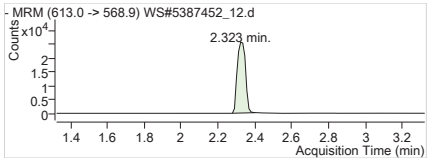


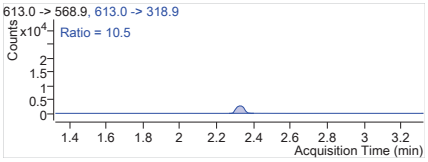
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 0.47 µg/L
Area ratio: 10.15738
Sample type: QC



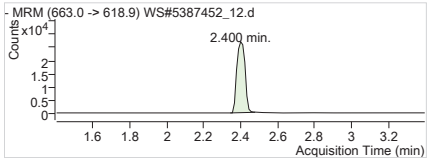


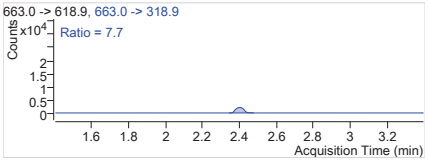
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.47 µg/L
Area ratio: 9.10157
Sample type: QC



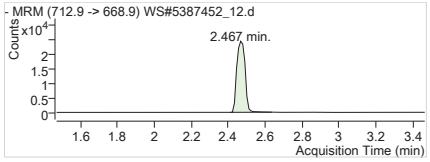


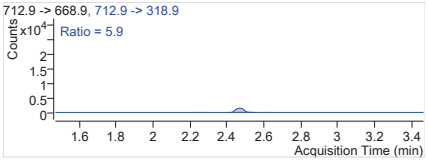
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.44 µg/L
Area ratio: 8.11476
Sample type: QC



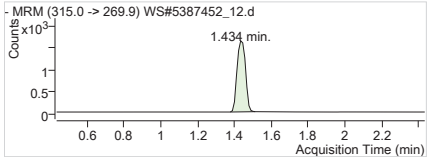


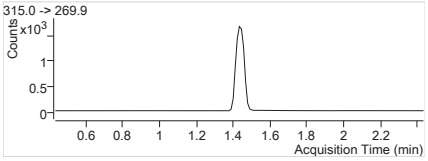
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.44 µg/L
Area ratio: 8.13765
Sample type: QC



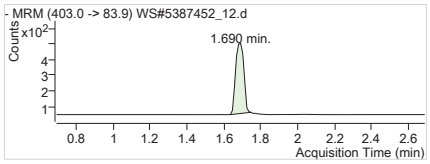


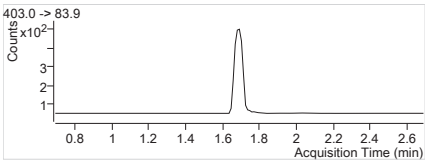
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.47 µg/L
Area ratio: 7.33159
Sample type: QC



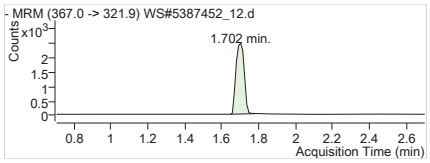


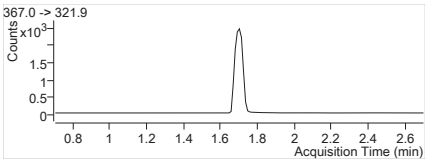
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 88.39 µg/L
Area ratio: 0.18890
Sample type: QC



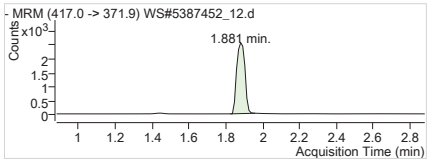


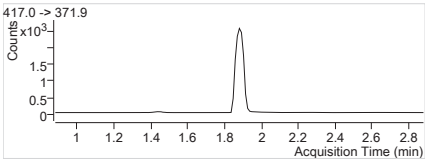
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 88.66 µg/L
Area ratio: 0.05142
Sample type: QC



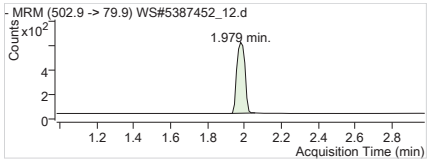


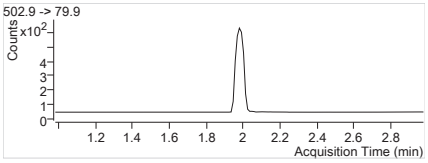
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 100.24 µg/L
Area ratio: 0.27640
Sample type: QC



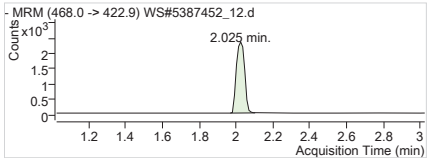


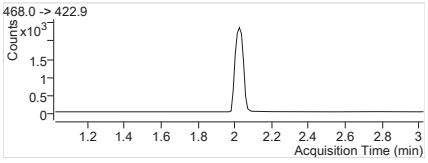
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 96.57 µg/L
Area ratio: 0.28649
Sample type: QC



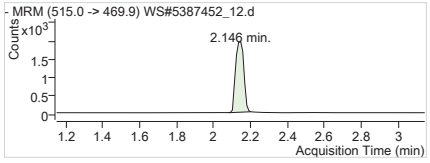


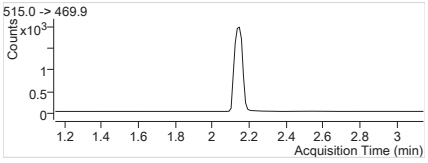
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 91.10 µg/L
Area ratio: 0.06513
Sample type: QC



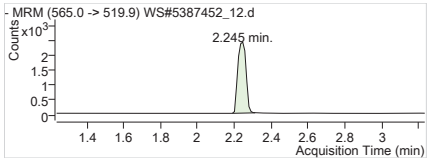


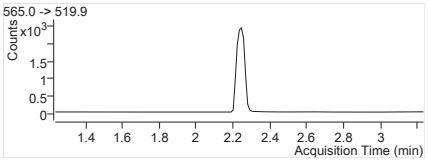
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 87.73 µg/L
Area ratio: 0.26599
Sample type: QC



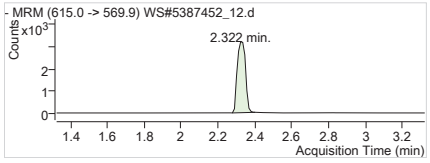


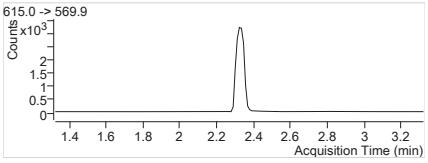
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 89.30 µg/L
Area ratio: 0.16281
Sample type: QC



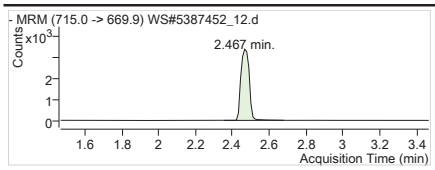


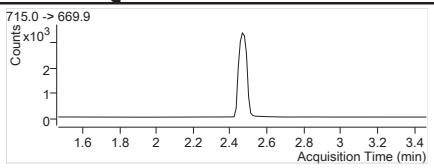
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 88.43 µg/L
Area ratio: 0.20224
Sample type: QC



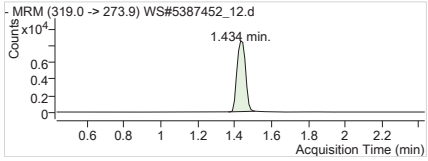


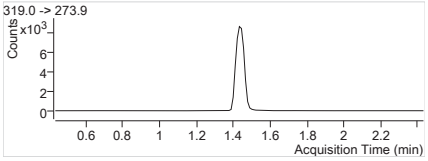
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 85.94 µg/L
Area ratio: 0.26694
Sample type: QC



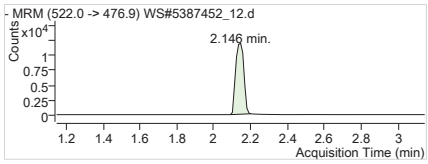


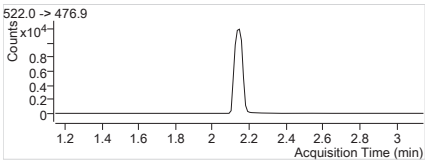
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	77.91 µg/L
Area ratio:	0.28594
Sample type:	QC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	2.81 µg/L
Area ratio:	0
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	2.81 µg/L
Area ratio:	0
Sample type:	QC

Quantitation Results

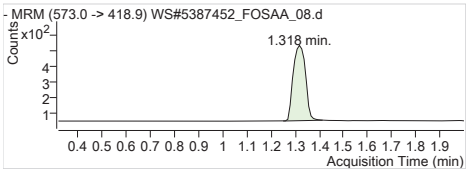
Agilent Technologies

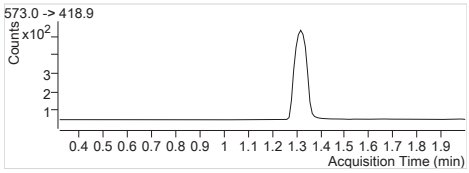
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A8
Acq. Date	2018/02/08 8:33:41 AM	**Injection Volume**	Per Method
Sample Annotation	-		

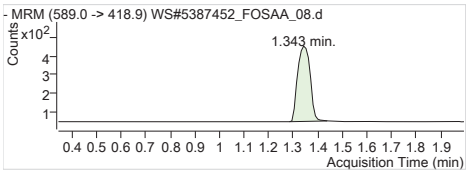
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1703	1.32	1 µg/L		
D5-EtFOSAA IS	1424	1.34	1 µg/L		
13C9-PFDA IS	31705	0.93	1 µg/L		

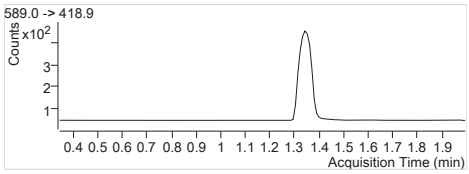
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1707	1.32	-	96.01 µg/L	-
D5-EtFOSAA	1440	1.34	-	94.59 µg/L	-
13C9-PFDA	30892	0.93	-	2.51 µg/L	-



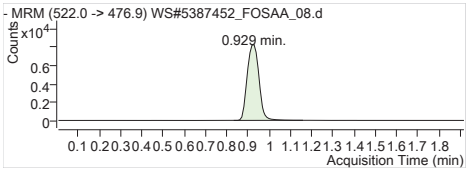


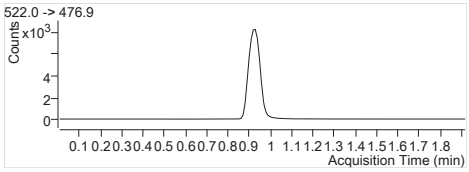
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



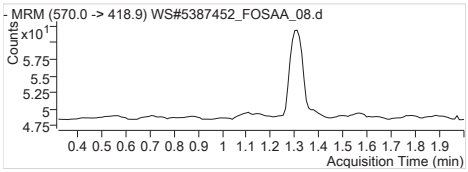


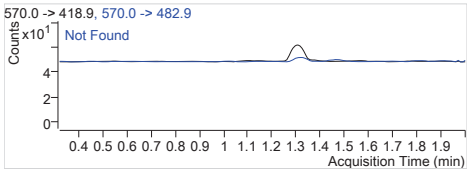
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



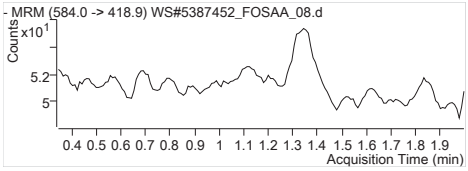


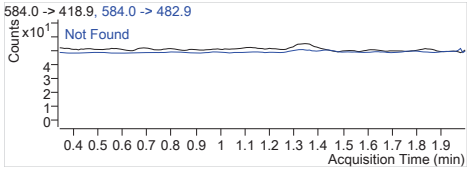
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.929 (0.919)
Concentration: 1 µg/L
Sample type: Sample



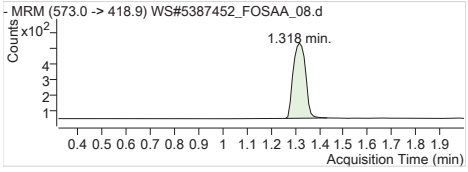


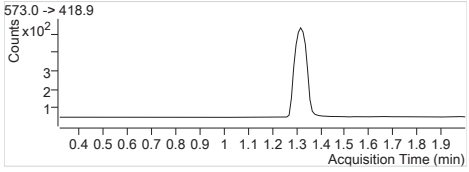
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



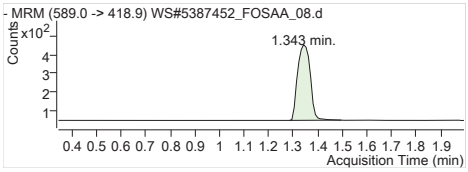


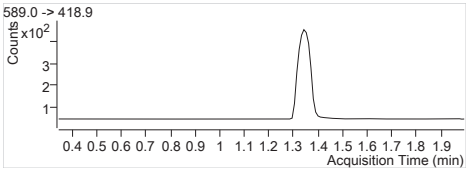
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



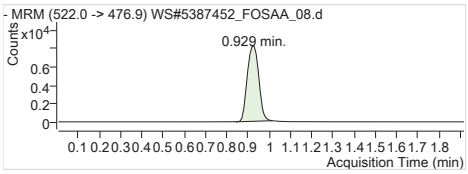


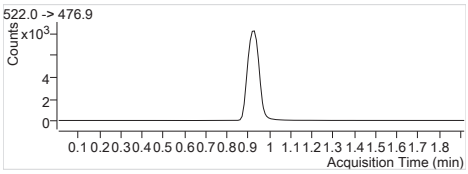
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 96.01 µg/L
Area ratio: 0.05384
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	94.59 µg/L
Area ratio:	0.04542
Sample type:	Sample





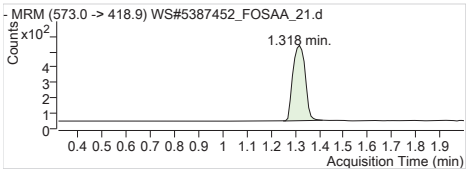
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.929 (0.919)
Calc. conc.	2.51 µg/L
Area ratio:	0
Sample type:	Sample

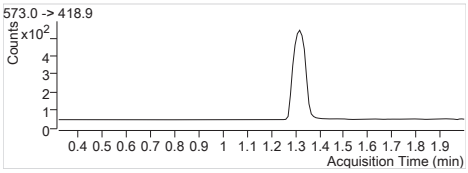
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_21.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A8
Acq. Date	2018/02/08 9:05:00 AM	**Injection Volume**	Per Method
Sample Annotation	-		

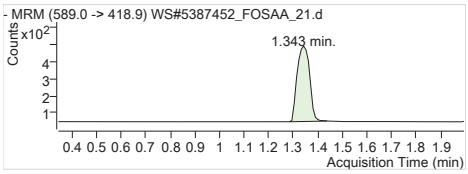
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1743	1.32	1 µg/L		
D5-EtFOSAA IS	1539	1.34	1 µg/L		
13C9-PFDA IS	32579	0.92	1 µg/L		

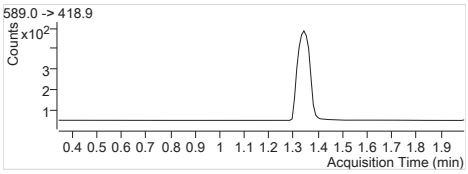
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1751	1.32	-	95.84 µg/L	-
D5-EtFOSAA	1553	1.34	-	99.28 µg/L	-
13C9-PFDA	31828	0.92	-	2.59 µg/L	-



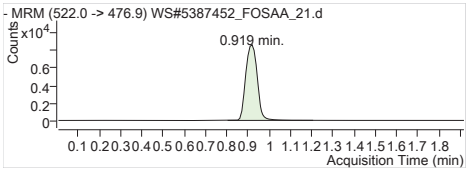


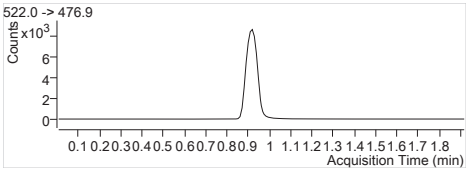
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



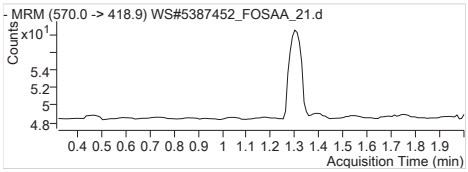


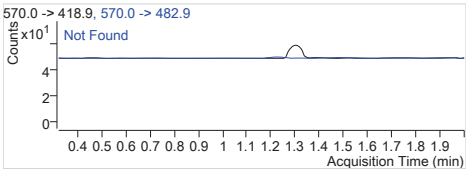
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



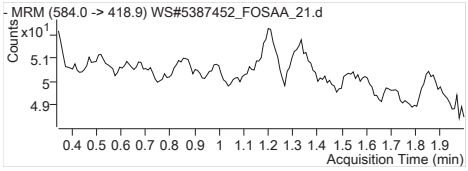


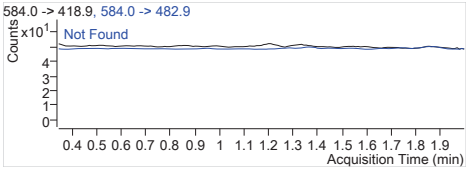
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Sample



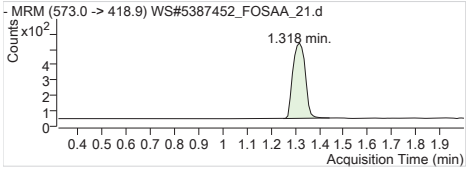


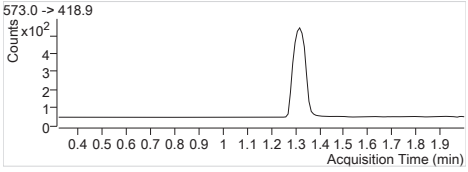
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



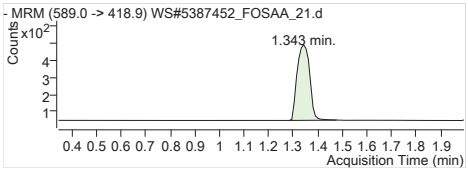


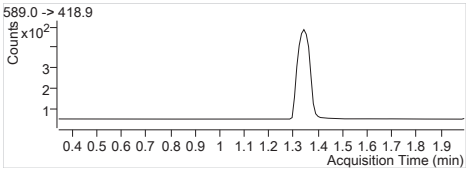
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



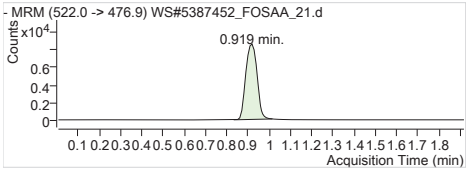


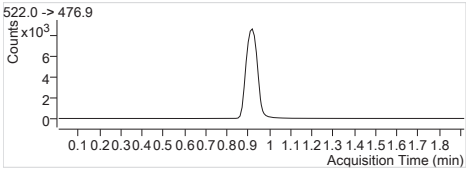
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 95.84 µg/L
Area ratio: 0.05375
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	99.28 µg/L
Area ratio:	0.04767
Sample type:	Sample





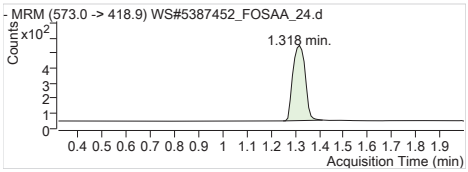
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	2.59 µg/L
Area ratio:	0
Sample type:	Sample

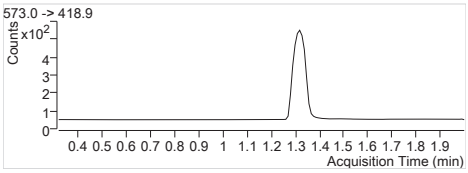
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_24.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A8
Acq. Date	2018/02/08 9:12:17 AM	**Injection Volume**	Per Method
Sample Annotation	-		

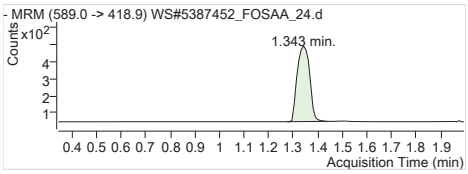
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1778	1.32	1 µg/L		
D5-EtFOSAA IS	1547	1.34	1 µg/L		
13C9-PFDA IS	32473	0.92	1 µg/L		

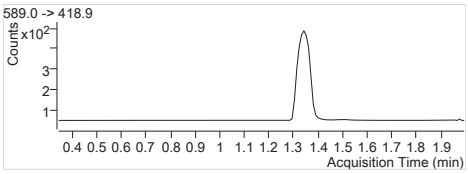
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1794	1.32	-	98.52 µg/L	-
D5-EtFOSAA	1550	1.34	-	99.41 µg/L	-
13C9-PFDA	31742	0.92	-	2.58 µg/L	-



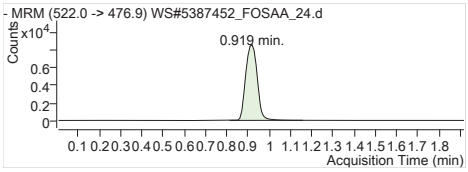


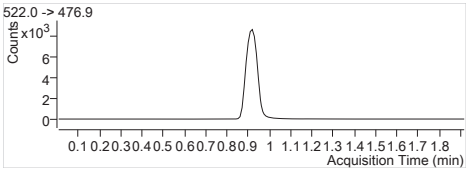
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



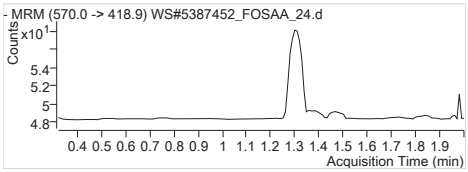


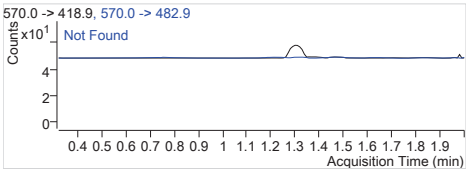
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



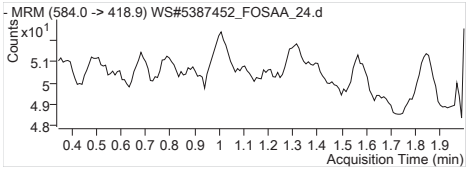


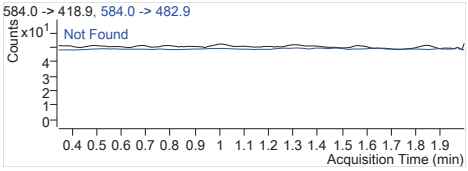
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Sample



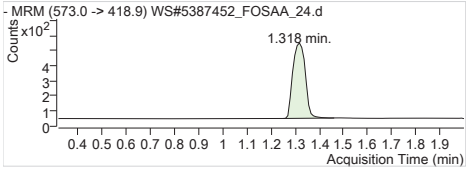


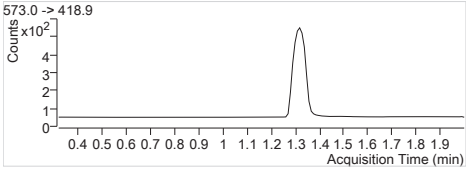
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



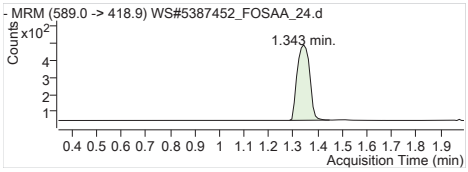


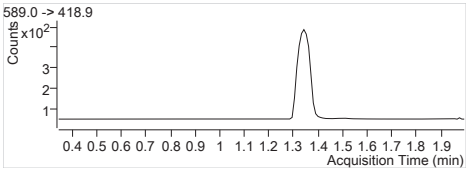
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



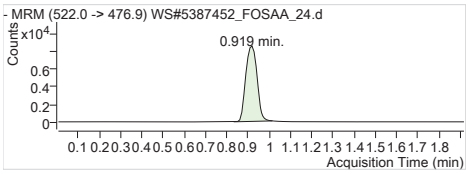


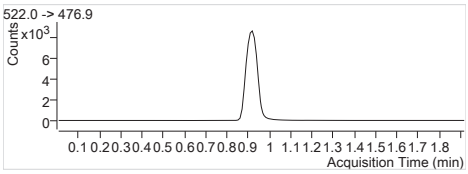
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 98.52 µg/L
Area ratio: 0.05525
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	99.41 µg/L
Area ratio:	0.04773
Sample type:	Sample





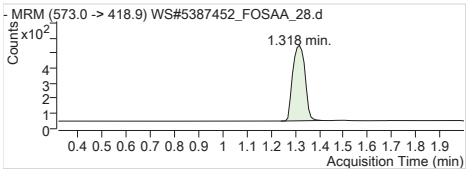
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	2.58 µg/L
Area ratio:	0
Sample type:	Sample

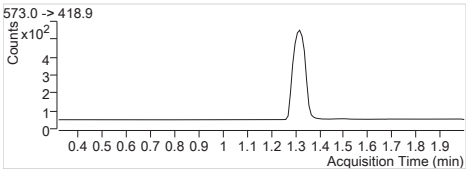
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_28.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A8
Acq. Date	2018/02/08 9:21:57 AM	**Injection Volume**	Per Method
Sample Annotation	-		

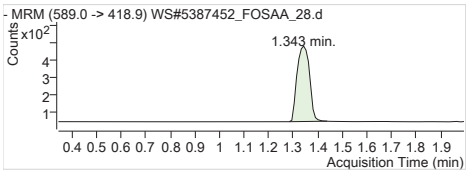
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1772	1.32	1 µg/L		
D5-EtFOSAA IS	1529	1.34	1 µg/L		
13C9-PFDA IS	32794	0.92	1 µg/L		

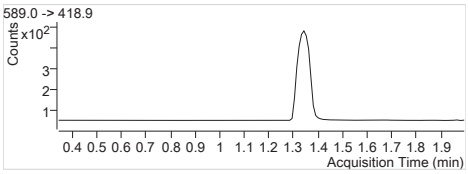
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1776	1.32	-	96.57 µg/L	-
D5-EtFOSAA	1535	1.34	-	97.48 µg/L	-
13C9-PFDA	32095	0.92	-	2.61 µg/L	-



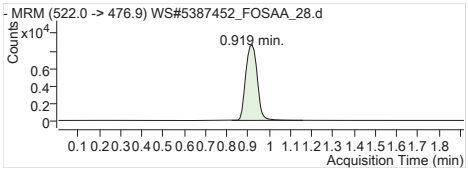


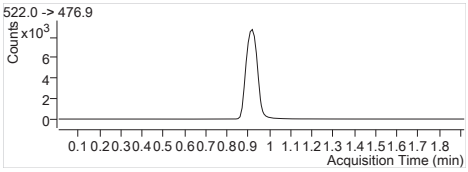
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



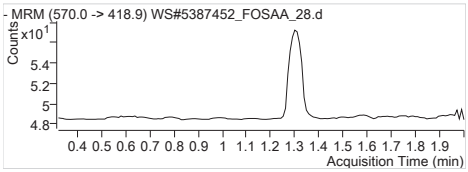


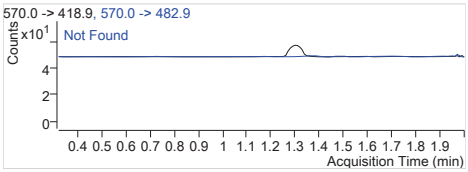
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



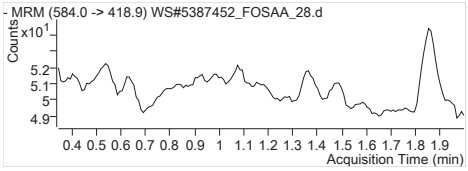


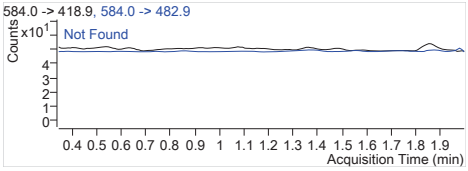
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Sample



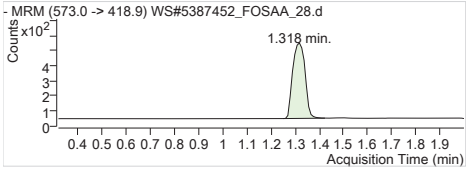


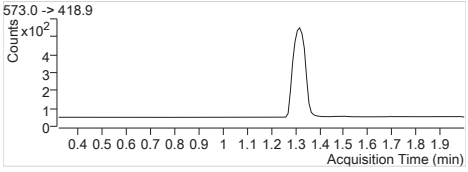
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



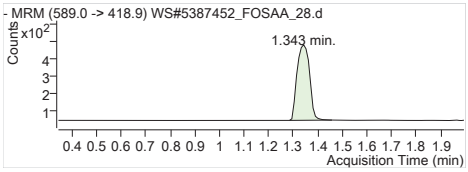


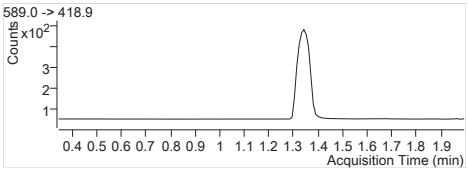
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



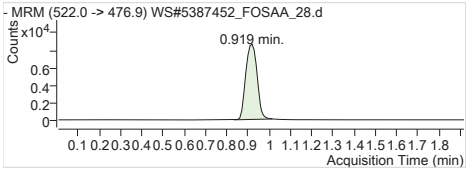


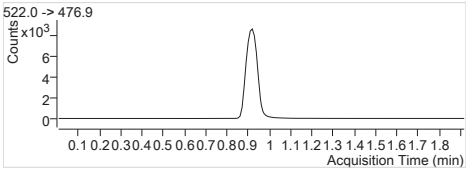
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 96.57 µg/L
Area ratio: 0.05416
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	97.48 µg/L
Area ratio:	0.04681
Sample type:	Sample





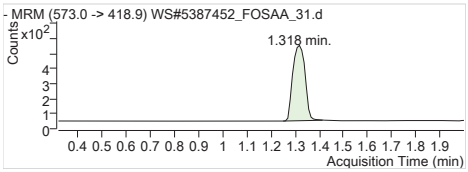
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	2.61 µg/L
Area ratio:	0
Sample type:	Sample

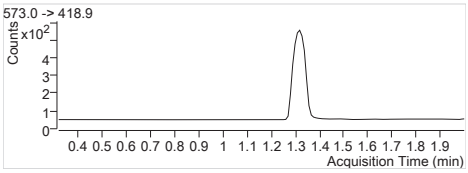
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_31.d	**Operator**	
Sample Type	Sample	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A8
Acq. Date	2018/02/08 9:29:11 AM	**Injection Volume**	Per Method
Sample Annotation	-		

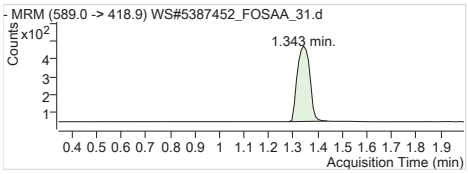
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1785	1.32	1 µg/L		
D5-EtFOSAA IS	1490	1.34	1 µg/L		
13C9-PFDA IS	32536	0.92	1 µg/L		

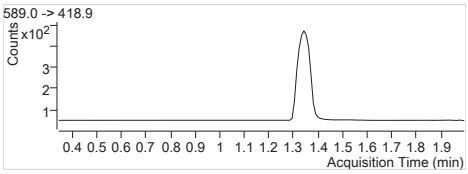
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1801	1.32	-	98.71 µg/L	-
D5-EtFOSAA	1500	1.34	-	96.02 µg/L	-
13C9-PFDA	31826	0.92	-	107.76 µg/L	-



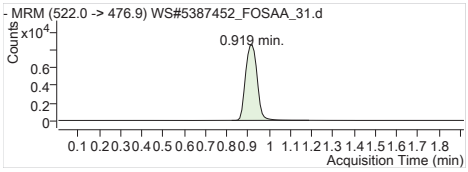


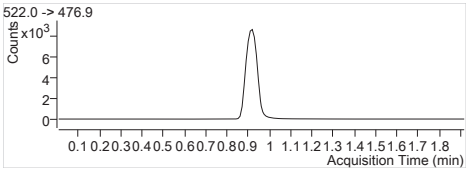
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



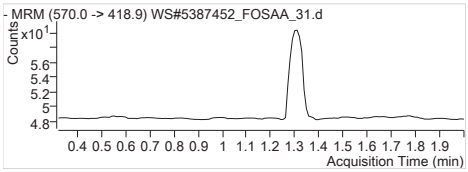


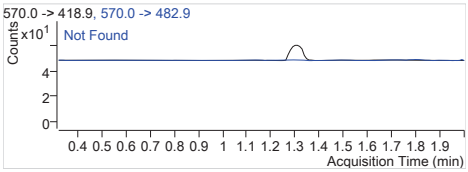
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



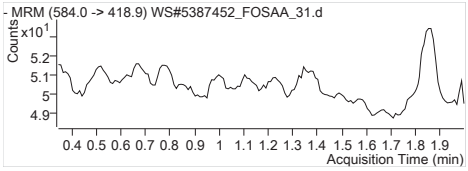


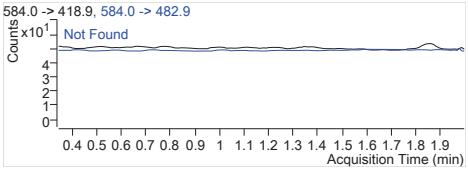
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Sample



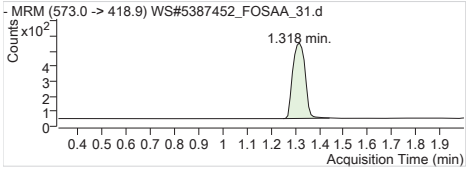


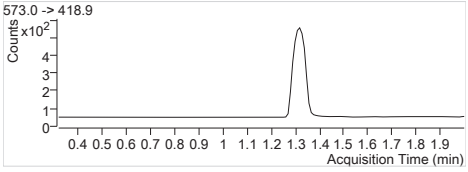
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



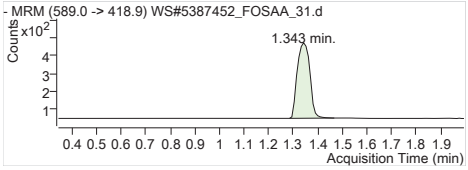


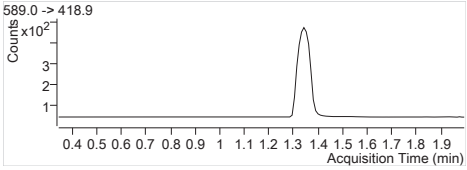
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



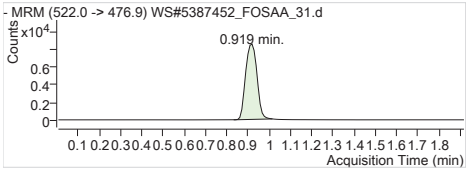


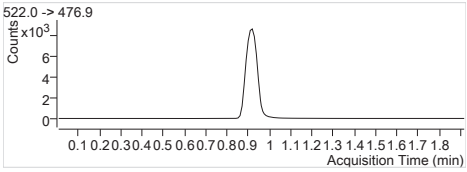
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 98.71 µg/L
Area ratio: 0.05535
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	96.02 µg/L
Area ratio:	0.04610
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	107.76 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

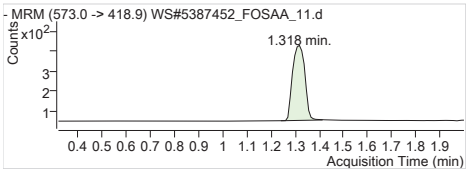
Agilent Technologies

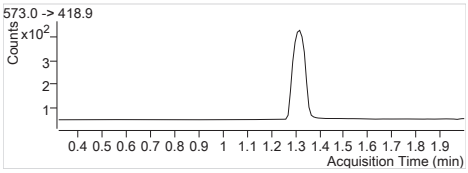
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:BLANK**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-B1
Acq. Date	2018/02/08 8:40:55 AM	**Injection Volume**	Per Method
Sample Annotation	-		

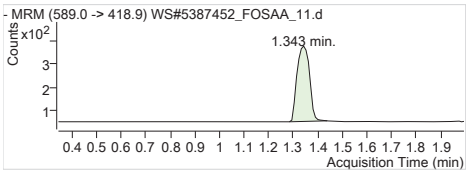
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1335	1.32	1 µg/L		
D5-EtFOSAA IS	1160	1.34	1 µg/L		
13C9-PFDA IS	31821	0.90	1 µg/L		

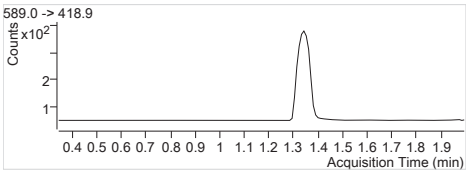
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1340	1.32	-	75.09 µg/L	-
D5-EtFOSAA	1186	1.34	-	77.62 µg/L	-
13C9-PFDA	30871	0.90	-	2.51 µg/L	-



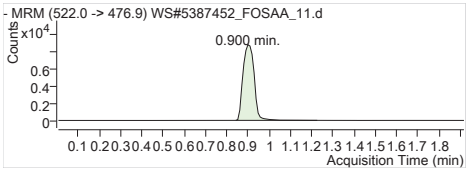


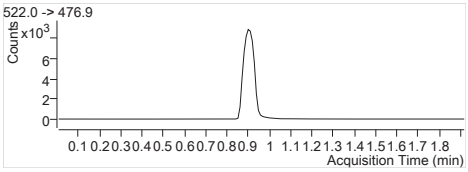
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



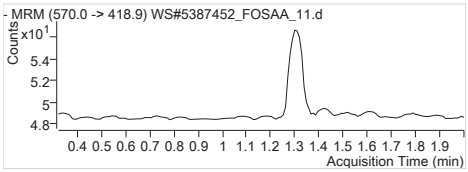


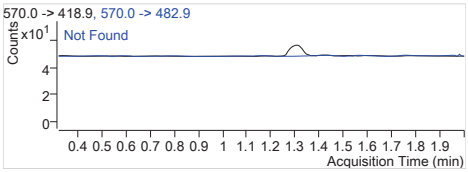
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



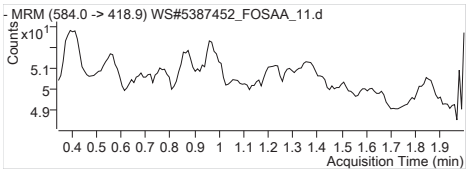


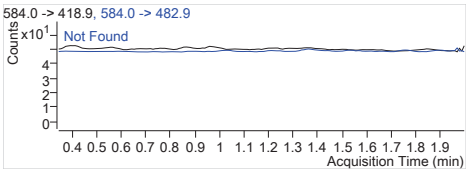
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.919)
Concentration: 1 µg/L
Sample type: Sample



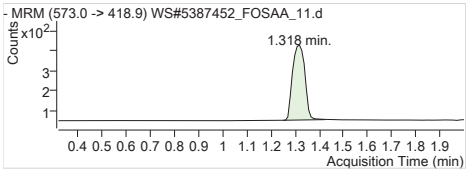


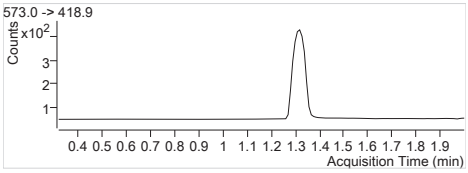
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.319)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



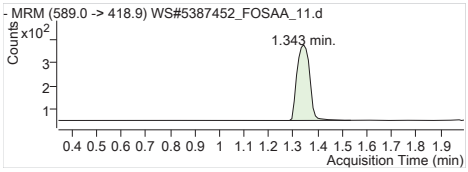


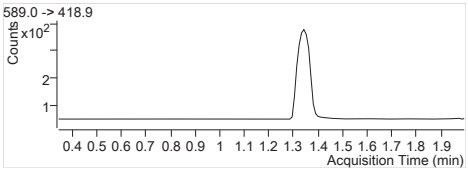
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



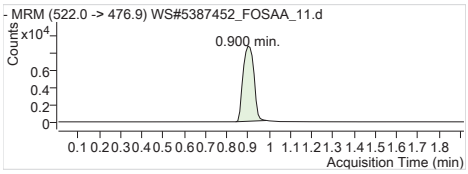


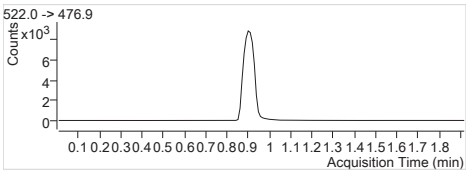
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 75.09 µg/L
Area ratio: 0.04211
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	77.62 µg/L
Area ratio:	0.03727
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.919)
Calc. conc.	2.51 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

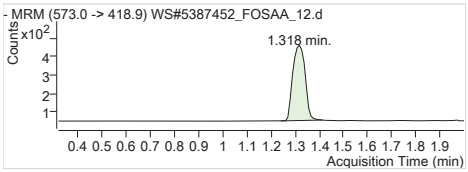
Agilent Technologies

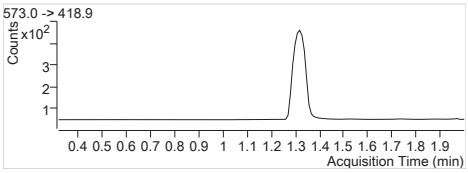
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**5387452:SPIKE**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-B2
Acq. Date	2018/02/08 8:43:18 AM	**Injection Volume**	Per Method
Sample Annotation	-		

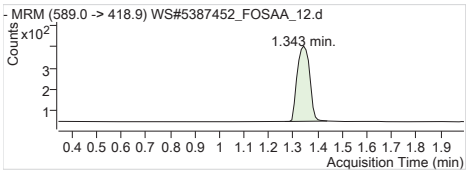
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1461	1.32	1 µg/L		
D5-EtFOSAA IS	1247	1.34	1 µg/L		
13C9-PFDA IS	30575	0.89	1 µg/L		

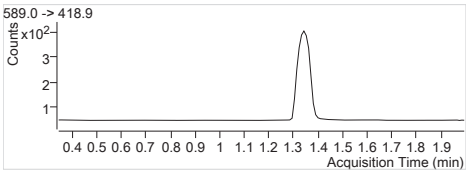
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	9964	1.32	20.80	0.44 µg/L	88.08
EtFOSAA 1	10183	1.34	20.80	0.44 µg/L	88.10
D3-MeFOSAA	1479	1.32	100.00	86.26 µg/L	86.26
D5-EtFOSAA	1254	1.34	100.00	85.42 µg/L	85.42
13C9-PFDA	29667	0.89	100.00	2.41 µg/L	100.45



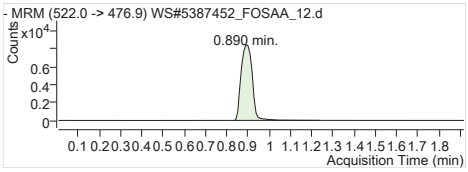


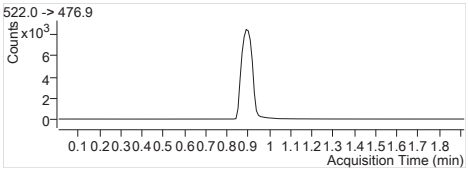
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: QC



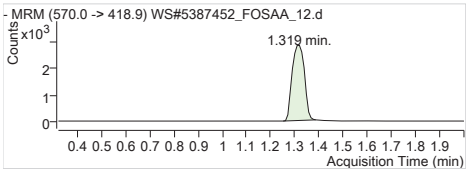


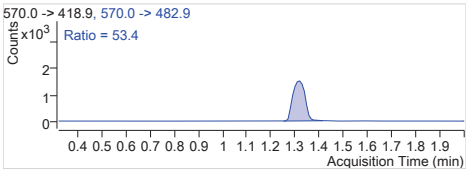
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: QC



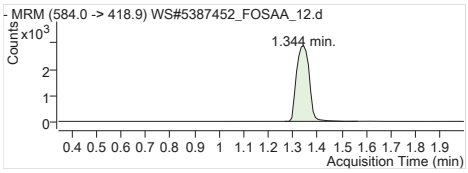


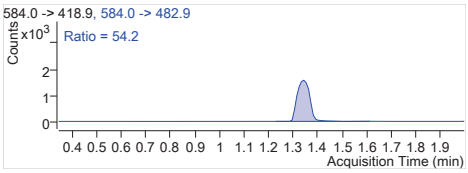
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.919)
Concentration: 1 µg/L
Sample type: QC



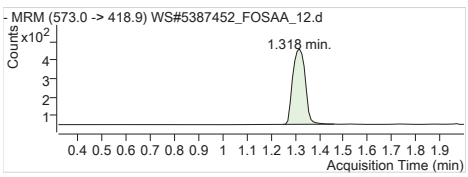


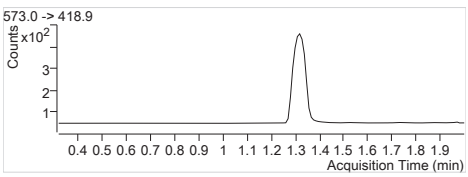
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 0.44 µg/L
Area ratio: 6.81999
Sample type: QC



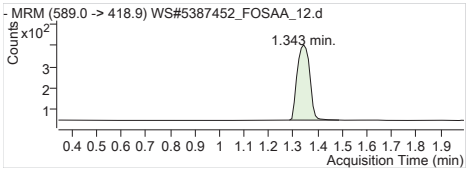


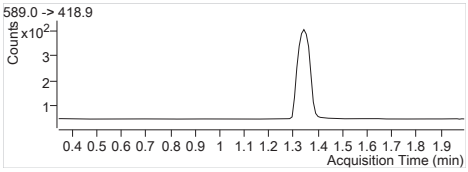
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.44 µg/L
Area ratio: 8.16600
Sample type: QC



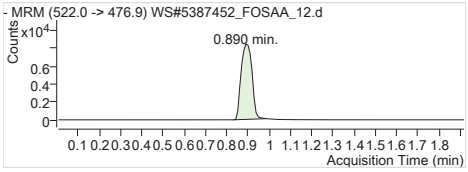


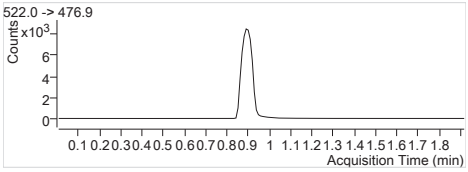
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 86.26 µg/L
Area ratio: 0.04837
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	85.42 µg/L
Area ratio:	0.04101
Sample type:	QC





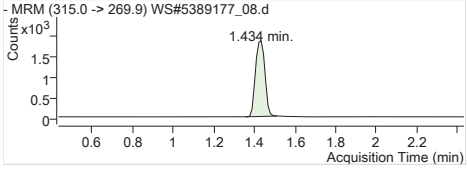
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.919)
Calc. conc.	2.41 µg/L
Area ratio:	0
Sample type:	QC

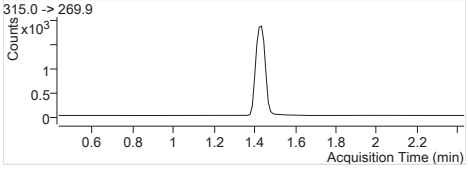
Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5389177_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P3-A8
Acq. Date	2018/02/09 12:31:57 AM	**Injection Volume**	Per Method
Sample Annotation	-		

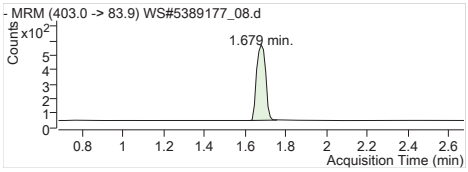
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5921	1.43	1 µg/L		
MPFHxS	1614	1.68	1 µg/L		
MPFHpA	7762	1.69	1 µg/L		
MPFOA	9047	1.87	1 µg/L		
MPFOS	1899	1.98	1 µg/L		
MPFNA	8841	2.01	1 µg/L		
MPFDA	7249	2.14	1 µg/L		
MPFUnA	8516	2.23	1 µg/L		
MPFDoA	12042	2.32	1 µg/L		
MPFTeDA	12687	2.47	1 µg/L		
13C6-PFHxA IS	22297	1.43	1 µg/L		
13C9-PFDA IS	29387	2.13	1 µg/L		

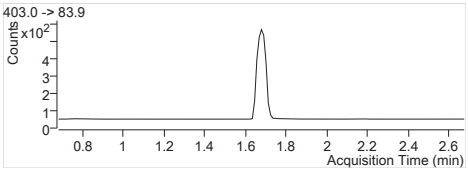
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5921	1.43	-	94.72 µg/L	-
18O2-PFHxS	1614	1.68	-	100.21 µg/L	-
13C4-PFHpA	7762	1.69	-	93.35 µg/L	-
13C4-PFOA	9047	1.87	-	101.69 µg/L	-
13C4-PFOS	1899	1.98	-	96.16 µg/L	-
13C5-PFNA	8840	2.01	-	98.56 µg/L	-
13C2-PFDA	7084	2.14	-	95.70 µg/L	-
13C2-PFUnA	8516	2.23	-	96.47 µg/L	-
13C2-PFDoA	12042	2.32	-	103.40 µg/L	-
13C2-PFTeDA	13099	2.47	-	93.98 µg/L	-
13C6-PFHxA	22297	1.43	-	2.50 µg/L	-
13C9-PFDA	29387	2.13	-	2.47 µg/L	-



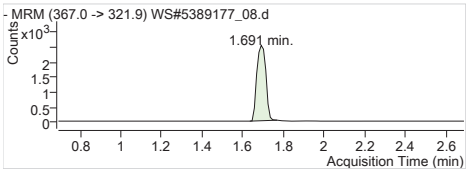


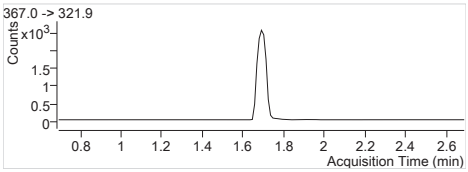
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



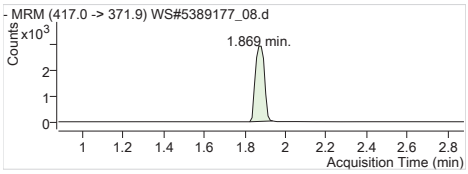


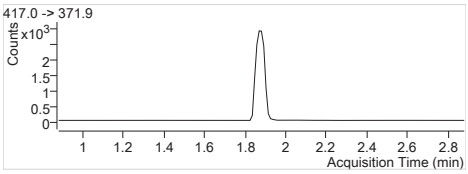
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



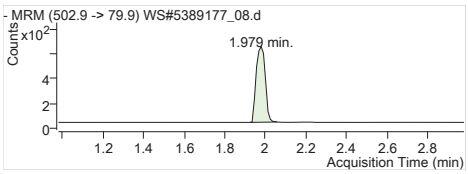


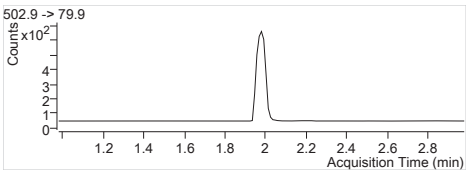
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



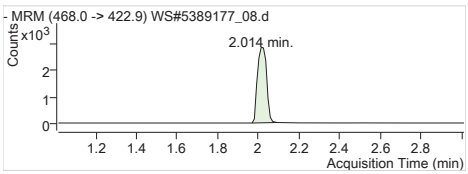


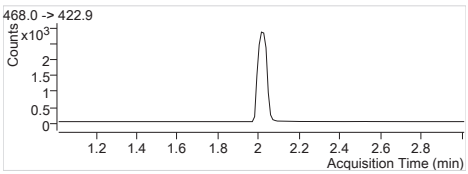
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



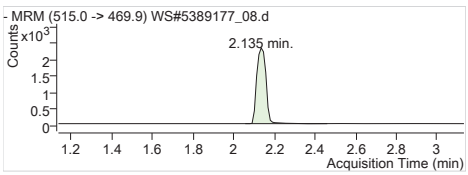


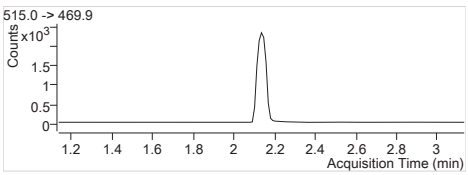
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



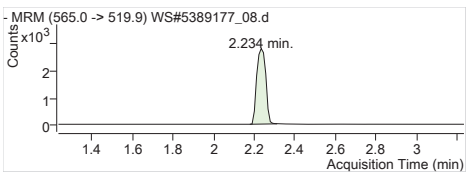


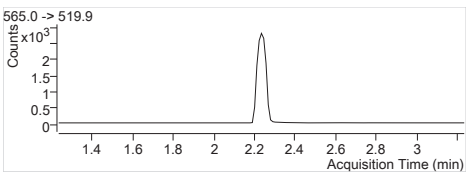
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



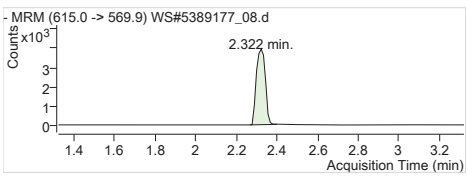


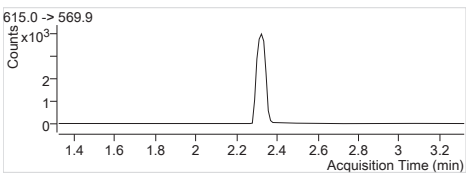
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



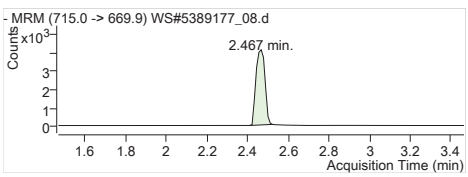


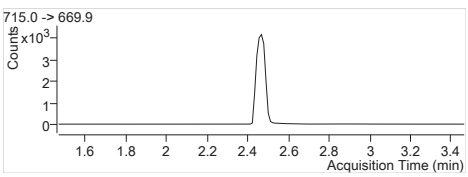
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



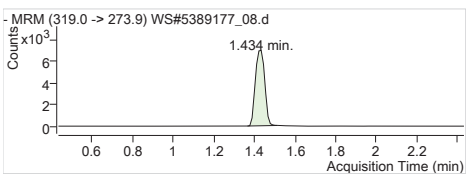


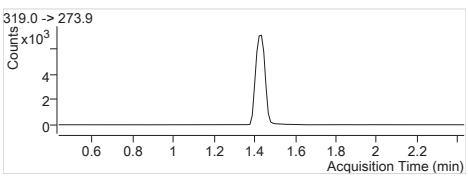
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



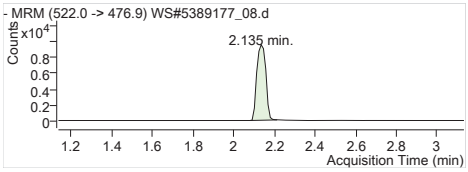


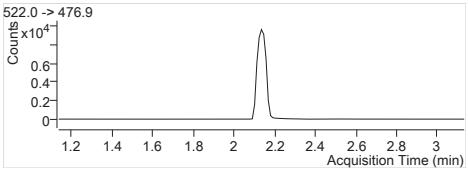
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



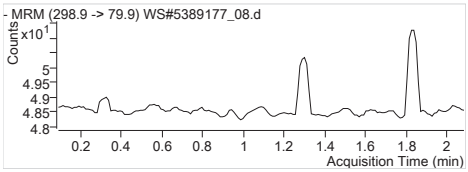


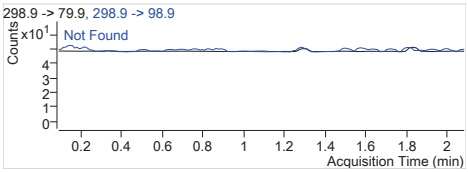
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



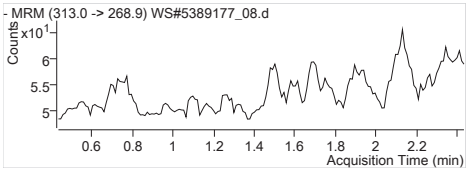


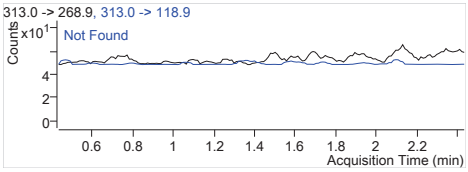
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



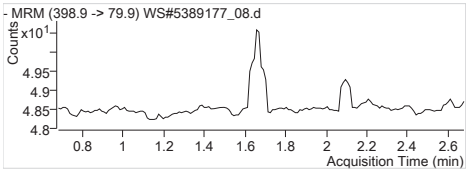


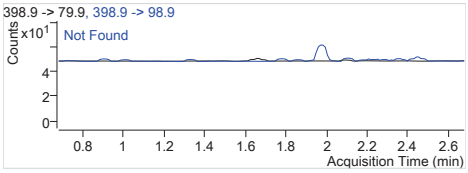
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



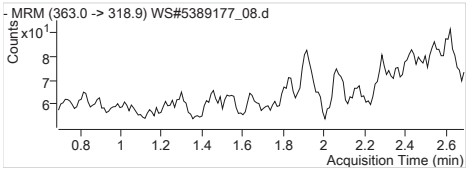


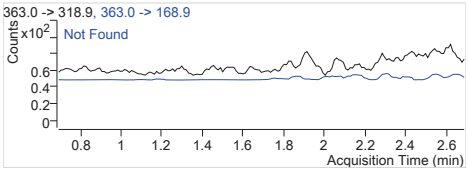
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



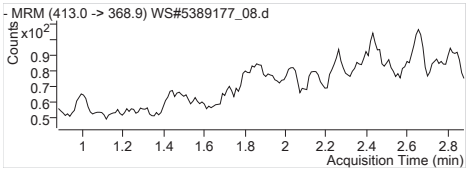


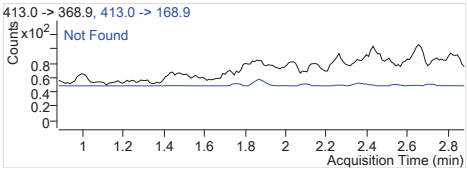
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



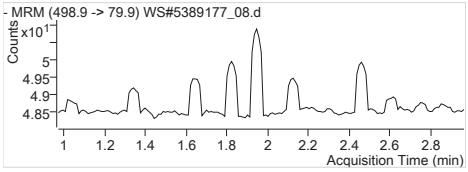


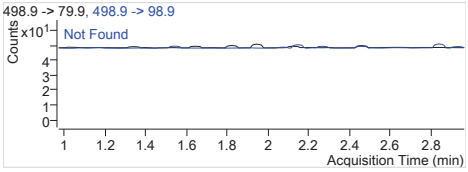
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



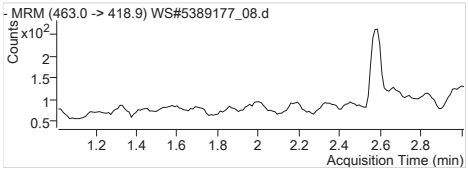


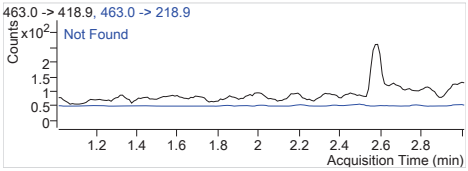
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



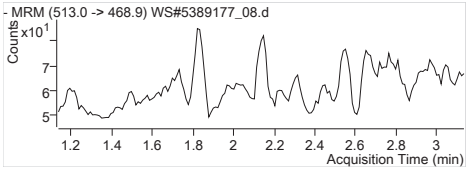


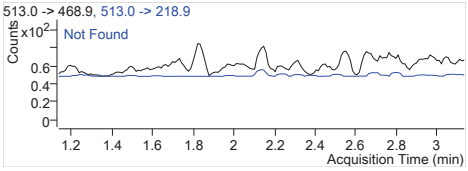
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



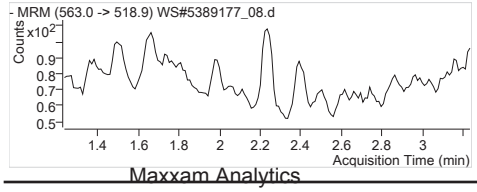


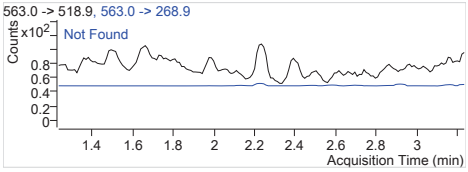
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



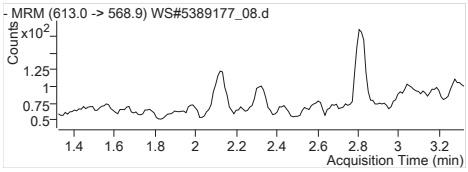


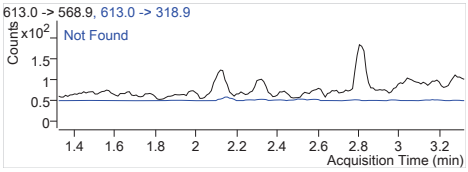
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



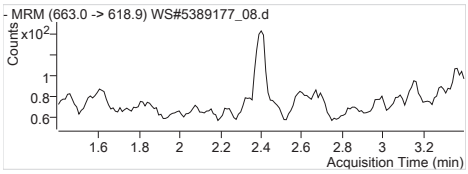


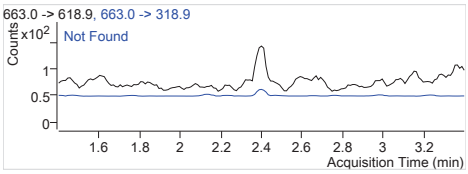
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



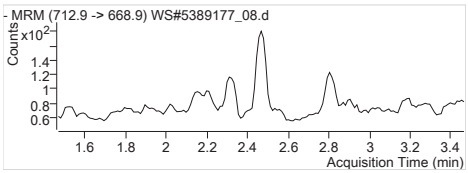


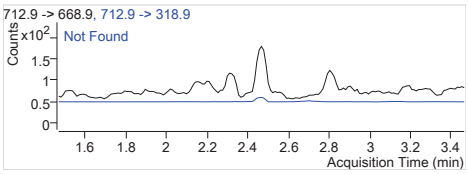
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



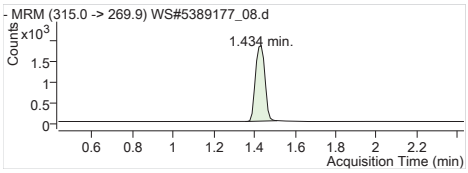


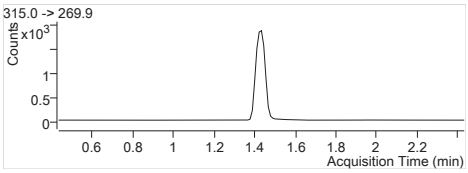
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



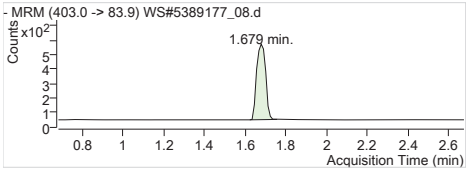


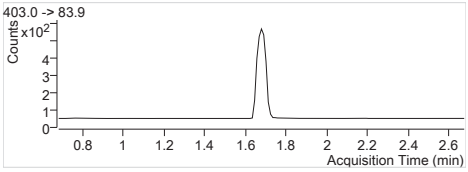
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



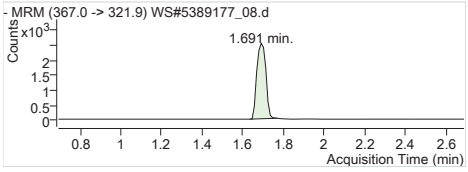


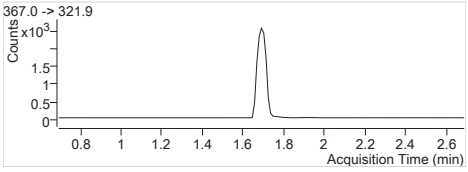
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 94.72 µg/L
Area ratio: 0.26555
Sample type: Sample



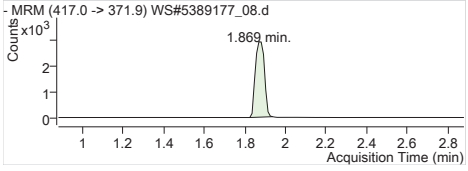


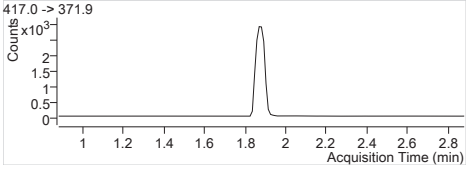
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 100.21 µg/L
Area ratio: 0.07239
Sample type: Sample



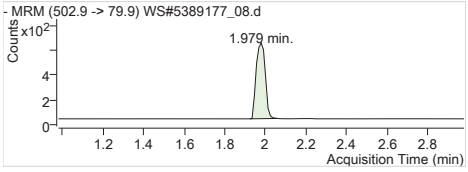


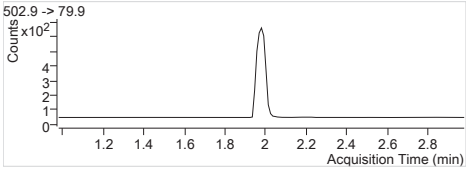
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 93.35 µg/L
Area ratio: 0.34812
Sample type: Sample



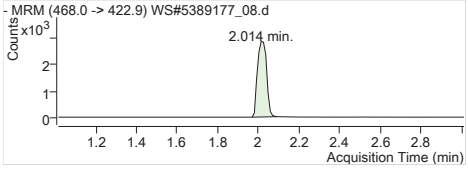


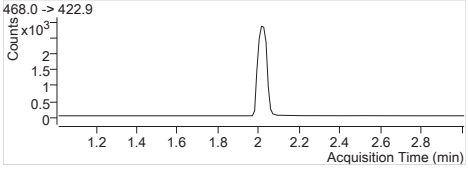
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 101.69 µg/L
Area ratio: 0.40575
Sample type: Sample



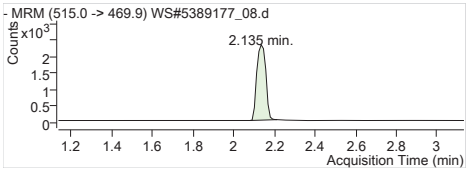


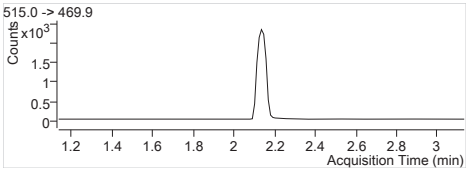
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 96.16 µg/L
Area ratio: 0.08517
Sample type: Sample



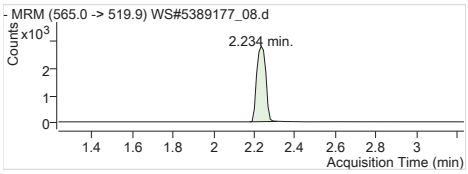


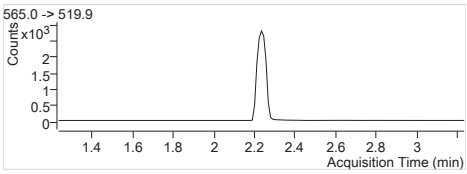
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 98.56 µg/L
Area ratio: 0.39647
Sample type: Sample



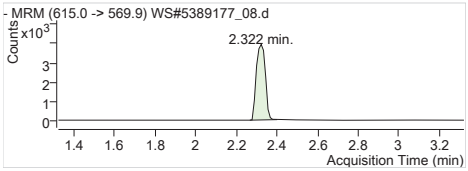


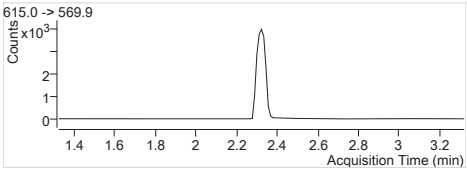
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 95.70 µg/L
Area ratio: 0.24106
Sample type: Sample



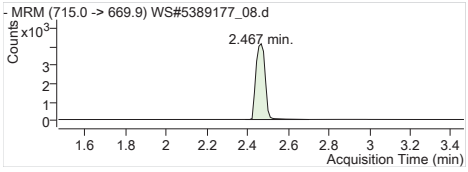


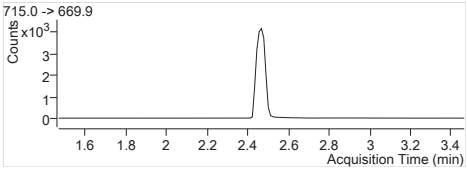
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 96.47 µg/L
Area ratio: 0.28979
Sample type: Sample



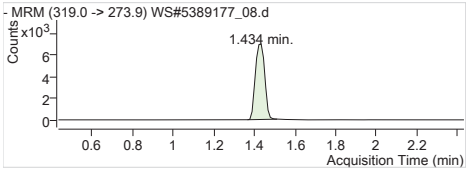


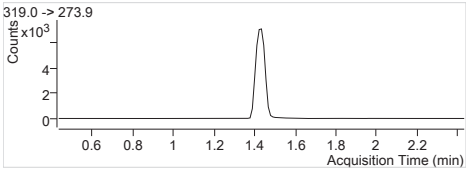
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 103.40 µg/L
Area ratio: 0.40977
Sample type: Sample



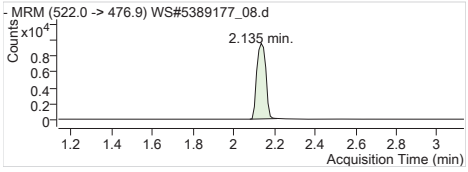


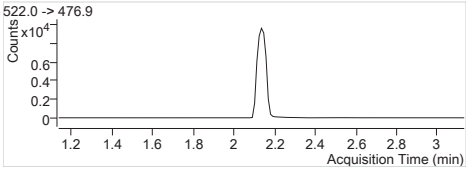
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 93.98 µg/L
Area ratio: 0.44574
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.50 µg/L
Area ratio: 0
Sample type: Sample





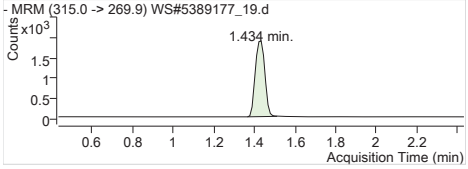
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.47 µg/L
Area ratio: 0
Sample type: Sample

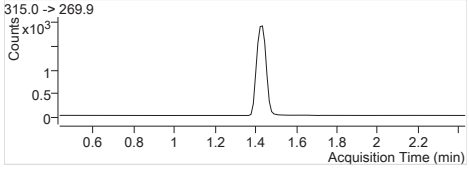
Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5389177_19.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P3-A8
Acq. Date	2018/02/09 1:26:13 AM	**Injection Volume**	Per Method
Sample Annotation	-		

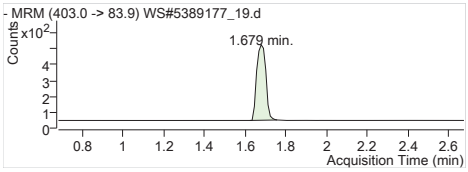
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6127	1.43	1 µg/L		
MPFHxS	1498	1.68	1 µg/L		
MPFHpA	8286	1.69	1 µg/L		
MPFOA	8948	1.88	1 µg/L		
MPFOS	1956	1.98	1 µg/L		
MPFNA	8616	2.02	1 µg/L		
MPFDA	7559	2.14	1 µg/L		
MPFUnA	8334	2.23	1 µg/L		
MPFDoA	11618	2.32	1 µg/L		
MPFTeDA	13190	2.47	1 µg/L		
13C6-PFHxA IS	22580	1.42	1 µg/L		
13C9-PFDA IS	27966	2.13	1 µg/L		

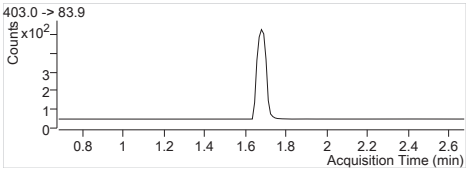
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6127	1.43	-	96.78 µg/L	-
18O2-PFHxS	1498	1.68	-	91.84 µg/L	-
13C4-PFHpA	8286	1.69	-	98.40 µg/L	-
13C4-PFOA	8948	1.88	-	99.32 µg/L	-
13C4-PFOS	1956	1.98	-	97.80 µg/L	-
13C5-PFNA	8616	2.02	-	94.86 µg/L	-
13C2-PFDA	7460	2.14	-	105.90 µg/L	-
13C2-PFUnA	8334	2.23	-	99.20 µg/L	-
13C2-PFDoA	11618	2.32	-	104.83 µg/L	-
13C2-PFTeDA	13320	2.47	-	100.42 µg/L	-
13C6-PFHxA	22580	1.42	-	2.53 µg/L	-
13C9-PFDA	27966	2.13	-	2.35 µg/L	-



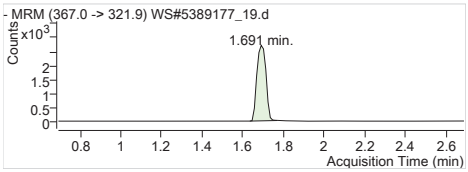


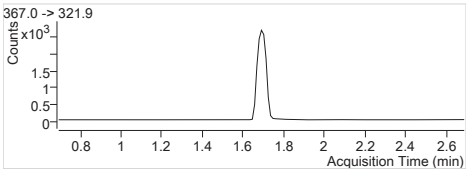
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	Sample



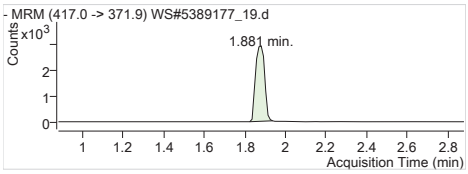


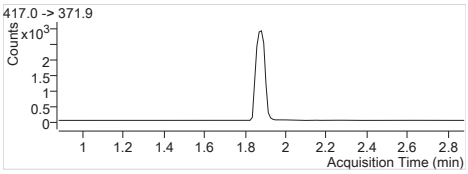
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



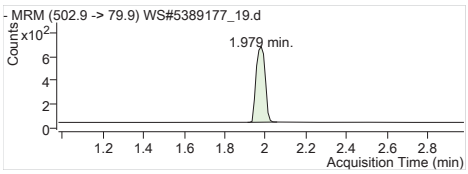


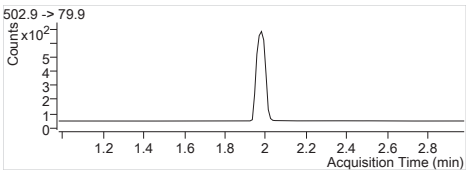
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



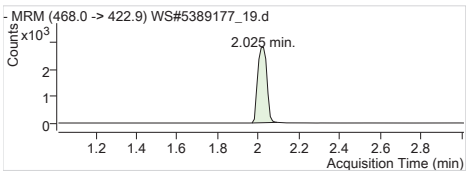


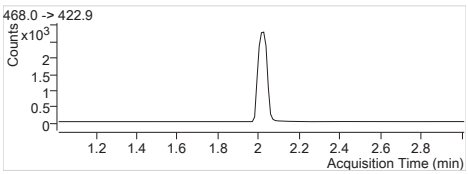
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



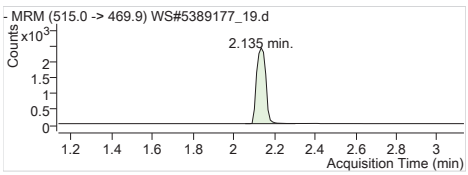


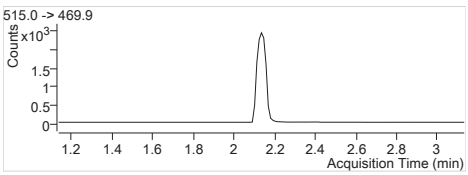
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



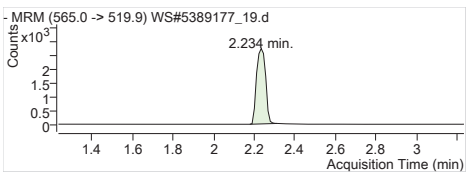


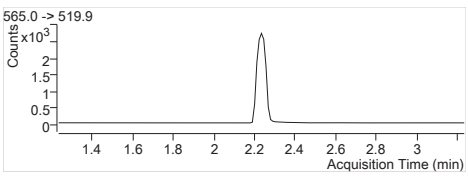
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.014)
Concentration: 1 µg/L
Sample type: Sample



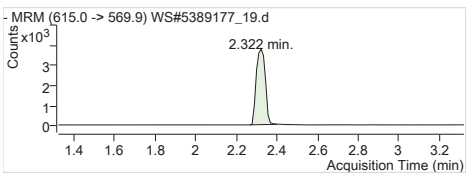


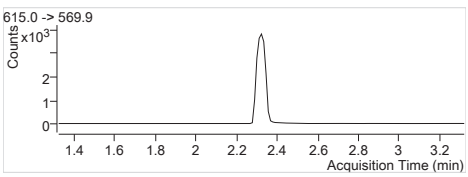
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



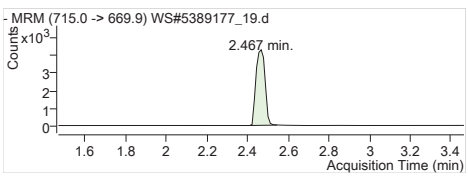


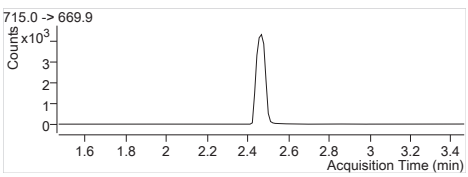
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



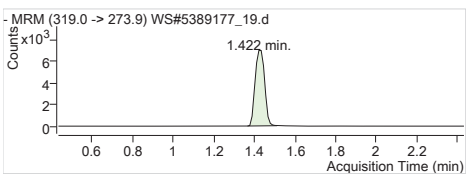


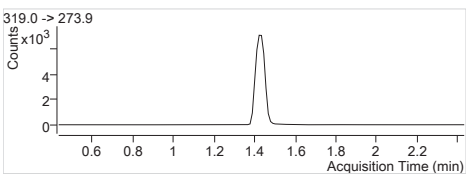
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



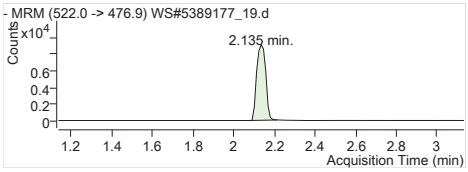


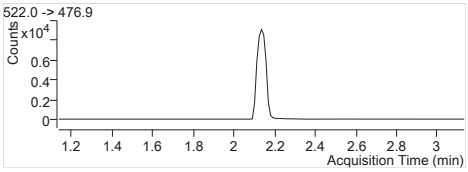
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



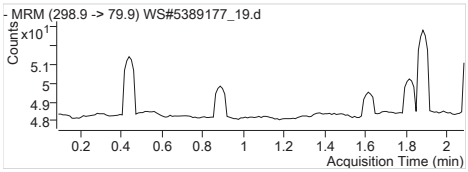


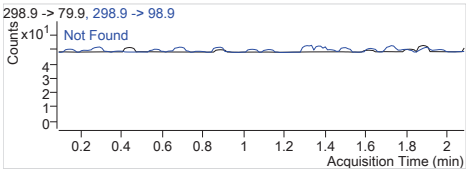
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.434)
Concentration: 1 µg/L
Sample type: Sample



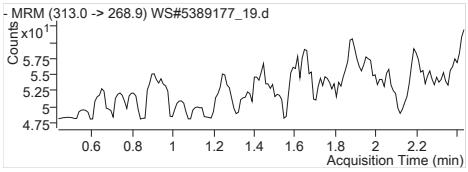


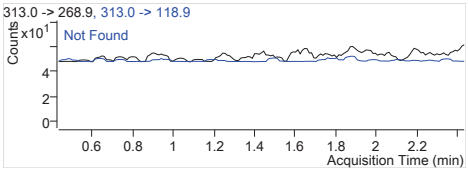
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



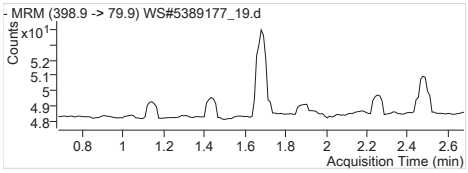


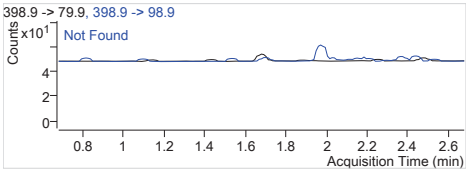
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



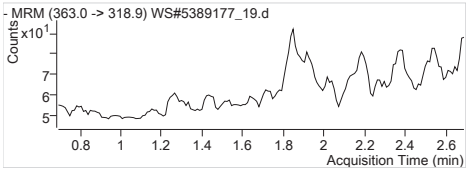


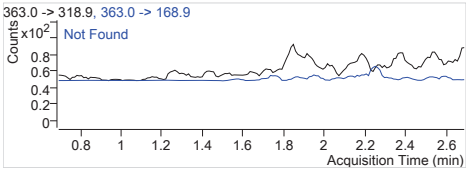
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



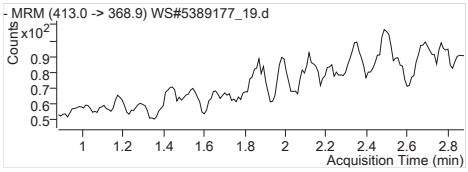


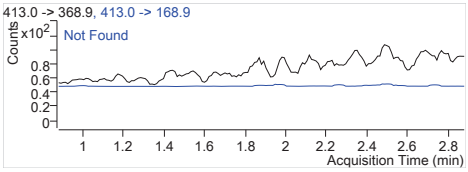
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



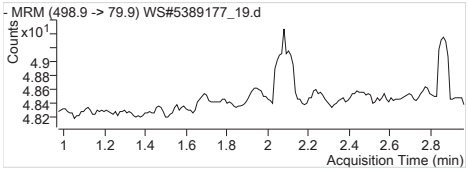


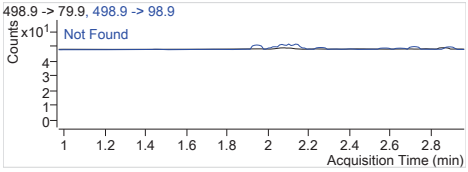
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



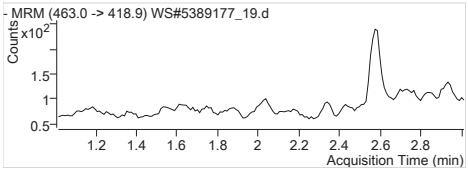


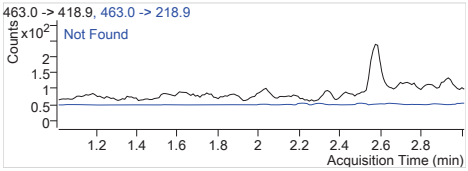
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



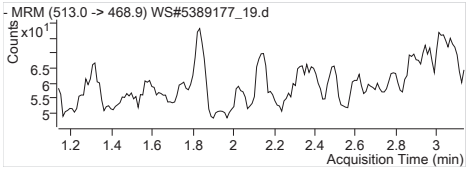


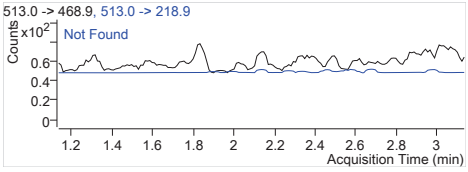
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



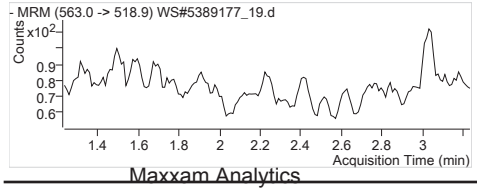


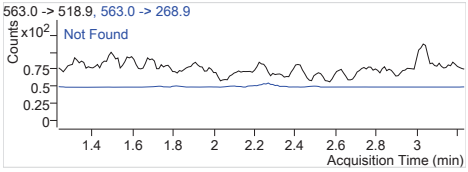
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



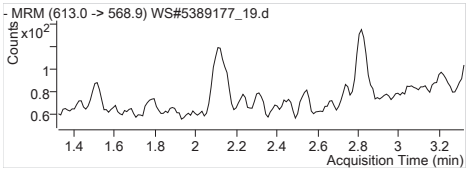


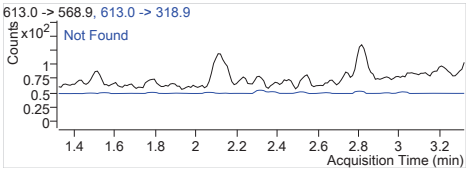
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



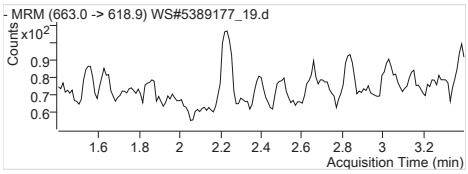


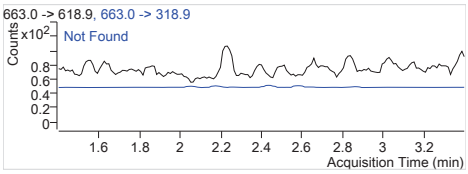
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



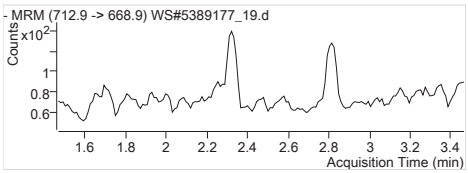


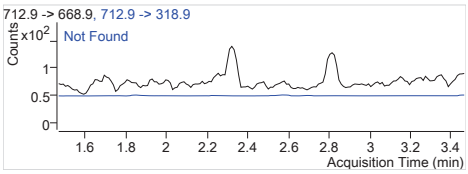
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



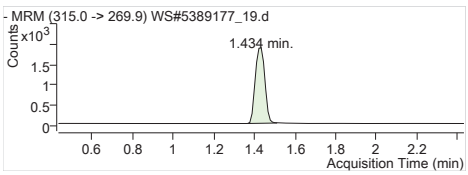


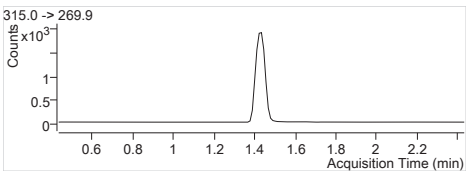
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



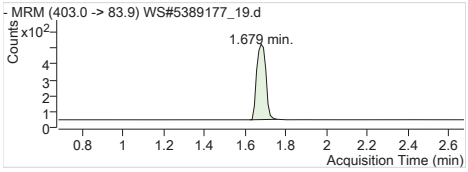


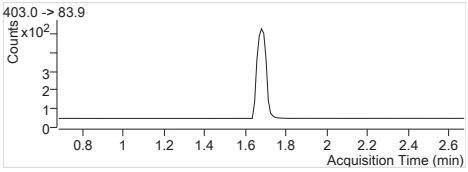
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



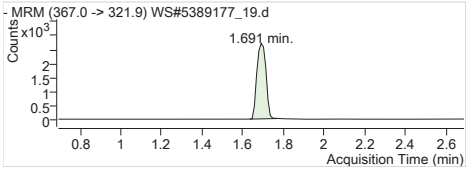


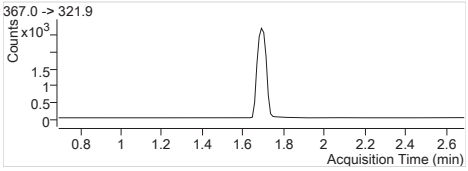
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 96.78 µg/L
Area ratio: 0.27135
Sample type: Sample



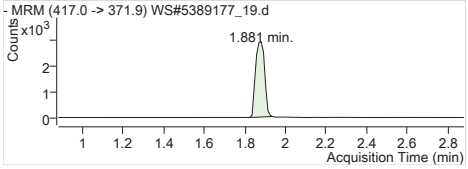


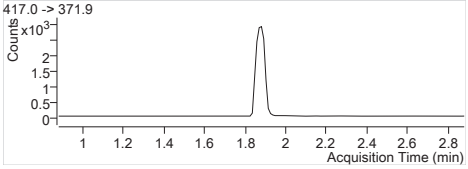
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 91.84 µg/L
Area ratio: 0.06634
Sample type: Sample



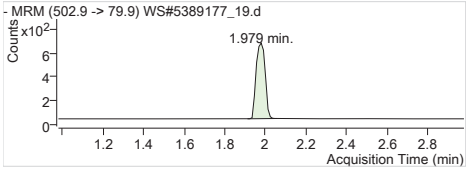


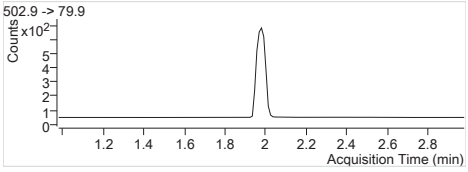
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 98.40 µg/L
Area ratio: 0.36696
Sample type: Sample



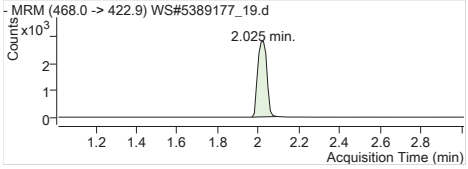


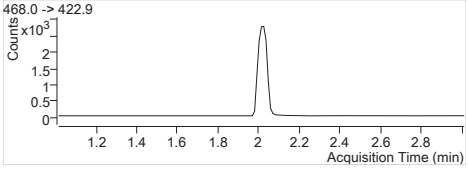
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 99.32 µg/L
Area ratio: 0.39628
Sample type: Sample



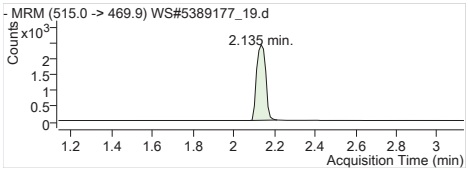


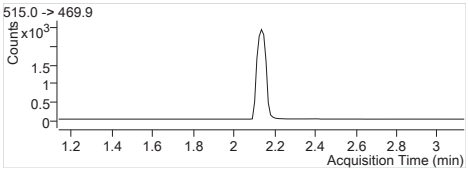
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 97.80 µg/L
Area ratio: 0.08663
Sample type: Sample



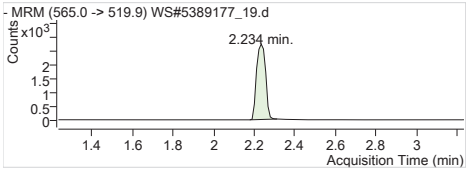


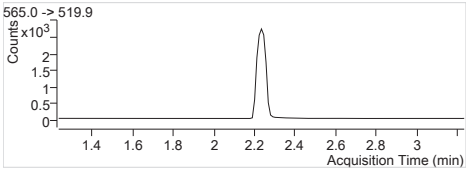
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.014)
Calc. conc. 94.86 µg/L
Area ratio: 0.38158
Sample type: Sample



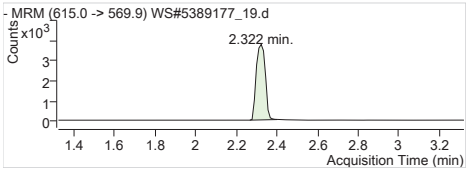


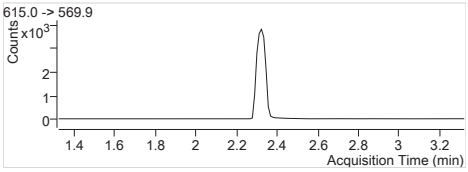
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 105.90 µg/L
Area ratio: 0.26675
Sample type: Sample



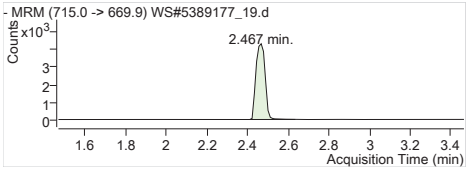


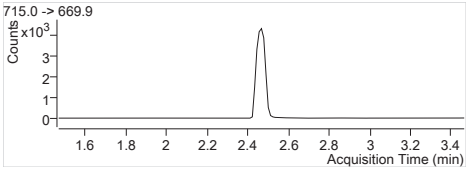
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 99.20 µg/L
Area ratio: 0.29800
Sample type: Sample



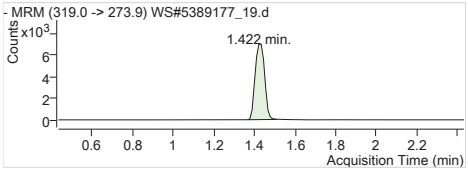


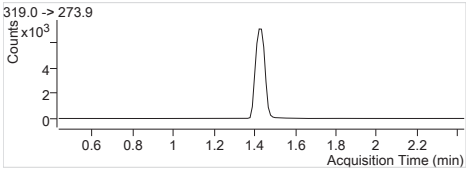
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 104.83 µg/L
Area ratio: 0.41543
Sample type: Sample



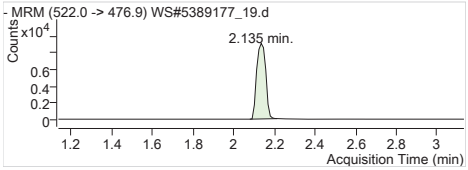


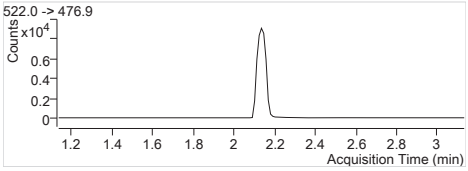
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 100.42 µg/L
Area ratio: 0.47629
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.434)
Calc. conc. 2.53 µg/L
Area ratio: 0
Sample type: Sample





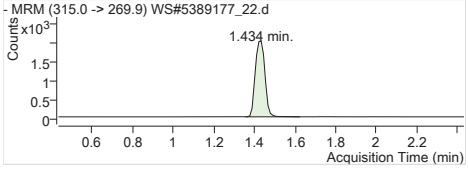
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.35 µg/L
Area ratio: 0
Sample type: Sample

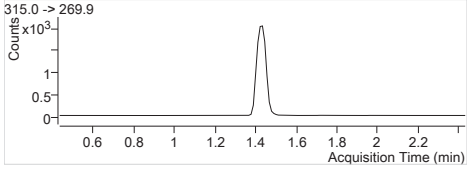
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5389177_22.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P3-A8
Acq. Date	2018/02/09 1:41:01 AM	**Injection Volume**	Per Method
Sample Annotation	-		

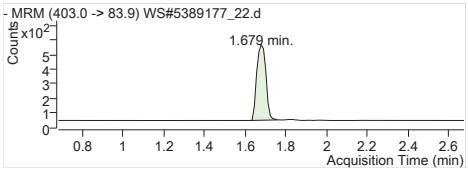
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6619	1.43	1 µg/L		
MPFHxS	1625	1.68	1 µg/L		
MPFHpA	8358	1.69	1 µg/L		
MPFOA	8541	1.88	1 µg/L		
MPFOS	1675	1.98	1 µg/L		
MPFNA	8820	2.01	1 µg/L		
MPFDA	7528	2.14	1 µg/L		
MPFUnA	8554	2.23	1 µg/L		
MPFDoA	11531	2.32	1 µg/L		
MPFTeDA	12903	2.47	1 µg/L		
13C6-PFHxA IS	22526	1.43	1 µg/L		
13C9-PFDA IS	29513	2.13	1 µg/L		

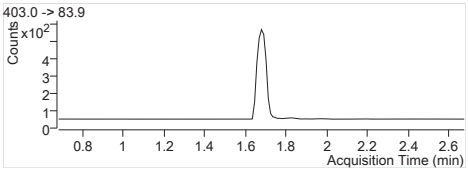
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6619	1.43	-	104.80 µg/L	-
18O2-PFHxS	1625	1.68	-	99.87 µg/L	-
13C4-PFHpA	8358	1.69	-	99.50 µg/L	-
13C4-PFOA	8541	1.88	-	95.03 µg/L	-
13C4-PFOS	1675	1.98	-	83.95 µg/L	-
13C5-PFNA	8820	2.01	-	97.34 µg/L	-
13C2-PFDA	7383	2.14	-	99.32 µg/L	-
13C2-PFUnA	8554	2.23	-	96.48 µg/L	-
13C2-PFDoA	11531	2.32	-	98.59 µg/L	-
13C2-PFTeDA	13170	2.47	-	94.08 µg/L	-
13C6-PFHxA	22526	1.43	-	2.53 µg/L	-
13C9-PFDA	29513	2.13	-	2.48 µg/L	-



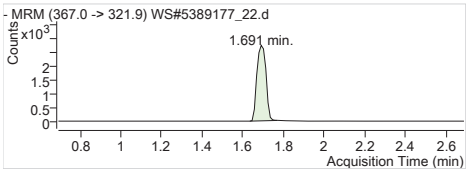


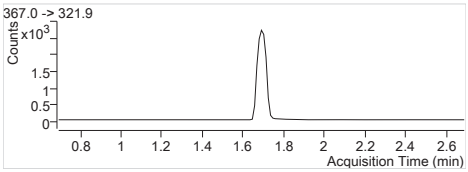
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	Sample



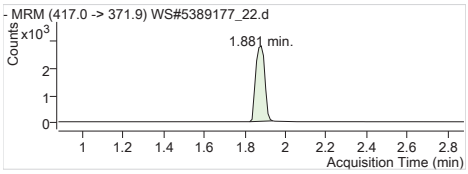


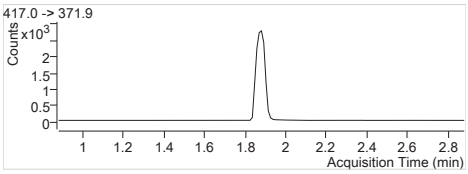
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



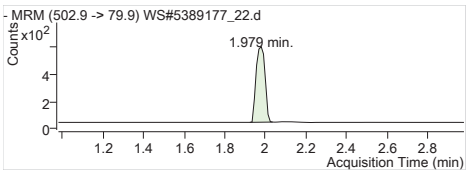


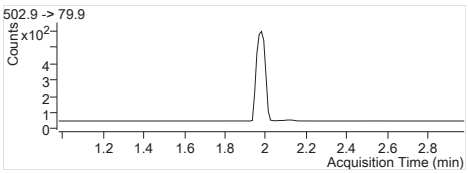
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



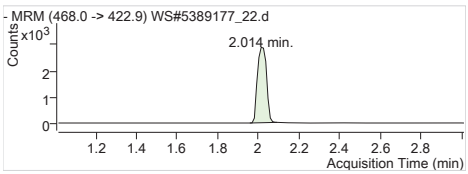


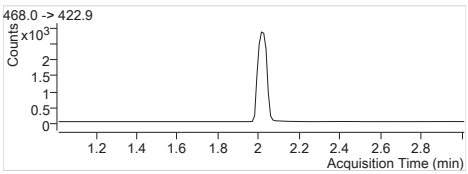
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



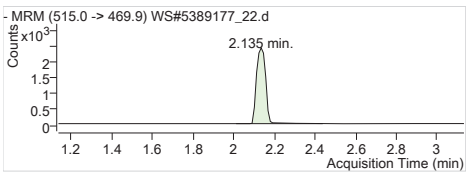


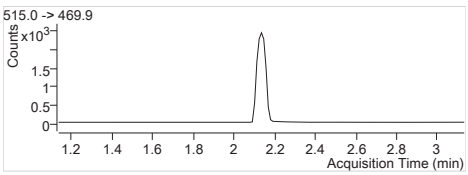
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



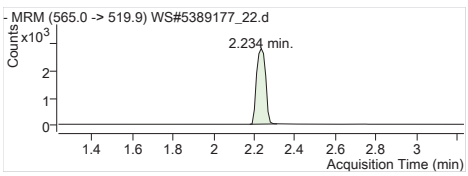


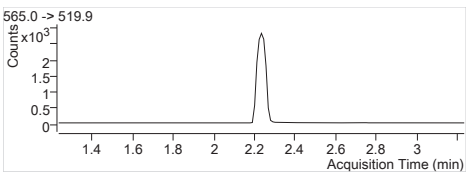
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



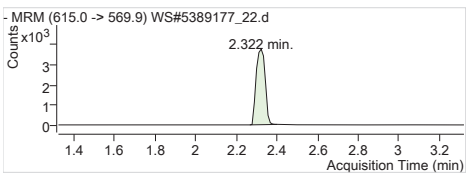


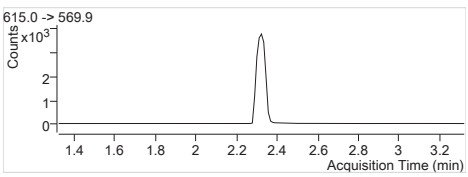
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



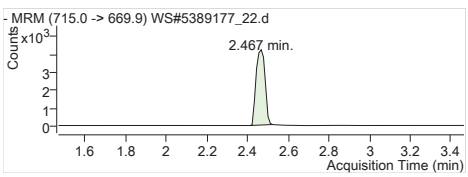


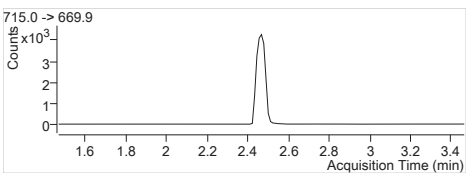
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



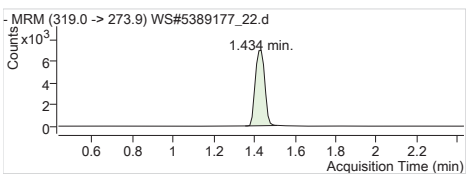


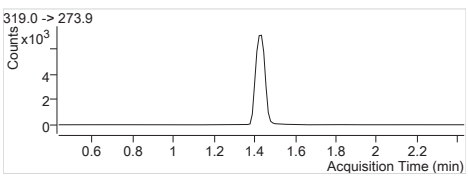
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



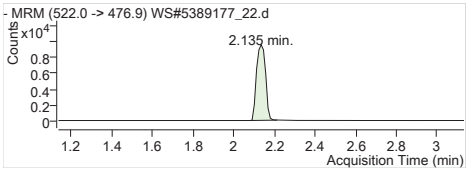


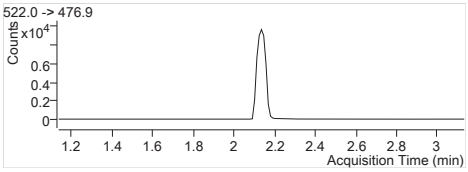
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



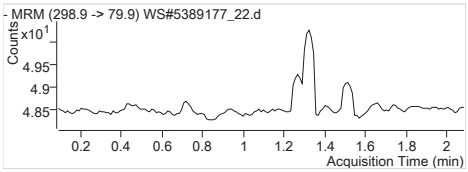


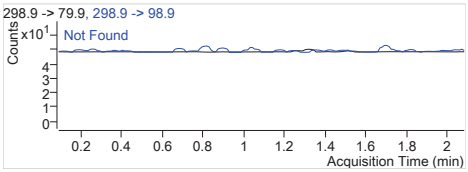
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



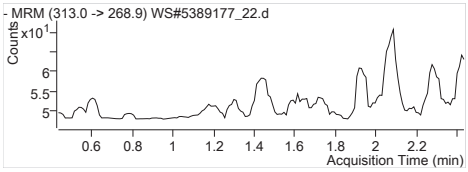


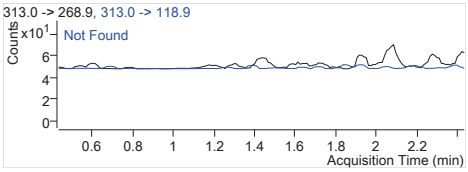
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



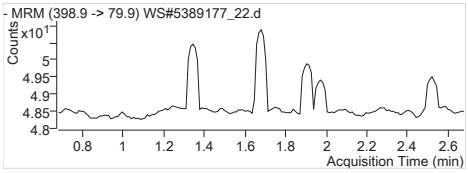


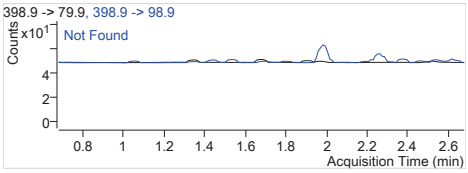
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



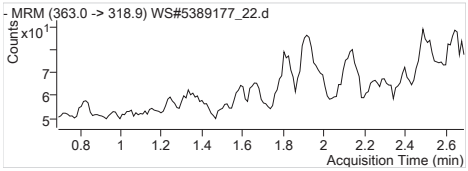


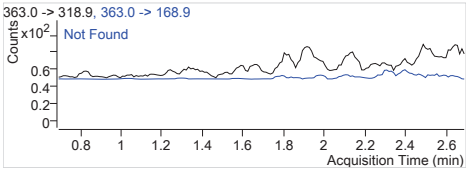
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



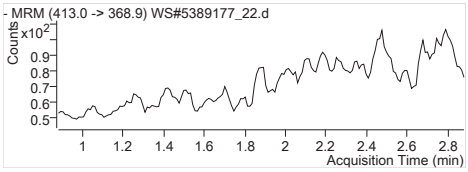


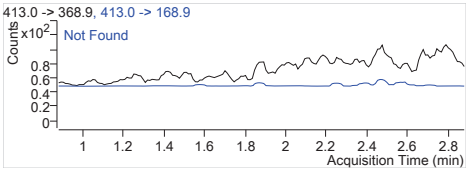
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



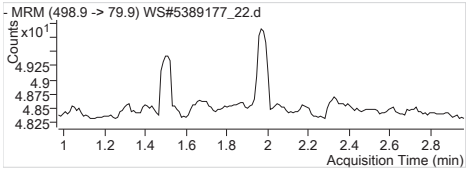


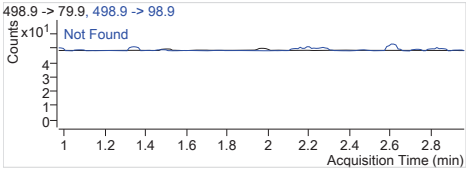
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



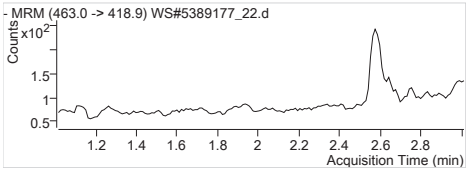


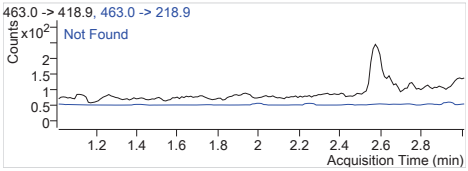
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



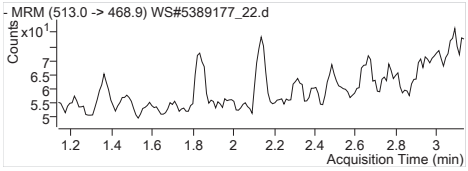


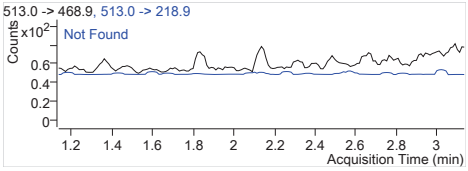
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



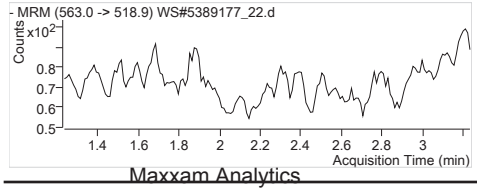


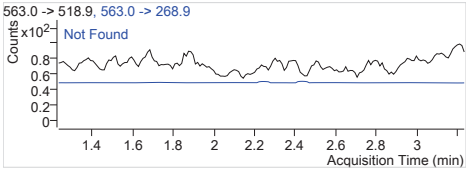
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



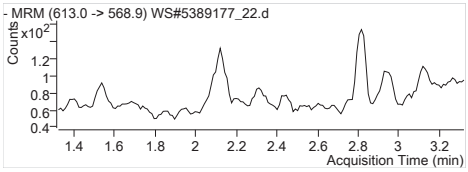


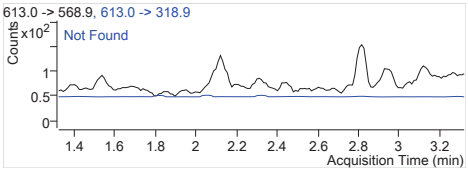
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



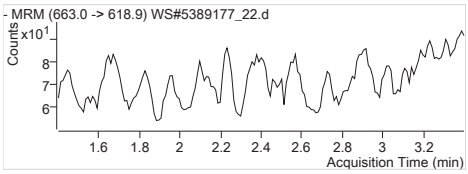


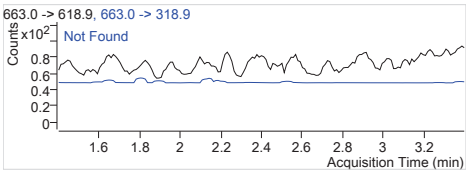
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



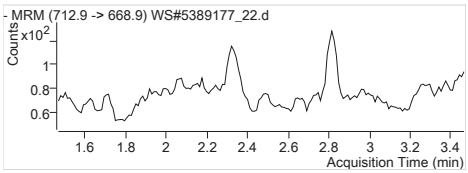


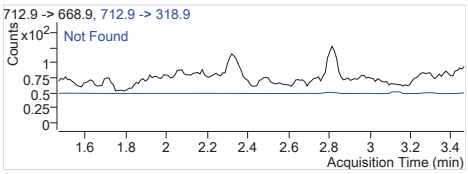
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



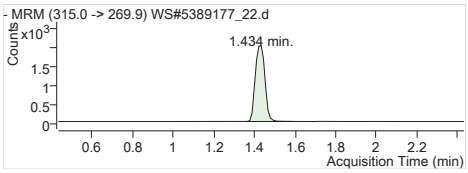


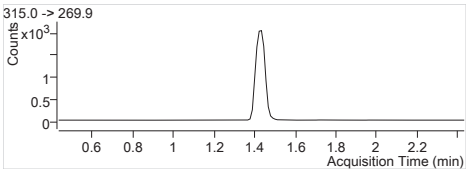
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



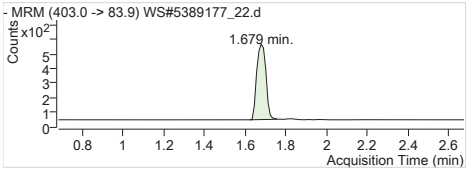


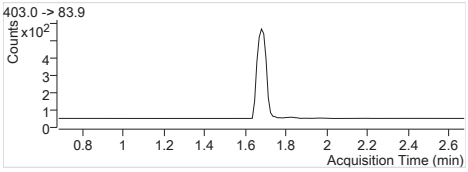
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



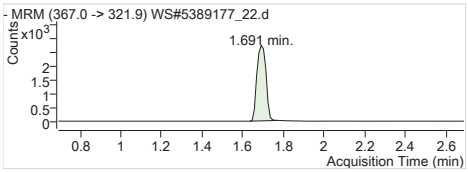


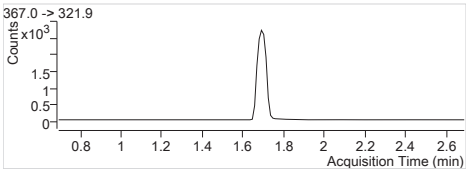
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	104.80 µg/L
Area ratio:	0.29384
Sample type:	Sample



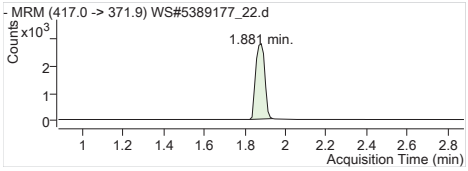


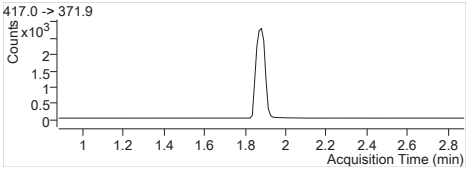
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	99.87 µg/L
Area ratio:	0.07214
Sample type:	Sample



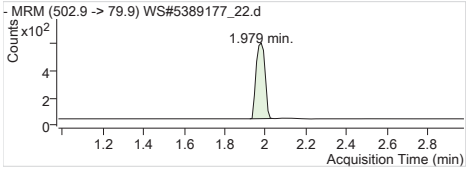


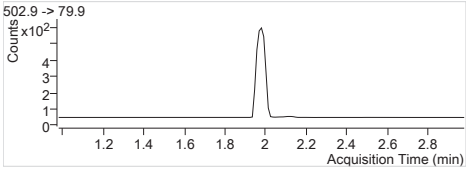
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	99.50 µg/L
Area ratio:	0.37104
Sample type:	Sample



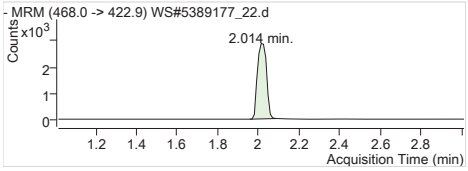


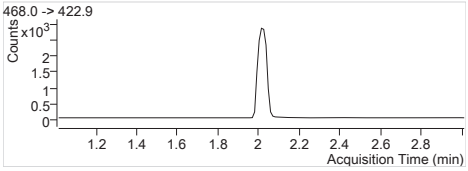
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	95.03 µg/L
Area ratio:	0.37916
Sample type:	Sample



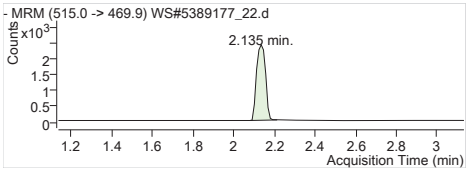


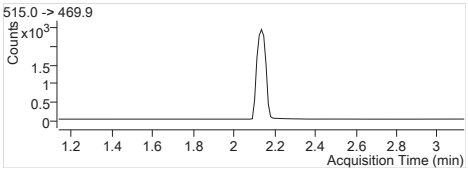
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	83.95 µg/L
Area ratio:	0.07436
Sample type:	Sample



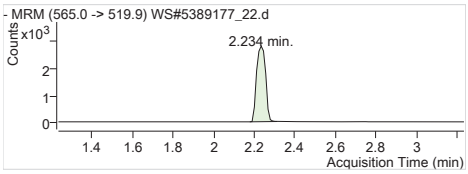


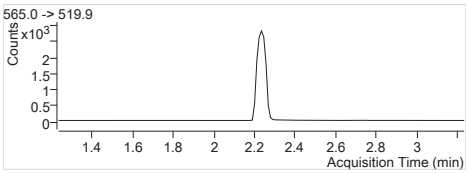
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	97.34 µg/L
Area ratio:	0.39155
Sample type:	Sample



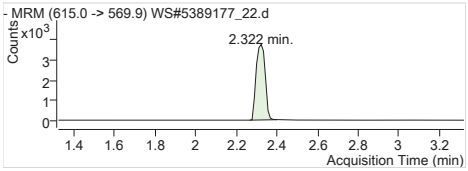


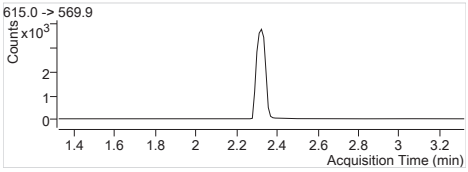
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 99.32 µg/L
Area ratio: 0.25016
Sample type: Sample



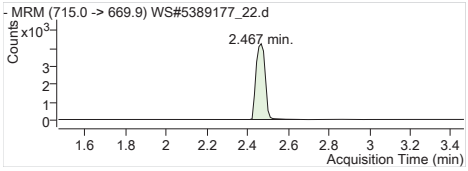


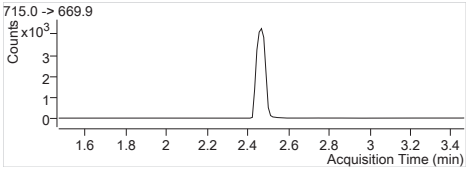
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 96.48 µg/L
Area ratio: 0.28984
Sample type: Sample



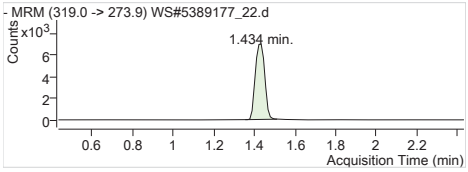


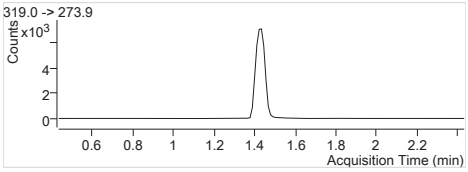
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 98.59 µg/L
Area ratio: 0.39071
Sample type: Sample



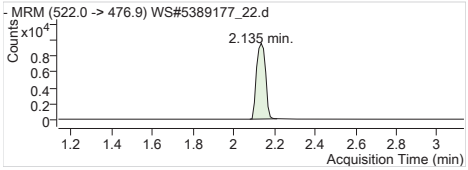


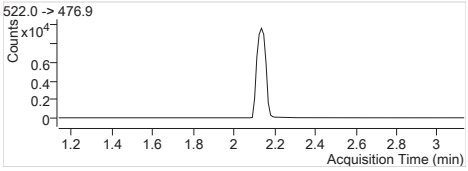
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 94.08 µg/L
Area ratio: 0.44624
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.53 µg/L
Area ratio: 0
Sample type: Sample





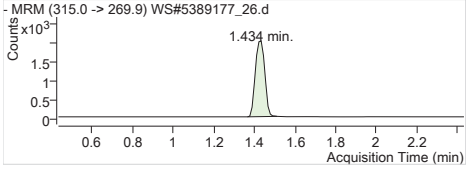
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.48 µg/L
Area ratio: 0
Sample type: Sample

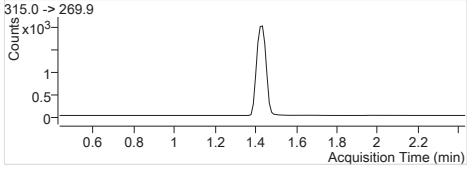
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5389177_26.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P3-A8
Acq. Date	2018/02/09 2:00:45 AM	**Injection Volume**	Per Method
Sample Annotation	-		

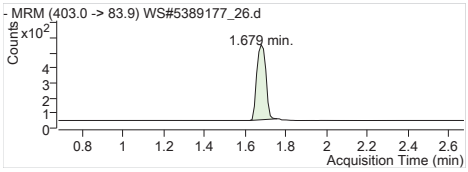
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6424	1.43	1 µg/L		
MPFHxS	1564	1.68	1 µg/L		
MPFHpA	8342	1.69	1 µg/L		
MPFOA	9379	1.88	1 µg/L		
MPFOS	1939	1.98	1 µg/L		
MPFNA	9072	2.01	1 µg/L		
MPFDA	7409	2.14	1 µg/L		
MPFUnA	8081	2.23	1 µg/L		
MPFDoA	11348	2.32	1 µg/L		
MPFTeDA	12928	2.47	1 µg/L		
13C6-PFHxA IS	23136	1.43	1 µg/L		
13C9-PFDA IS	29942	2.13	1 µg/L		

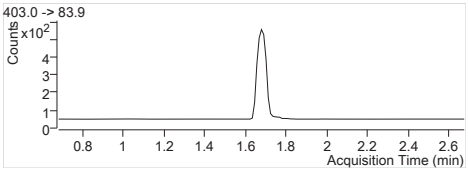
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6424	1.43	-	99.04 µg/L	-
18O2-PFHxS	1564	1.68	-	93.58 µg/L	-
13C4-PFHpA	8342	1.69	-	96.69 µg/L	-
13C4-PFOA	9379	1.88	-	101.60 µg/L	-
13C4-PFOS	1939	1.98	-	94.62 µg/L	-
13C5-PFNA	9072	2.01	-	97.48 µg/L	-
13C2-PFDA	7332	2.14	-	97.22 µg/L	-
13C2-PFUnA	8081	2.23	-	89.84 µg/L	-
13C2-PFDoA	11348	2.32	-	95.64 µg/L	-
13C2-PFTeDA	13199	2.47	-	92.94 µg/L	-
13C6-PFHxA	23136	1.43	-	2.59 µg/L	-
13C9-PFDA	29942	2.13	-	2.51 µg/L	-



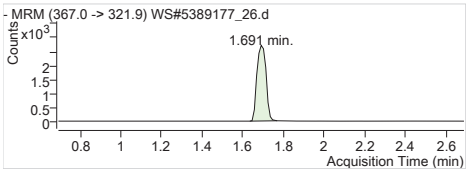


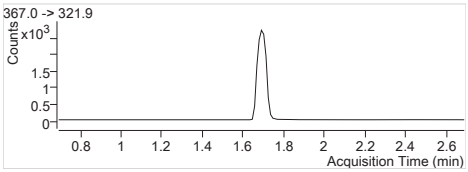
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	Sample



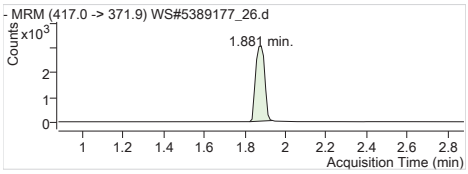


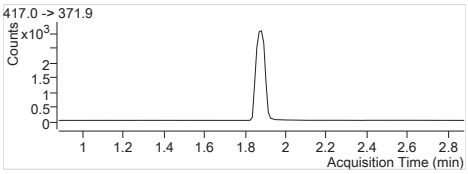
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



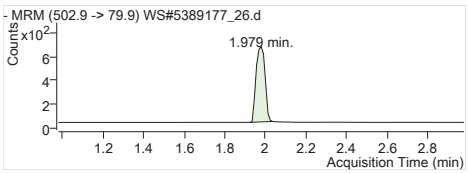


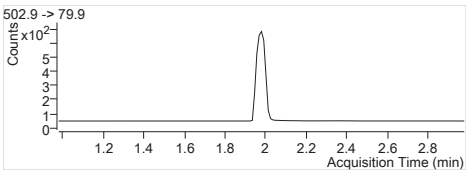
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



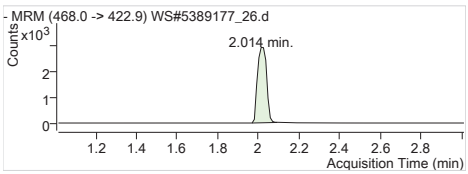


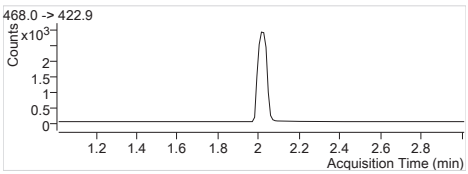
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



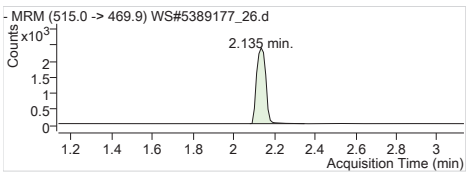


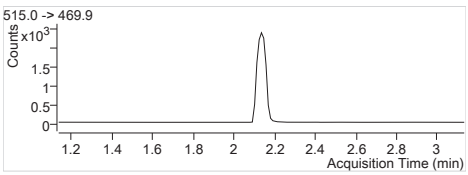
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



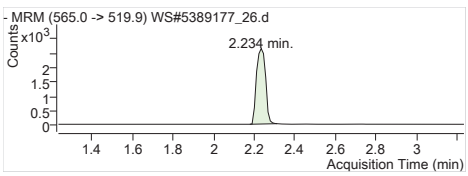


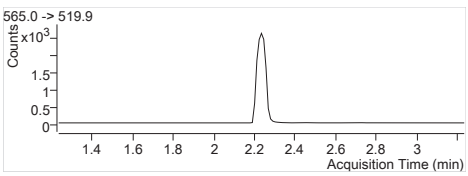
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



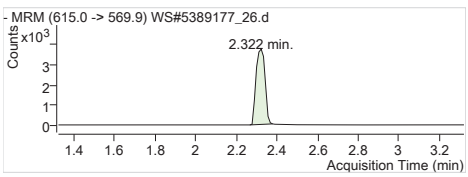


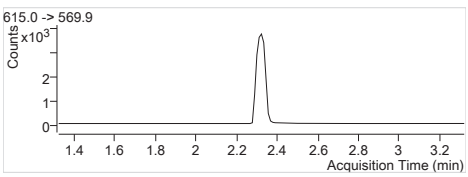
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



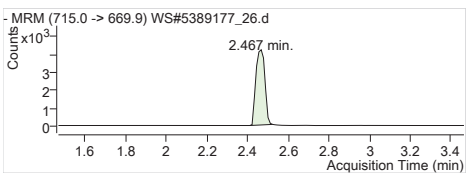


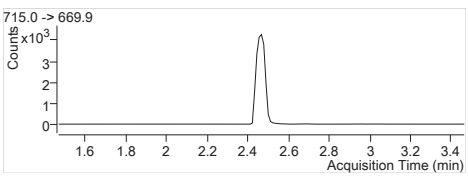
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



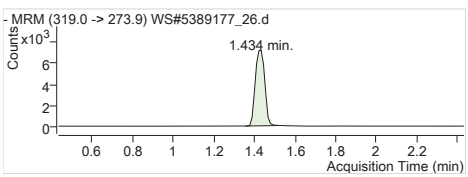


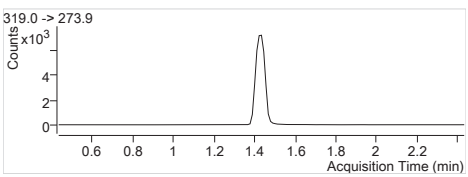
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



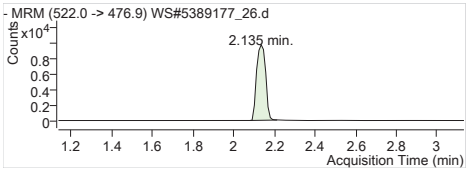


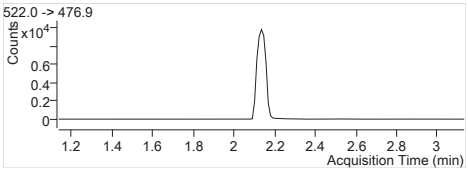
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



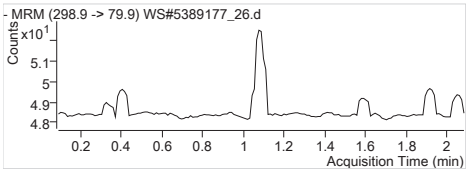


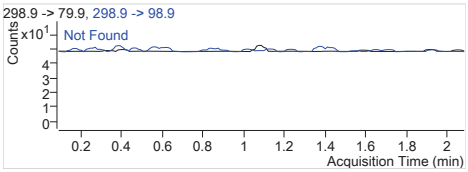
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



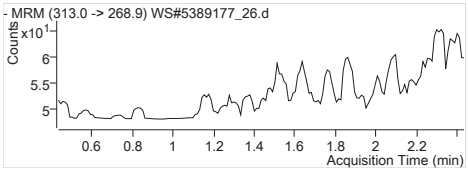


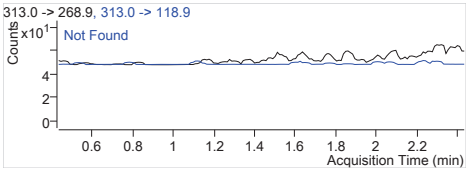
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



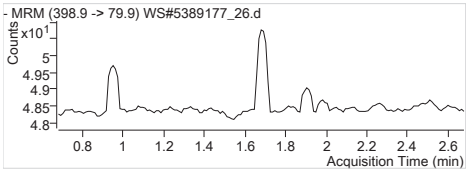


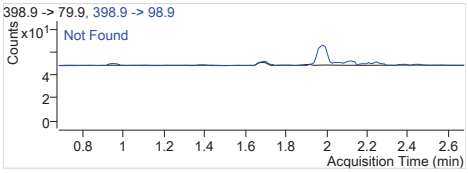
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



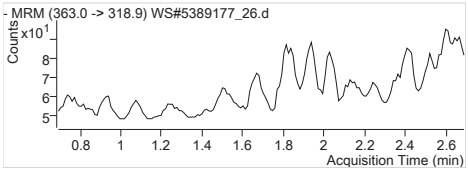


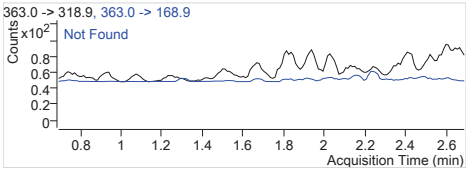
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



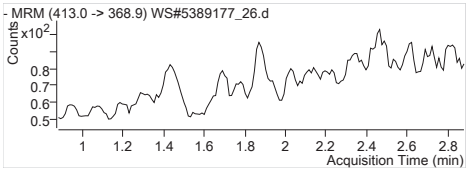


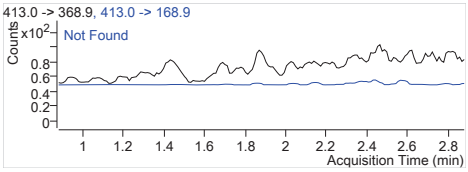
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



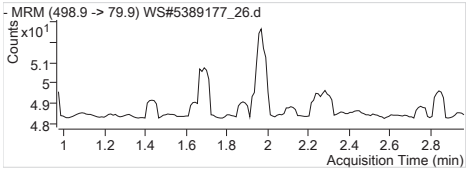


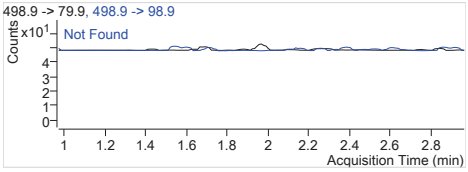
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



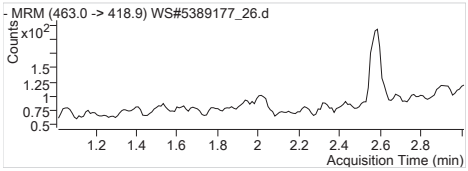


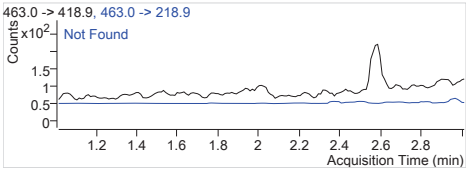
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



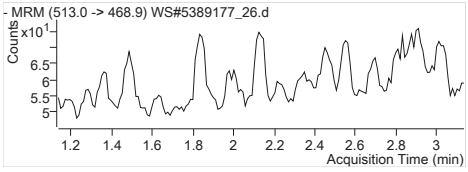


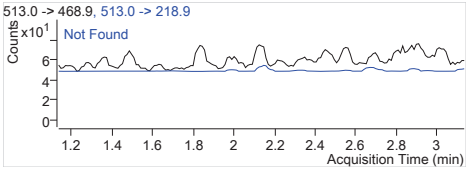
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



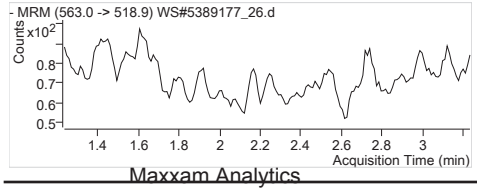


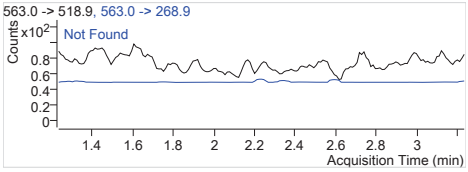
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



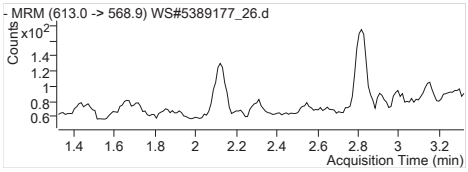


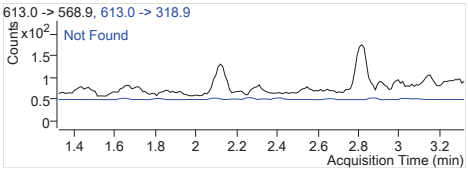
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



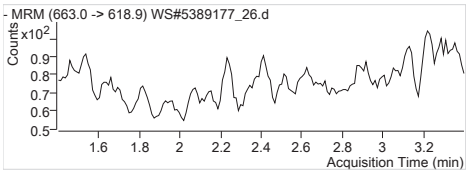


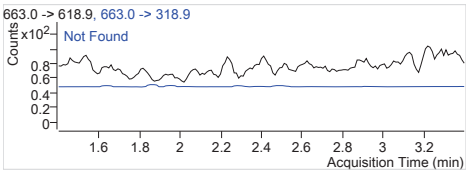
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



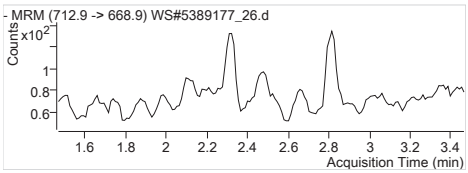


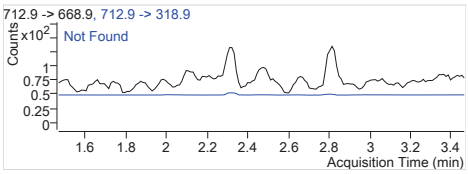
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



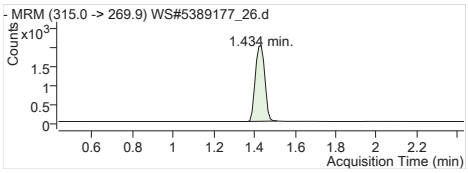


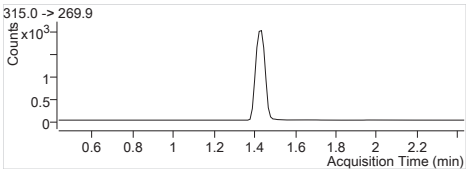
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



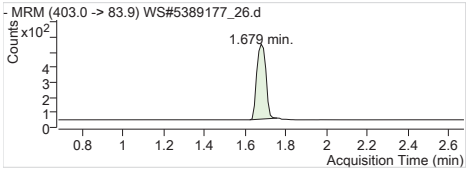


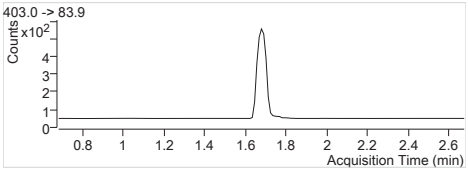
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



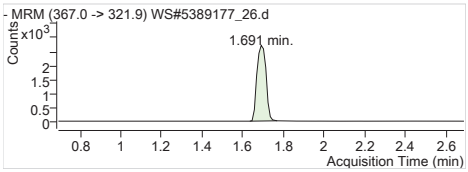


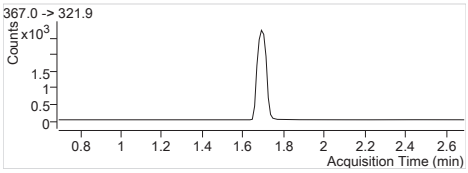
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	99.04 µg/L
Area ratio:	0.27766
Sample type:	Sample



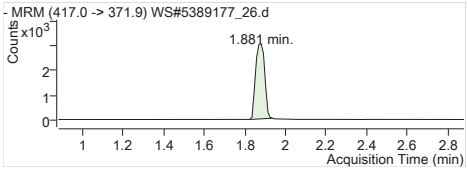


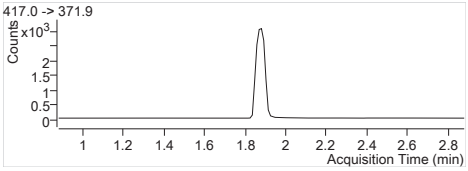
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	93.58 µg/L
Area ratio:	0.06760
Sample type:	Sample



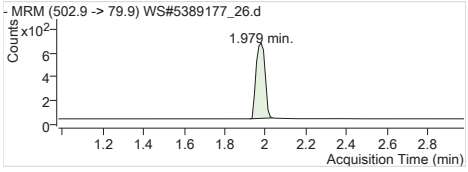


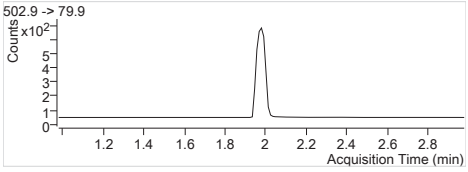
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	96.69 µg/L
Area ratio:	0.36056
Sample type:	Sample



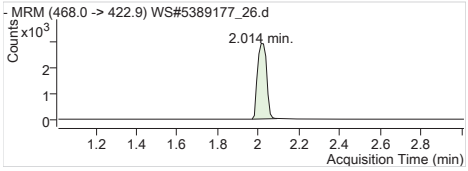


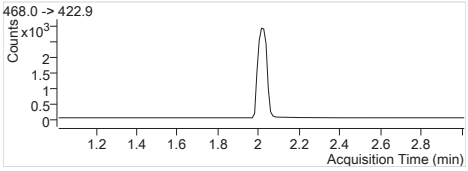
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	101.60 µg/L
Area ratio:	0.40539
Sample type:	Sample



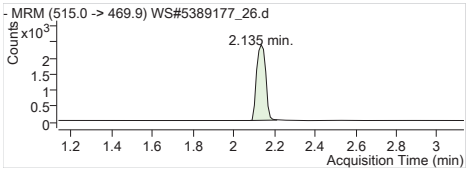


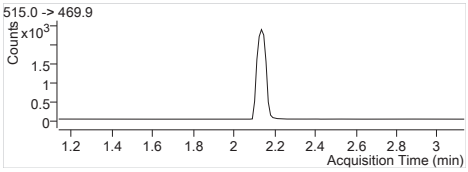
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	94.62 µg/L
Area ratio:	0.08381
Sample type:	Sample



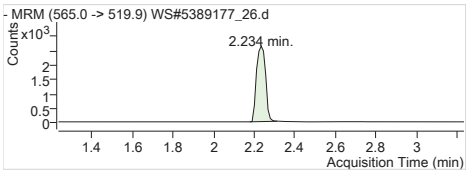


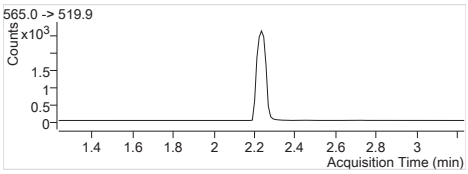
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	97.48 µg/L
Area ratio:	0.39212
Sample type:	Sample



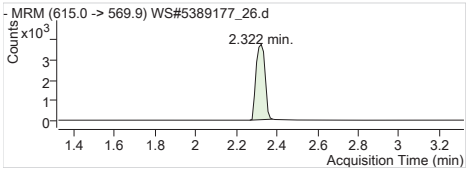


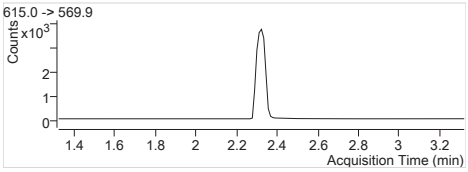
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 97.22 µg/L
Area ratio: 0.24487
Sample type: Sample



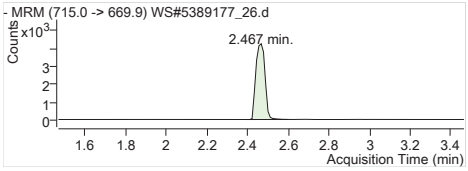


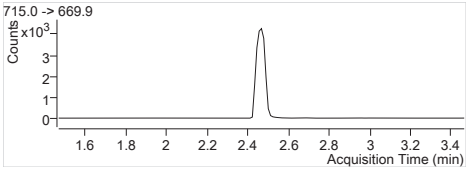
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 89.84 µg/L
Area ratio: 0.26989
Sample type: Sample



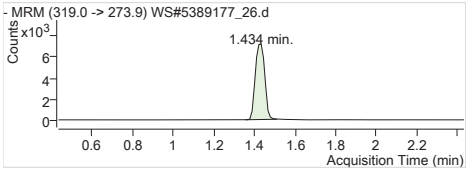


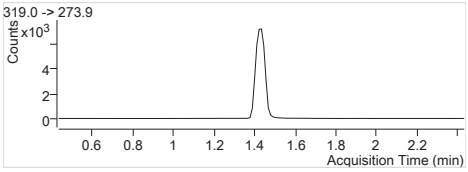
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 95.64 µg/L
Area ratio: 0.37900
Sample type: Sample



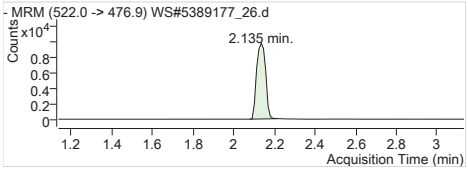


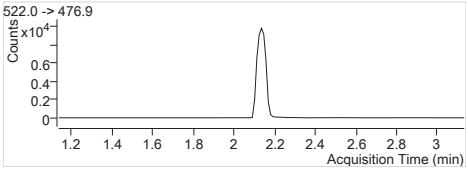
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 92.94 µg/L
Area ratio: 0.44082
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.59 µg/L
Area ratio: 0
Sample type: Sample





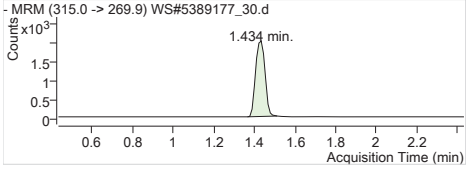
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.51 µg/L
Area ratio: 0
Sample type: Sample

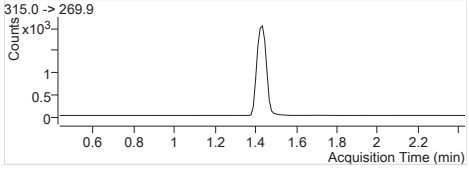
Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5389177_30.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P3-A8
Acq. Date	2018/02/09 2:20:29 AM	**Injection Volume**	Per Method
Sample Annotation	-		

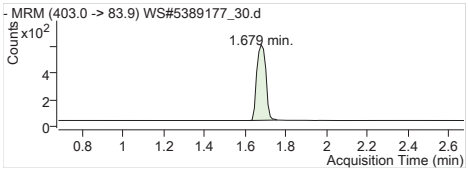
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6462	1.43	1 µg/L		
MPFHxS	1758	1.68	1 µg/L		
MPFHpA	8236	1.69	1 µg/L		
MPFOA	8839	1.88	1 µg/L		
MPFOS	1892	1.98	1 µg/L		
MPFNA	8791	2.01	1 µg/L		
MPFDA	7340	2.14	1 µg/L		
MPFUnA	8675	2.23	1 µg/L		
MPFDoA	11158	2.32	1 µg/L		
MPFTeDA	13769	2.47	1 µg/L		
13C6-PFHxA IS	22158	1.43	1 µg/L		
13C9-PFDA IS	29196	2.13	1 µg/L		

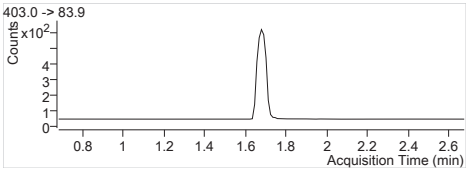
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6462	1.43	-	104.02 µg/L	-
18O2-PFHxS	1758	1.68	-	109.84 µg/L	-
13C4-PFHpA	8236	1.69	-	99.67 µg/L	-
13C4-PFOA	8839	1.88	-	99.98 µg/L	-
13C4-PFOS	1892	1.98	-	96.40 µg/L	-
13C5-PFNA	8791	2.01	-	98.63 µg/L	-
13C2-PFDA	7178	2.14	-	97.61 µg/L	-
13C2-PFUnA	8675	2.23	-	98.91 µg/L	-
13C2-PFDoA	11158	2.32	-	96.44 µg/L	-
13C2-PFTeDA	14175	2.47	-	102.36 µg/L	-
13C6-PFHxA	22158	1.43	-	2.48 µg/L	-
13C9-PFDA	29196	2.13	-	2.45 µg/L	-



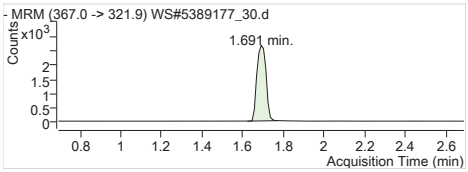


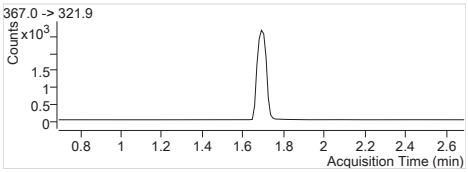
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



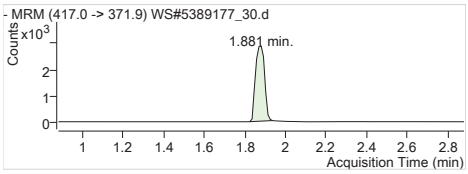


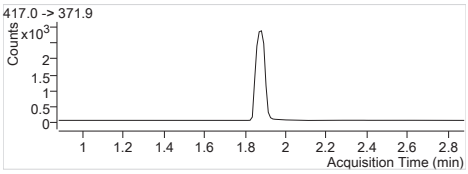
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



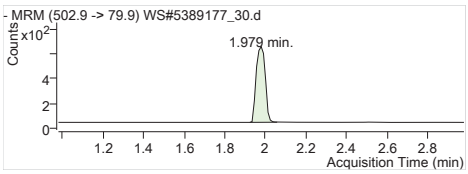


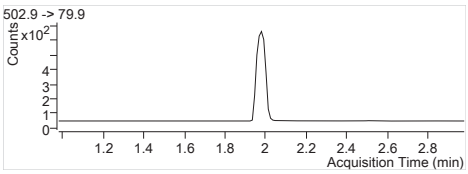
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



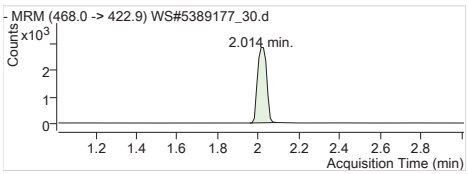


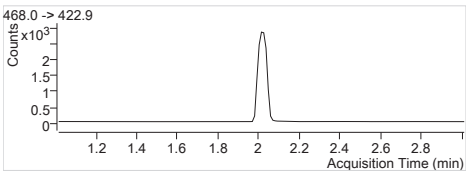
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



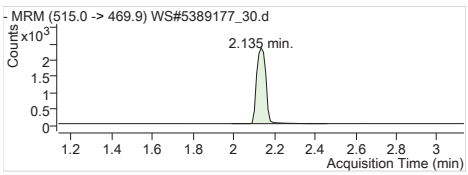


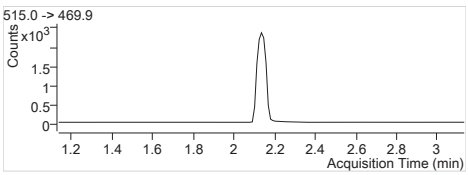
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



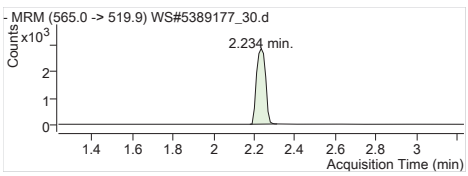


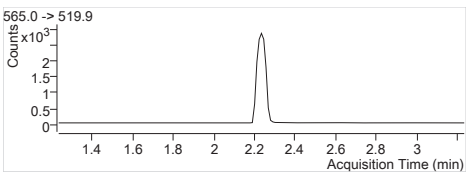
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



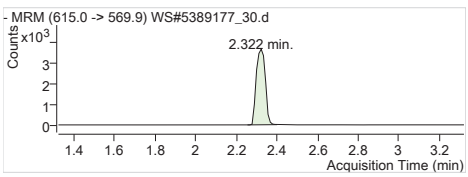


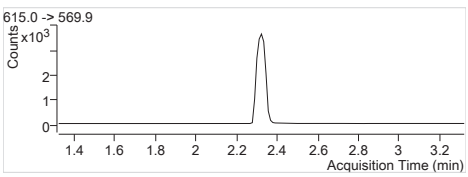
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



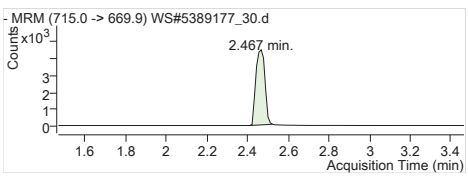


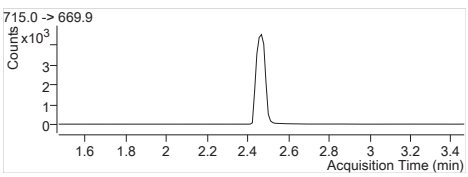
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



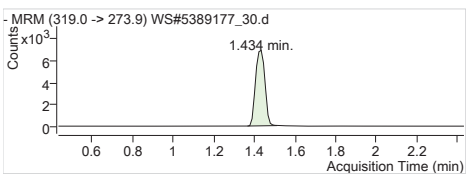


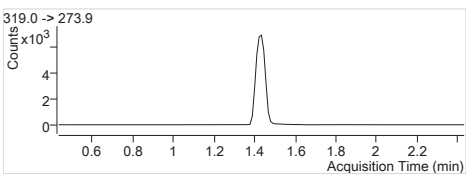
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



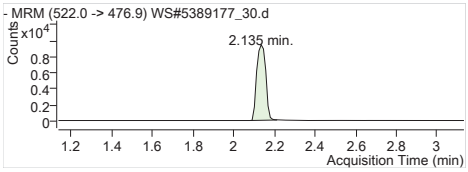


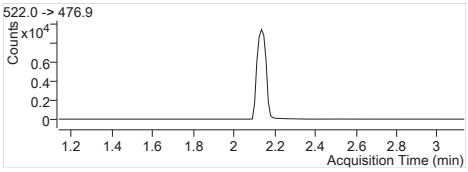
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



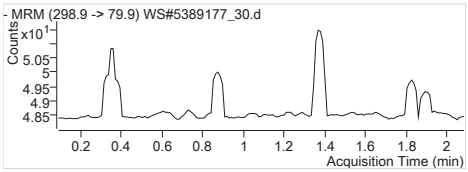


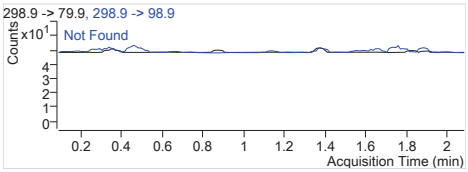
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



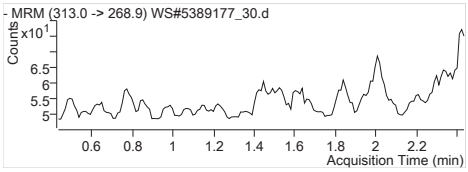


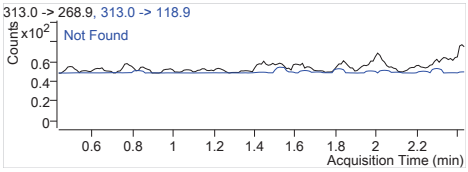
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



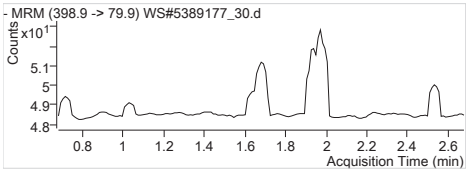


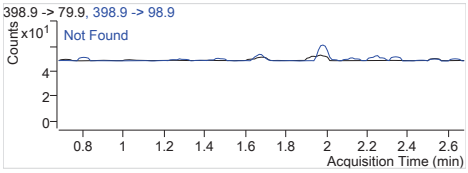
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



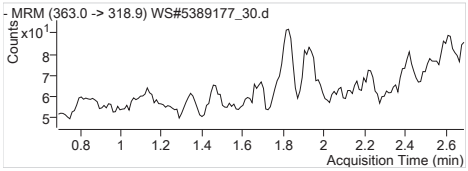


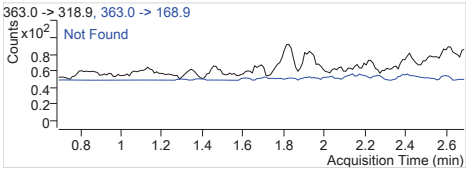
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



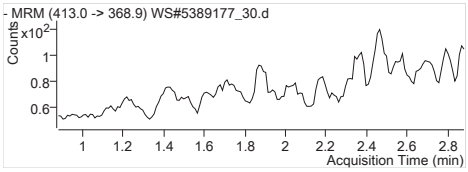


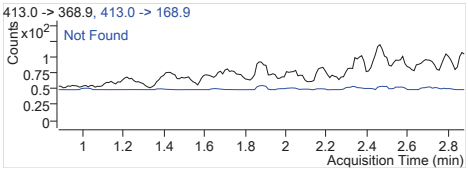
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



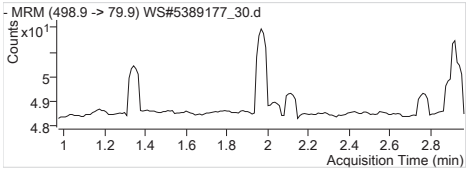


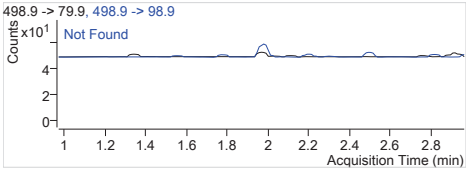
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



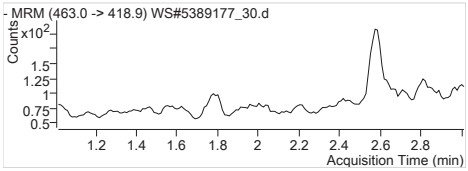


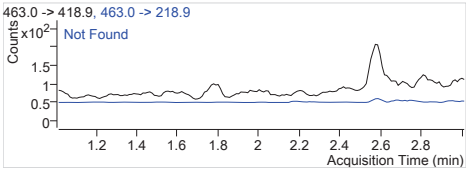
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



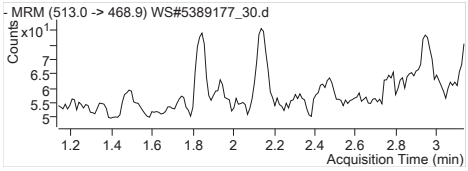


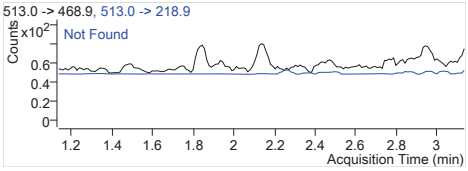
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



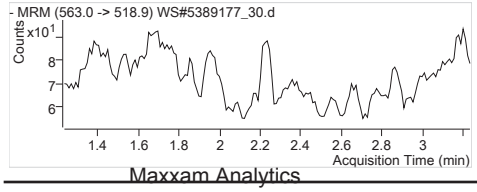


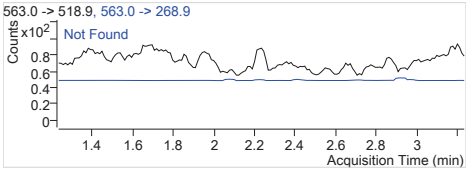
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



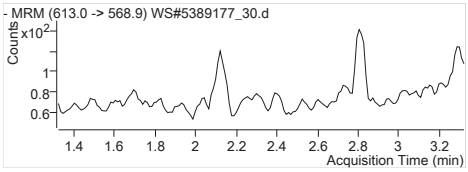


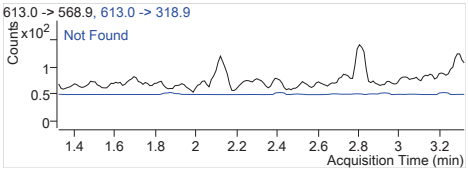
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



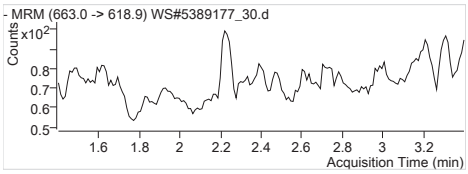


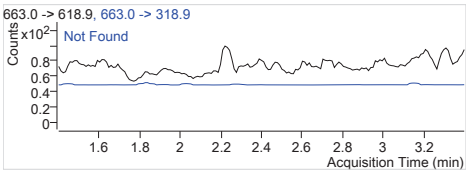
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



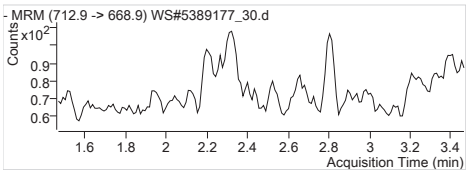


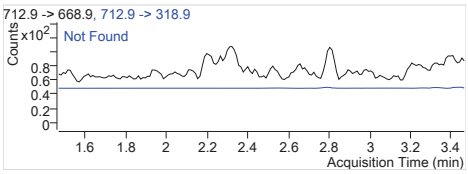
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



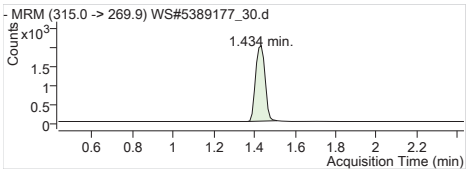


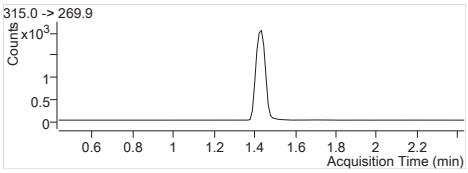
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



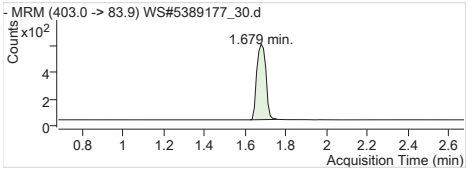


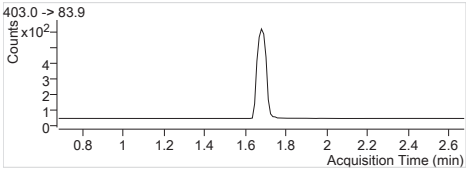
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



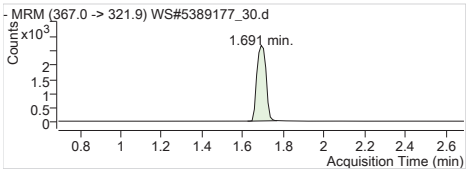


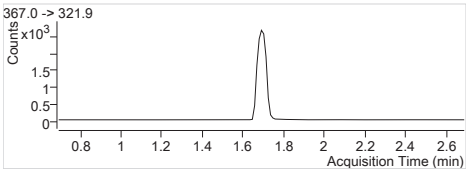
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	104.02 µg/L
Area ratio:	0.29163
Sample type:	Sample



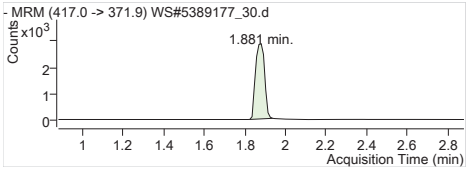


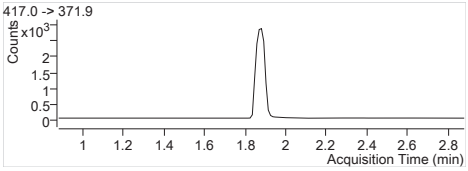
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	109.84 µg/L
Area ratio:	0.07934
Sample type:	Sample



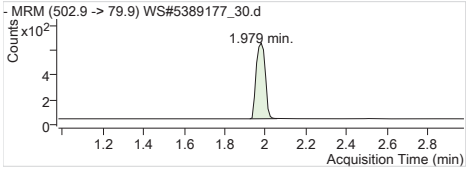


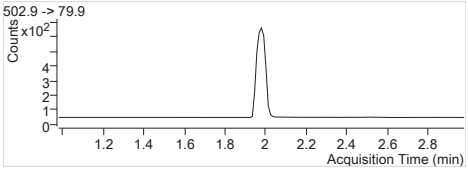
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	99.67 µg/L
Area ratio:	0.37169
Sample type:	Sample



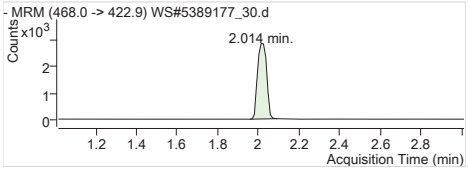


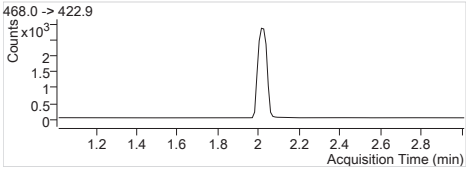
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	99.98 µg/L
Area ratio:	0.39891
Sample type:	Sample



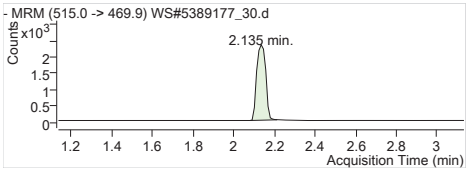


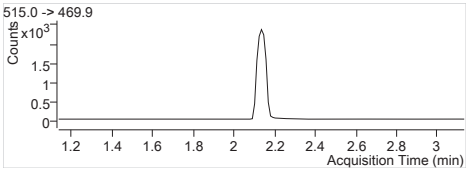
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	96.40 µg/L
Area ratio:	0.08539
Sample type:	Sample



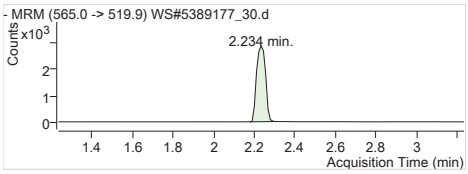


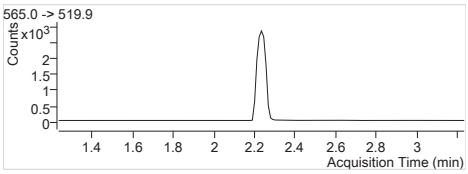
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	98.63 µg/L
Area ratio:	0.39674
Sample type:	Sample



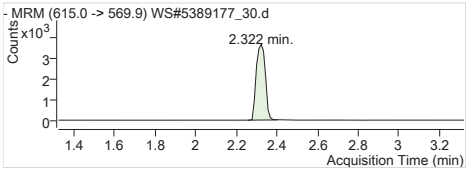


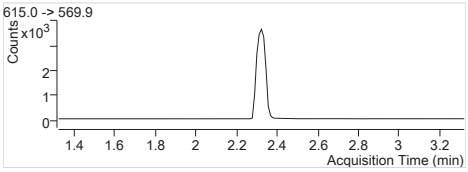
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 97.61 µg/L
Area ratio: 0.24586
Sample type: Sample



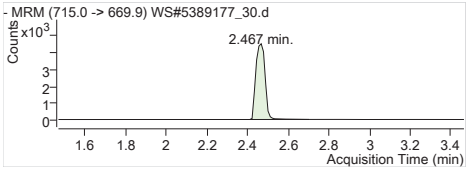


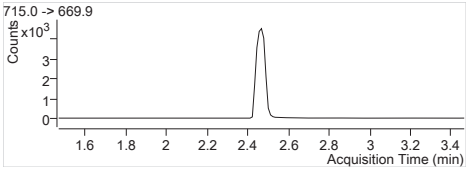
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 98.91 µg/L
Area ratio: 0.29713
Sample type: Sample



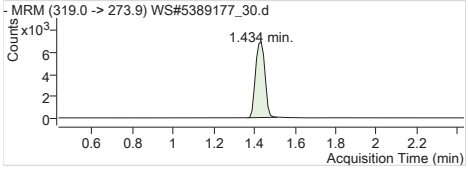


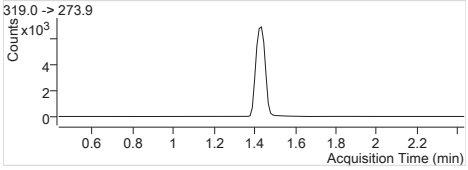
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 96.44 µg/L
Area ratio: 0.38218
Sample type: Sample



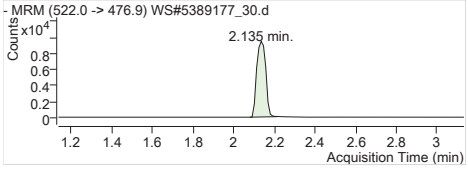


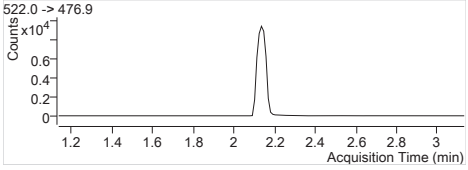
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 102.36 µg/L
Area ratio: 0.48551
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.48 µg/L
Area ratio: 0
Sample type: Sample





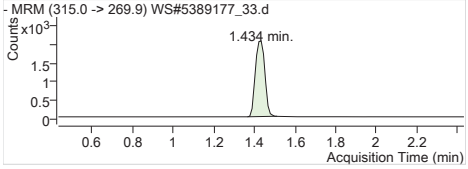
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.45 µg/L
Area ratio: 0
Sample type: Sample

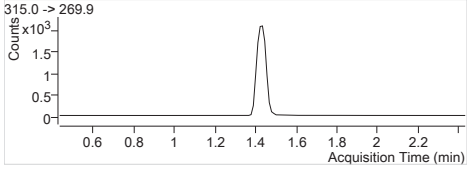
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5389177_33.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P3-A8
Acq. Date	2018/02/09 2:35:17 AM	**Injection Volume**	Per Method
Sample Annotation	-		

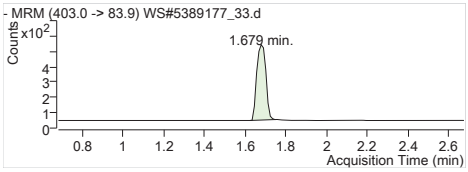
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6671	1.43	1 µg/L		
MPFHxS	1547	1.68	1 µg/L		
MPFHpA	8051	1.69	1 µg/L		
MPFOA	8361	1.88	1 µg/L		
MPFOS	1883	1.98	1 µg/L		
MPFNA	9266	2.01	1 µg/L		
MPFDA	7638	2.14	1 µg/L		
MPFUnA	8788	2.23	1 µg/L		
MPFDoA	11768	2.32	1 µg/L		
MPFTeDA	13048	2.47	1 µg/L		
13C6-PFHxA IS	23315	1.42	1 µg/L		
13C9-PFDA IS	30723	2.13	1 µg/L		

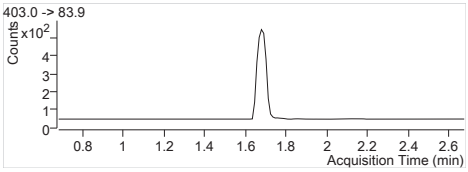
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6671	1.43	-	102.05 µg/L	-
18O2-PFHxS	1547	1.68	-	91.86 µg/L	-
13C4-PFHpA	8051	1.69	-	92.60 µg/L	-
13C4-PFOA	8361	1.88	-	89.88 µg/L	-
13C4-PFOS	1883	1.98	-	91.18 µg/L	-
13C5-PFNA	9264	2.01	-	98.78 µg/L	-
13C2-PFDA	7520	2.14	-	97.18 µg/L	-
13C2-PFUnA	8788	2.23	-	95.22 µg/L	-
13C2-PFDoA	11768	2.32	-	96.65 µg/L	-
13C2-PFTeDA	13418	2.47	-	92.08 µg/L	-
13C6-PFHxA	23315	1.42	-	2.61 µg/L	-
13C9-PFDA	30723	2.13	-	2.58 µg/L	-



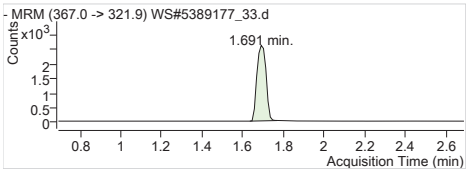


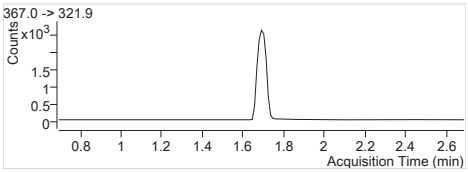
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	Sample



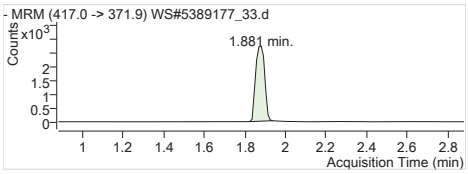


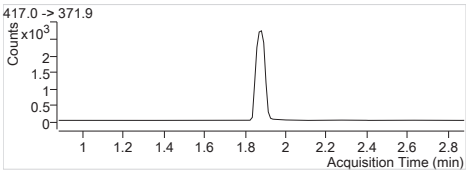
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



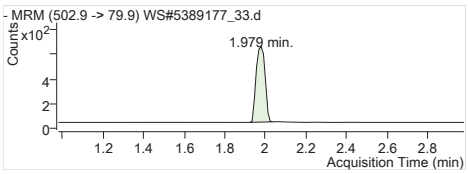


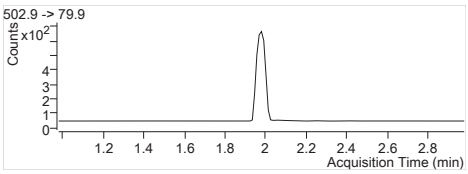
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



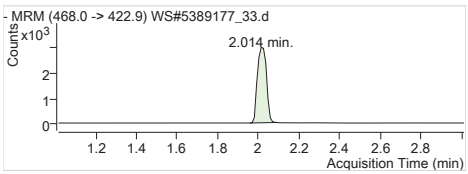


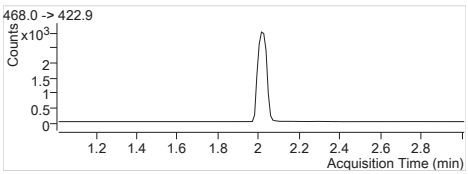
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



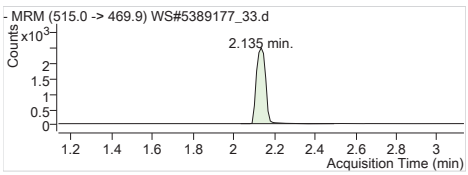


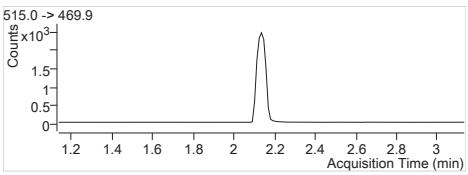
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



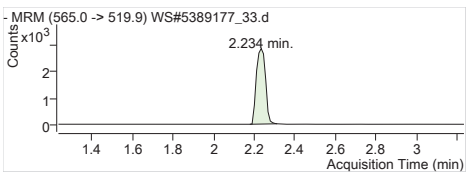


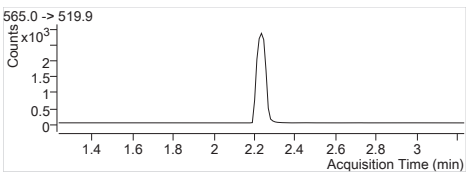
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



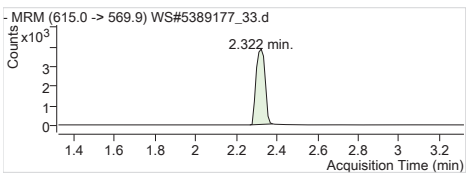


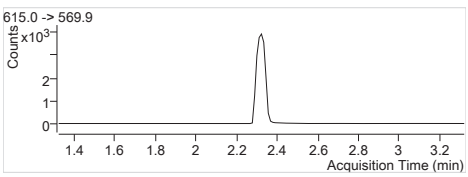
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



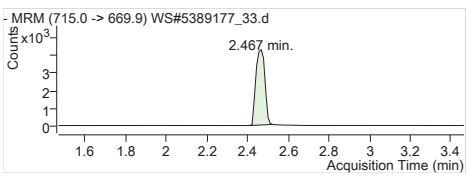


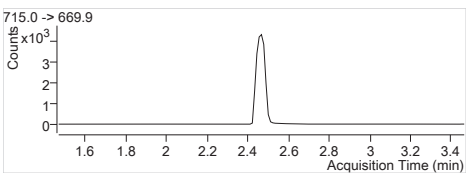
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



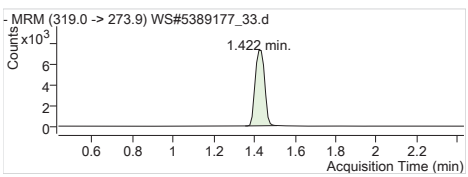


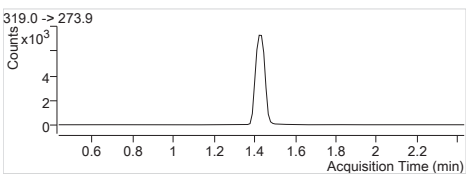
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



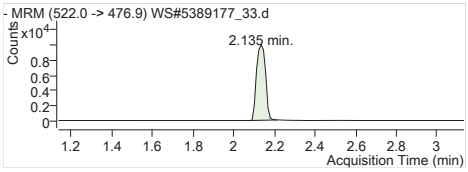


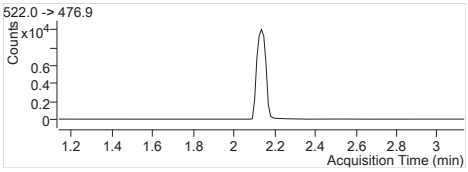
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



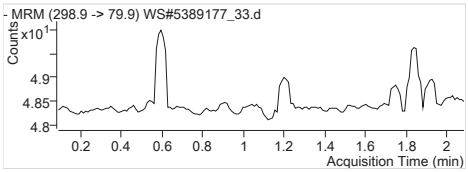


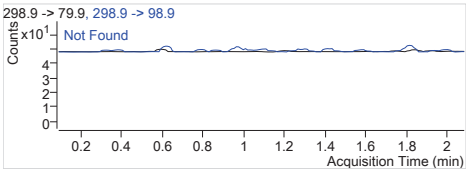
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.434)
Concentration: 1 µg/L
Sample type: Sample



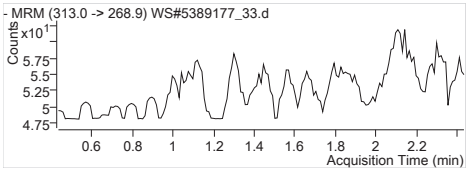


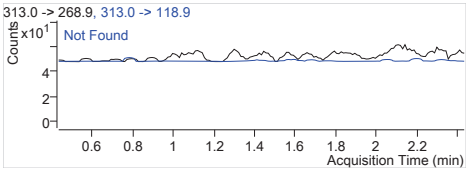
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



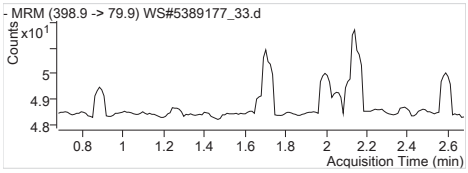


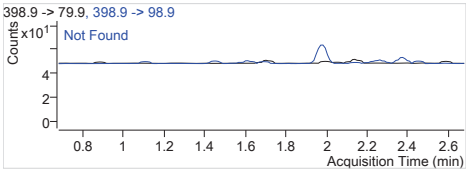
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



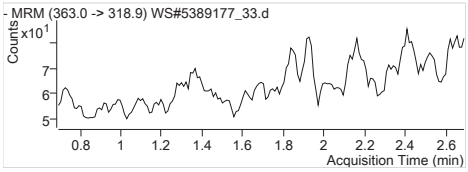


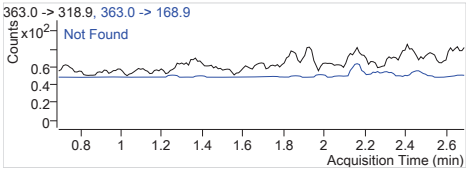
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



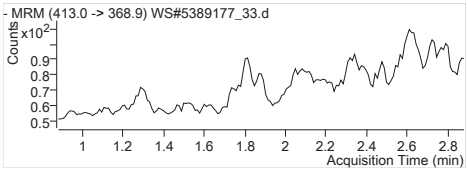


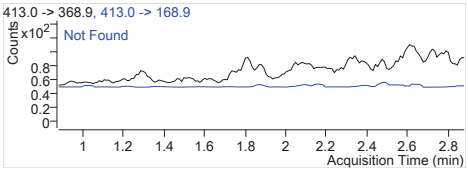
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



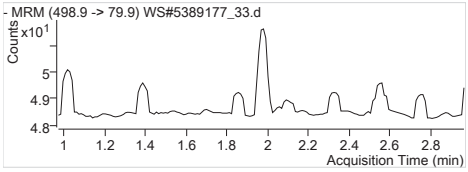


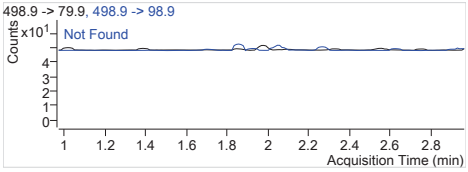
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



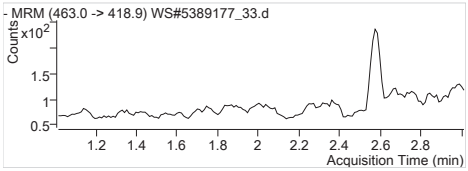


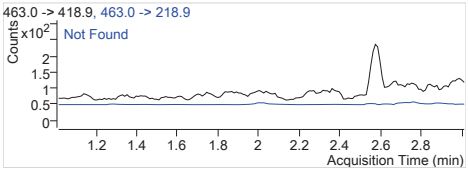
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



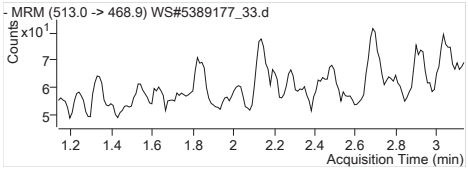


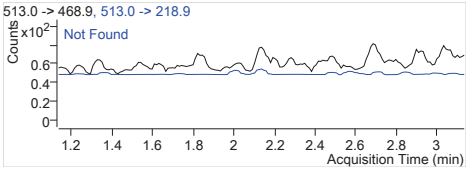
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



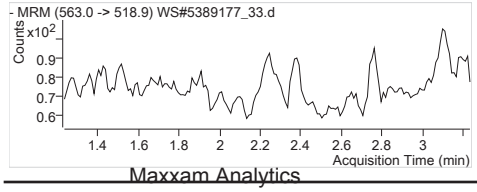


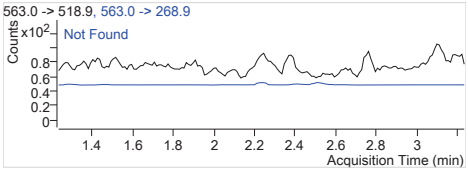
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



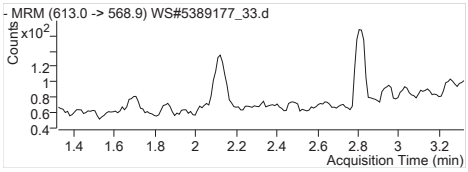


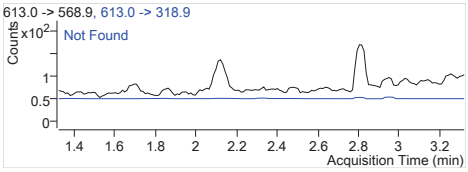
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



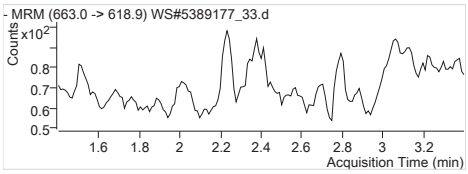


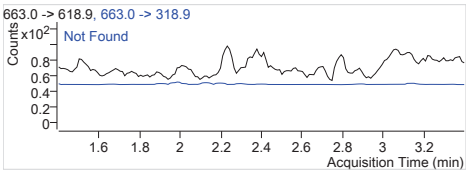
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



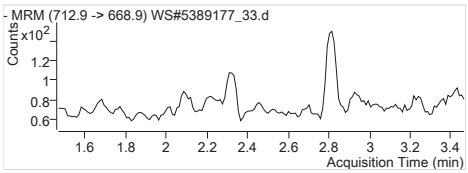


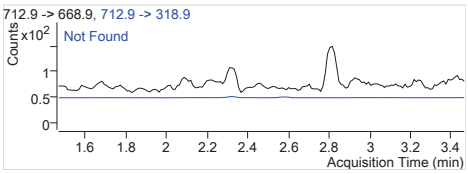
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



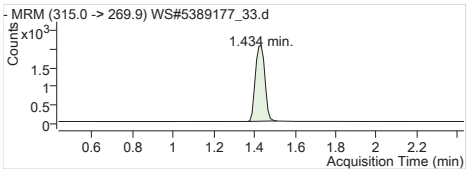


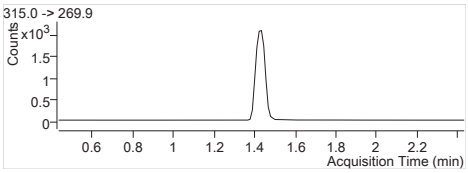
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



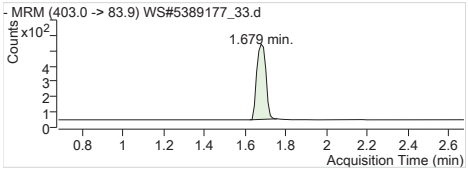


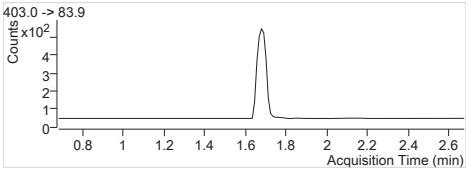
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



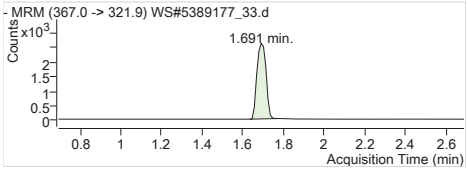


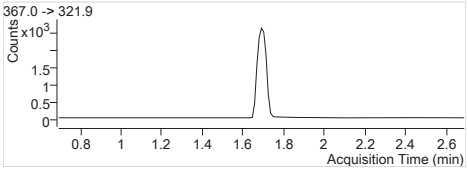
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 102.05 µg/L
Area ratio: 0.28612
Sample type: Sample



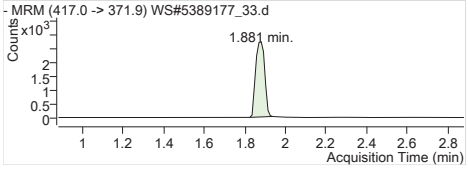


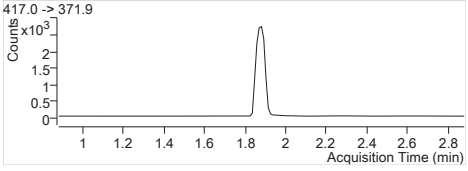
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 91.86 µg/L
Area ratio: 0.06635
Sample type: Sample



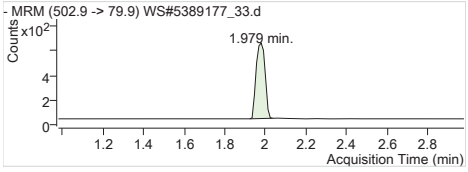


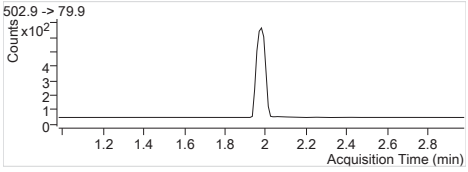
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 92.60 µg/L
Area ratio: 0.34531
Sample type: Sample



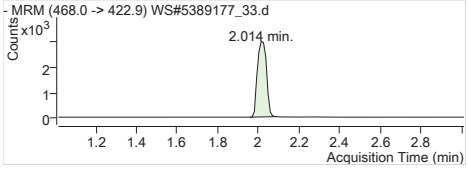


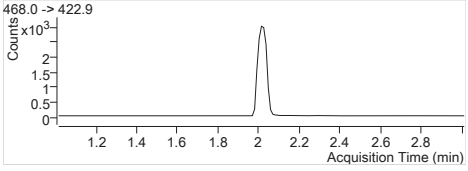
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 89.88 µg/L
Area ratio: 0.35861
Sample type: Sample



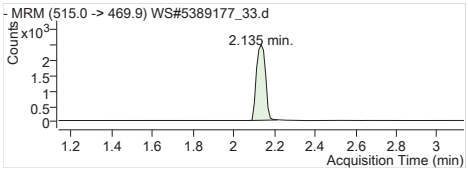


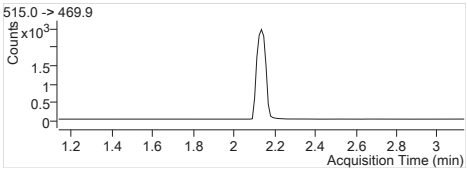
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 91.18 µg/L
Area ratio: 0.08076
Sample type: Sample



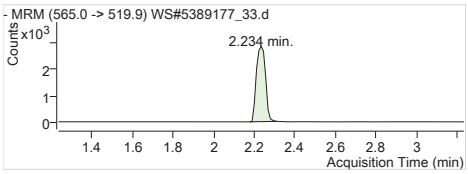


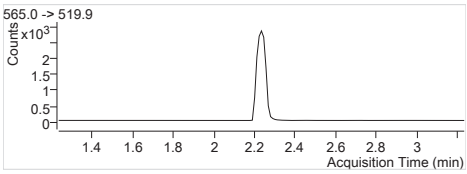
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 98.78 µg/L
Area ratio: 0.39734
Sample type: Sample



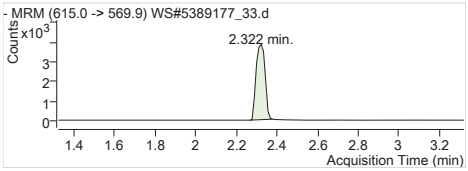


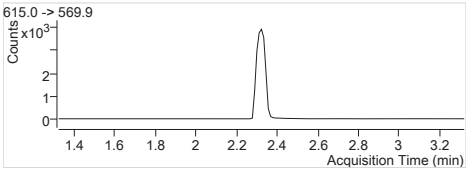
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 97.18 µg/L
Area ratio: 0.24477
Sample type: Sample



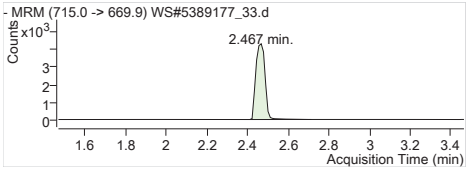


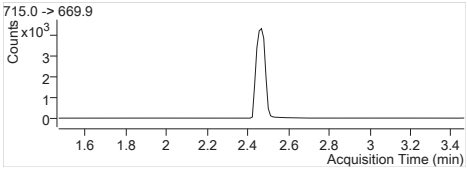
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 95.22 µg/L
Area ratio: 0.28604
Sample type: Sample



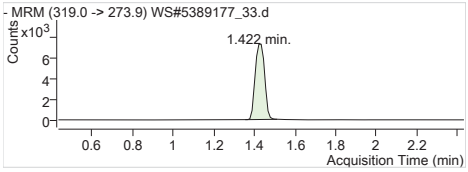


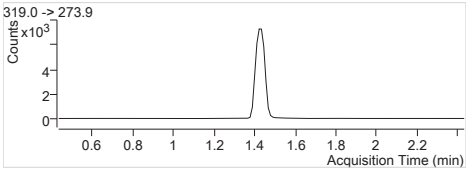
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 96.65 µg/L
Area ratio: 0.38304
Sample type: Sample



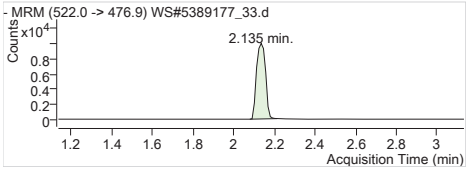


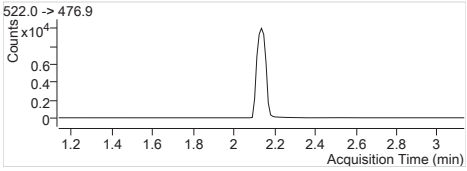
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 92.08 µg/L
Area ratio: 0.43674
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.434)
Calc. conc. 2.61 µg/L
Area ratio: 0
Sample type: Sample





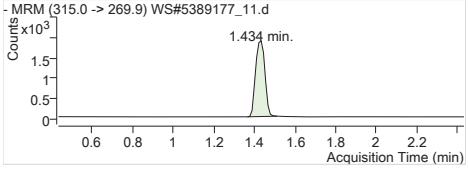
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.58 µg/L
Area ratio: 0
Sample type: Sample

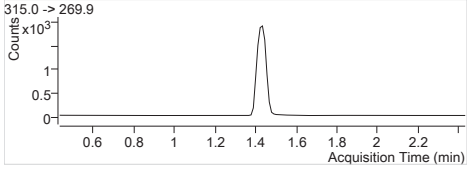
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**5389177:BLANK**	**Instrument**	LCMS04
Data File	WS#5389177_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P3-B1
Acq. Date	2018/02/09 12:46:45 AM	**Injection Volume**	Per Method
Sample Annotation	-		

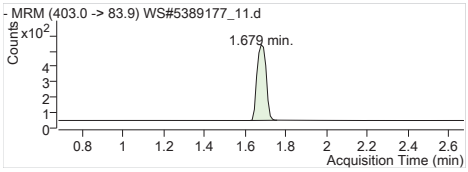
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5936	1.43	1 µg/L		
MPFHxS	1541	1.68	1 µg/L		
MPFHpA	7937	1.69	1 µg/L		
MPFOA	8769	1.88	1 µg/L		
MPFOS	1755	1.98	1 µg/L		
MPFNA	8060	2.01	1 µg/L		
MPFDA	6153	2.14	1 µg/L		
MPFUnA	7102	2.23	1 µg/L		
MPFDoA	9102	2.32	1 µg/L		
MPFTeDA	11493	2.47	1 µg/L		
13C6-PFHxA IS	22966	1.43	1 µg/L		
13C9-PFDA IS	30416	2.13	1 µg/L		

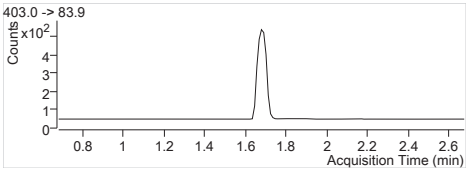
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5936	1.43	-	92.19 µg/L	-
18O2-PFHxS	1541	1.68	-	92.89 µg/L	-
13C4-PFHpA	7937	1.69	-	92.67 µg/L	-
13C4-PFOA	8769	1.88	-	95.70 µg/L	-
13C4-PFOS	1755	1.98	-	86.28 µg/L	-
13C5-PFNA	8059	2.01	-	87.24 µg/L	-
13C2-PFDA	6076	2.14	-	79.31 µg/L	-
13C2-PFUnA	7102	2.23	-	77.73 µg/L	-
13C2-PFDoA	9102	2.32	-	75.51 µg/L	-
13C2-PFTeDA	11489	2.47	-	79.64 µg/L	-
13C6-PFHxA	22966	1.43	-	2.57 µg/L	-
13C9-PFDA	30416	2.13	-	2.55 µg/L	-



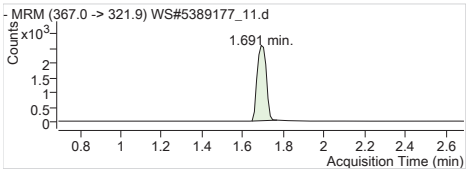


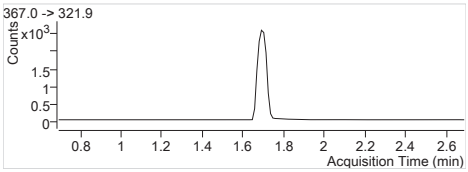
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	Sample



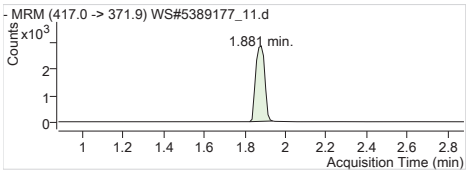


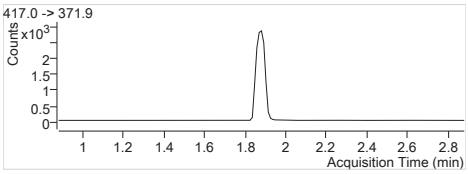
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



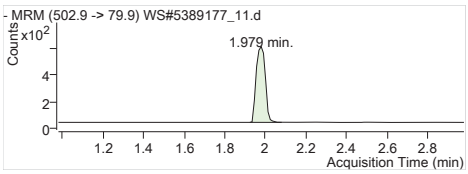


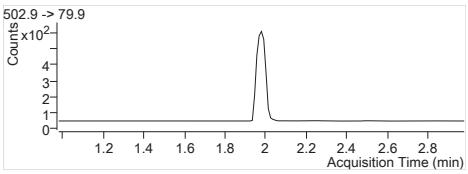
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



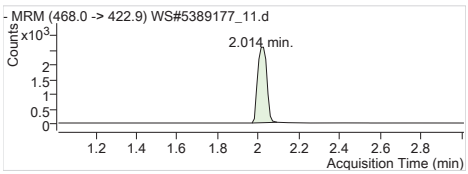


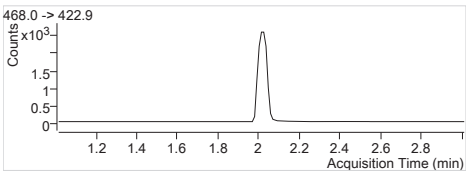
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



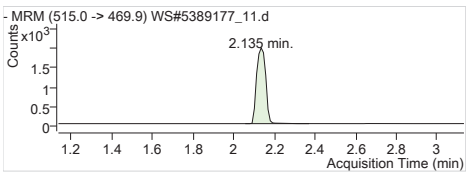


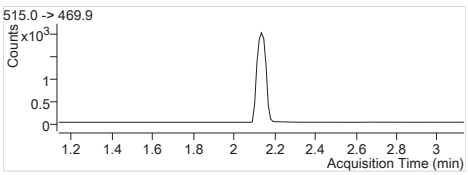
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



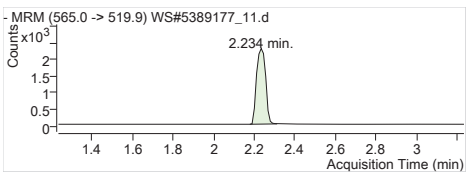


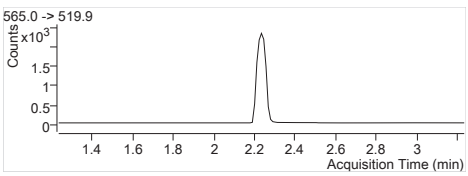
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



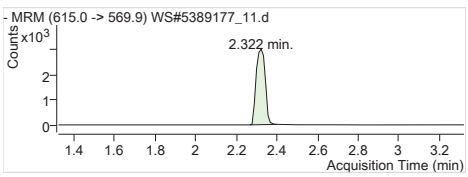


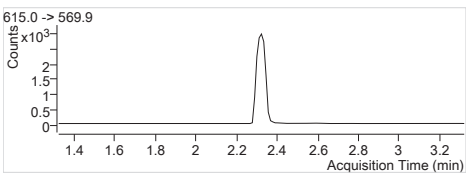
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



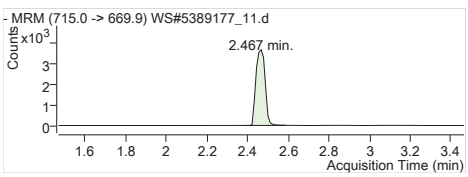


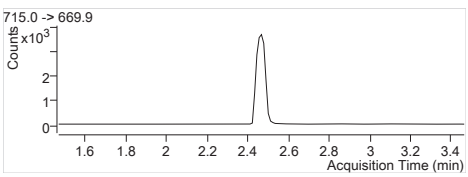
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



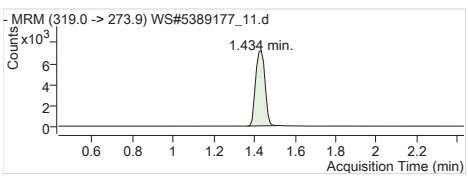


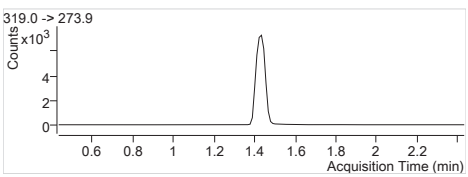
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



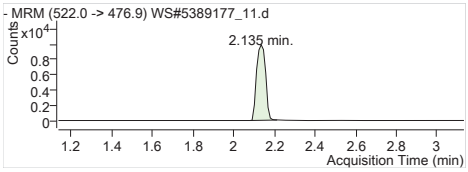


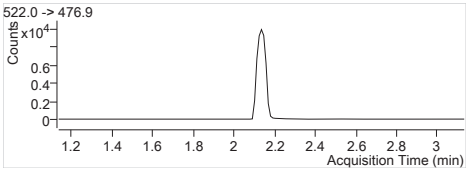
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



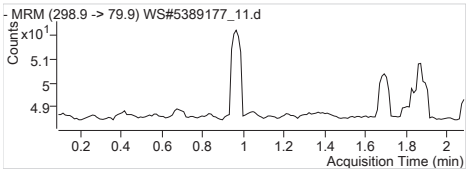


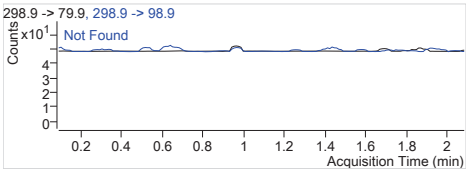
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



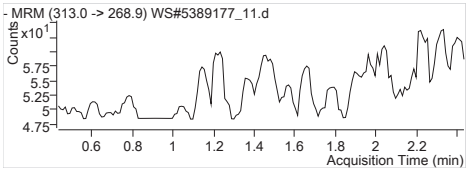


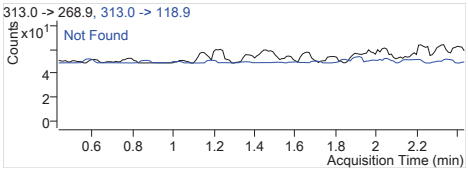
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



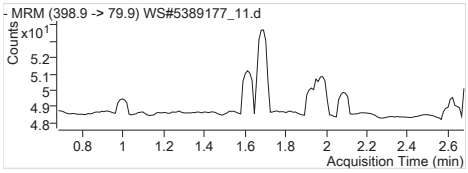


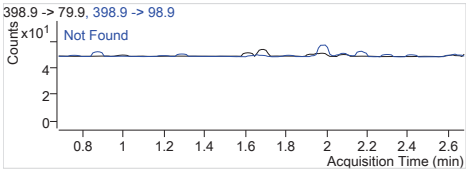
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



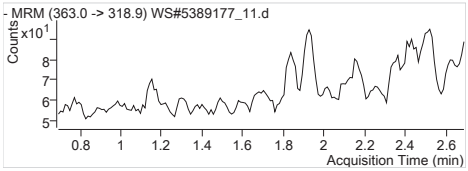


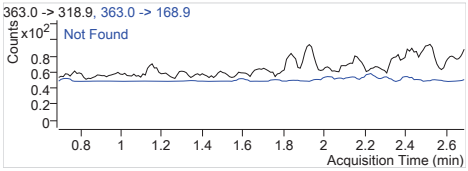
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.434)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



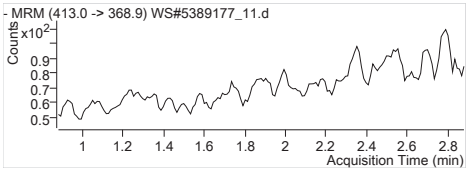


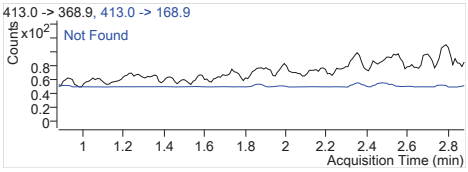
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



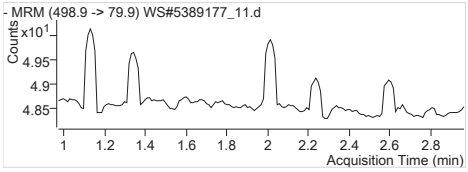


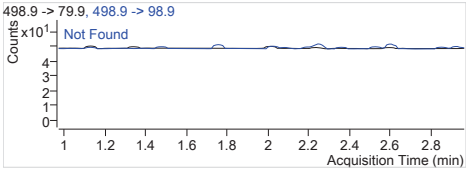
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



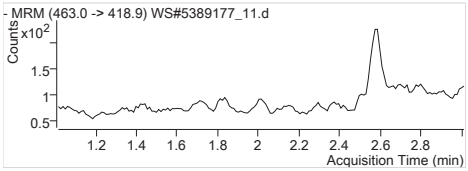


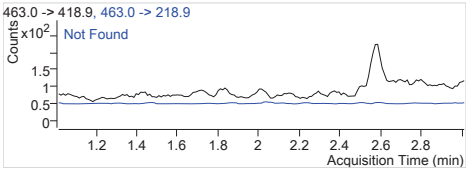
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



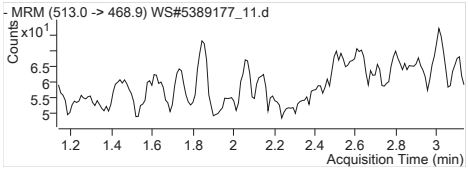


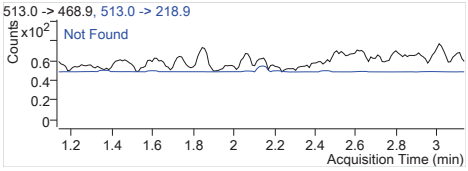
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



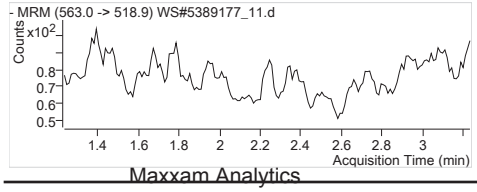


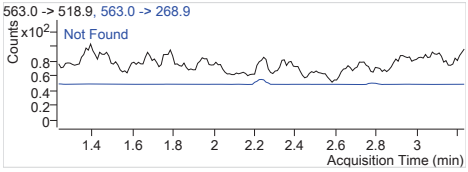
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



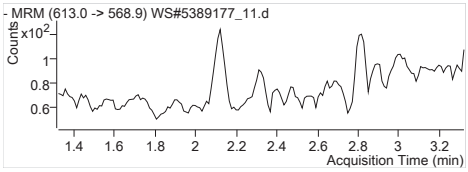


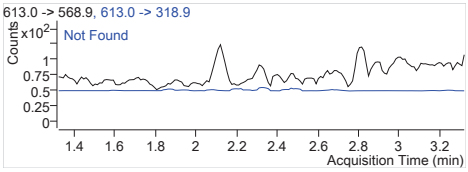
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



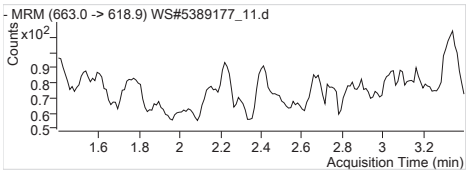


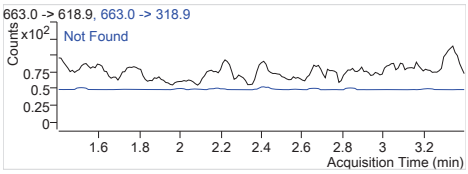
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



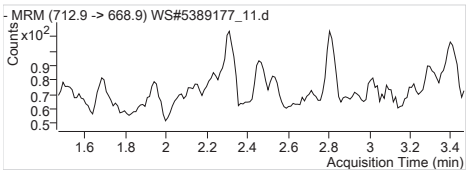


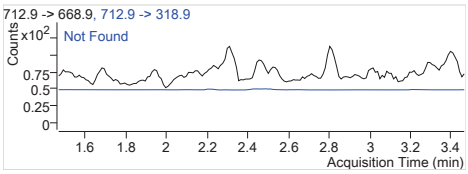
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



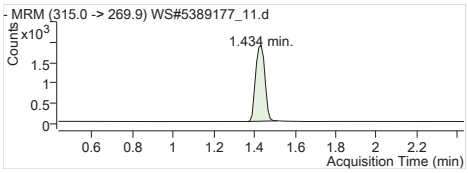


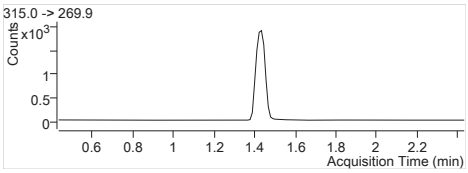
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



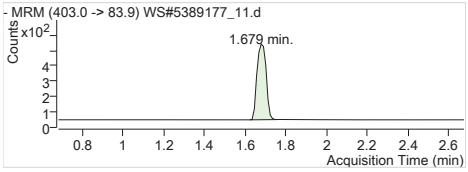


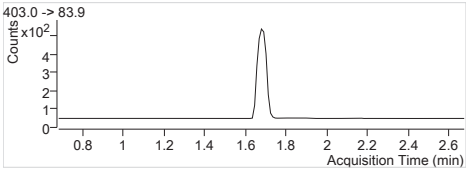
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



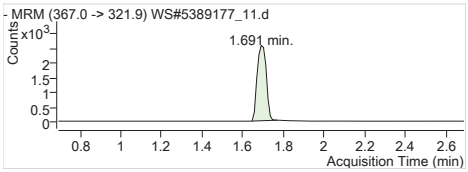


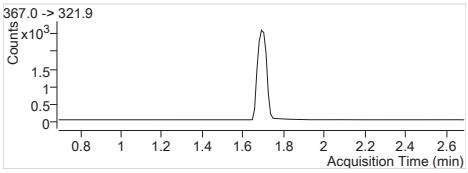
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 92.19 µg/L
Area ratio: 0.25847
Sample type: Sample



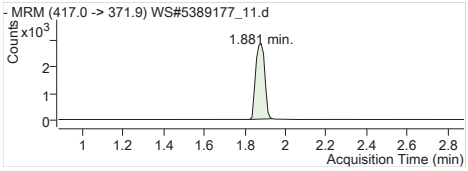


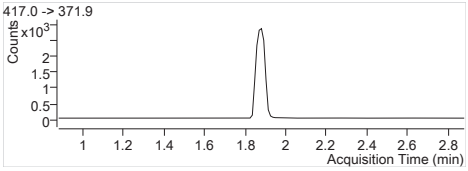
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 92.89 µg/L
Area ratio: 0.06710
Sample type: Sample



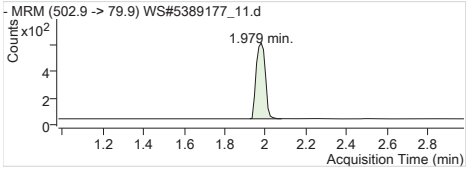


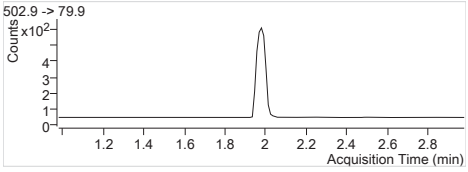
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 92.67 µg/L
Area ratio: 0.34560
Sample type: Sample



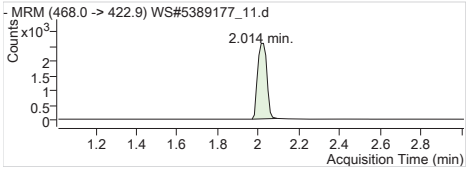


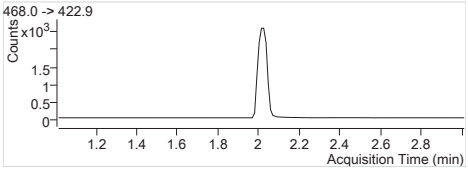
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 95.70 µg/L
Area ratio: 0.38183
Sample type: Sample



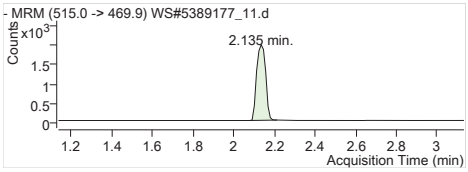


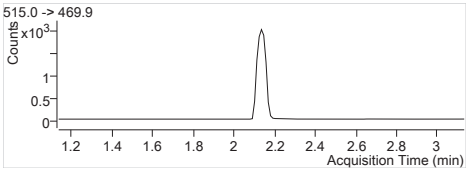
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 86.28 µg/L
Area ratio: 0.07642
Sample type: Sample



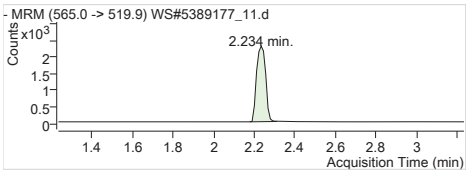


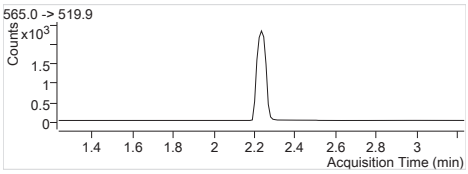
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 87.24 µg/L
Area ratio: 0.35091
Sample type: Sample



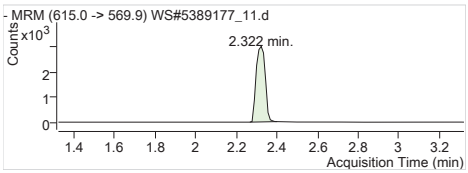


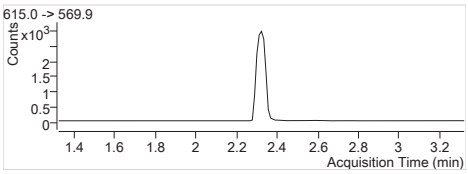
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 79.31 µg/L
Area ratio: 0.19976
Sample type: Sample



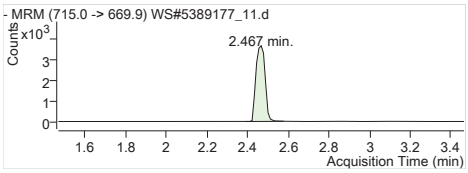


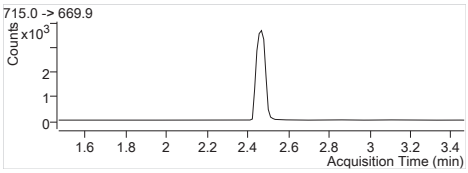
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 77.73 µg/L
Area ratio: 0.23350
Sample type: Sample



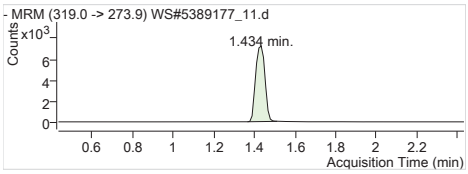


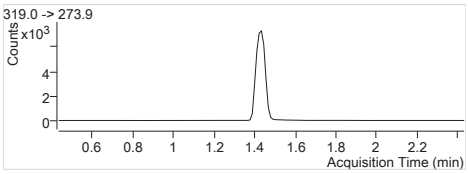
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 75.51 µg/L
Area ratio: 0.29925
Sample type: Sample



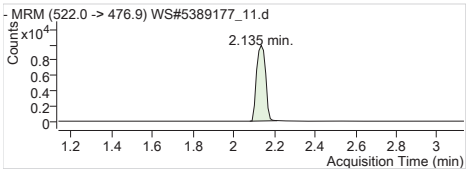


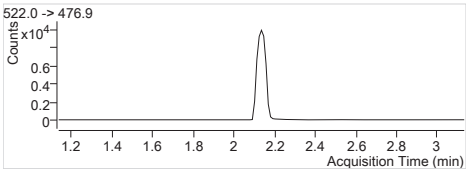
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 79.64 µg/L
Area ratio: 0.37773
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.57 µg/L
Area ratio: 0
Sample type: Sample





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.55 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

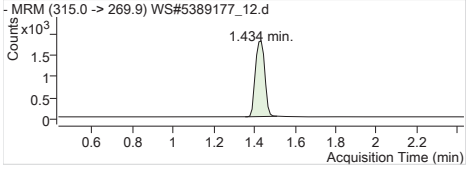
Agilent Technologies

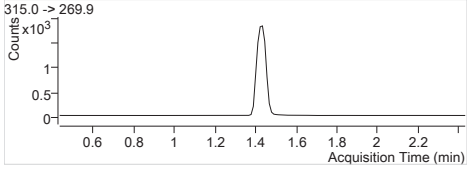
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**5389177:SPIKE**	**Instrument**	LCMS04
Data File	WS#5389177_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P3-B2
Acq. Date	2018/02/09 12:51:41 AM	**Injection Volume**	Per Method
Sample Annotation	-		

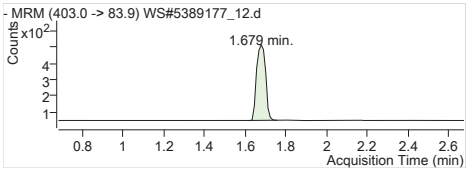
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5779	1.43	1 µg/L		
MPFHxS	1441	1.68	1 µg/L		
MPFHpA	7742	1.69	1 µg/L		
MPFOA	7953	1.88	1 µg/L		
MPFOS	1731	1.98	1 µg/L		
MPFNA	8244	2.01	1 µg/L		
MPFDA	6680	2.14	1 µg/L		
MPFUnA	8358	2.23	1 µg/L		
MPFDoA	9561	2.32	1 µg/L		
MPFTeDA	11178	2.47	1 µg/L		
13C6-PFHxA IS	23803	1.43	1 µg/L		
13C9-PFDA IS	30268	2.13	1 µg/L		

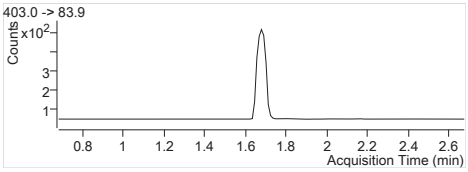
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	14006	1.09	20.80	0.51 µg/L	101.52
PFHxA 1	47571	1.43	20.80	0.48 µg/L	95.43
PFHxS 1	13139	1.68	20.80	0.49 µg/L	97.70
PFHpA 1	62924	1.69	20.80	0.47 µg/L	94.54
PFOA 1	71258	1.88	20.80	0.51 µg/L	101.22
PFOS 1	13138	1.97	20.80	0.48 µg/L	96.18
PFNA 1	62872	2.01	20.80	0.48 µg/L	96.87
PFDA 1	67176	2.14	20.80	0.50 µg/L	100.43
PFUnA 1	75515	2.23	20.80	0.49 µg/L	98.00
PFDoA 1	85464	2.32	20.80	0.49 µg/L	98.37
PFTrDA 1	97362	2.40	20.80	0.52 µg/L	103.38
PFTeDA 1	82345	2.47	20.80	0.50 µg/L	100.11
13C2-PFHxA	5779	1.43	100.00	86.60 µg/L	86.60
18O2-PFHxS	1441	1.68	100.00	83.81 µg/L	83.81
13C4-PFHpA	7742	1.69	100.00	87.22 µg/L	87.22
13C4-PFOA	7953	1.88	100.00	83.74 µg/L	83.74
13C4-PFOS	1731	1.98	100.00	82.11 µg/L	82.11
13C5-PFNA	8245	2.01	100.00	86.11 µg/L	86.11
13C2-PFDA	6561	2.14	100.00	86.06 µg/L	86.06
13C2-PFUnA	8358	2.23	100.00	91.92 µg/L	91.92
13C2-PFDoA	9561	2.32	100.00	79.71 µg/L	79.71
13C2-PFTeDA	11178	2.47	100.00	77.86 µg/L	77.86
13C6-PFHxA	23803	1.43	100.00	2.67 µg/L	111.18
13C9-PFDA	30268	2.13	100.00	2.54 µg/L	105.91



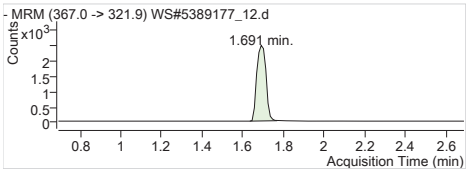


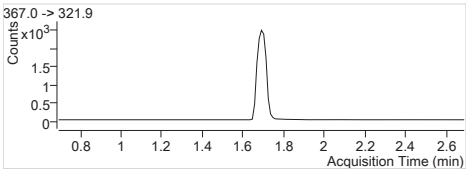
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	QC



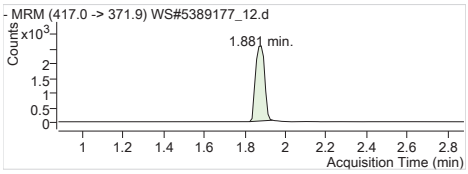


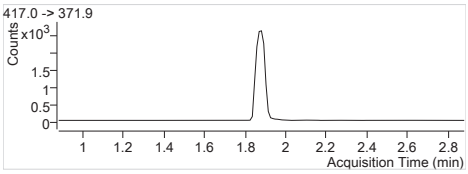
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



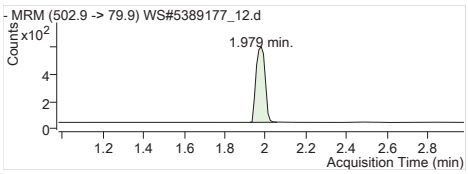


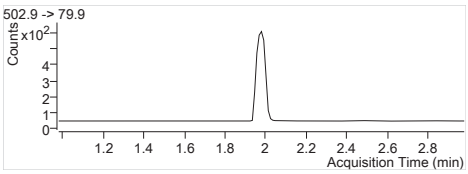
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: QC



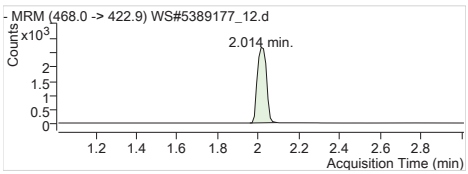


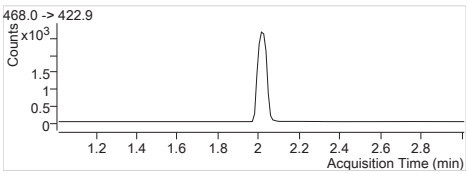
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: QC



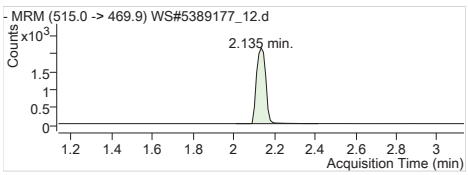


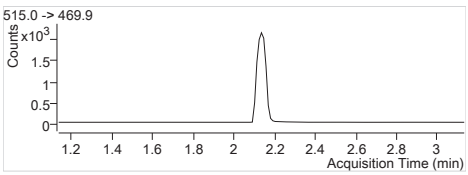
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



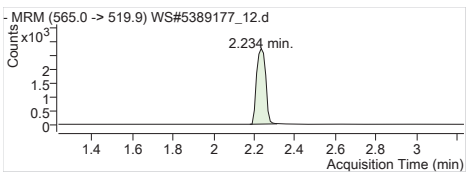


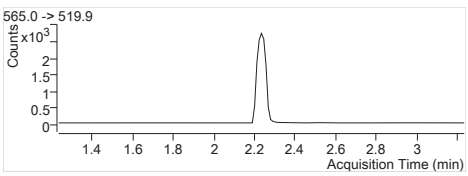
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: QC



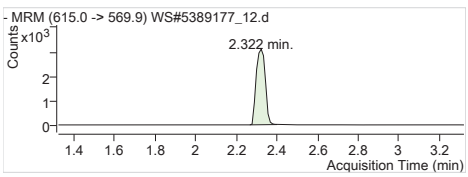


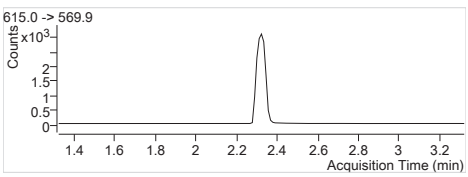
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



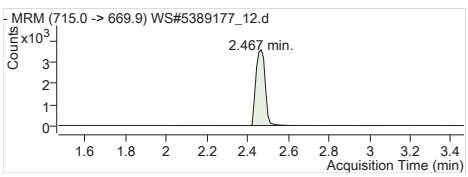


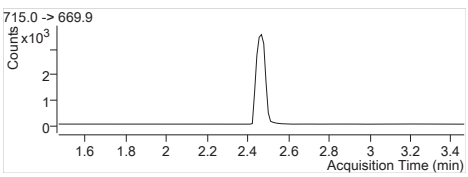
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: QC



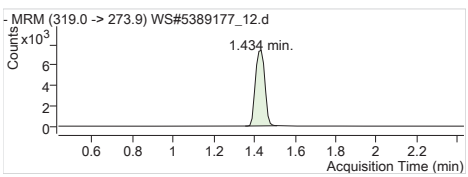


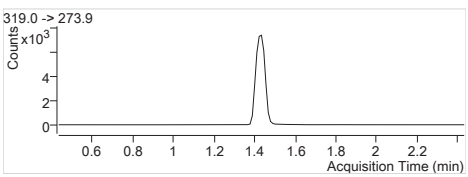
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



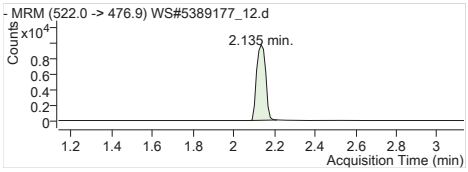


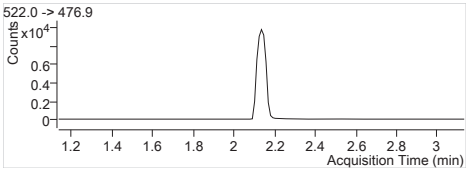
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



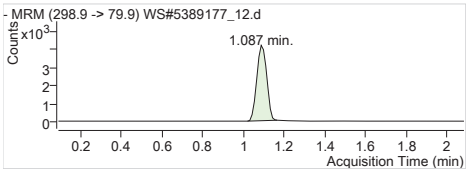


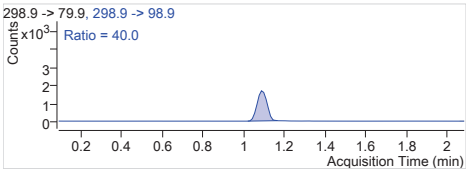
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: QC



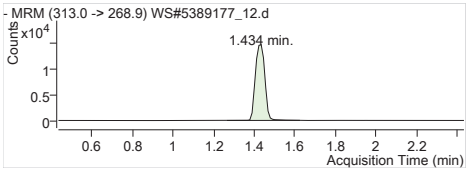


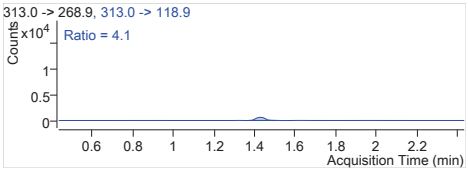
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



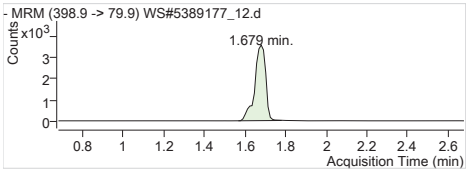


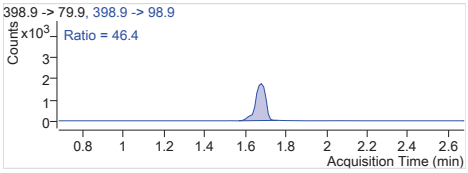
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.51 µg/L
Area ratio: 9.71964
Sample type: QC



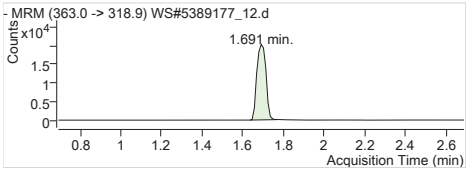


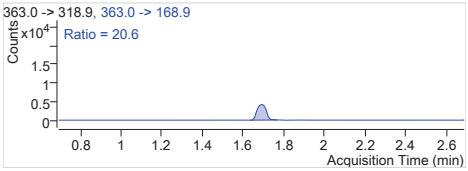
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.48 µg/L
Area ratio: 8.23170
Sample type: QC



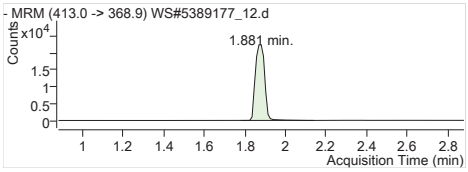


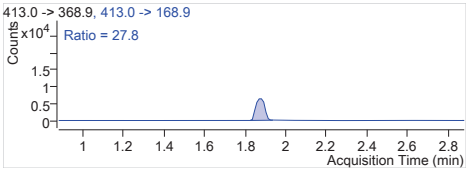
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.49 µg/L
Area ratio: 9.11797
Sample type: QC



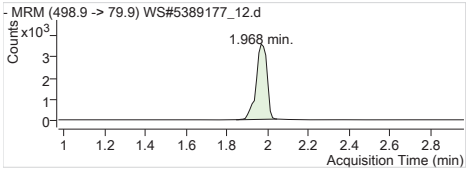


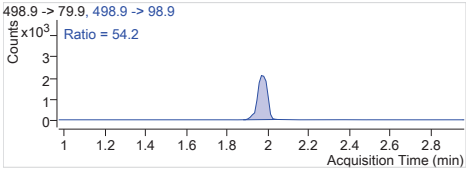
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.47 µg/L
Area ratio: 8.12762
Sample type: QC



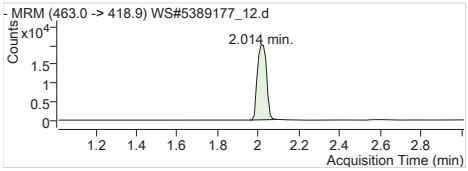


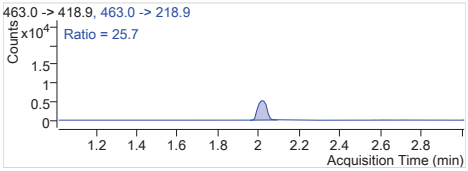
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.51 µg/L
Area ratio: 8.95989
Sample type: QC



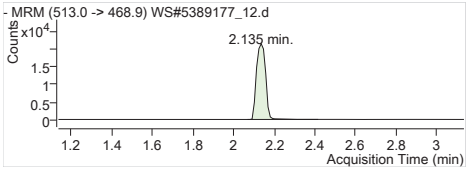


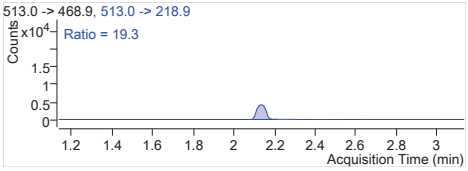
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 0.48 µg/L
Area ratio: 7.58983
Sample type: QC



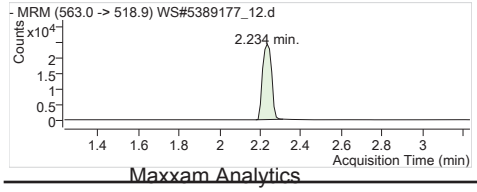


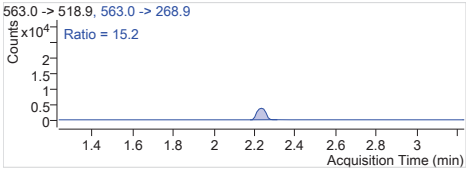
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.48 µg/L
Area ratio: 7.62639
Sample type: QC



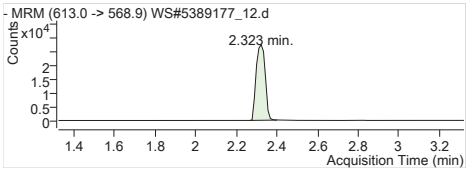


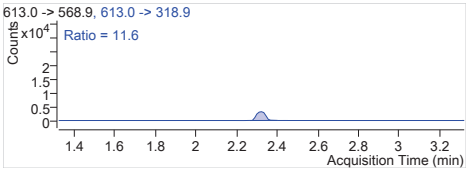
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.50 µg/L
Area ratio: 10.05629
Sample type: QC



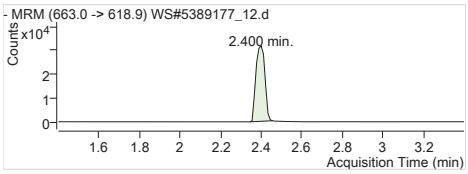


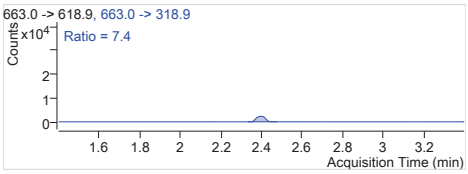
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.49 µg/L
Area ratio: 9.03506
Sample type: QC



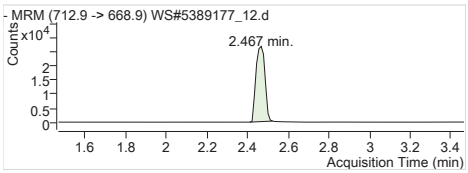


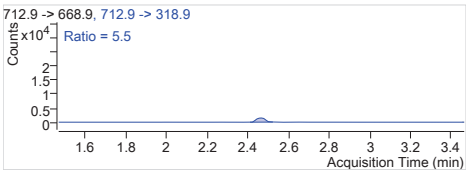
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.49 µg/L
Area ratio: 8.93881
Sample type: QC



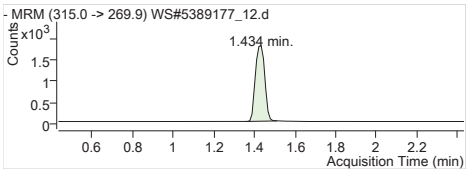


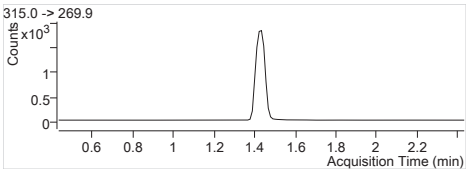
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.52 µg/L
Area ratio: 8.71014
Sample type: QC



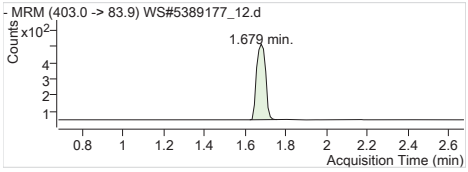


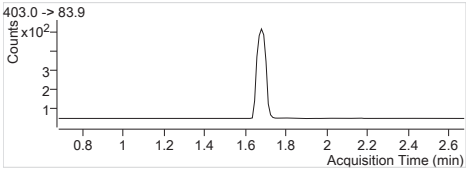
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.50 µg/L
Area ratio: 7.36670
Sample type: QC



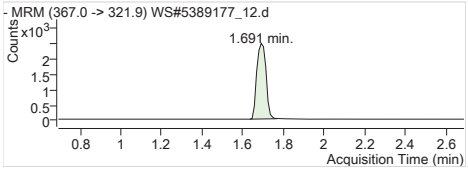


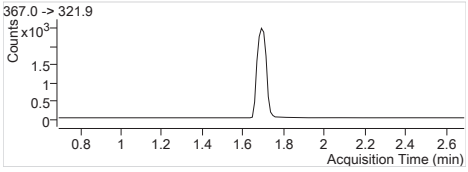
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 86.60 µg/L
Area ratio: 0.24278
Sample type: QC



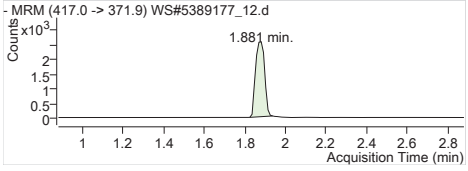


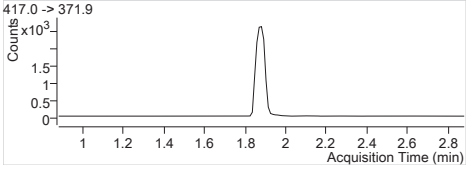
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 83.81 µg/L
Area ratio: 0.06054
Sample type: QC



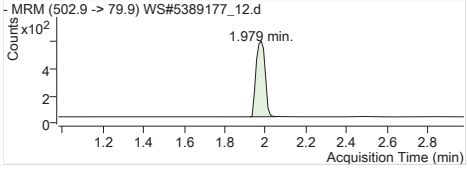


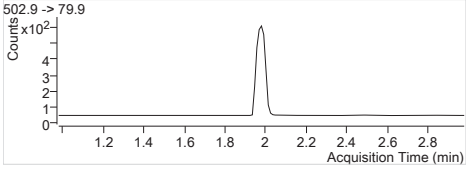
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 87.22 µg/L
Area ratio: 0.32525
Sample type: QC



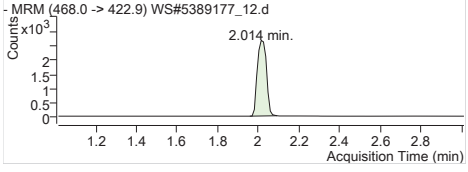


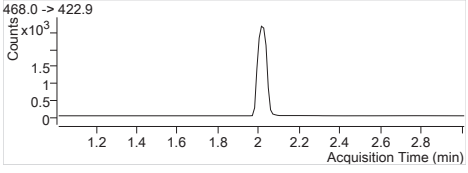
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 83.74 µg/L
Area ratio: 0.33412
Sample type: QC



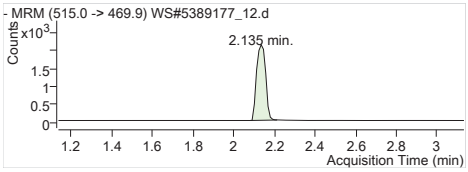


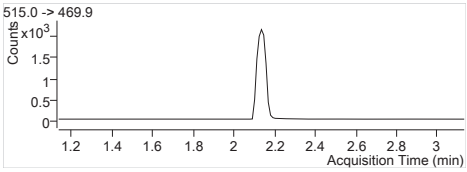
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 82.11 µg/L
Area ratio: 0.07272
Sample type: QC



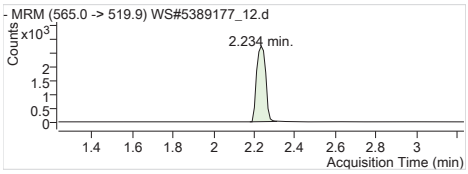


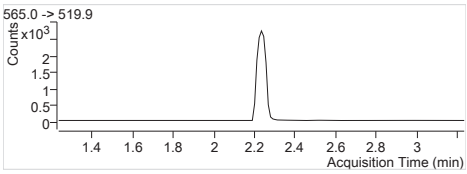
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 86.11 µg/L
Area ratio: 0.34638
Sample type: QC



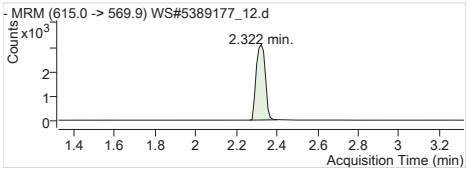


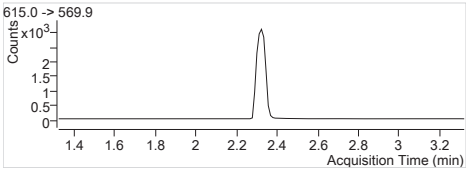
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 86.06 µg/L
Area ratio: 0.21676
Sample type: QC



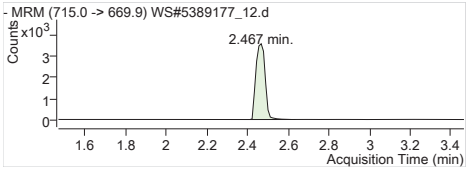


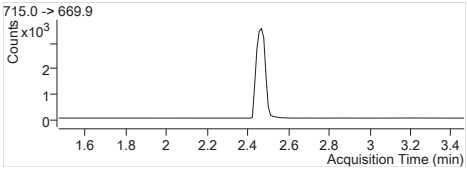
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 91.92 µg/L
Area ratio: 0.27613
Sample type: QC



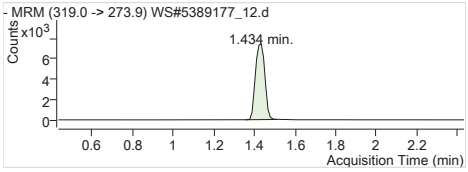


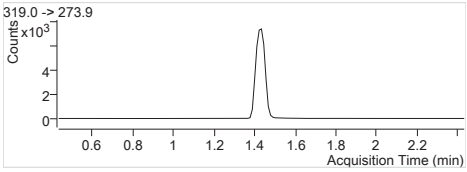
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 79.71 µg/L
Area ratio: 0.31588
Sample type: QC



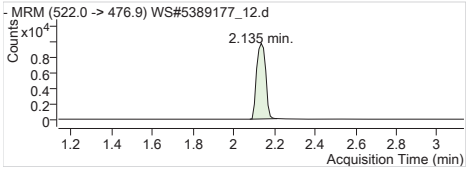


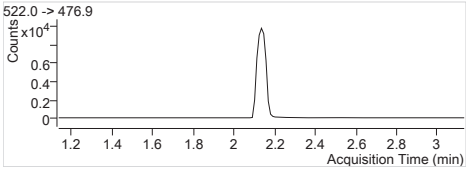
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 77.86 µg/L
Area ratio: 0.36930
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.67 µg/L
Area ratio: 0
Sample type: QC





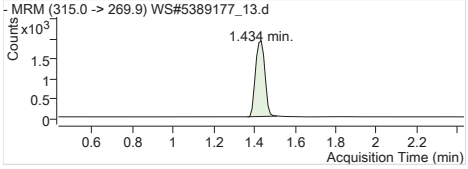
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.54 µg/L
Area ratio: 0
Sample type: QC

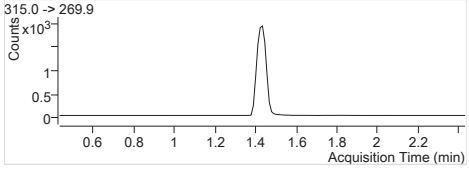
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**5389177:SPIKE:D1**	**Instrument**	LCMS04
Data File	WS#5389177_13.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P3-B3
Acq. Date	2018/02/09 12:56:37 AM	**Injection Volume**	Per Method
Sample Annotation	-		

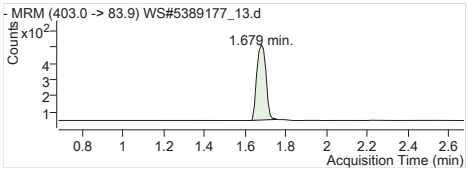
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6109	1.43	1 µg/L		
MPFHxS	1460	1.68	1 µg/L		
MPFHpA	7762	1.69	1 µg/L		
MPFOA	8326	1.88	1 µg/L		
MPFOS	1753	1.98	1 µg/L		
MPFNA	8027	2.01	1 µg/L		
MPFDA	6537	2.14	1 µg/L		
MPFUnA	7700	2.23	1 µg/L		
MPFDoA	8986	2.32	1 µg/L		
MPFTeDA	9964	2.47	1 µg/L		
13C6-PFHxA IS	22196	1.43	1 µg/L		
13C9-PFDA IS	28195	2.13	1 µg/L		

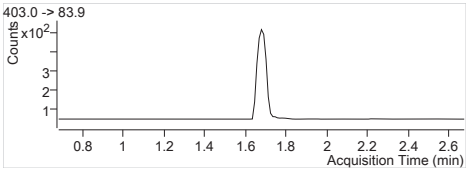
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	14311	1.09	20.80	0.51 µg/L	102.38
PFHxA 1	49375	1.43	20.80	0.47 µg/L	93.71
PFHxS 1	13038	1.68	20.80	0.48 µg/L	95.70
PFHpA 1	63510	1.69	20.80	0.48 µg/L	95.17
PFOA 1	72627	1.88	20.80	0.49 µg/L	98.54
PFOS 1	12939	1.97	20.80	0.47 µg/L	93.55
PFNA 1	64855	2.01	20.80	0.51 µg/L	102.61
PFDA 1	63795	2.14	20.80	0.49 µg/L	97.48
PFUnA 1	70008	2.23	20.80	0.49 µg/L	98.61
PFDoA 1	78762	2.32	20.80	0.48 µg/L	96.47
PFTrDA 1	86147	2.40	20.80	0.51 µg/L	102.62
PFTeDA 1	75377	2.47	20.80	0.51 µg/L	102.80
13C2-PFHxA	6109	1.43	100.00	98.17 µg/L	98.17
18O2-PFHxS	1460	1.68	100.00	91.06 µg/L	91.06
13C4-PFHpA	7762	1.69	100.00	93.78 µg/L	93.78
13C4-PFOA	8326	1.88	100.00	94.01 µg/L	94.01
13C4-PFOS	1753	1.98	100.00	89.17 µg/L	89.17
13C5-PFNA	8027	2.01	100.00	89.90 µg/L	89.90
13C2-PFDA	6439	2.14	100.00	90.67 µg/L	90.67
13C2-PFUnA	7700	2.23	100.00	90.91 µg/L	90.91
13C2-PFDoA	8986	2.32	100.00	80.42 µg/L	80.42
13C2-PFTeDA	10220	2.47	100.00	76.42 µg/L	76.42
13C6-PFHxA	22196	1.43	100.00	2.49 µg/L	103.68
13C9-PFDA	28195	2.13	100.00	2.37 µg/L	98.66



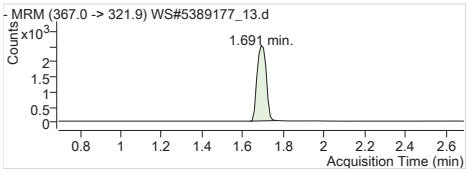


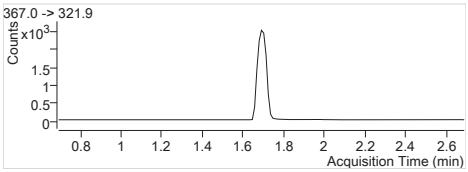
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	QC



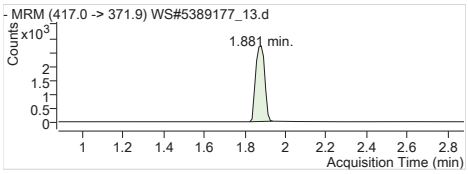


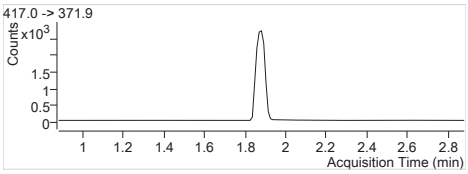
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



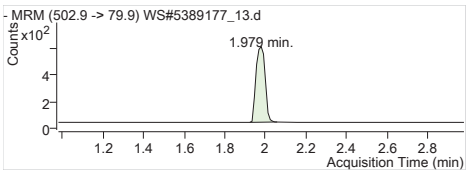


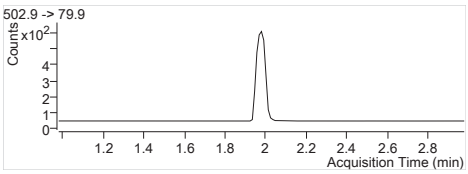
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: QC



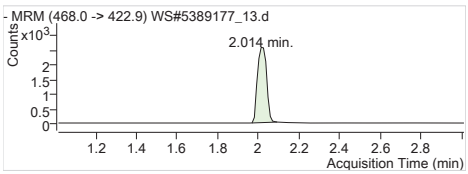


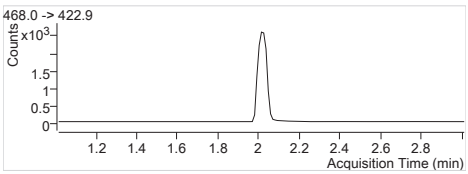
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: QC



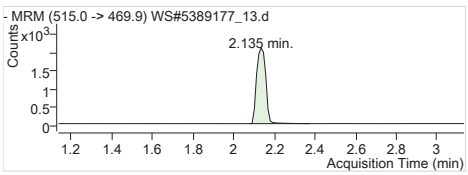


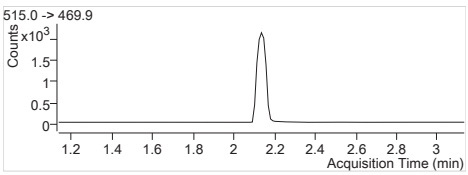
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



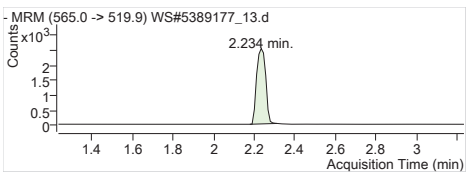


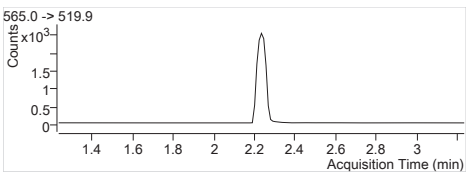
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: QC



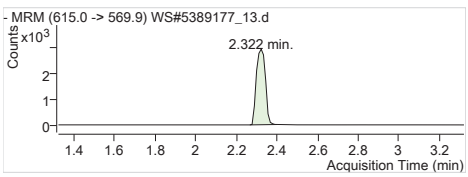


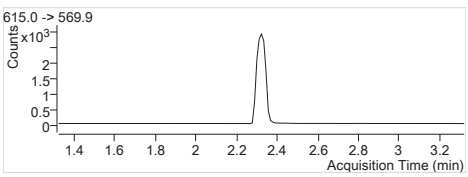
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



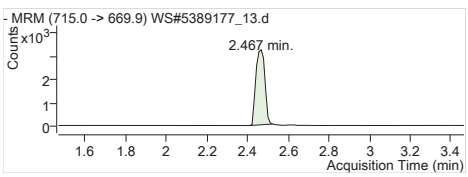


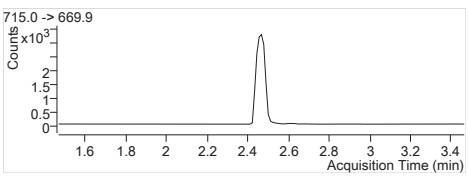
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: QC



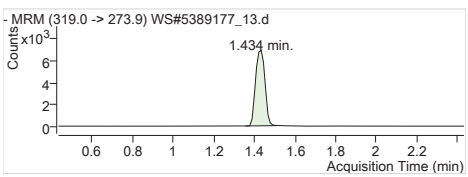


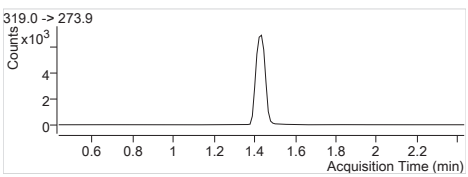
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



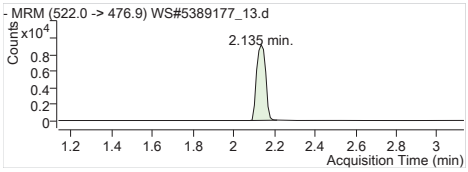


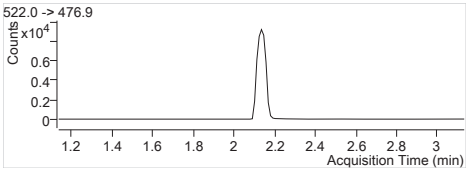
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



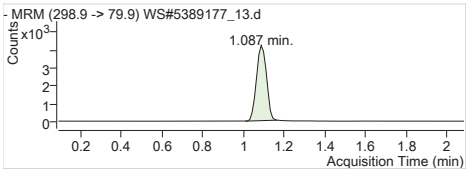


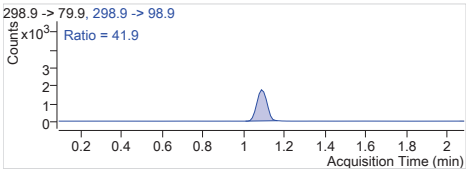
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: QC



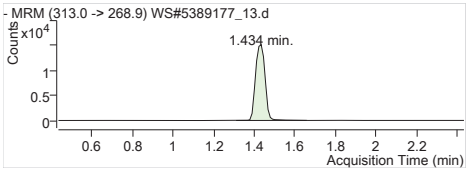


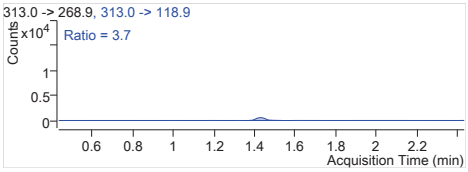
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



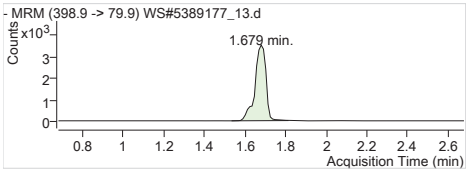


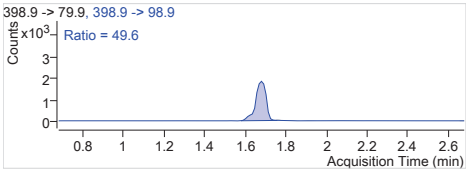
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.51 µg/L
Area ratio: 9.80205
Sample type: QC



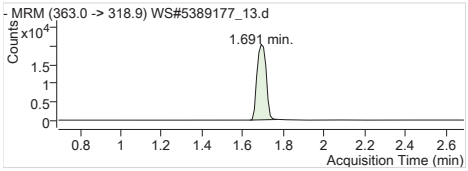


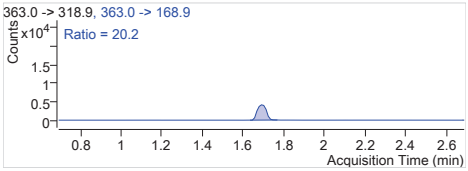
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.47 µg/L
Area ratio: 8.08234
Sample type: QC



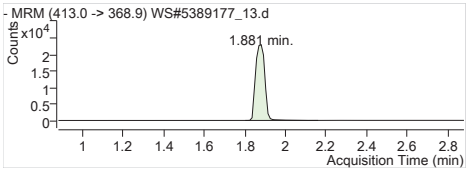


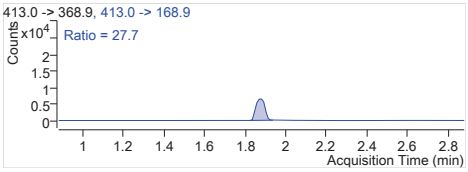
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.48 µg/L
Area ratio: 8.93014
Sample type: QC



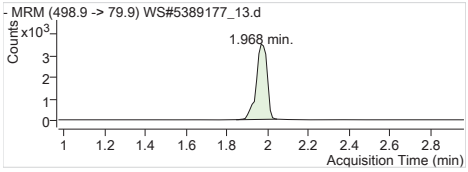


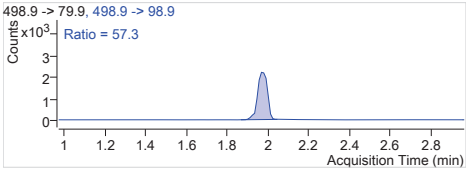
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.48 µg/L
Area ratio: 8.18217
Sample type: QC



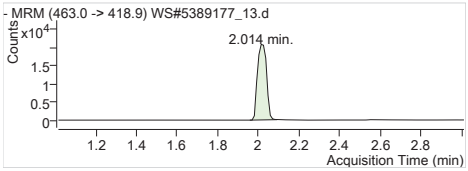


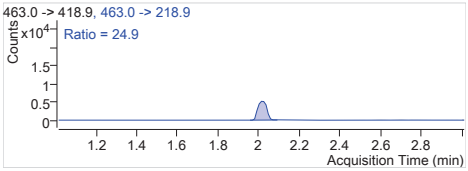
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.49 µg/L
Area ratio: 8.72292
Sample type: QC



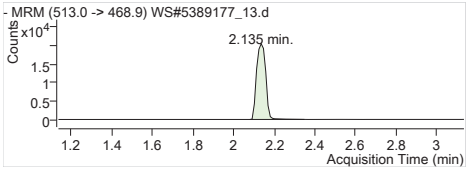


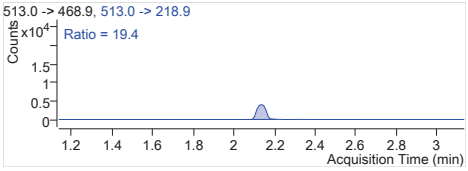
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 0.47 µg/L
Area ratio: 7.38106
Sample type: QC



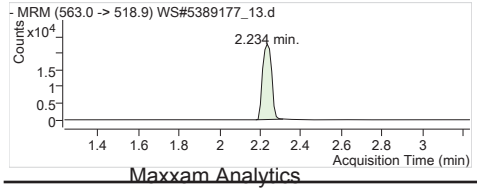


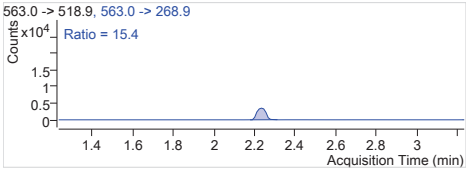
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.51 µg/L
Area ratio: 8.07961
Sample type: QC



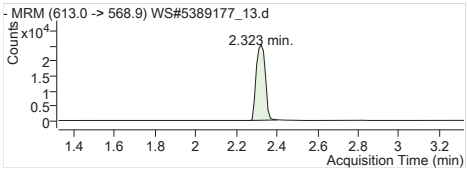


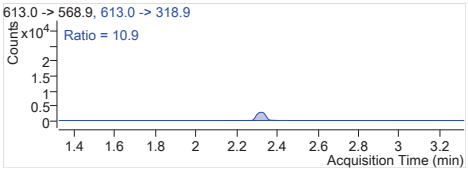
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.49 µg/L
Area ratio: 9.75906
Sample type: QC



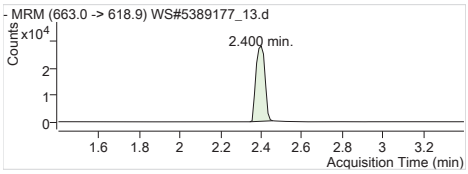


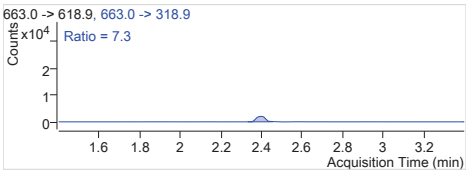
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.49 µg/L
Area ratio: 9.09195
Sample type: QC



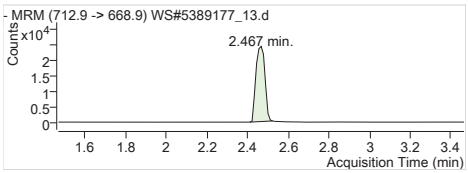


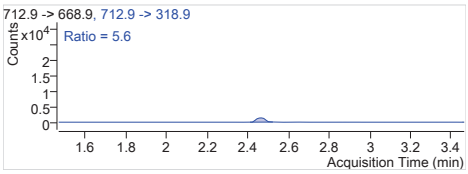
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.48 µg/L
Area ratio: 8.76497
Sample type: QC



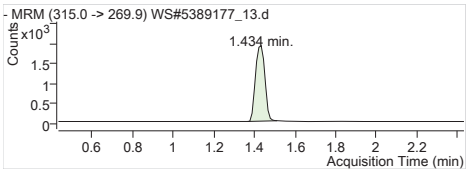


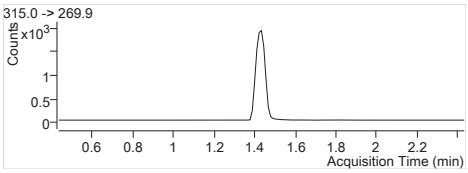
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.51 µg/L
Area ratio: 8.64582
Sample type: QC



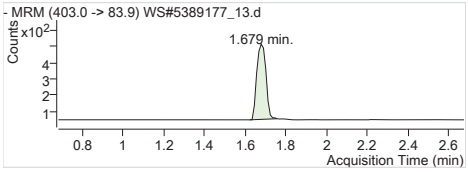


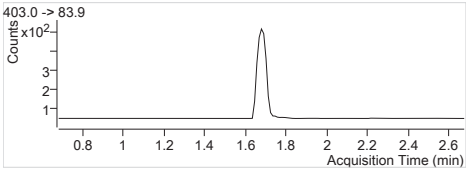
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.51 µg/L
Area ratio: 7.56493
Sample type: QC



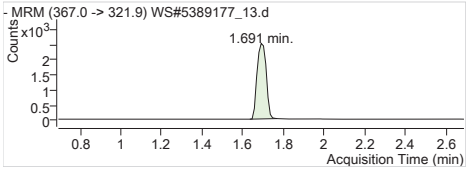


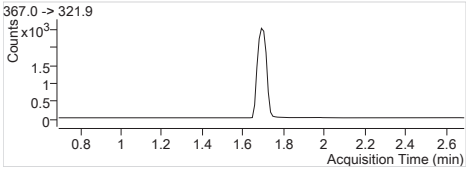
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 98.17 µg/L
Area ratio: 0.27523
Sample type: QC



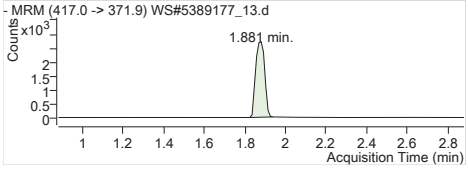


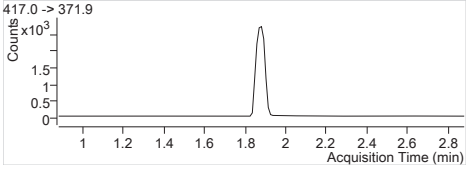
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 91.06 µg/L
Area ratio: 0.06578
Sample type: QC



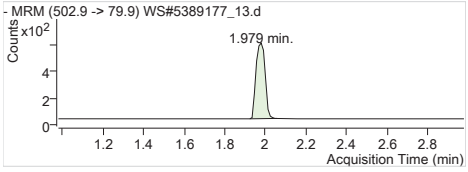


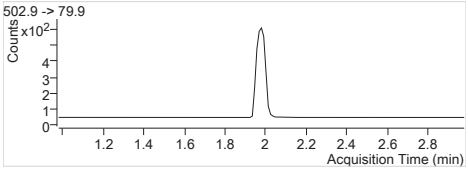
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 93.78 µg/L
Area ratio: 0.34970
Sample type: QC



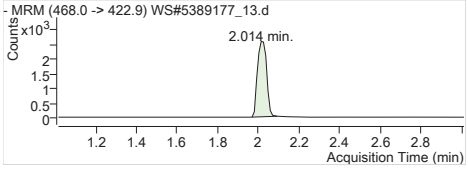


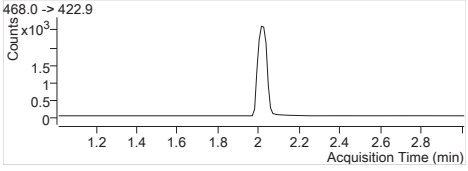
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 94.01 µg/L
Area ratio: 0.37511
Sample type: QC



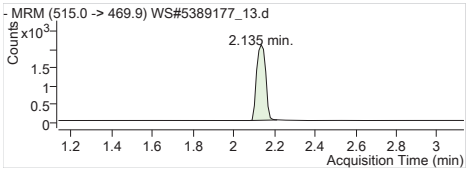


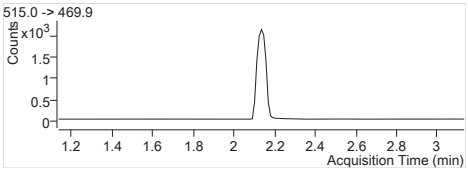
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 89.17 µg/L
Area ratio: 0.07898
Sample type: QC



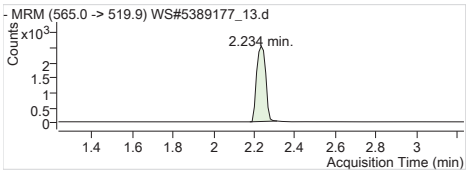


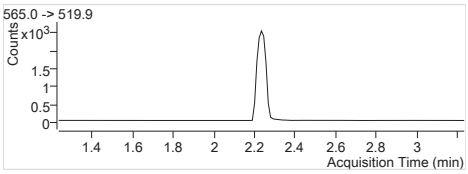
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 89.90 µg/L
Area ratio: 0.36164
Sample type: QC



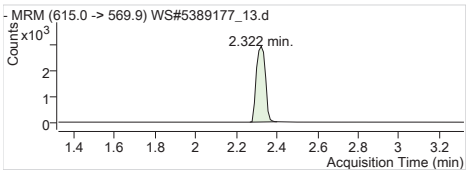


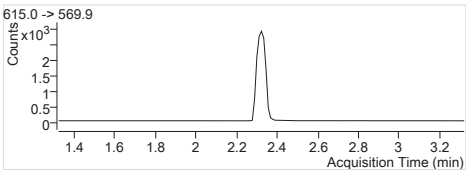
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 90.67 µg/L
Area ratio: 0.22837
Sample type: QC



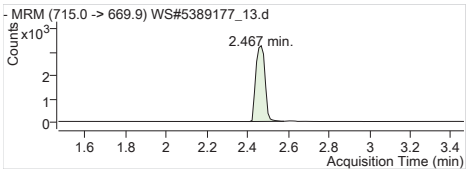


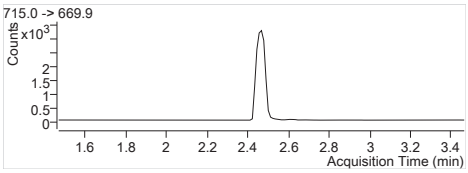
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 90.91 µg/L
Area ratio: 0.27310
Sample type: QC



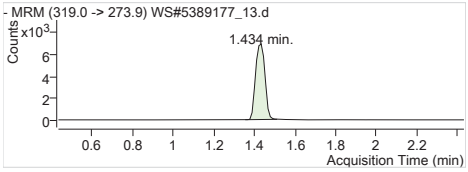


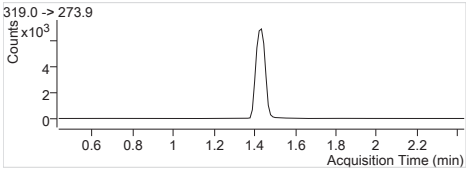
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 80.42 µg/L
Area ratio: 0.31871
Sample type: QC



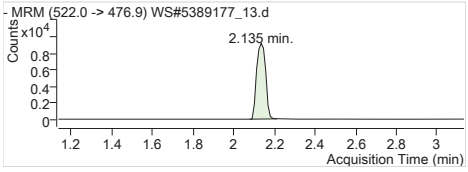


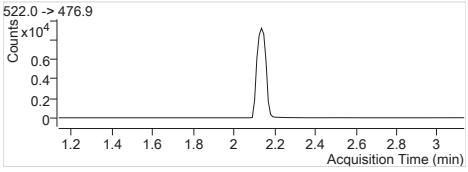
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 76.42 µg/L
Area ratio: 0.36248
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 2.49 µg/L
Area ratio: 0
Sample type: QC





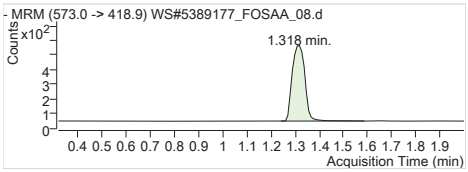
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.37 µg/L
Area ratio: 0
Sample type: QC

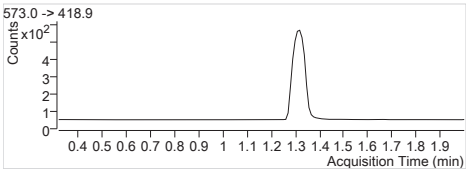
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A8
Acq. Date	2018/02/08 6:18:26 PM	**Injection Volume**	Per Method
Sample Annotation	-		

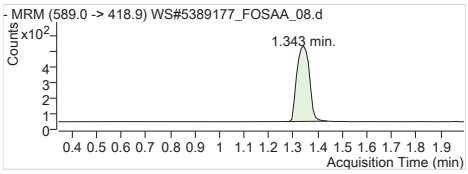
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1880	1.32	1 µg/L		
D5-EtFOSAA IS	1714	1.34	1 µg/L		
13C9-PFDA IS	22354	0.91	1 µg/L		

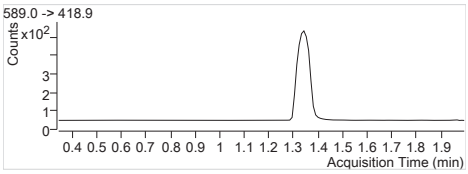
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1860	1.32	-	99.88 µg/L	-
D5-EtFOSAA	1732	1.34	-	102.10 µg/L	-
13C9-PFDA	21589	0.91	-	2.39 µg/L	-



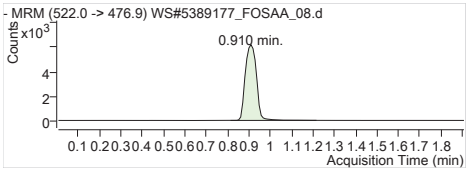


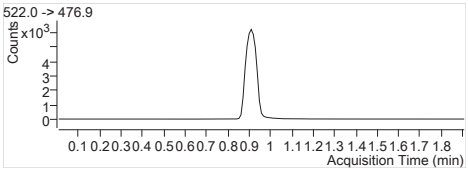
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



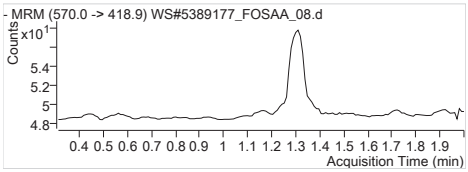


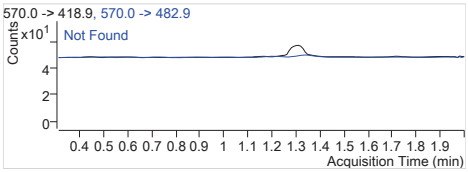
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



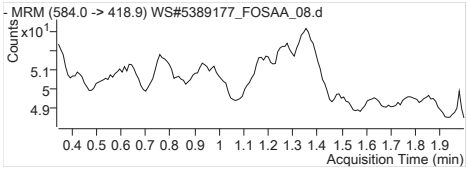


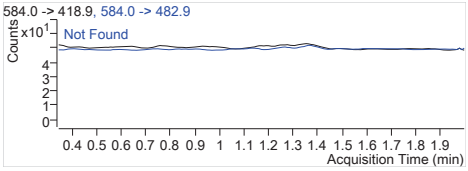
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: Sample



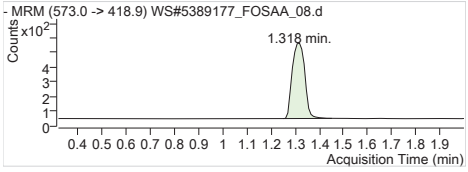


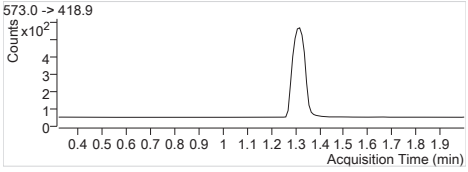
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



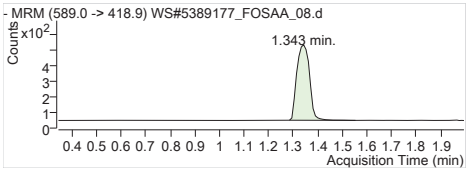


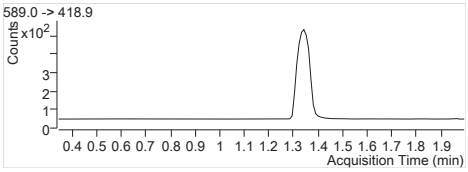
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



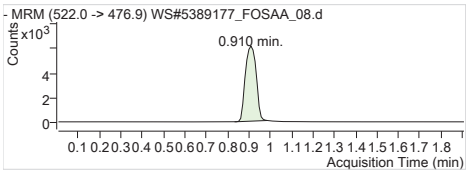


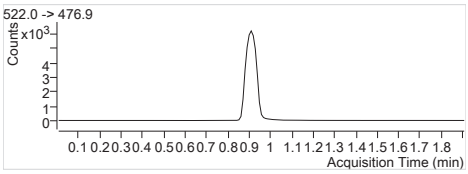
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 99.88 µg/L
Area ratio: 0.08321
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	102.10 µg/L
Area ratio:	0.07748
Sample type:	Sample





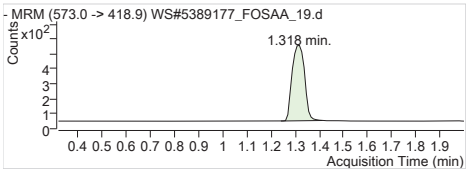
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	2.39 µg/L
Area ratio:	0
Sample type:	Sample

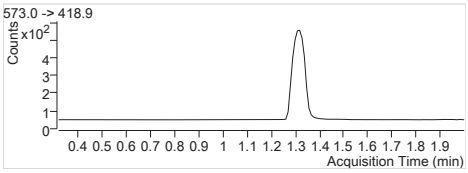
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_19.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A8
Acq. Date	2018/02/08 6:44:54 PM	**Injection Volume**	Per Method
Sample Annotation	-		

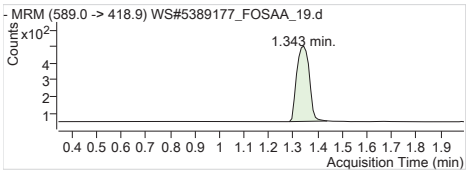
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1824	1.32	1 µg/L		
D5-EtFOSAA IS	1611	1.34	1 µg/L		
13C9-PFDA IS	22275	0.91	1 µg/L		

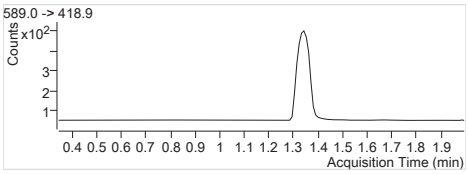
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1835	1.32	-	98.88 µg/L	-
D5-EtFOSAA	1639	1.34	-	96.96 µg/L	-
13C9-PFDA	21575	0.91	-	2.39 µg/L	-



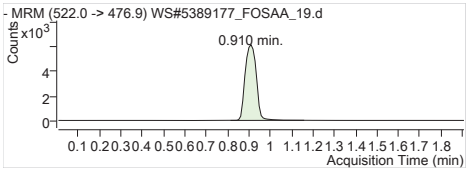


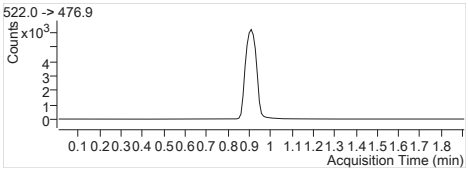
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



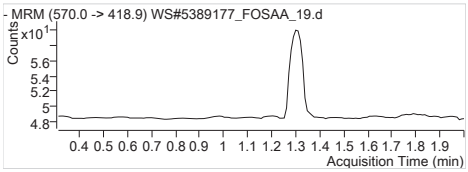


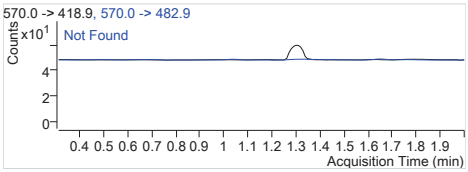
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



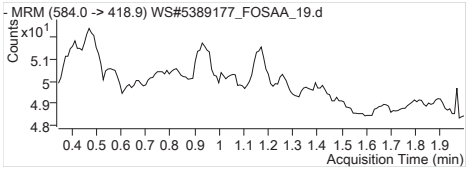


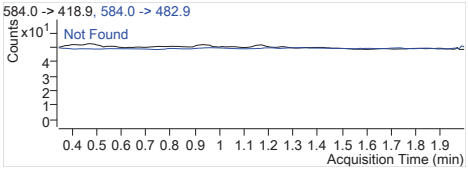
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: Sample



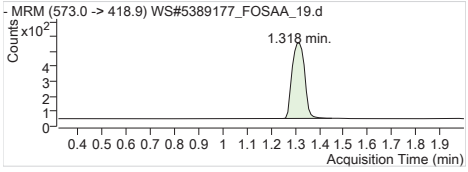


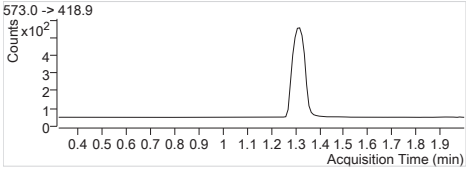
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



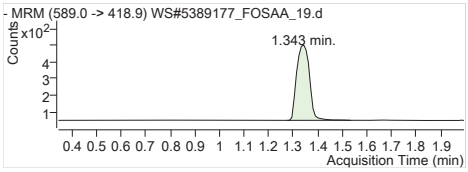


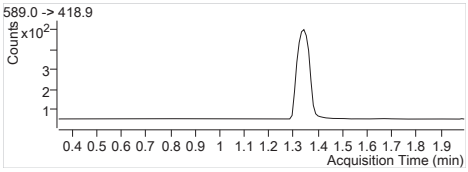
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



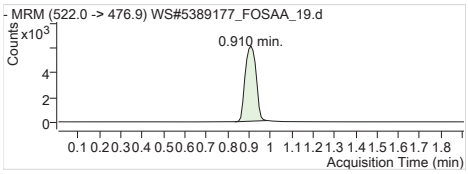


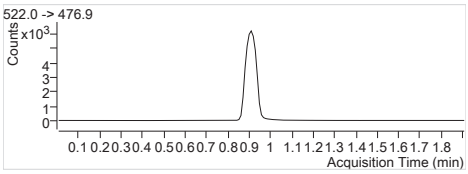
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 98.88 µg/L
Area ratio: 0.08238
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	96.96 µg/L
Area ratio:	0.07358
Sample type:	Sample





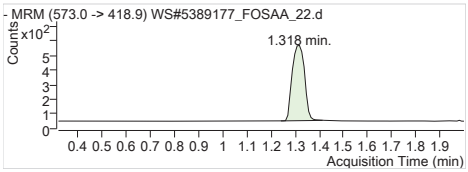
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	2.39 µg/L
Area ratio:	0
Sample type:	Sample

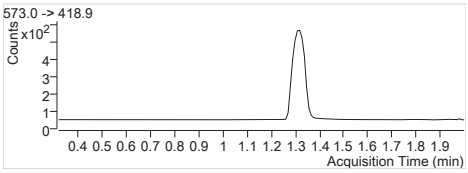
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_22.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A8
Acq. Date	2018/02/08 6:52:07 PM	**Injection Volume**	Per Method
Sample Annotation	-		

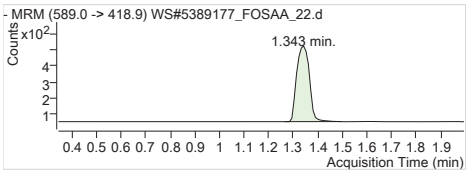
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1847	1.32	1 µg/L		
D5-EtFOSAA IS	1710	1.34	1 µg/L		
13C9-PFDA IS	21982	0.91	1 µg/L		

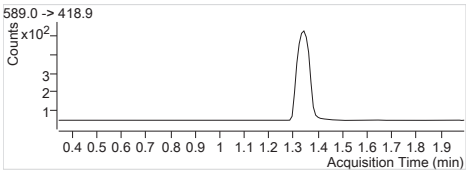
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1852	1.32	-	101.13 µg/L	-
D5-EtFOSAA	1712	1.34	-	102.63 µg/L	-
13C9-PFDA	21384	0.91	-	2.37 µg/L	-



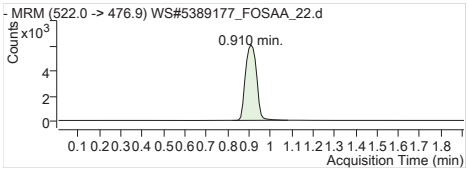


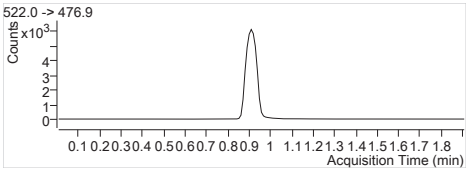
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



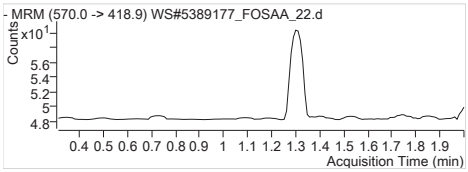


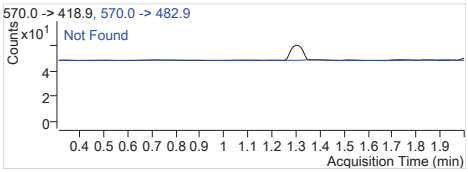
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



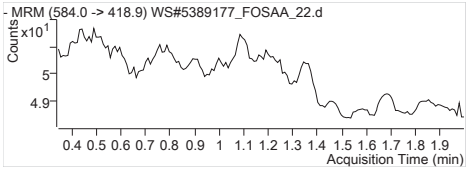


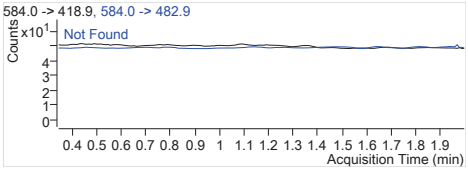
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: Sample



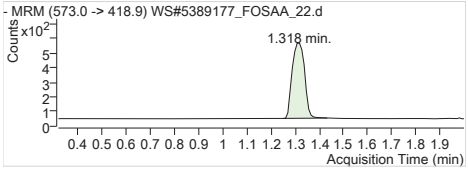


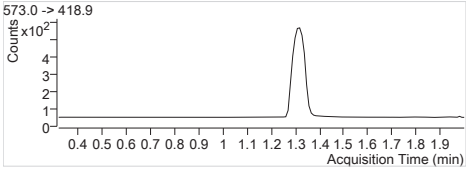
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



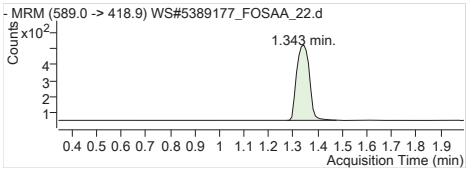


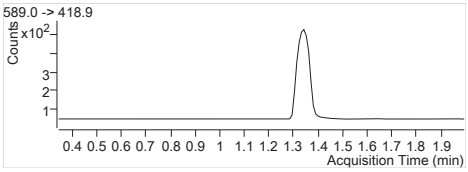
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



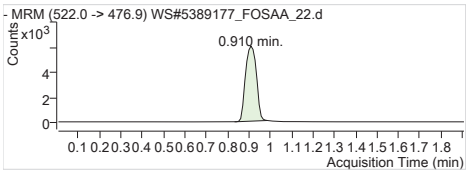


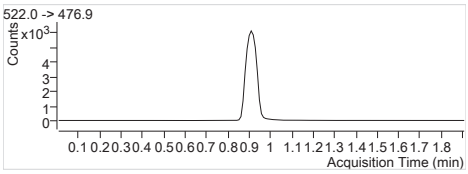
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 101.13 µg/L
Area ratio: 0.08425
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	102.63 µg/L
Area ratio:	0.07788
Sample type:	Sample





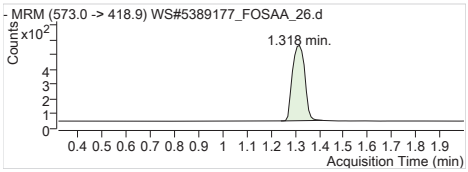
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	2.37 µg/L
Area ratio:	0
Sample type:	Sample

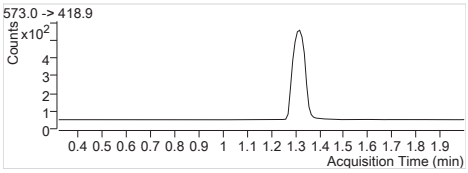
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_26.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A8
Acq. Date	2018/02/08 7:01:44 PM	**Injection Volume**	Per Method
Sample Annotation	-		

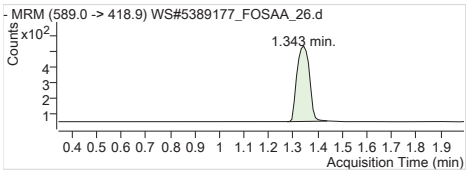
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1817	1.32	1 µg/L		
D5-EtFOSAA IS	1701	1.34	1 µg/L		
13C9-PFDA IS	22490	0.91	1 µg/L		

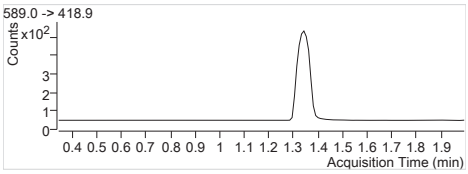
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1840	1.32	-	98.20 µg/L	-
D5-EtFOSAA	1723	1.34	-	100.95 µg/L	-
13C9-PFDA	21763	0.91	-	2.41 µg/L	-



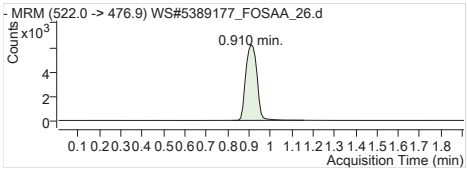


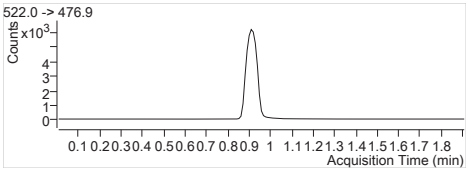
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



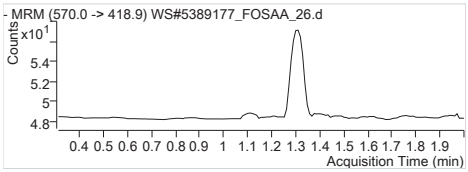


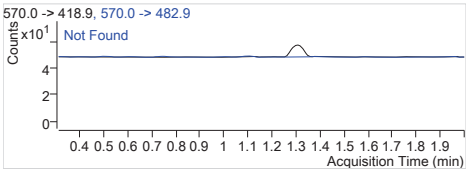
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



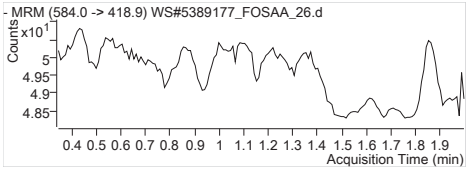


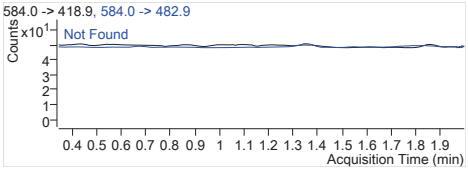
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: Sample



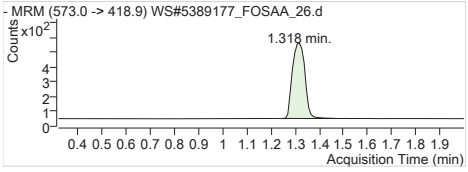


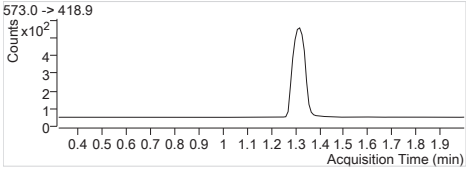
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



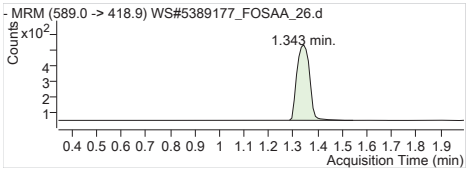


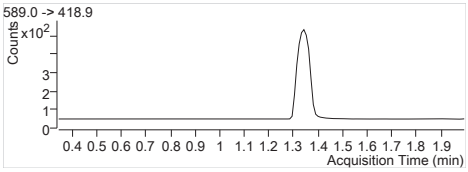
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



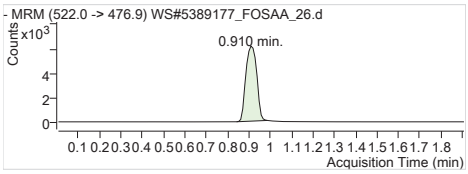


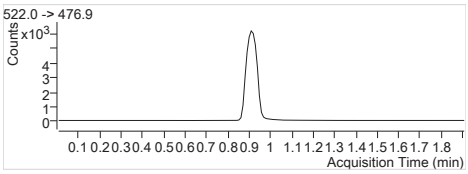
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 98.20 µg/L
Area ratio: 0.08181
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	100.95 µg/L
Area ratio:	0.07661
Sample type:	Sample





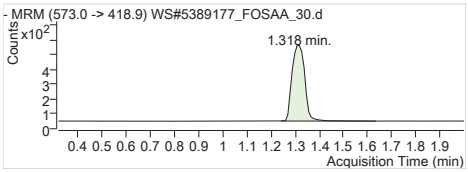
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	2.41 µg/L
Area ratio:	0
Sample type:	Sample

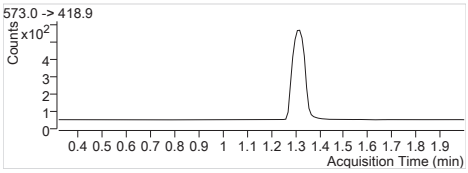
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_30.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A8
Acq. Date	2018/02/08 7:11:22 PM	**Injection Volume**	Per Method
Sample Annotation	-		

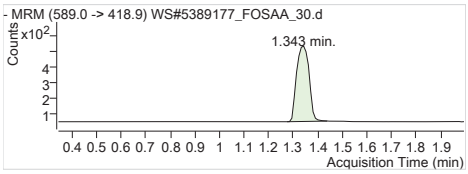
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1891	1.32	1 µg/L		
D5-EtFOSAA IS	1697	1.34	1 µg/L		
13C9-PFDA IS	22057	0.91	1 µg/L		

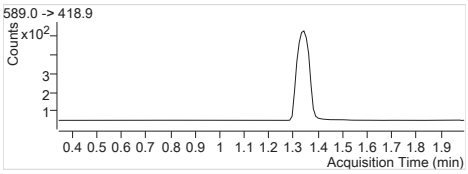
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1867	1.32	-	101.60 µg/L	-
D5-EtFOSAA	1701	1.34	-	101.62 µg/L	-
13C9-PFDA	21273	0.91	-	2.36 µg/L	-



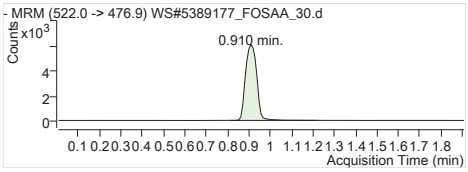


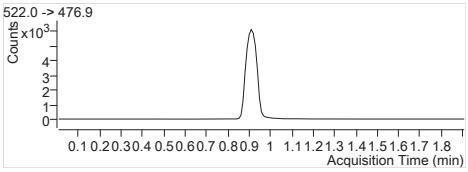
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



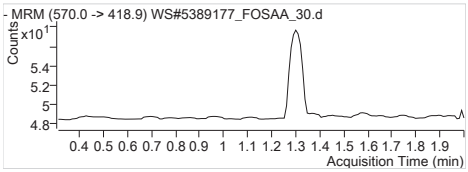


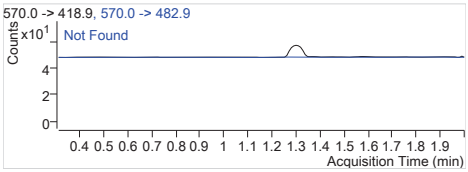
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



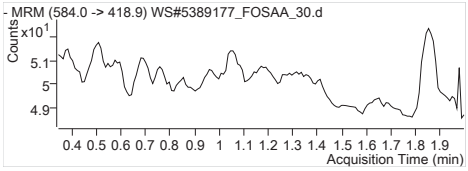


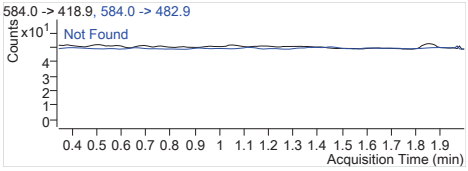
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: Sample



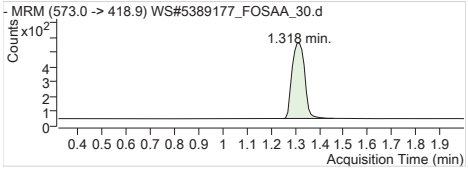


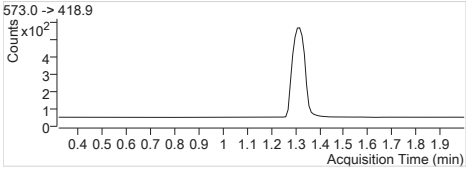
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



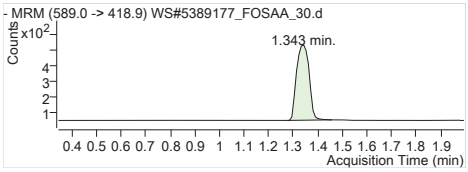


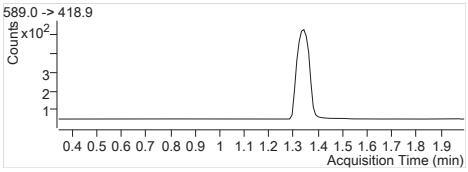
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



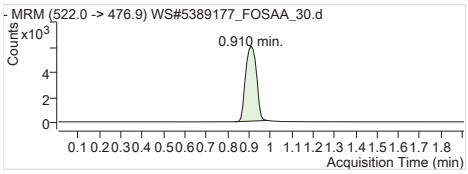


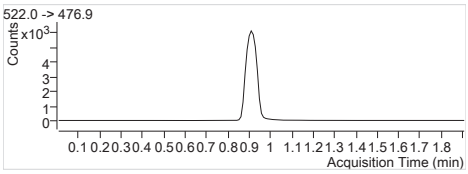
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 101.60 µg/L
Area ratio: 0.08464
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	101.62 µg/L
Area ratio:	0.07712
Sample type:	Sample





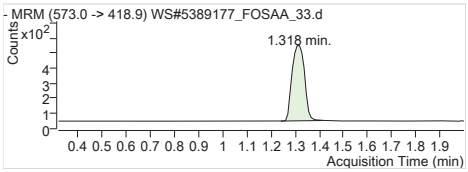
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	2.36 µg/L
Area ratio:	0
Sample type:	Sample

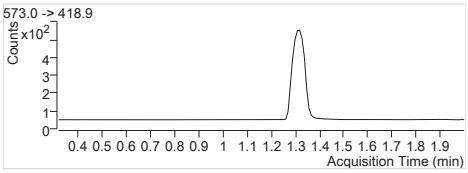
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_33.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A8
Acq. Date	2018/02/08 7:18:37 PM	**Injection Volume**	Per Method
Sample Annotation	-		

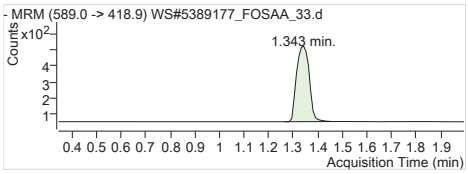
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1804	1.32	1 µg/L		
D5-EtFOSAA IS	1704	1.34	1 µg/L		
13C9-PFDA IS	22271	0.91	1 µg/L		

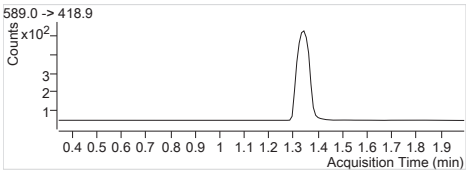
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1815	1.32	-	97.82 µg/L	-
D5-EtFOSAA	1703	1.34	-	100.76 µg/L	-
13C9-PFDA	21494	0.91	-	2.38 µg/L	-



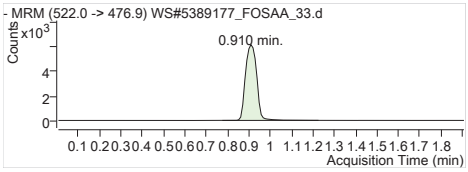


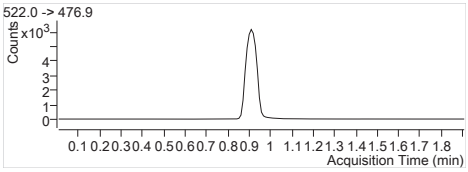
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Sample



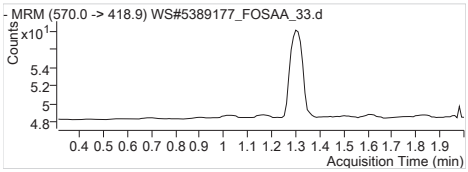


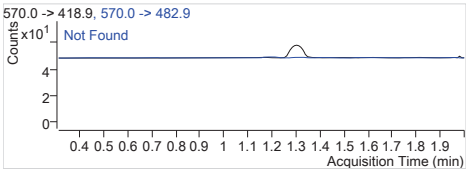
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



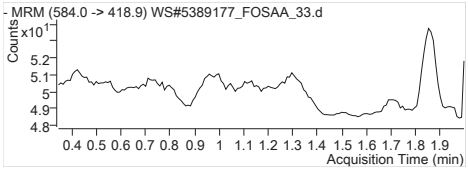


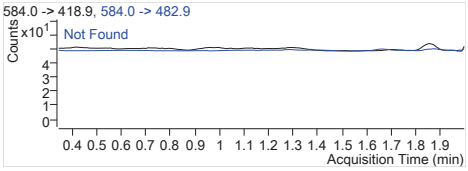
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: Sample



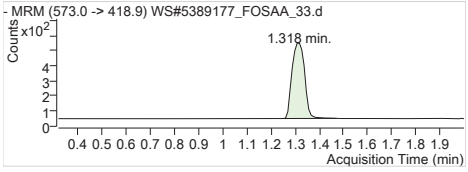


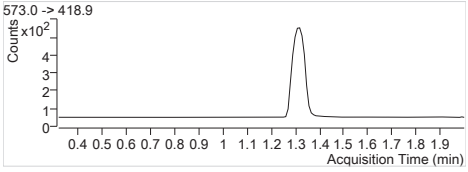
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



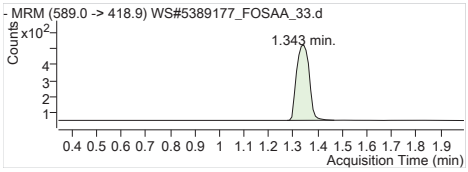


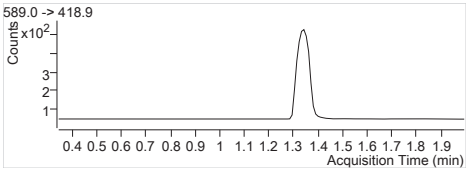
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



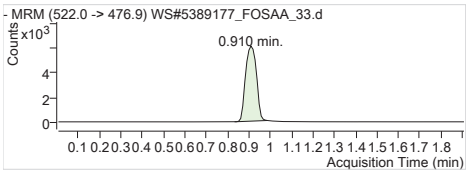


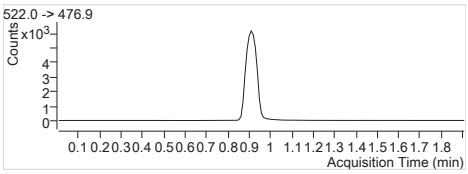
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 97.82 µg/L
Area ratio: 0.08150
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	100.76 µg/L
Area ratio:	0.07647
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	2.38 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

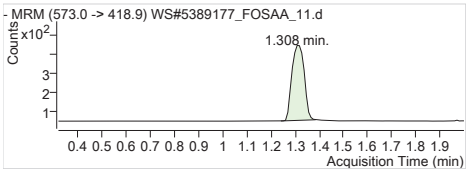
Agilent Technologies

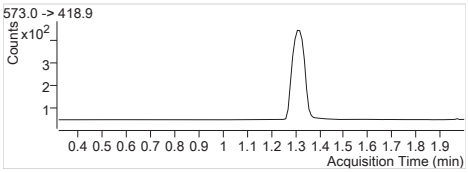
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**5389177:BLANK**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-B1
Acq. Date	2018/02/08 6:25:40 PM	**Injection Volume**	Per Method
Sample Annotation	-		

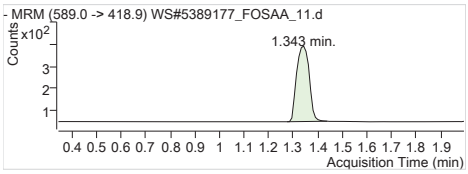
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1400	1.31	1 µg/L		
D5-EtFOSAA IS	1219	1.34	1 µg/L		
13C9-PFDA IS	22583	0.89	1 µg/L		

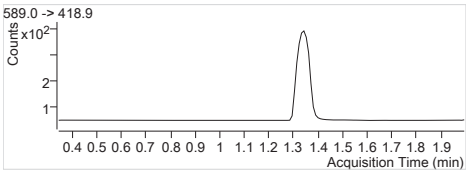
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1429	1.31	-	75.95 µg/L	-
D5-EtFOSAA	1227	1.34	-	71.59 µg/L	-
13C9-PFDA	22081	0.89	-	2.45 µg/L	-



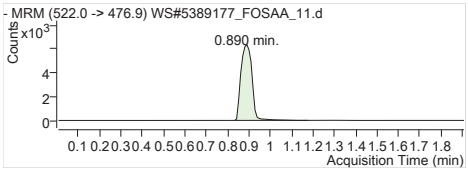


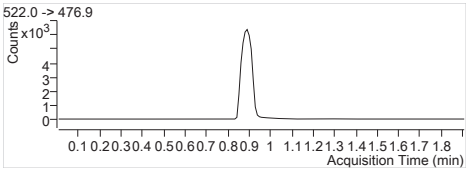
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.318)
Concentration: 1 µg/L
Sample type: Sample



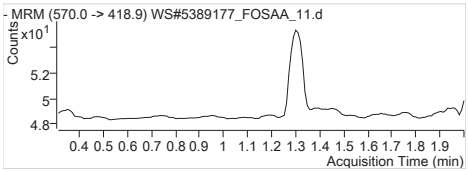


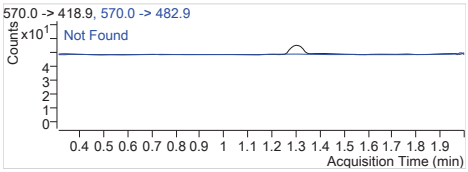
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Sample



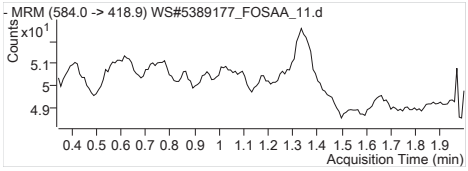


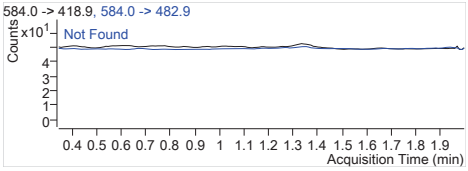
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.910)
Concentration: 1 µg/L
Sample type: Sample



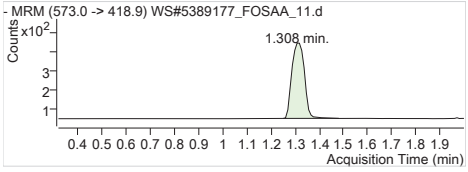


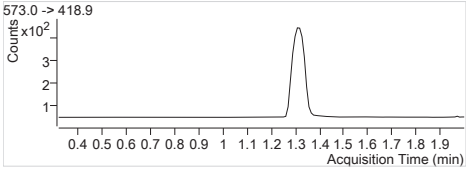
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



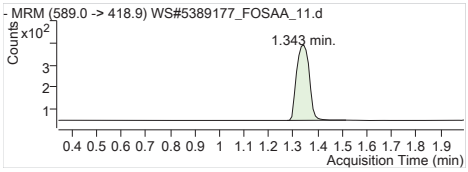


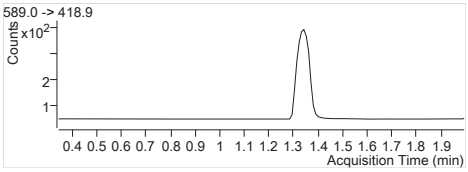
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.344)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



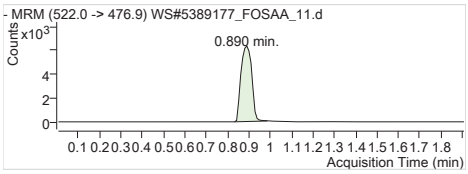


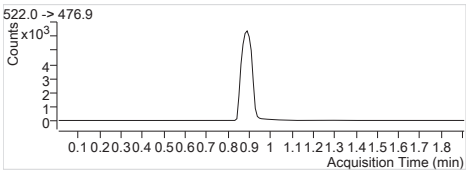
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.318)
Calc. conc. 75.95 µg/L
Area ratio: 0.06328
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	71.59 µg/L
Area ratio:	0.05433
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.910)
Calc. conc.	2.45 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

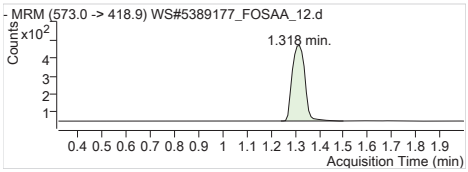
Agilent Technologies

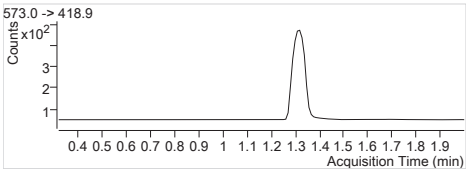
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**5389177:SPIKE**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-B2
Acq. Date	2018/02/08 6:28:03 PM	**Injection Volume**	Per Method
Sample Annotation	-		

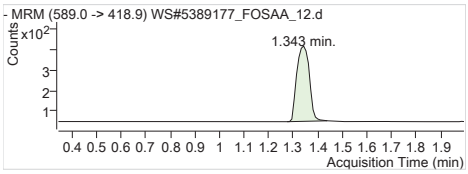
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1537	1.32	1 µg/L		
D5-EtFOSAA IS	1299	1.34	1 µg/L		
13C9-PFDA IS	22763	0.89	1 µg/L		

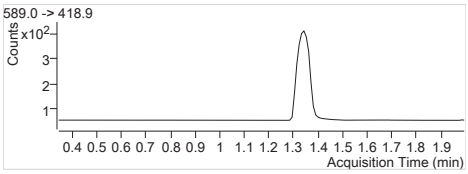
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10740	1.31	20.80	0.46 µg/L	92.15
EtFOSAA 1	11404	1.34	20.80	0.50 µg/L	99.99
D3-MeFOSAA	1536	1.32	100.00	81.00 µg/L	81.00
D5-EtFOSAA	1319	1.34	100.00	76.35 µg/L	76.35
13C9-PFDA	22146	0.89	100.00	2.45 µg/L	102.28



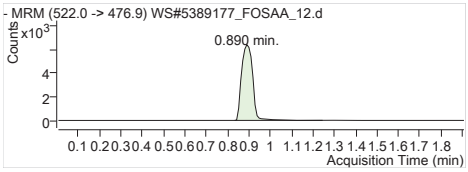


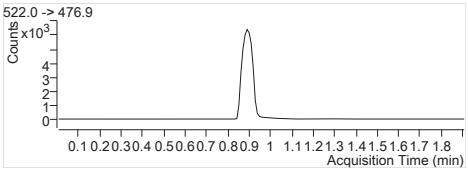
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: QC



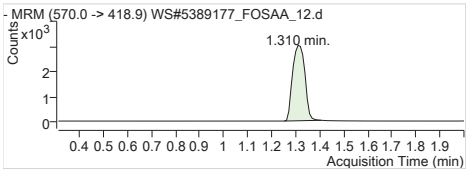


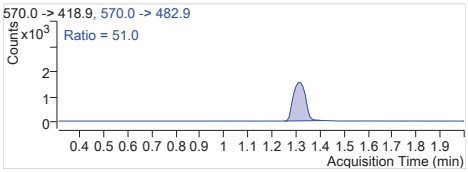
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: QC



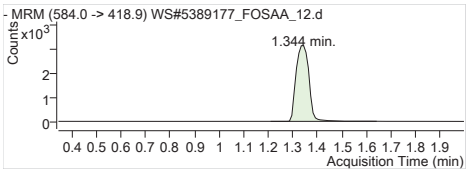


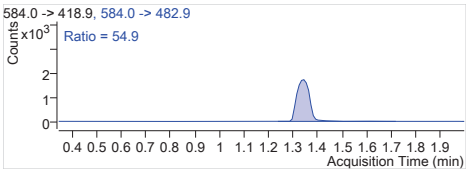
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.910)
Concentration: 1 µg/L
Sample type: QC



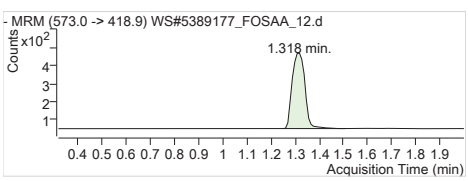


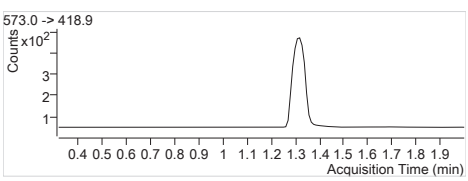
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.46 µg/L
Area ratio: 6.98764
Sample type: QC



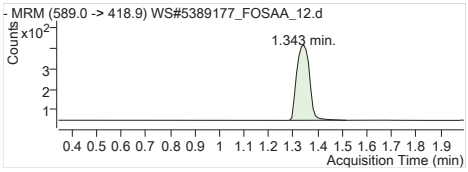


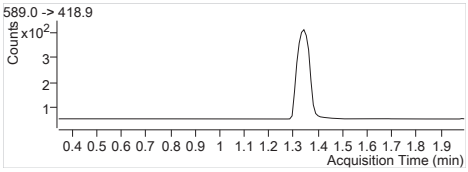
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.50 µg/L
Area ratio: 8.77906
Sample type: QC



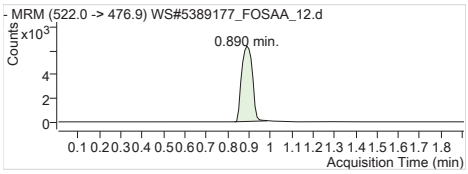


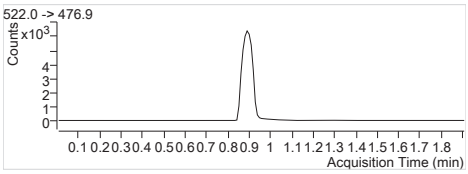
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 81.00 µg/L
Area ratio: 0.06748
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	76.35 µg/L
Area ratio:	0.05794
Sample type:	QC





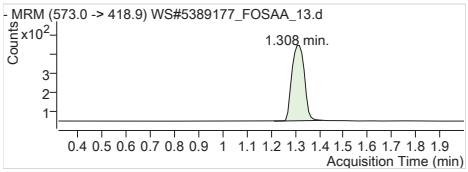
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.910)
Calc. conc.	2.45 µg/L
Area ratio:	0
Sample type:	QC

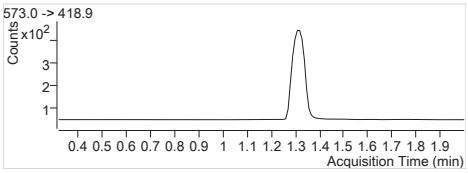
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**5389177:SPIKE:D1**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_13.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-B3
Acq. Date	2018/02/08 6:30:26 PM	**Injection Volume**	Per Method
Sample Annotation	-		

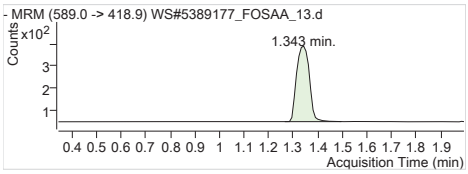
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1439	1.31	1 µg/L		
D5-EtFOSAA IS	1231	1.34	1 µg/L		
13C9-PFDA IS	21014	0.88	1 µg/L		

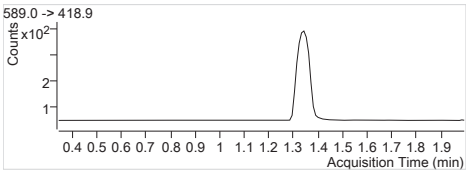
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	9898	1.31	20.80	0.45 µg/L	90.71
EtFOSAA 1	10978	1.33	20.80	0.51 µg/L	101.57
D3-MeFOSAA	1442	1.31	100.00	82.37 µg/L	82.37
D5-EtFOSAA	1231	1.34	100.00	77.19 µg/L	77.19
13C9-PFDA	20282	0.88	100.00	2.25 µg/L	93.67



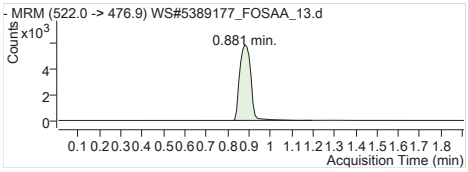


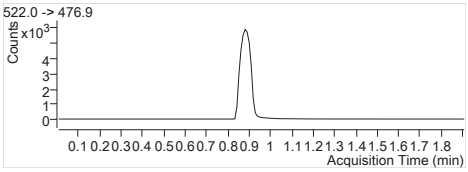
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.318)
Concentration: 1 µg/L
Sample type: QC



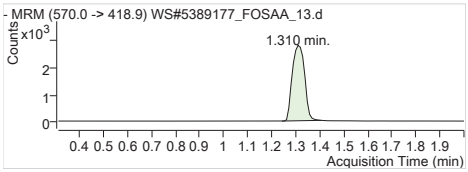


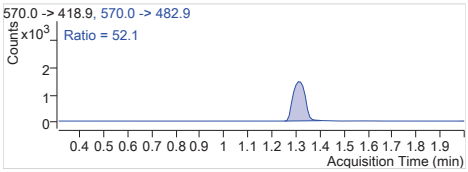
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: QC



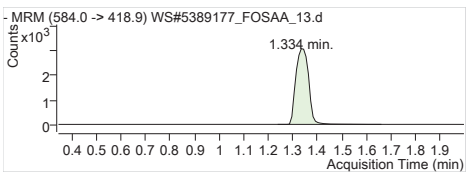


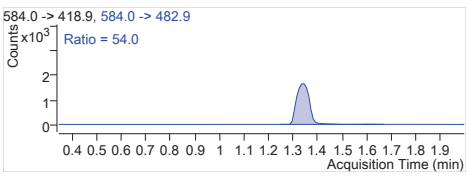
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.910)
Concentration: 1 µg/L
Sample type: QC



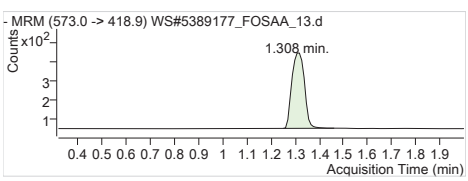


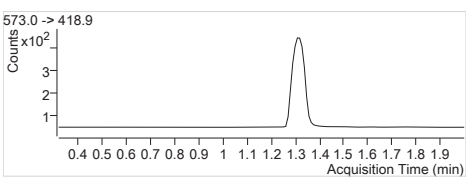
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.45 µg/L
Area ratio: 6.87839
Sample type: QC



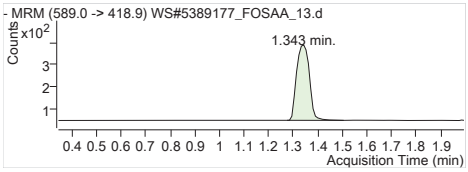


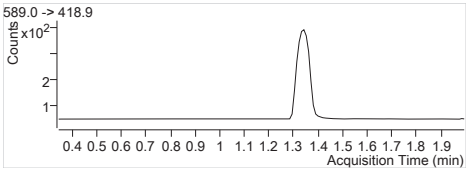
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.344)
Calc. conc. 0.51 µg/L
Area ratio: 8.91795
Sample type: QC



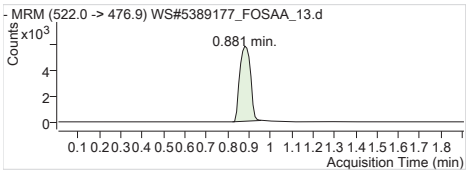


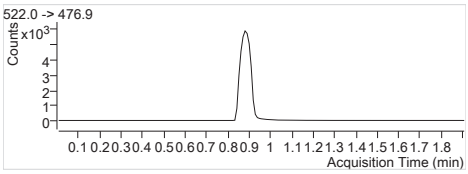
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.318)
Calc. conc. 82.37 µg/L
Area ratio: 0.06862
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	77.19 µg/L
Area ratio:	0.05858
Sample type:	QC





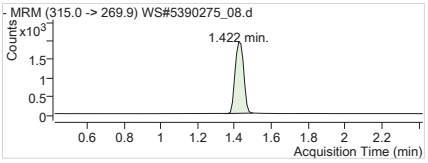
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.910)
Calc. conc.	2.25 µg/L
Area ratio:	0
Sample type:	QC

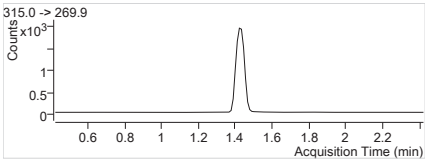
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	IB	**Instrument**	LCMS04
Data File	WS#5390275_08.d	**Operator**	
Sample Type	Sample	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A8
Acq. Date	2018/02/09 5:08:46 PM	**Injection Volume**	Per Method
Sample Annotation	-		

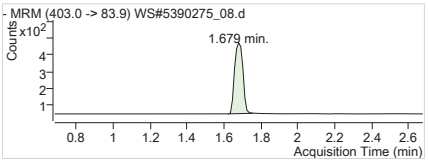
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6204	1.42	1 µg/L		
MPFHxS	1324	1.68	1 µg/L		
MPFHpA	8662	1.69	1 µg/L		
MPFOA	8417	1.88	1 µg/L		
MPFOS	1818	1.98	1 µg/L		
MPFNA	8044	2.01	1 µg/L		
MPFDA	7103	2.14	1 µg/L		
MPFUnA	7788	2.23	1 µg/L		
MPFDoA	10618	2.32	1 µg/L		
MPFTeDA	12712	2.47	1 µg/L		
13C6-PFHxA IS	20118	1.42	1 µg/L		
13C9-PFDA IS	26942	2.13	1 µg/L		

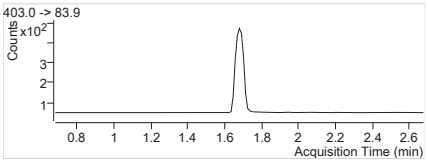
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6204	1.42	-	123.56 µg/L	-
18O2-PFHxS	1324	1.68	-	105.27 µg/L	-
13C4-PFHpA	8662	1.69	-	132.37 µg/L	-
13C4-PFOA	8417	1.88	-	121.26 µg/L	-
13C4-PFOS	1818	1.98	-	115.20 µg/L	-
13C5-PFNA	8044	2.01	-	117.26 µg/L	-
13C2-PFDA	6976	2.14	-	124.26 µg/L	-
13C2-PFUnA	7788	2.23	-	109.70 µg/L	-
13C2-PFDoA	10618	2.32	-	115.62 µg/L	-
13C2-PFTeDA	13078	2.47	-	122.74 µg/L	-
13C6-PFHxA	20118	1.42	-	85.91 µg/L	-
13C9-PFDA	26942	2.13	-	87.05 µg/L	-



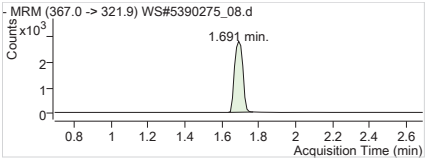


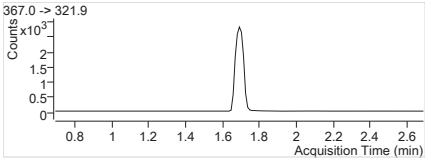
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



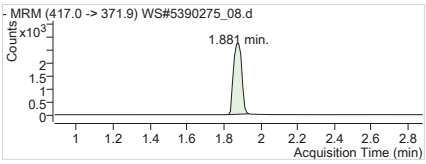


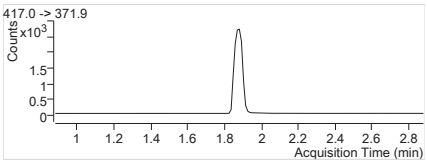
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



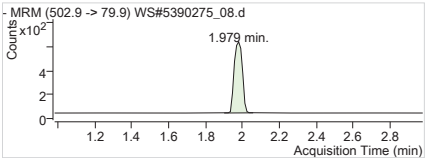


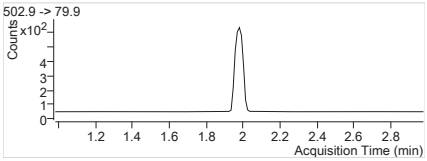
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



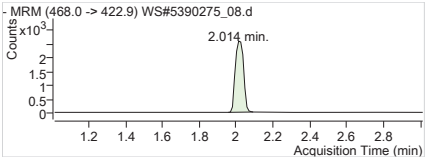


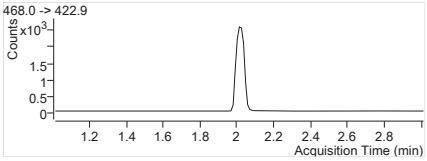
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



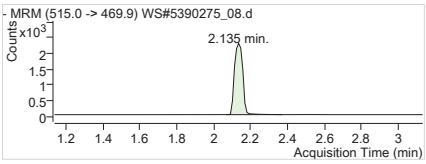


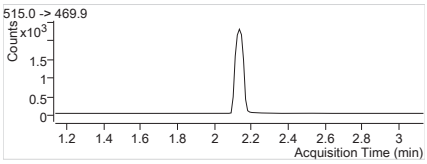
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



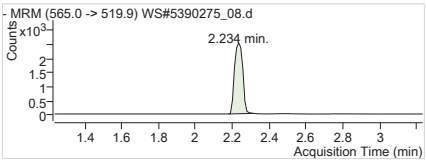


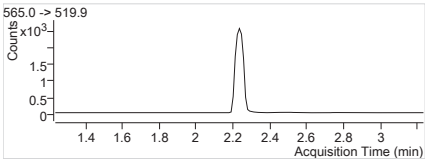
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



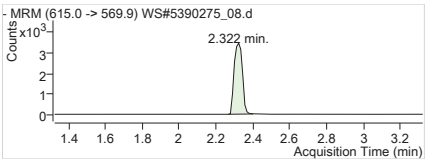


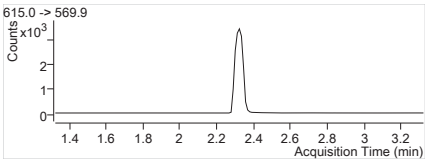
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



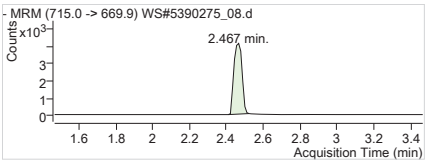


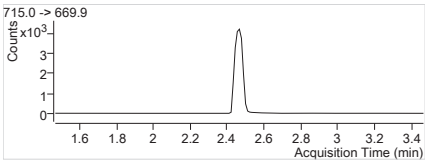
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



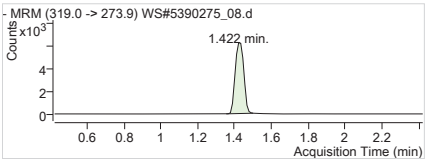


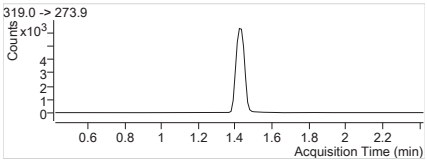
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



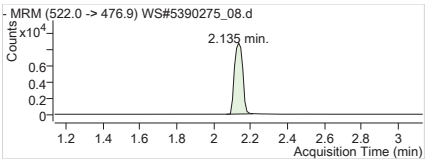


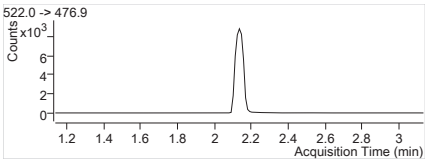
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



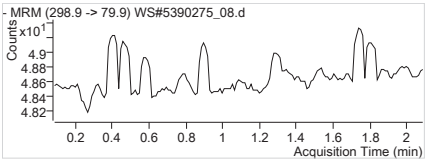


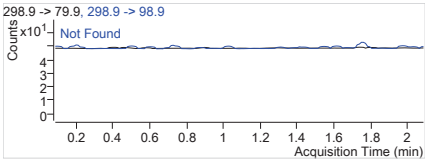
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



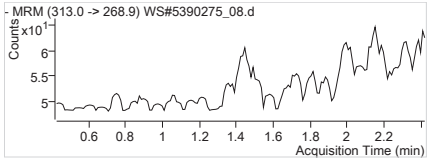


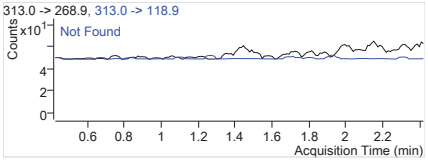
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



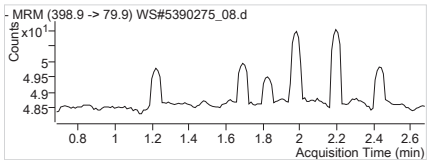


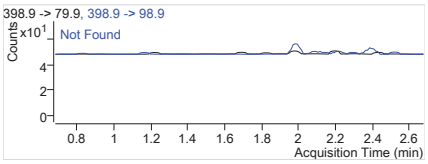
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



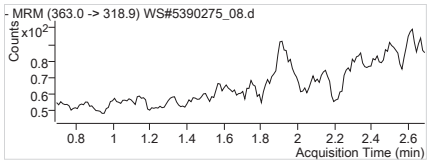


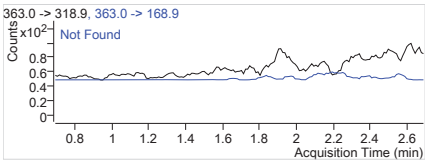
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



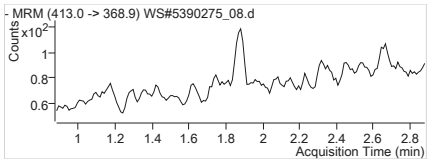


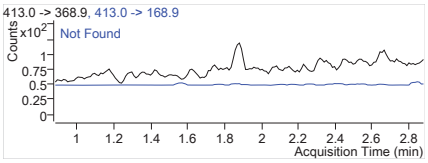
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



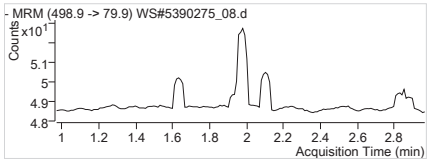


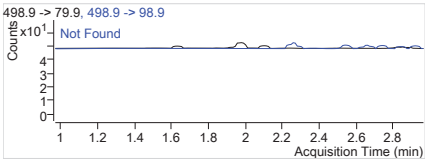
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



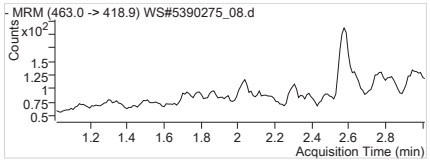


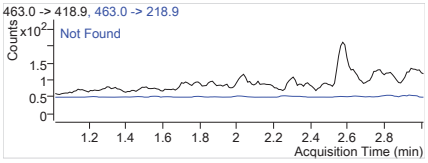
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



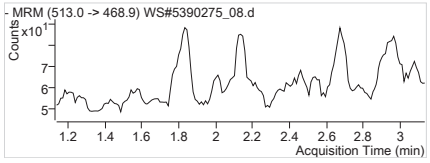


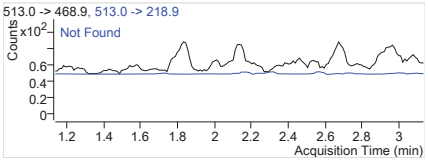
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



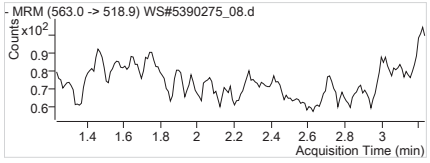


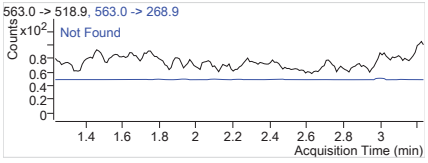
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



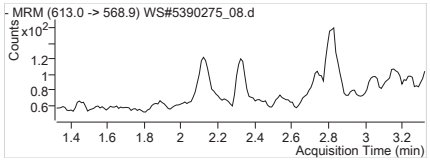


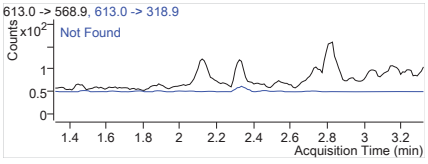
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



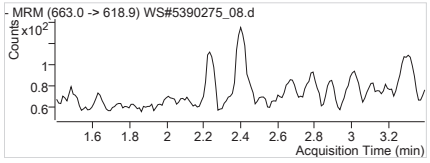


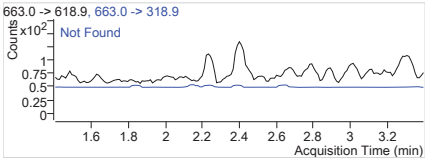
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



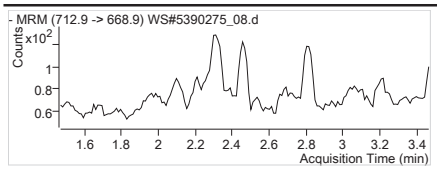


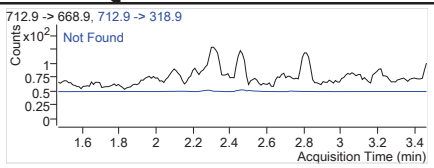
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



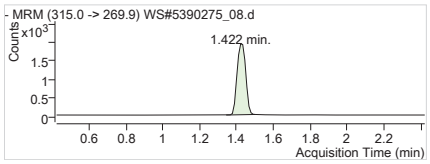


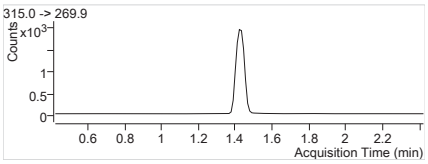
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



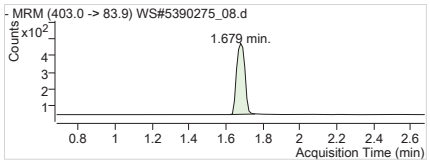


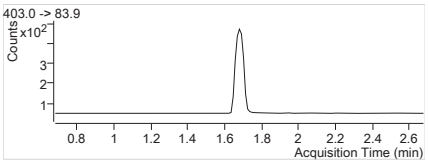
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



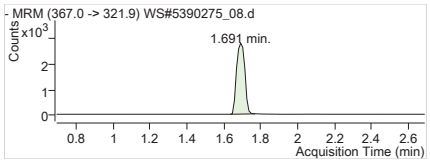


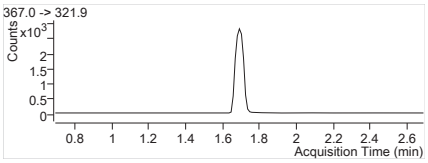
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	123.56 µg/L
Area ratio:	0.30838
Sample type:	Sample



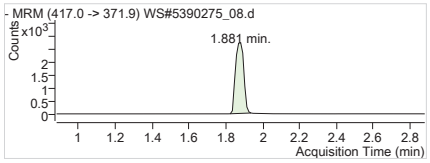


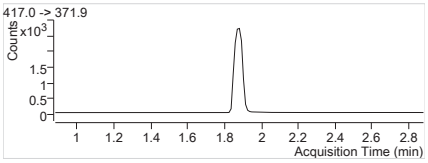
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	105.27 µg/L
Area ratio:	0.06581
Sample type:	Sample



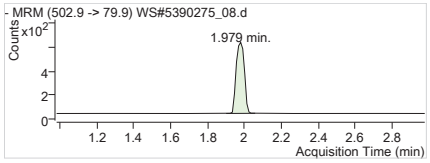


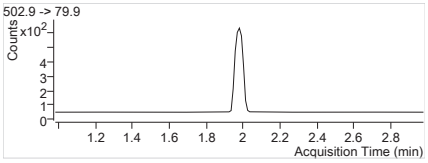
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	132.37 µg/L
Area ratio:	0.43056
Sample type:	Sample



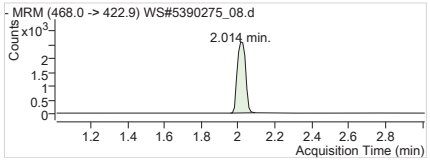


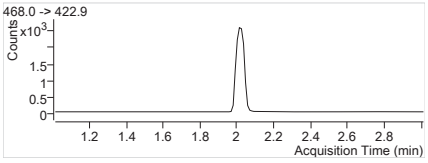
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	121.26 µg/L
Area ratio:	0.41838
Sample type:	Sample



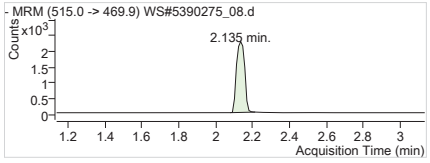


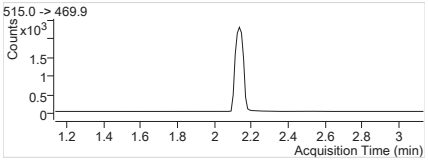
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	115.20 µg/L
Area ratio:	0.09037
Sample type:	Sample



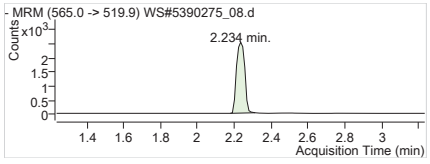


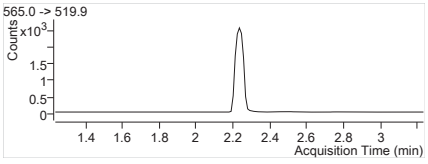
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	117.26 µg/L
Area ratio:	0.39984
Sample type:	Sample



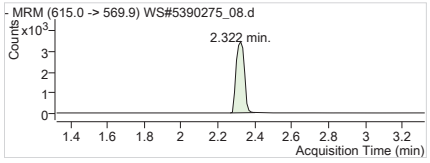


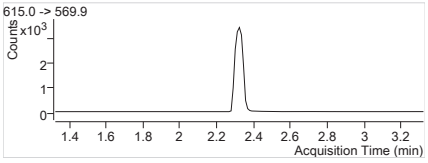
13C2-PFDA	515.0 -> 469.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	124.26 µg/L
Area ratio:	0.25893
Sample type:	Sample



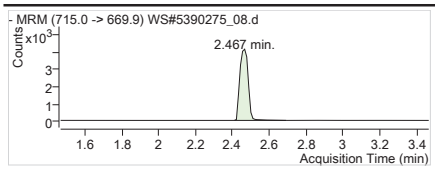


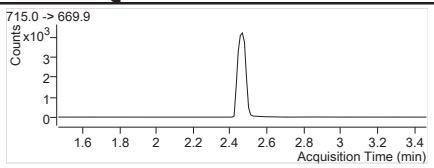
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.234 (2.234)
Calc. conc.	109.70 µg/L
Area ratio:	0.28907
Sample type:	Sample



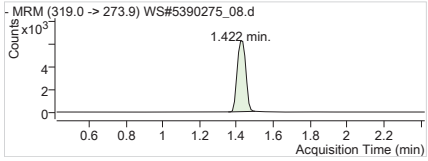


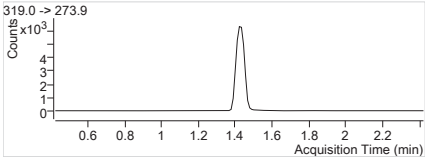
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.322 (2.322)
Calc. conc.	115.62 µg/L
Area ratio:	0.39411
Sample type:	Sample



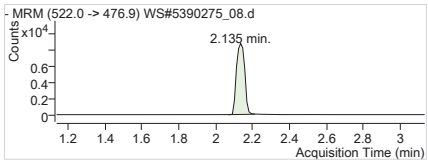


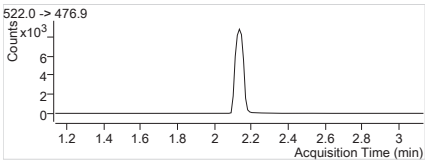
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	122.74 µg/L
Area ratio:	0.48541
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	85.91 µg/L
Area ratio:	0
Sample type:	Sample





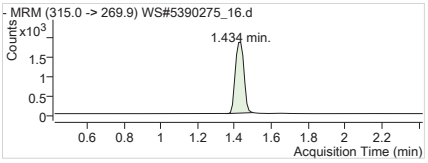
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	87.05 µg/L
Area ratio:	0
Sample type:	Sample

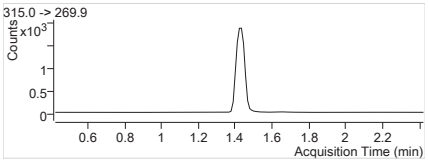
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	IB	**Instrument**	LCMS04
Data File	WS#5390275_16.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-A8
Acq. Date	2018/02/09 5:48:14 PM	**Injection Volume**	Per Method
Sample Annotation	-		

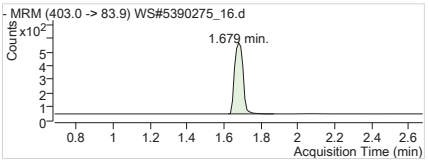
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5962	1.43	1 µg/L		
MPFHxS	1657	1.68	1 µg/L		
MPFHpA	7598	1.69	1 µg/L		
MPFOA	8443	1.87	1 µg/L		
MPFOS	1755	1.98	1 µg/L		
MPFNA	8169	2.01	1 µg/L		
MPFDA	6529	2.14	1 µg/L		
MPFUnA	8292	2.23	1 µg/L		
MPFDoA	11338	2.32	1 µg/L		
MPFTeDA	12842	2.47	1 µg/L		
13C6-PFHxA IS	20823	1.42	1 µg/L		
13C9-PFDA IS	26431	2.13	1 µg/L		

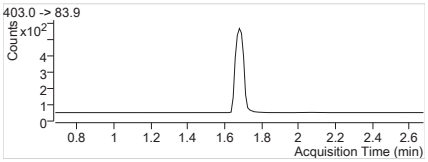
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5962	1.43	-	114.72 µg/L	-
18O2-PFHxS	1657	1.68	-	127.28 µg/L	-
13C4-PFHpA	7598	1.69	-	112.18 µg/L	-
13C4-PFOA	8443	1.87	-	117.52 µg/L	-
13C4-PFOS	1755	1.98	-	107.44 µg/L	-
13C5-PFNA	8168	2.01	-	115.03 µg/L	-
13C2-PFDA	6410	2.14	-	116.39 µg/L	-
13C2-PFUnA	8292	2.23	-	119.06 µg/L	-
13C2-PFDoA	11338	2.32	-	125.84 µg/L	-
13C2-PFTeDA	13101	2.47	-	125.33 µg/L	-
13C6-PFHxA	20823	1.42	-	2.13 µg/L	-
13C9-PFDA	26431	2.13	-	2.05 µg/L	-



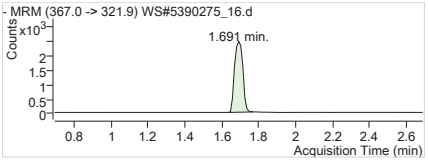


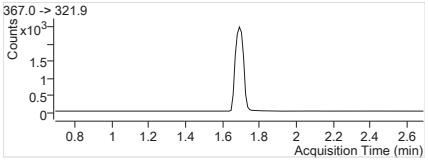
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.422)
Concentration: 1 µg/L
Sample type: Sample



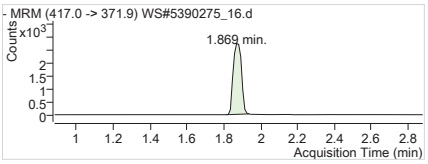


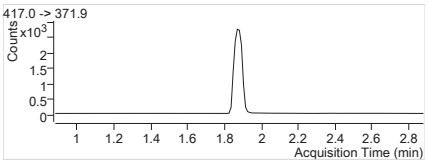
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



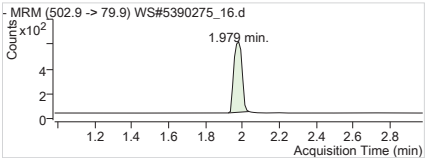


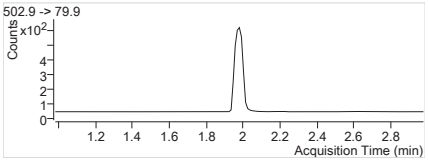
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



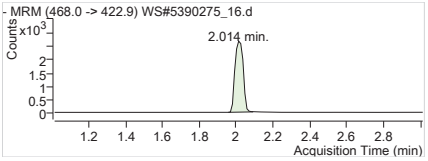


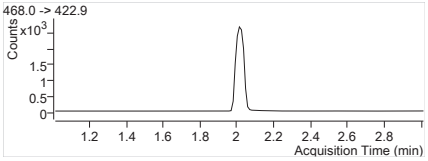
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



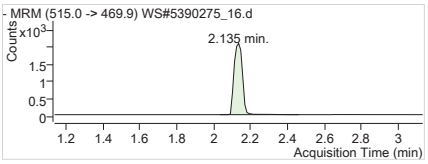


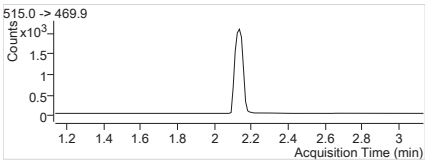
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



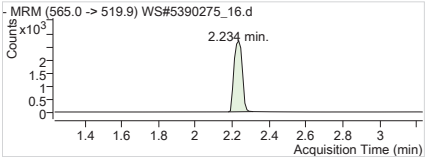


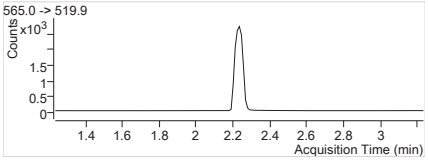
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



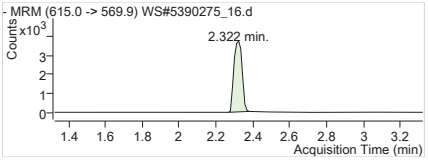


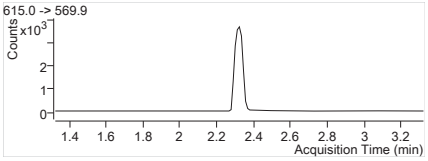
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



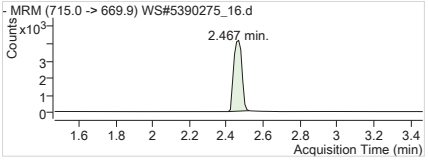


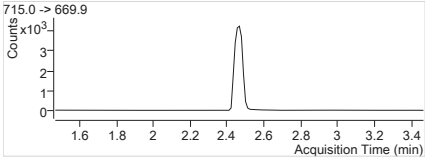
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



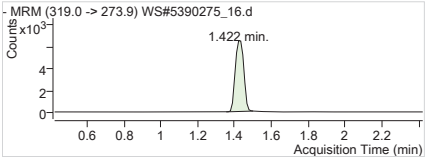


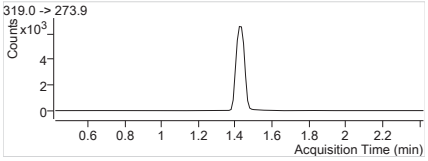
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



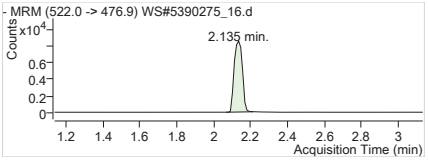


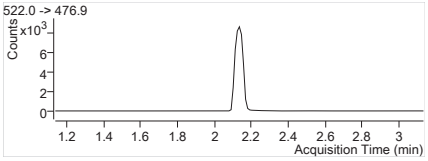
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



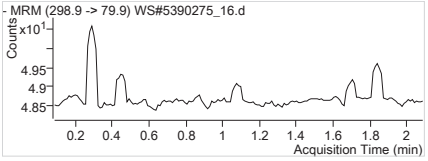


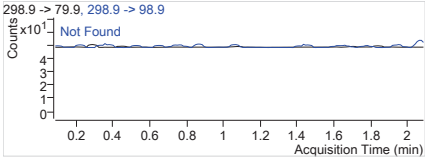
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



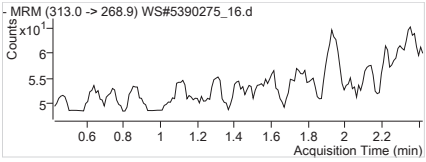


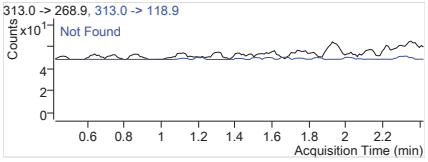
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



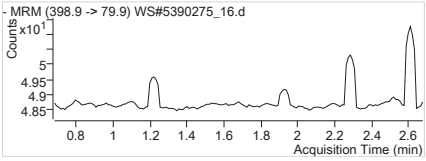


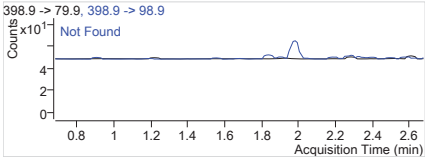
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



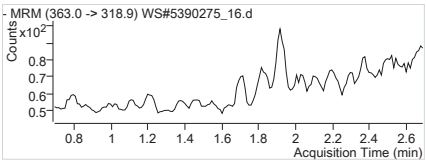


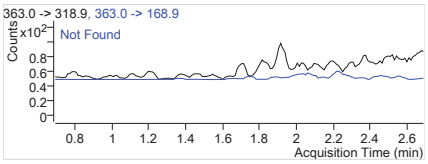
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



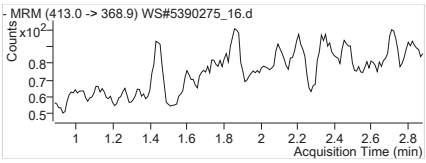


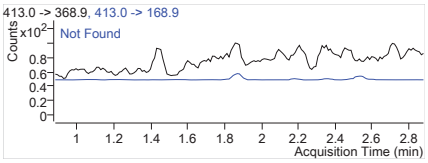
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



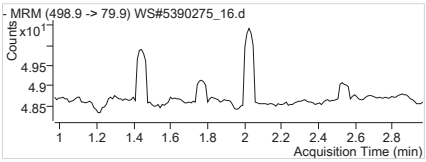


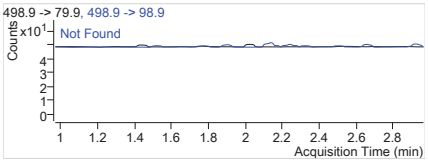
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



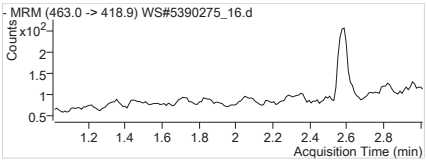


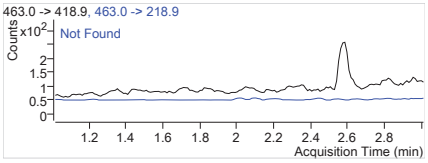
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



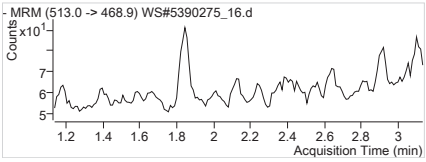


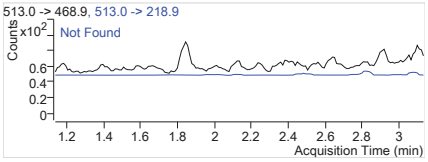
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



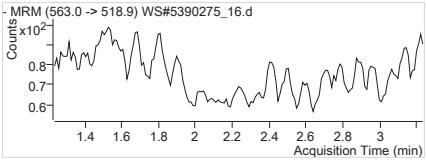


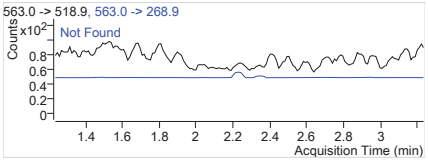
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



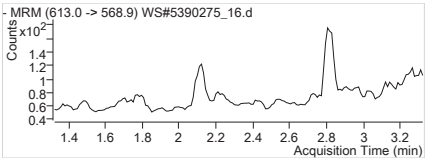


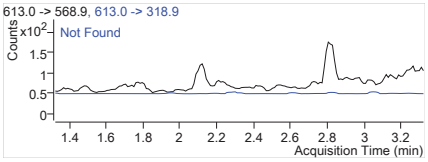
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



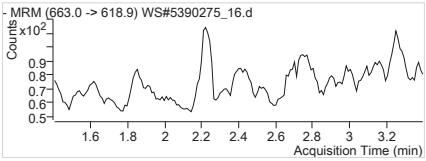


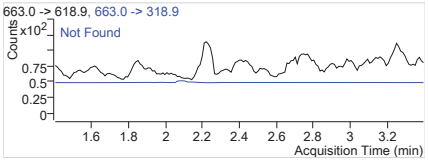
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



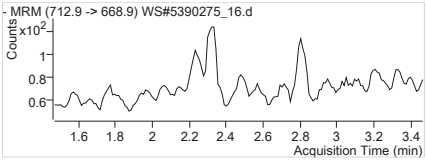


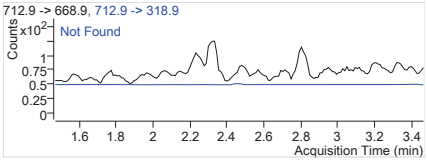
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



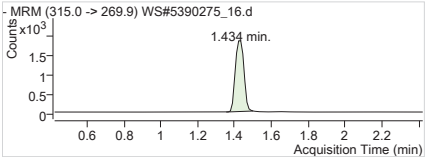


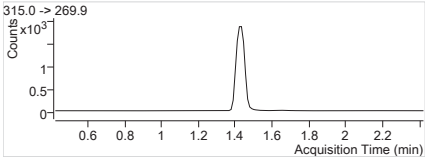
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



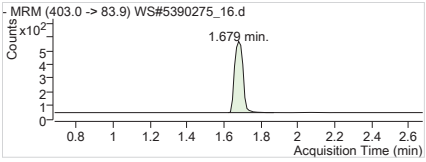


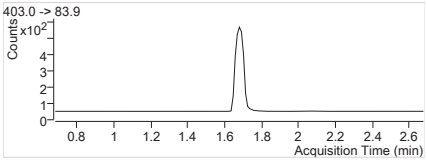
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



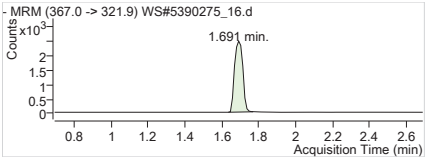


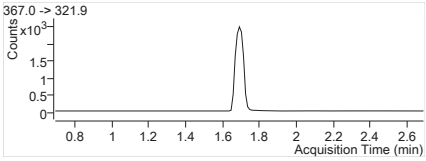
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.422)
Calc. conc. 114.72 µg/L
Area ratio: 0.28632
Sample type: Sample



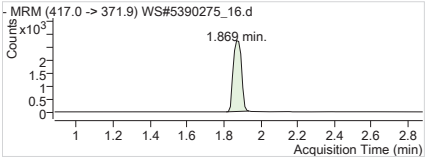


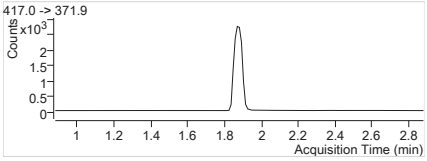
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 127.28 µg/L
Area ratio: 0.07958
Sample type: Sample



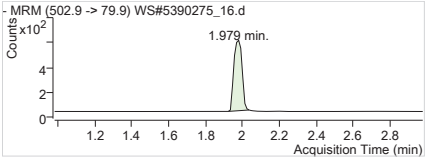


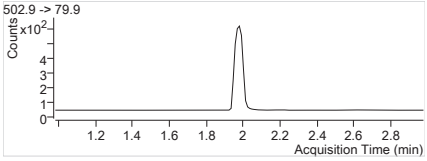
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 112.18 µg/L
Area ratio: 0.36488
Sample type: Sample



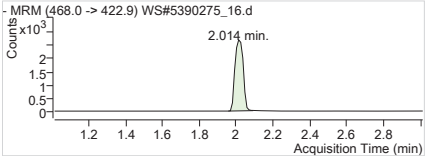


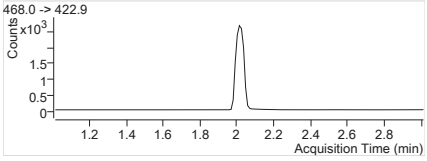
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 117.52 µg/L
Area ratio: 0.40547
Sample type: Sample



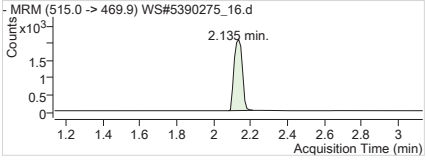


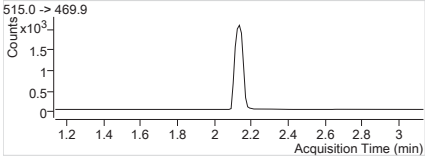
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 107.44 µg/L
Area ratio: 0.08428
Sample type: Sample



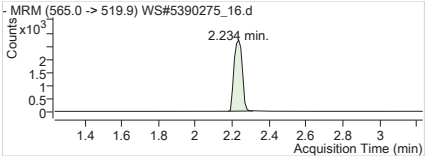


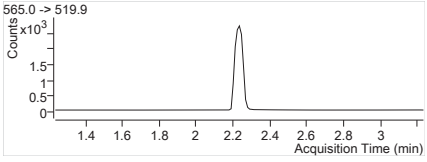
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 115.03 µg/L
Area ratio: 0.39226
Sample type: Sample



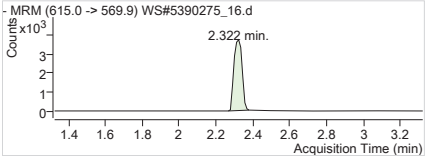


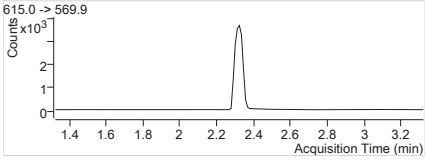
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 116.39 µg/L
Area ratio: 0.24252
Sample type: Sample



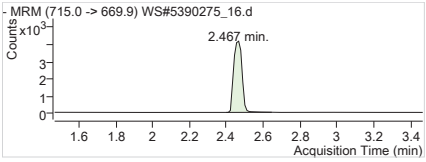


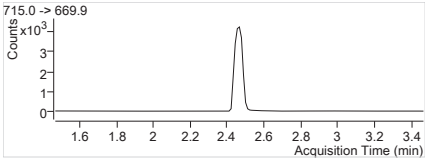
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 119.06 µg/L
Area ratio: 0.31372
Sample type: Sample



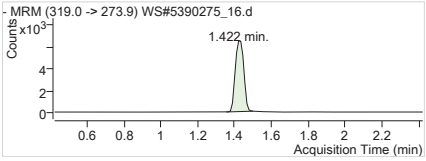


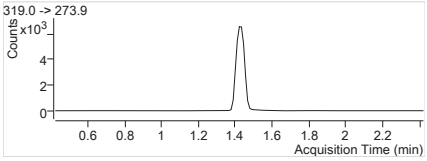
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 125.84 µg/L
Area ratio: 0.42897
Sample type: Sample



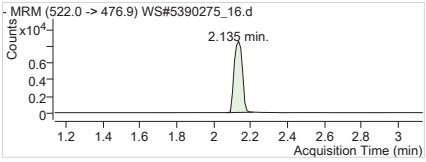


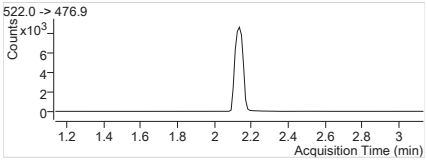
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	125.33 µg/L
Area ratio:	0.49567
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.13 µg/L
Area ratio:	0
Sample type:	Sample





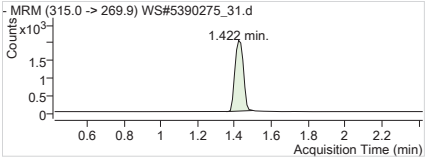
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.05 µg/L
Area ratio:	0
Sample type:	Sample

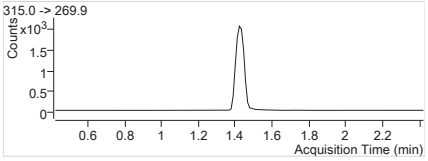
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5390275_31.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-A8
Acq. Date	2018/02/09 7:02:15 PM	**Injection Volume**	Per Method
Sample Annotation	-		

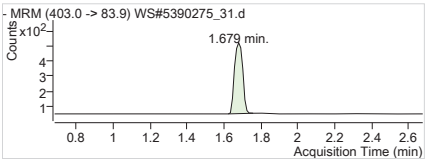
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6392	1.42	1 µg/L		
MPFHxS	1474	1.68	1 µg/L		
MPFHpA	7893	1.69	1 µg/L		
MPFOA	8591	1.87	1 µg/L		
MPFOS	1816	1.98	1 µg/L		
MPFNA	8703	2.01	1 µg/L		
MPFDA	6832	2.14	1 µg/L		
MPFUnA	8181	2.23	1 µg/L		
MPFDoA	10915	2.32	1 µg/L		
MPFTeDA	13159	2.47	1 µg/L		
13C6-PFHxA IS	20118	1.42	1 µg/L		
13C9-PFDA IS	26900	2.13	1 µg/L		

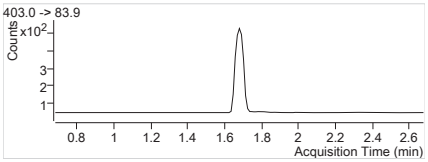
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6392	1.42	-	127.30 µg/L	-
18O2-PFHxS	1474	1.68	-	117.19 µg/L	-
13C4-PFHpA	7893	1.69	-	120.61 µg/L	-
13C4-PFOA	8591	1.87	-	123.77 µg/L	-
13C4-PFOS	1816	1.98	-	115.07 µg/L	-
13C5-PFNA	8703	2.01	-	126.86 µg/L	-
13C2-PFDA	6793	2.14	-	121.19 µg/L	-
13C2-PFUnA	8181	2.23	-	115.41 µg/L	-
13C2-PFDoA	10915	2.32	-	119.03 µg/L	-
13C2-PFTeDA	13537	2.47	-	127.25 µg/L	-
13C6-PFHxA	20118	1.42	-	2.06 µg/L	-
13C9-PFDA	26900	2.13	-	2.09 µg/L	-



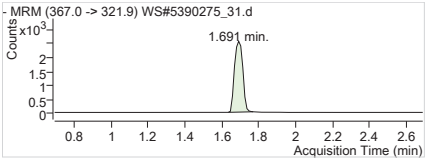


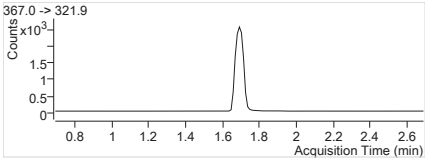
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



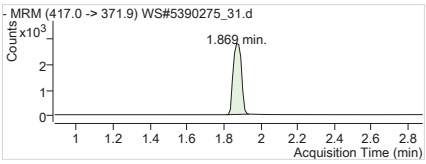


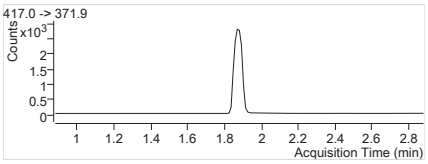
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



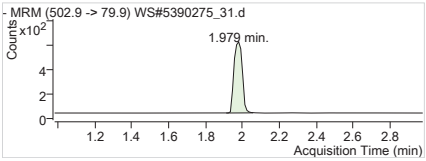


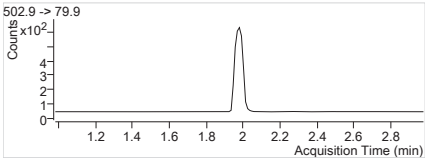
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



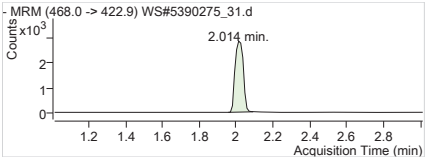


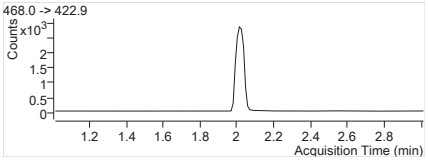
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



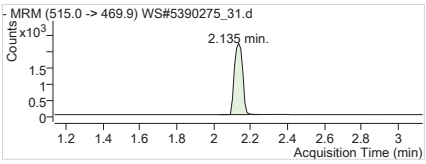


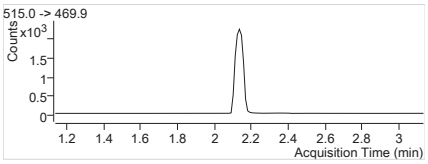
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



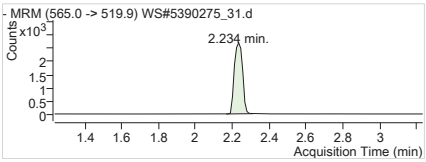


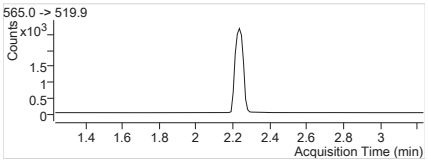
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



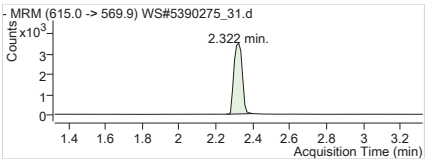


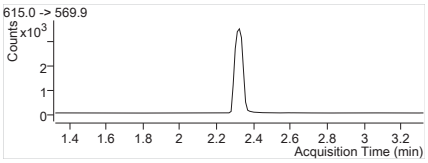
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



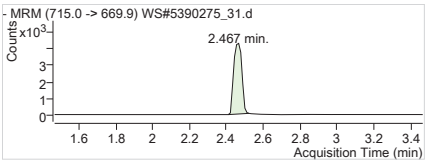


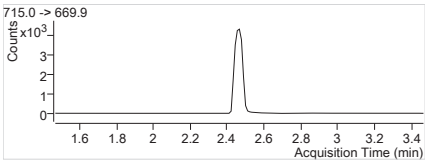
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



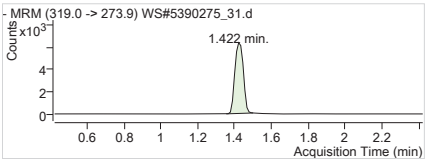


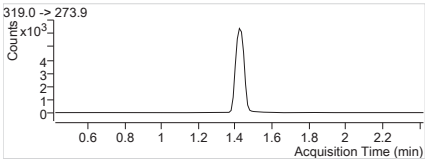
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



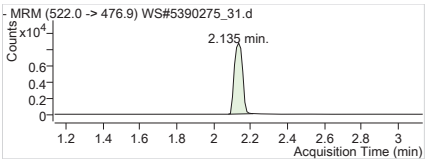


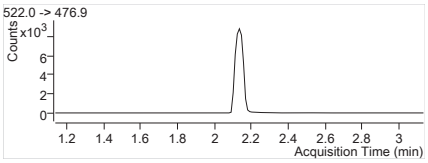
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



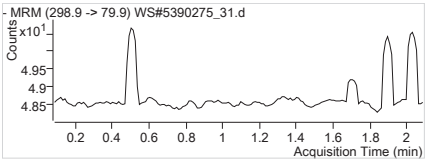


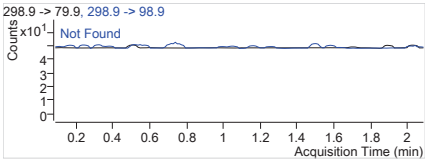
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



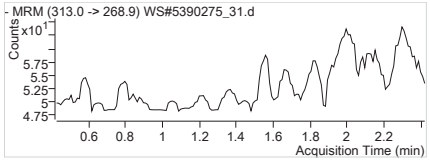


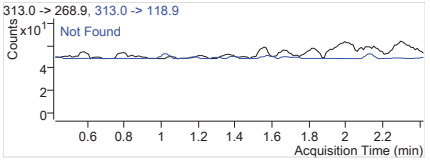
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



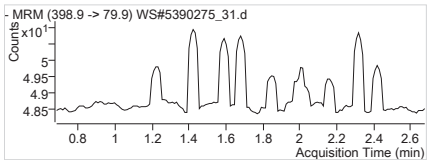


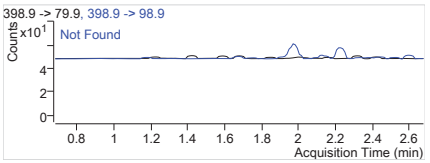
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



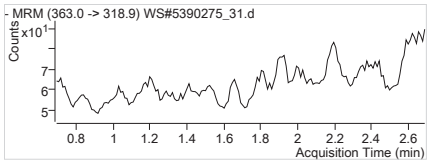


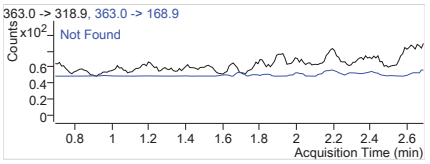
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



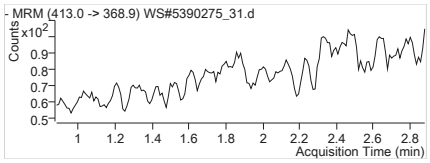


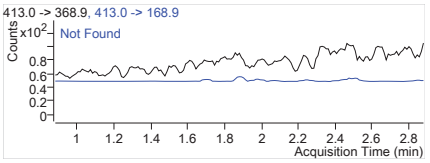
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



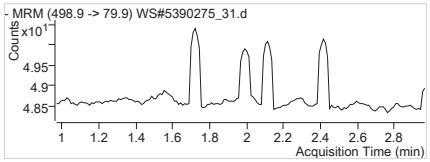


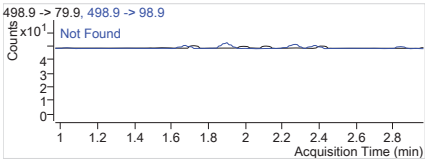
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



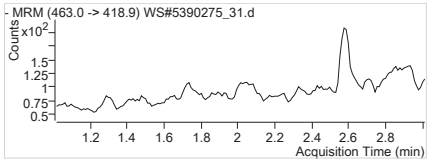


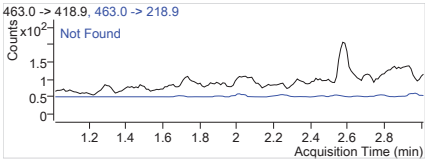
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



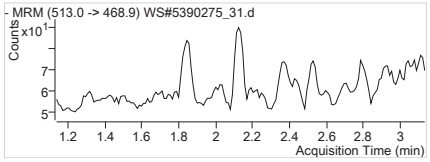


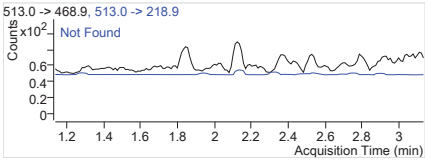
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



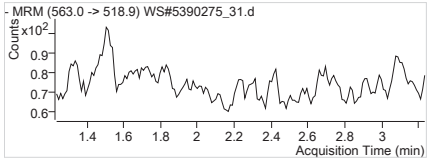


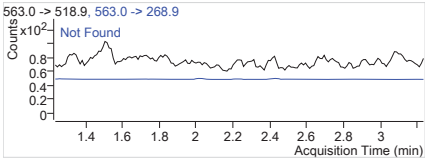
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



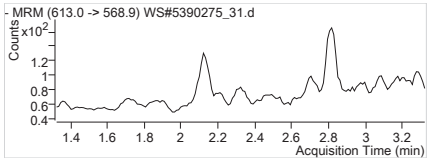


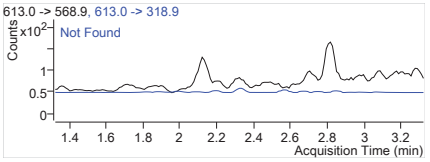
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



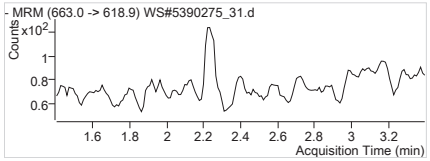


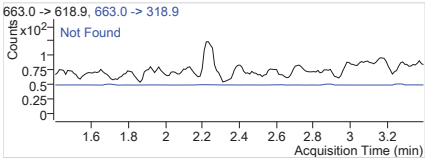
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



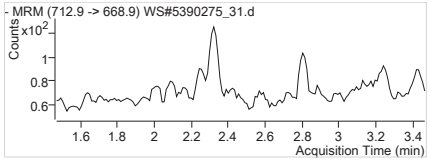


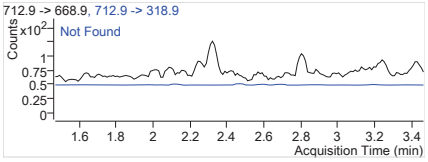
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



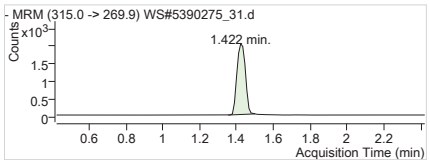


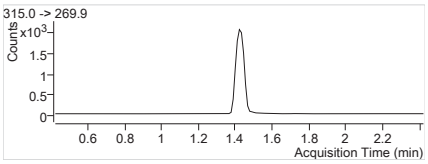
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



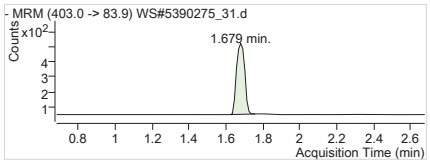


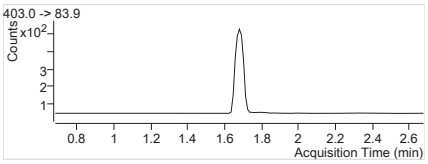
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



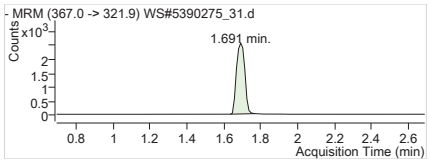


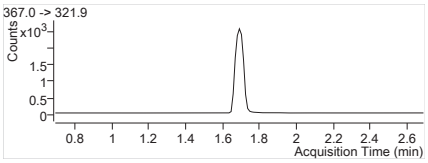
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 127.30 µg/L
Area ratio: 0.31773
Sample type: Sample



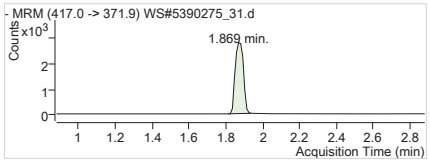


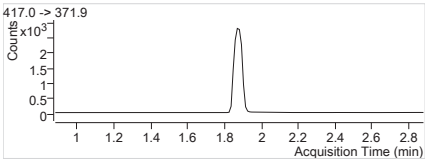
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 117.19 µg/L
Area ratio: 0.07327
Sample type: Sample



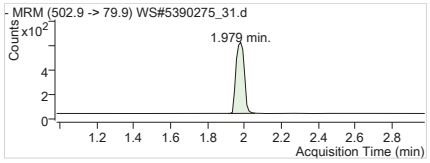


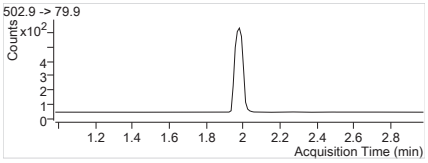
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 120.61 µg/L
Area ratio: 0.39234
Sample type: Sample



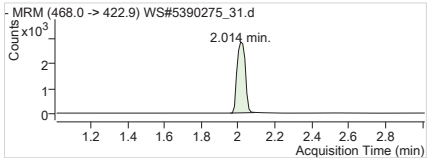


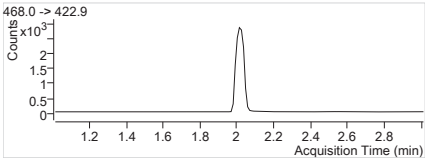
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 123.77 µg/L
Area ratio: 0.42703
Sample type: Sample



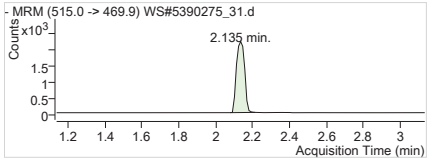


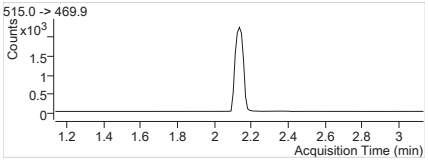
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 115.07 µg/L
Area ratio: 0.09027
Sample type: Sample



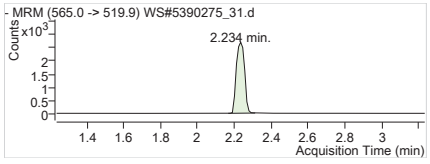


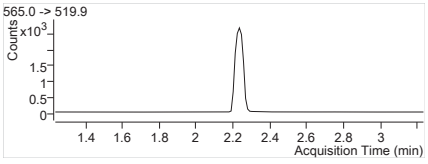
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 126.86 µg/L
Area ratio: 0.43260
Sample type: Sample



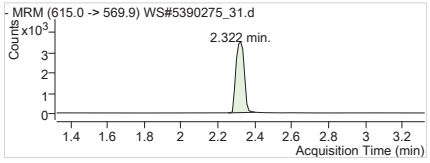


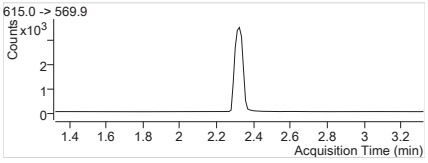
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 121.19 µg/L
Area ratio: 0.25253
Sample type: Sample



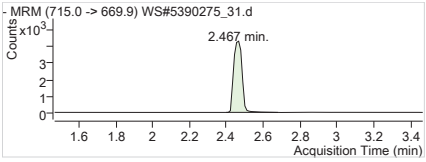


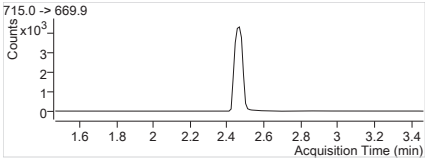
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 115.41 µg/L
Area ratio: 0.30413
Sample type: Sample



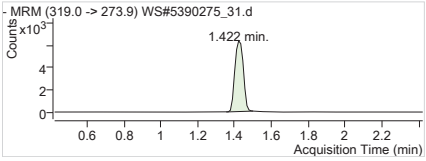


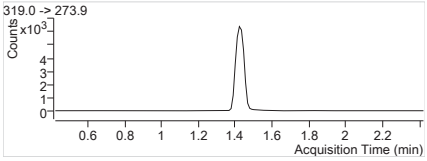
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 119.03 µg/L
Area ratio: 0.40576
Sample type: Sample



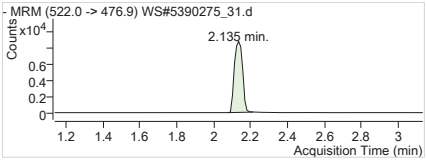


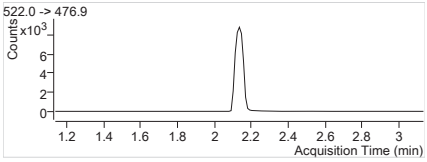
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	127.25 µg/L
Area ratio:	0.50323
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.06 µg/L
Area ratio:	0
Sample type:	Sample





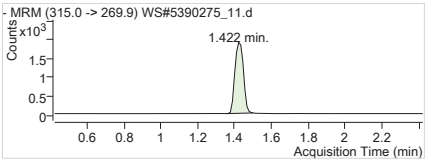
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.09 µg/L
Area ratio:	0
Sample type:	Sample

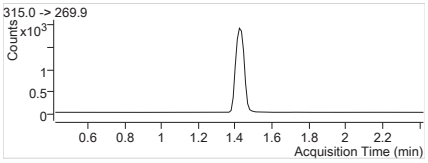
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**5390275:BLANK**	**Instrument**	LCMS04
Data File	WS#5390275_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B1
Acq. Date	2018/02/09 5:23:34 PM	**Injection Volume**	Per Method
Sample Annotation	-		

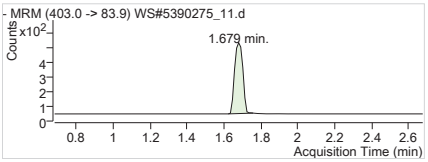
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6018	1.42	1 µg/L		
MPFHxS	1488	1.68	1 µg/L		
MPFHpA	7878	1.69	1 µg/L		
MPFOA	7930	1.87	1 µg/L		
MPFOS	1791	1.98	1 µg/L		
MPFNA	8573	2.01	1 µg/L		
MPFDA	6720	2.14	1 µg/L		
MPFUnA	7477	2.23	1 µg/L		
MPFDoA	9980	2.32	1 µg/L		
MPFTeDA	10709	2.47	1 µg/L		
13C6-PFHxA IS	25220	1.42	1 µg/L		
13C9-PFDA IS	33519	2.13	1 µg/L		

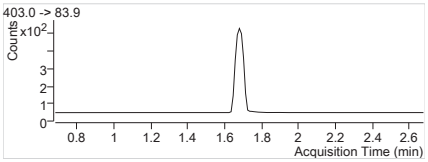
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	6018	1.42	-	95.61 µg/L	-
18O2-PFHxS	1488	1.68	-	94.37 µg/L	-
13C4-PFHpA	7878	1.69	-	96.03 µg/L	-
13C4-PFOA	7930	1.87	-	91.13 µg/L	-
13C4-PFOS	1791	1.98	-	90.53 µg/L	-
13C5-PFNA	8573	2.01	-	99.69 µg/L	-
13C2-PFDA	6615	2.14	-	94.71 µg/L	-
13C2-PFUnA	7477	2.23	-	84.65 µg/L	-
13C2-PFDoA	9980	2.32	-	87.35 µg/L	-
13C2-PFTeDA	10961	2.47	-	82.69 µg/L	-
13C6-PFHxA	25220	1.42	-	2.58 µg/L	-
13C9-PFDA	33519	2.13	-	2.60 µg/L	-



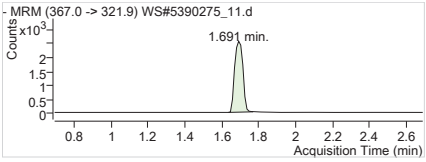


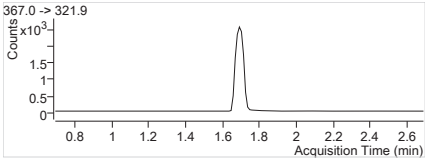
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



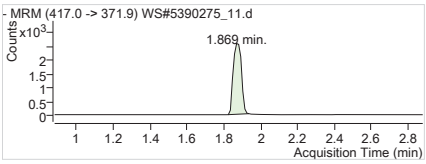


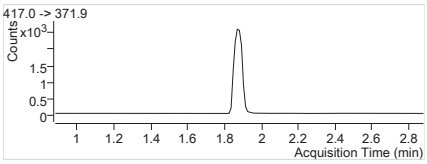
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



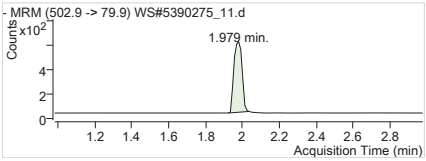


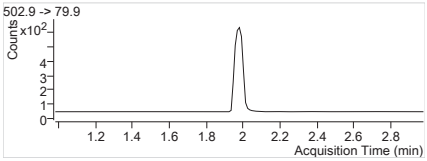
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



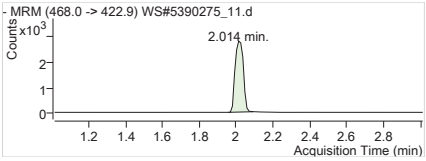


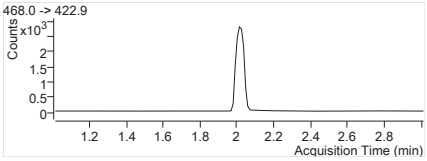
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



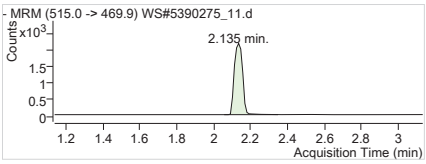


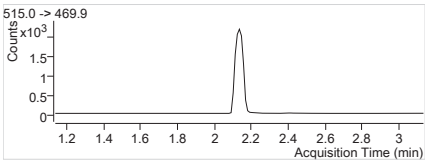
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



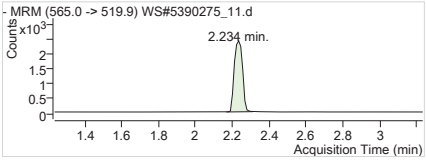


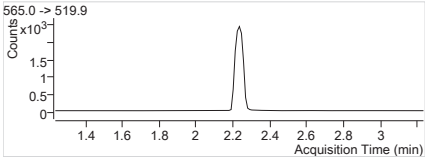
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



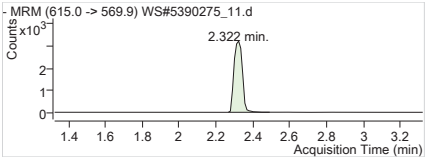


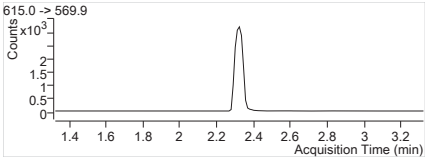
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



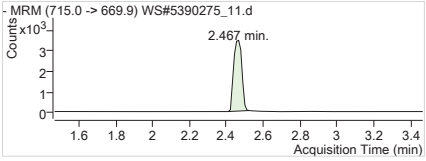


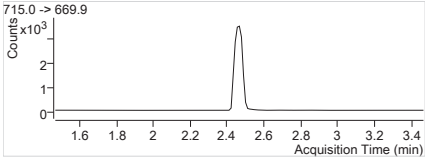
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



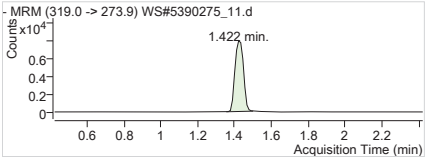


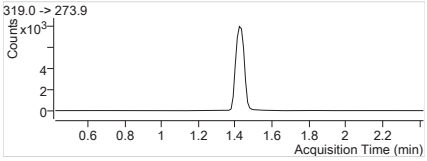
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



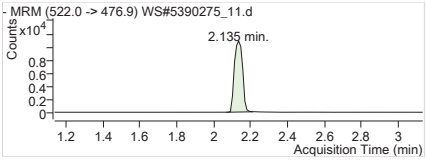


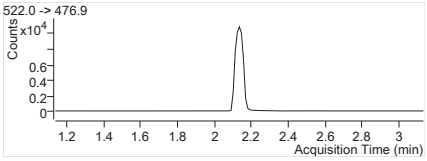
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



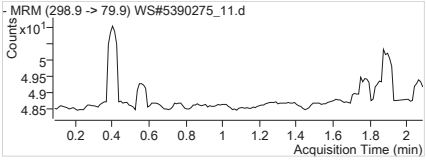


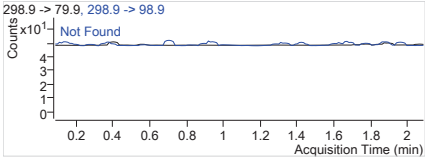
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



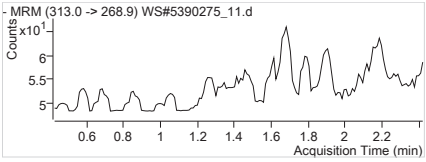


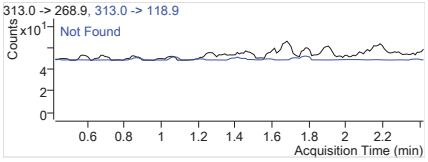
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample





PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample

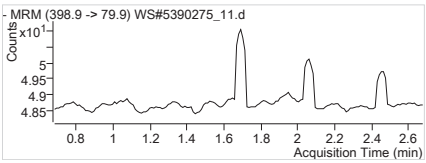


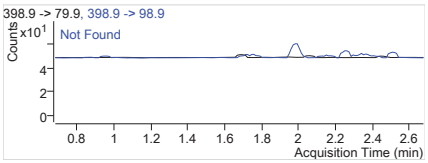


PFHxA 1

RT (Exp. RT):	0.000 (1.423)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample

313.0 -> 268.9

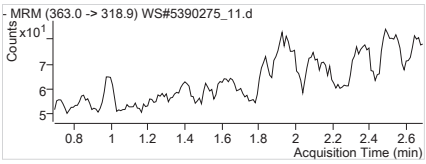


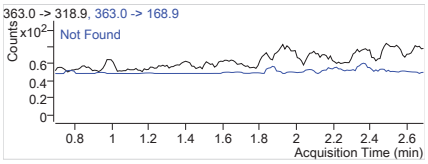


PFHxS 1

RT (Exp. RT):	0.000 (1.679)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample

398.9 -> 79.9

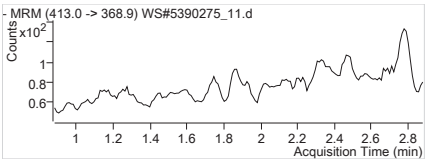


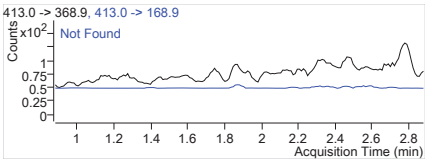


PFHpA 1

RT (Exp. RT):	0.000 (1.691)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample

363.0 -> 318.9

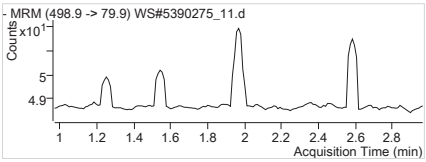


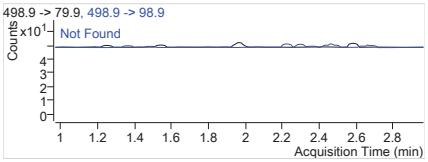


PFOA 1

RT (Exp. RT):	0.000 (1.881)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample

413.0 -> 368.9

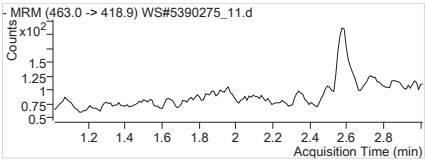


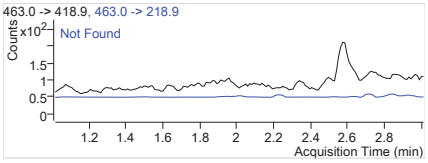


PFOS 1

RT (Exp. RT):	0.000 (1.968)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample

498.9 -> 79.9

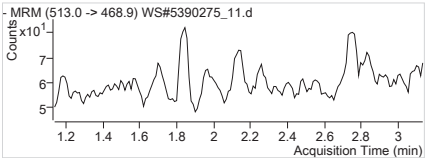


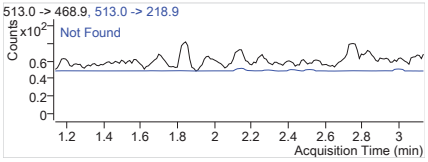


PFNA 1

RT (Exp. RT):	0.000 (2.014)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample

463.0 -> 418.9

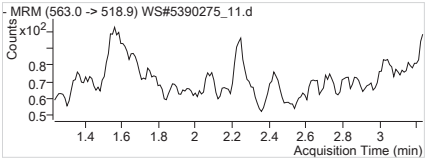


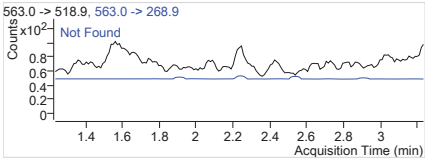


PFDA 1

RT (Exp. RT):	0.000 (2.135)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample

513.0 -> 468.9

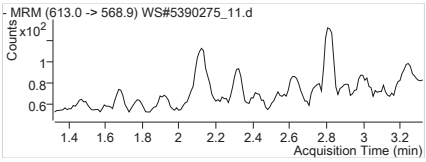


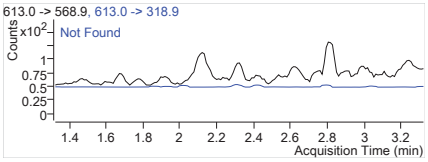


PFUnA 1

RT (Exp. RT):	0.000 (2.234)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample

563.0 -> 518.9

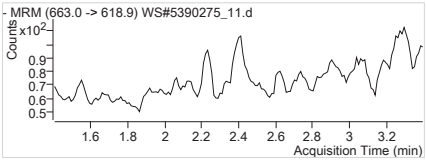


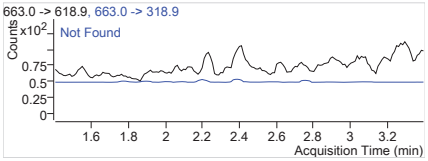


PFDoA 1

RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample

613.0 -> 568.9

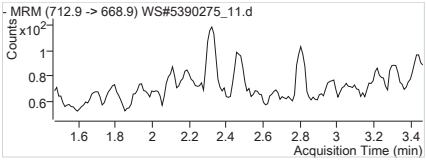


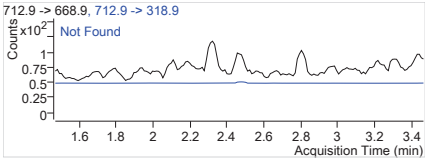


PFTrDA 1

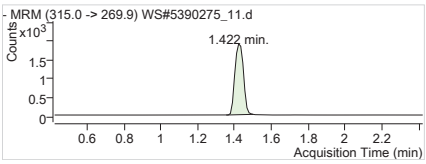
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample

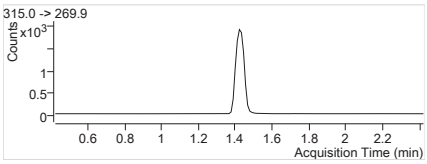
663.0 -> 618.9



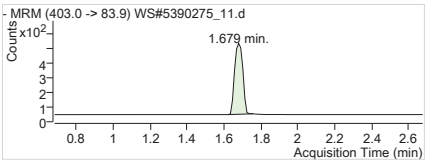


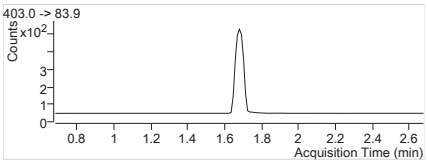
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



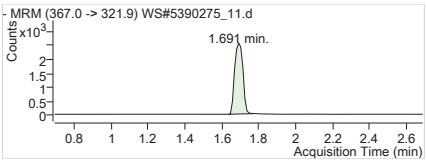


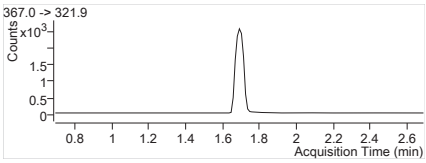
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	95.61 µg/L
Area ratio:	0.23862
Sample type:	Sample



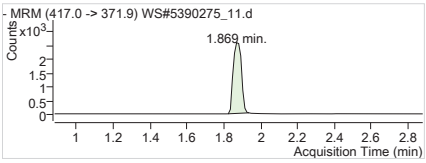


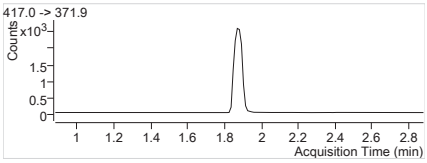
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	94.37 µg/L
Area ratio:	0.05900
Sample type:	Sample



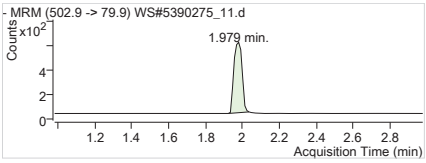


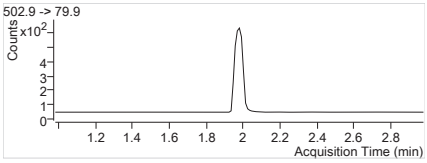
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	96.03 µg/L
Area ratio:	0.31237
Sample type:	Sample



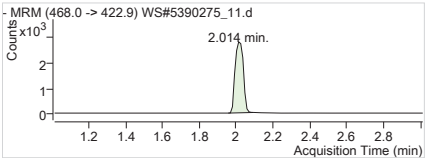


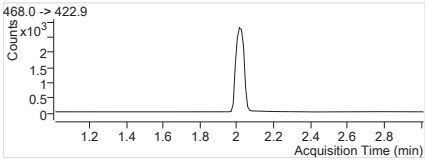
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.869 (1.881)
Calc. conc.	91.13 µg/L
Area ratio:	0.31443
Sample type:	Sample



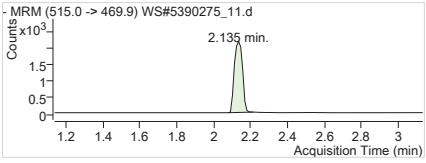


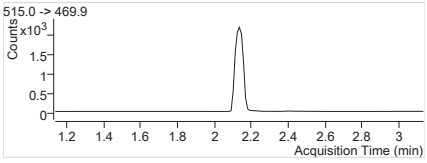
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	90.53 µg/L
Area ratio:	0.07102
Sample type:	Sample



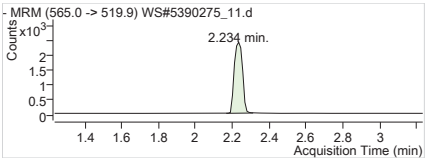


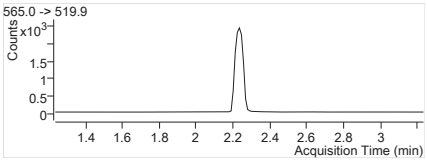
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	99.69 µg/L
Area ratio:	0.33993
Sample type:	Sample



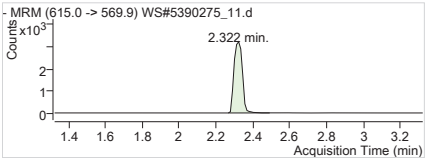


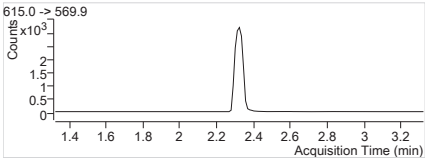
13C2-PFDA	515.0 -> 469.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	94.71 µg/L
Area ratio:	0.19735
Sample type:	Sample



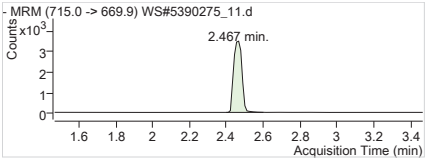


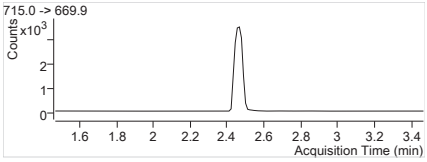
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.234 (2.234)
Calc. conc.	84.65 µg/L
Area ratio:	0.22307
Sample type:	Sample



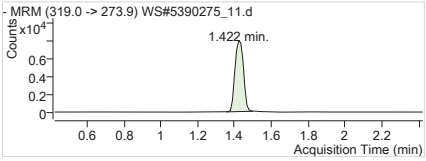


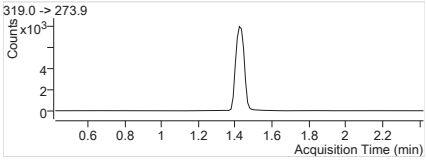
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.322 (2.322)
Calc. conc.	87.35 µg/L
Area ratio:	0.29774
Sample type:	Sample



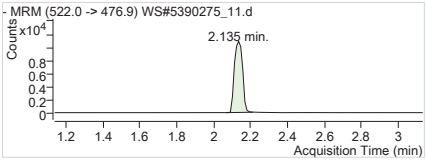


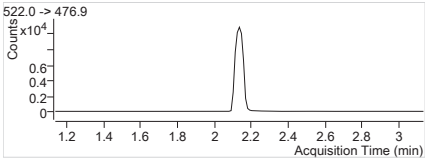
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	82.69 µg/L
Area ratio:	0.32701
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.58 µg/L
Area ratio:	0
Sample type:	Sample





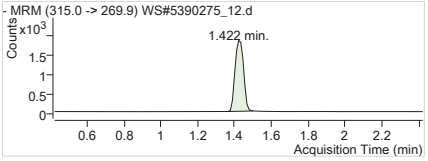
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.60 µg/L
Area ratio:	0
Sample type:	Sample

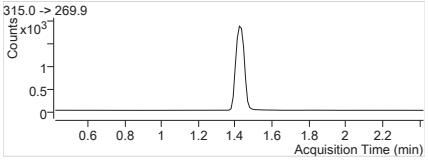
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**5390275:SPIKE**	**Instrument**	LCMS04
Data File	WS#5390275_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B2
Acq. Date	2018/02/09 5:28:30 PM	**Injection Volume**	Per Method
Sample Annotation	-		

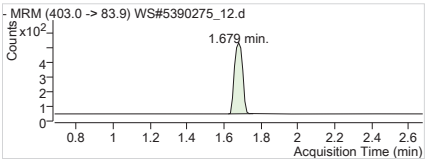
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5934	1.42	1 µg/L		
MPFHxS	1484	1.68	1 µg/L		
MPFHpA	7823	1.69	1 µg/L		
MPFOA	8194	1.87	1 µg/L		
MPFOS	1800	1.98	1 µg/L		
MPFNA	8022	2.01	1 µg/L		
MPFDA	6475	2.14	1 µg/L		
MPFUnA	7487	2.23	1 µg/L		
MPFDoA	10153	2.32	1 µg/L		
MPFTeDA	10617	2.47	1 µg/L		
13C6-PFHxA IS	20746	1.42	1 µg/L		
13C9-PFDA IS	27176	2.13	1 µg/L		

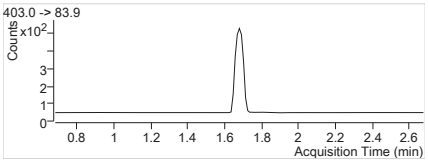
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	13715	1.09	20.80	0.49 µg/L	98.87
PFHxA 1	48409	1.42	20.80	0.48 µg/L	96.98
PFHxS 1	12599	1.68	20.80	0.46 µg/L	91.52
PFHpA 1	62580	1.69	20.80	0.48 µg/L	95.29
PFOA 1	68281	1.87	20.80	0.48 µg/L	97.07
PFOS 1	12307	1.97	20.80	0.46 µg/L	92.93
PFNA 1	61670	2.01	20.80	0.50 µg/L	99.23
PFDA 1	63868	2.14	20.80	0.47 µg/L	93.89
PFUnA 1	71259	2.23	20.80	0.54 µg/L	107.76
PFDoA 1	80868	2.32	20.80	0.46 µg/L	91.82
PFTrDA 1	91784	2.40	20.80	0.50 µg/L	100.22
PFTeDA 1	73632	2.47	20.80	0.48 µg/L	96.83
13C2-PFHxA	5934	1.42	100.00	114.60 µg/L	114.60
18O2-PFHxS	1484	1.68	100.00	114.42 µg/L	114.42
13C4-PFHpA	7823	1.69	100.00	115.93 µg/L	115.93
13C4-PFOA	8194	1.87	100.00	114.48 µg/L	114.48
13C4-PFOS	1800	1.98	100.00	110.60 µg/L	110.60
13C5-PFNA	8022	2.01	100.00	113.40 µg/L	113.40
13C2-PFDA	6349	2.14	100.00	112.12 µg/L	112.12
13C2-PFUnA	7487	2.23	100.00	104.55 µg/L	104.55
13C2-PFDoA	10153	2.32	100.00	109.60 µg/L	109.60
13C2-PFTeDA	10851	2.47	100.00	100.96 µg/L	100.96
13C6-PFHxA	20746	1.42	100.00	2.13 µg/L	88.59
13C9-PFDA	27176	2.13	100.00	2.11 µg/L	87.81



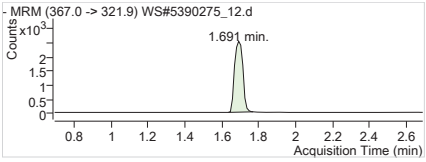


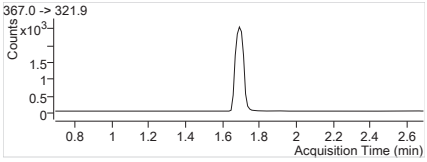
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: QC



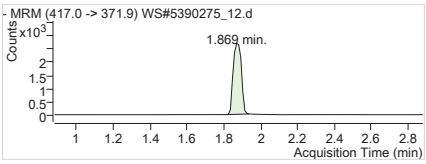


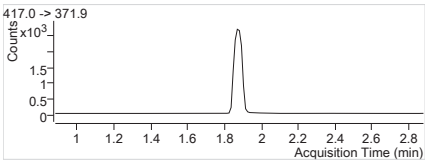
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



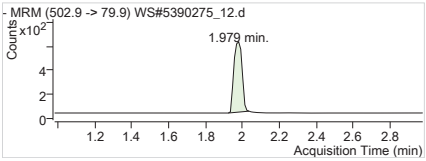


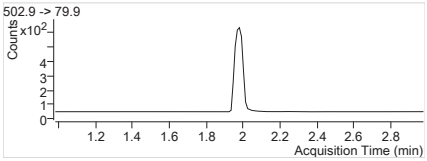
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: QC



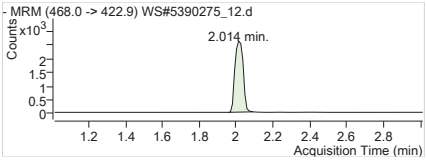


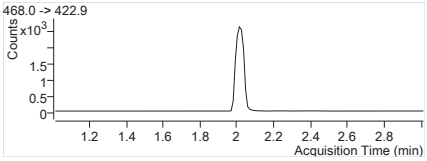
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: QC



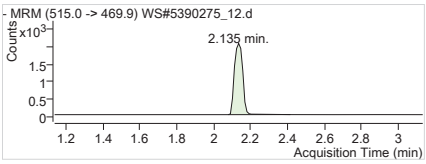


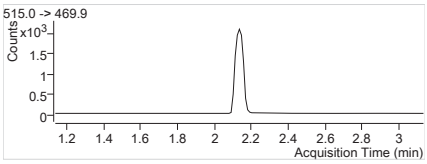
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



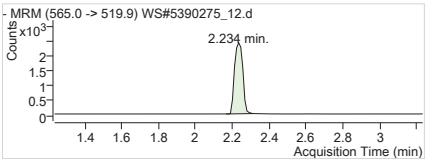


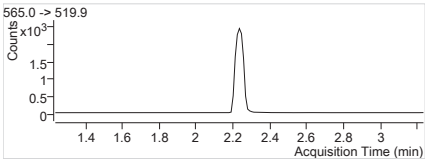
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: QC



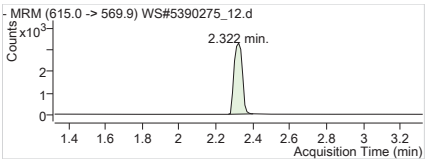


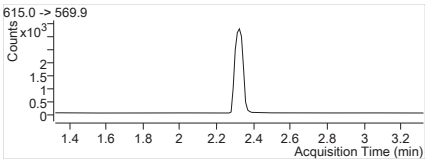
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



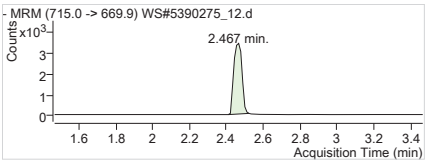


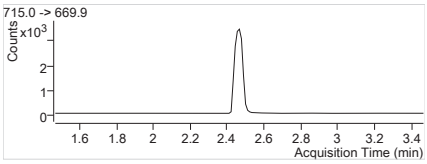
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: QC



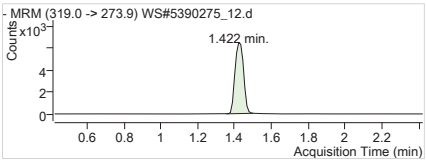


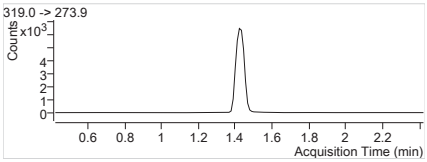
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



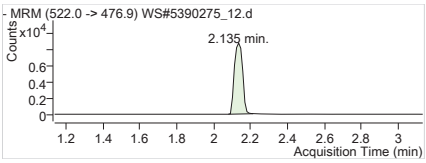


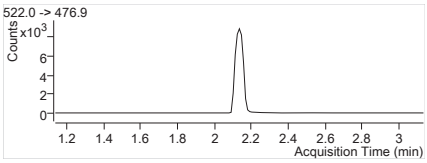
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



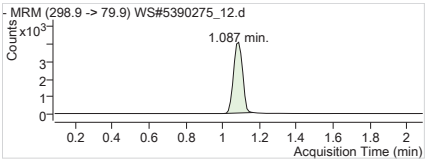


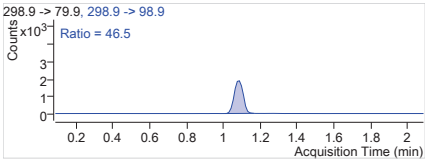
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: QC



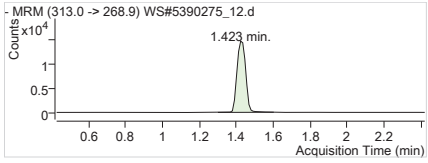


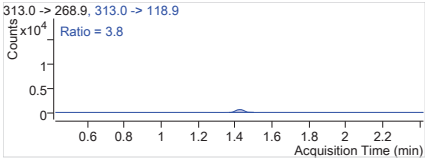
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



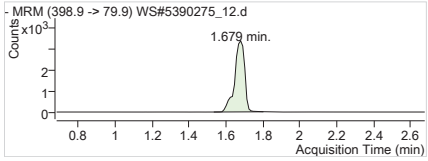


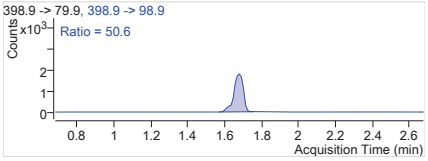
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.49 µg/L
Area ratio: 9.24191
Sample type: QC



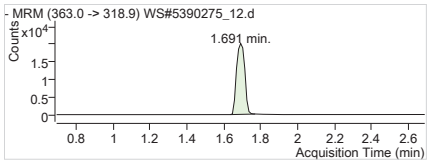


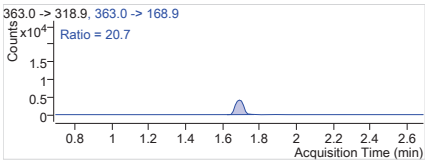
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.48 µg/L
Area ratio: 8.15790
Sample type: QC



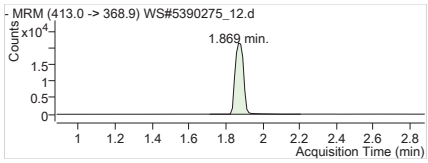


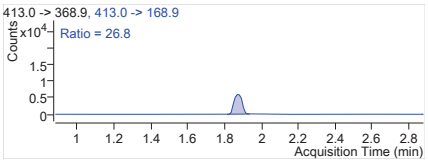
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.46 µg/L
Area ratio: 8.48989
Sample type: QC



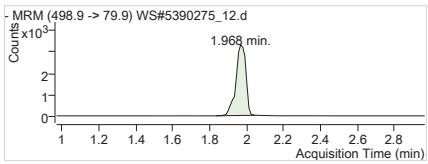


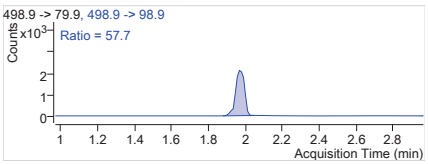
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.48 µg/L
Area ratio: 7.99949
Sample type: QC



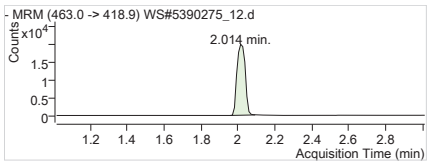


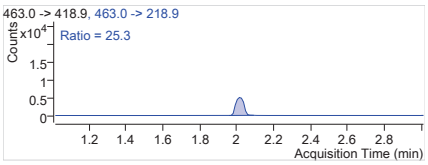
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 0.48 µg/L
Area ratio: 8.33305
Sample type: QC



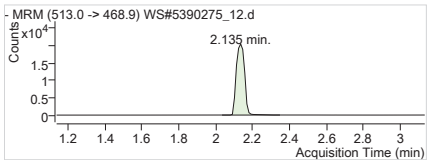


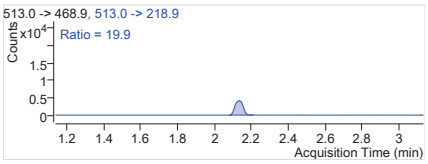
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 0.46 µg/L
Area ratio: 6.83722
Sample type: QC



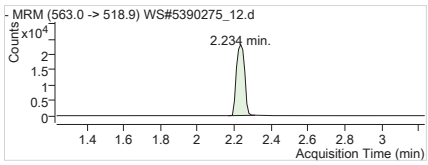


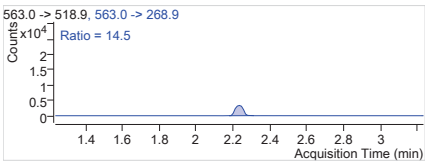
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.50 µg/L
Area ratio: 7.68761
Sample type: QC



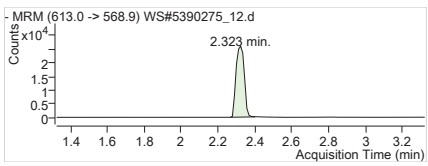


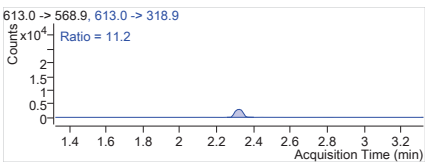
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.47 µg/L
Area ratio: 9.86378
Sample type: QC



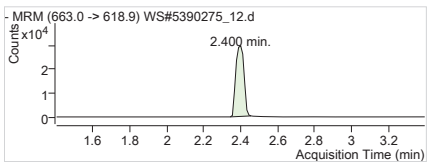


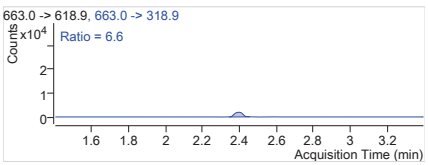
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.54 µg/L
Area ratio: 9.51770
Sample type: QC



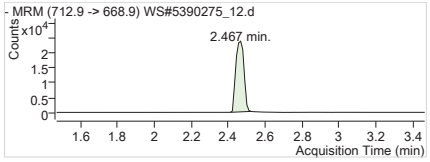


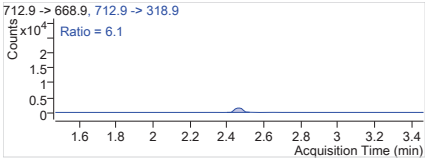
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.46 µg/L
Area ratio: 7.96494
Sample type: QC



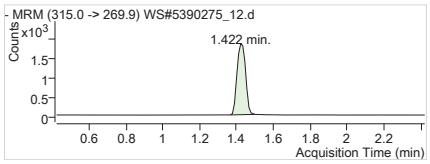


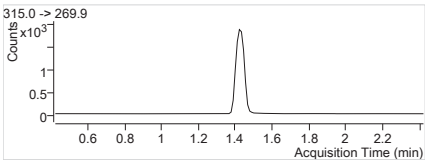
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.50 µg/L
Area ratio: 8.64500
Sample type: QC



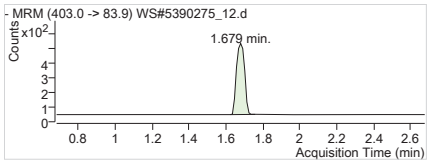


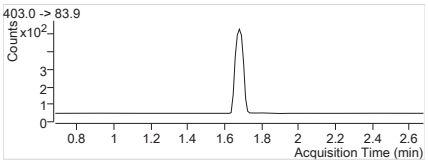
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.48 µg/L
Area ratio: 6.93529
Sample type: QC



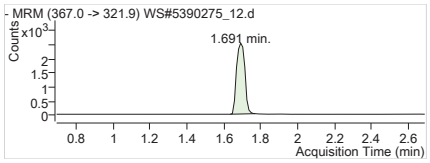


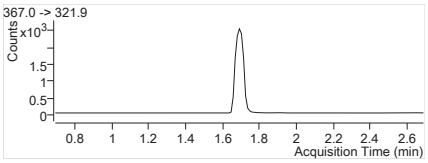
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 114.60 µg/L
Area ratio: 0.28603
Sample type: QC



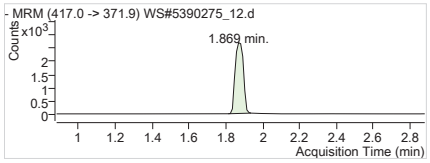


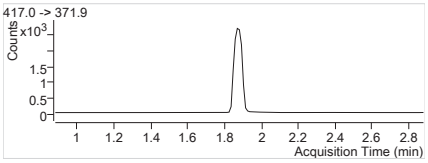
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 114.42 µg/L
Area ratio: 0.07153
Sample type: QC



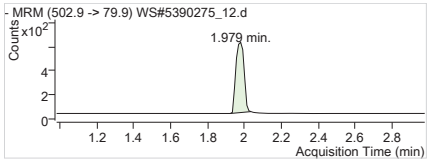


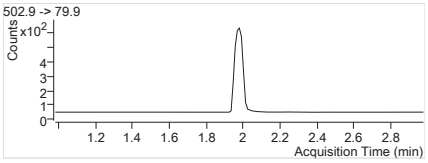
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 115.93 µg/L
Area ratio: 0.37708
Sample type: QC



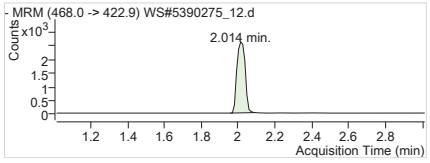


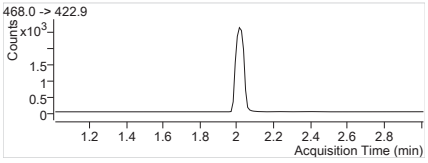
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 114.48 µg/L
Area ratio: 0.39497
Sample type: QC



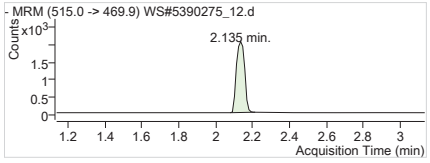


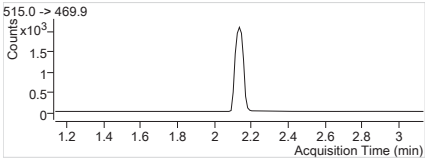
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 110.60 µg/L
Area ratio: 0.08676
Sample type: QC



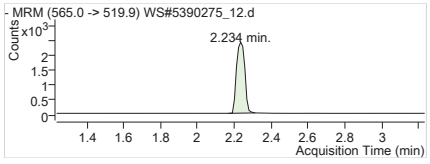


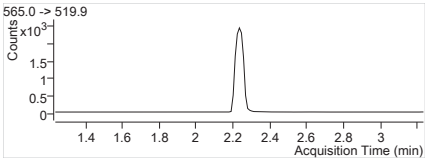
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 113.40 µg/L
Area ratio: 0.38668
Sample type: QC



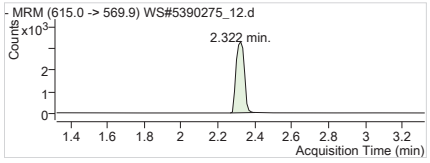


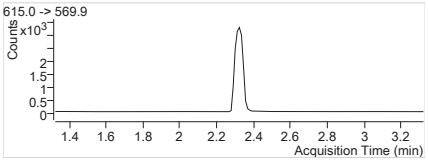
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 112.12 µg/L
Area ratio: 0.23363
Sample type: QC



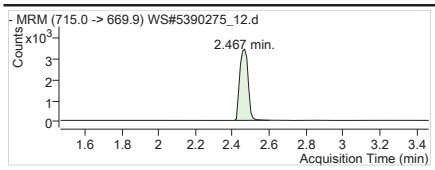


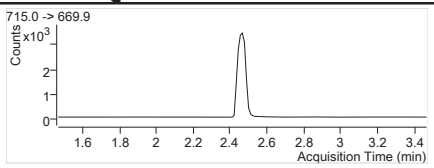
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 104.55 µg/L
Area ratio: 0.27550
Sample type: QC



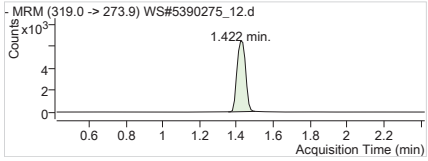


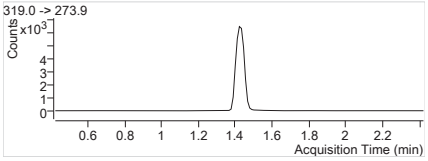
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 109.60 µg/L
Area ratio: 0.37360
Sample type: QC



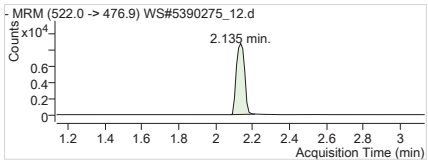


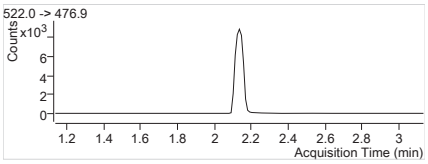
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	100.96 µg/L
Area ratio:	0.39929
Sample type:	QC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.13 µg/L
Area ratio:	0
Sample type:	QC





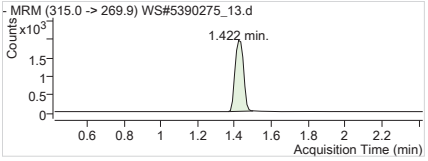
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.11 µg/L
Area ratio:	0
Sample type:	QC

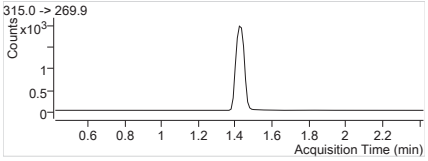
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_ETOxics

Sample Name	**5390275:SPIKE:D1**	**Instrument**	LCMS04
Data File	WS#5390275_13.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B3
Acq. Date	2018/02/09 5:33:26 PM	**Injection Volume**	Per Method
Sample Annotation	-		

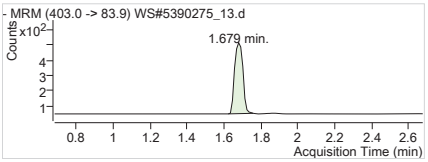
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6153	1.42	1 µg/L		
MPFHxS	1453	1.68	1 µg/L		
MPFHpA	7992	1.69	1 µg/L		
MPFOA	7919	1.87	1 µg/L		
MPFOS	1668	1.98	1 µg/L		
MPFNA	8332	2.01	1 µg/L		
MPFDA	6633	2.14	1 µg/L		
MPFUnA	7371	2.23	1 µg/L		
MPFDoA	9861	2.32	1 µg/L		
MPFTeDA	10300	2.47	1 µg/L		
13C6-PFHxA IS	23523	1.42	1 µg/L		
13C9-PFDA IS	30943	2.13	1 µg/L		

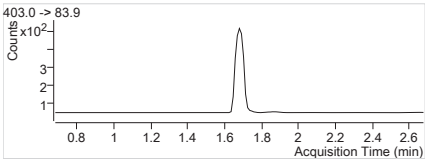
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	13584	1.09	20.80	0.50 µg/L	100.01
PFHxA 1	47374	1.42	20.80	0.46 µg/L	91.53
PFHxS 1	12479	1.68	20.80	0.46 µg/L	92.57
PFHpA 1	60411	1.69	20.80	0.45 µg/L	90.10
PFOA 1	68343	1.87	20.80	0.50 µg/L	100.53
PFOS 1	12157	1.97	20.80	0.49 µg/L	99.06
PFNA 1	60415	2.01	20.80	0.47 µg/L	93.61
PFDA 1	61773	2.14	20.80	0.44 µg/L	88.68
PFUnA 1	71957	2.23	20.80	0.55 µg/L	110.52
PFDoA 1	80666	2.32	20.80	0.47 µg/L	94.30
PFTrDA 1	88818	2.40	20.80	0.50 µg/L	99.97
PFTeDA 1	75483	2.47	20.80	0.51 µg/L	102.32
13C2-PFHxA	6153	1.42	100.00	104.80 µg/L	104.80
18O2-PFHxS	1453	1.68	100.00	98.80 µg/L	98.80
13C4-PFHpA	7992	1.69	100.00	104.45 µg/L	104.45
13C4-PFOA	7919	1.87	100.00	97.57 µg/L	97.57
13C4-PFOS	1668	1.98	100.00	90.39 µg/L	90.39
13C5-PFNA	8330	2.01	100.00	103.85 µg/L	103.85
13C2-PFDA	6555	2.14	100.00	101.67 µg/L	101.67
13C2-PFUnA	7371	2.23	100.00	90.40 µg/L	90.40
13C2-PFDoA	9861	2.32	100.00	93.49 µg/L	93.49
13C2-PFTeDA	10540	2.47	100.00	86.13 µg/L	86.13
13C6-PFHxA	23523	1.42	100.00	2.41 µg/L	100.45
13C9-PFDA	30943	2.13	100.00	2.40 µg/L	99.98



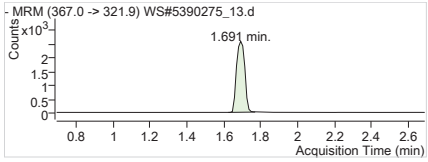


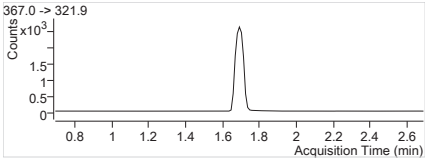
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: QC



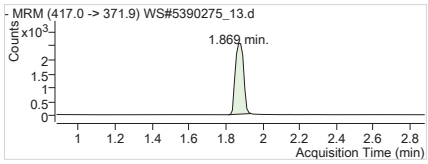


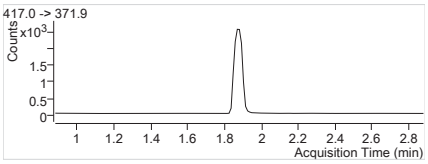
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



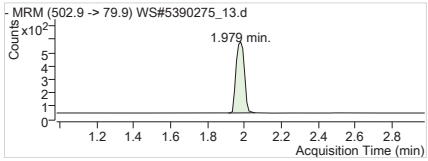


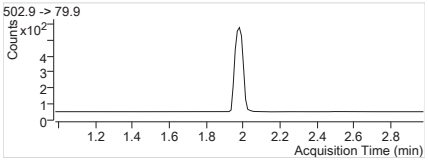
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: QC



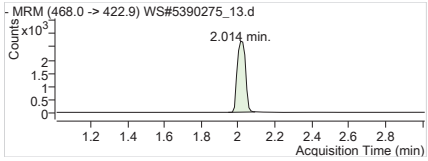


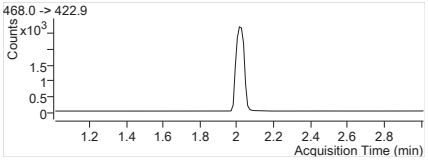
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: QC



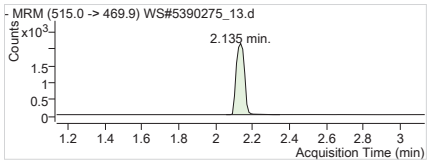


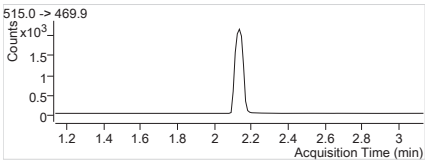
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



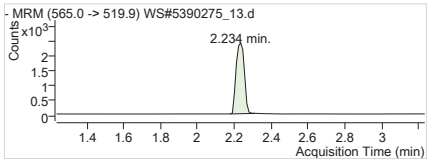


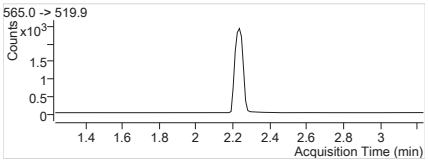
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: QC



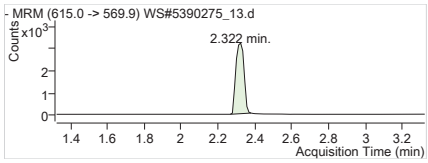


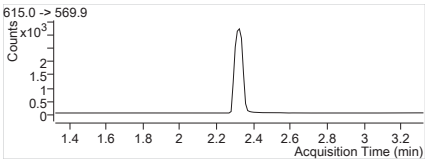
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



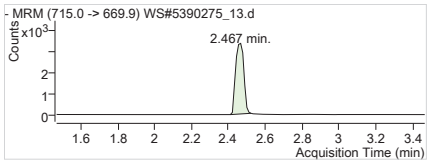


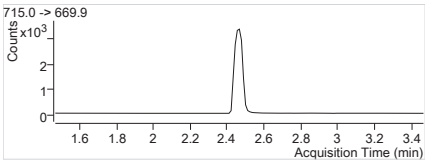
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: QC



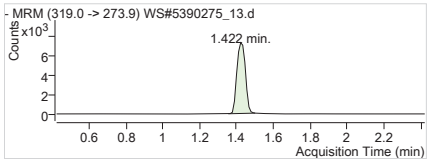


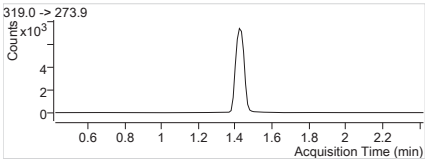
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



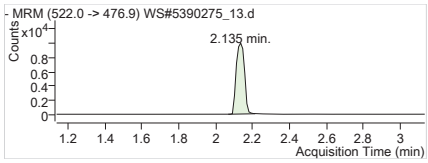


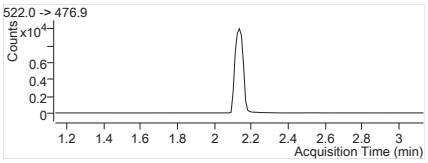
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



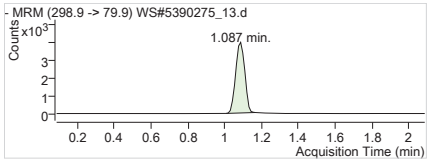


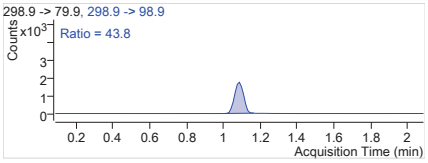
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: QC



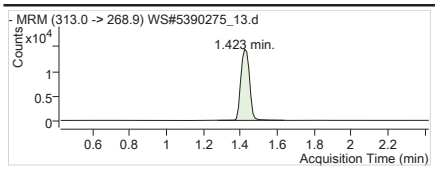


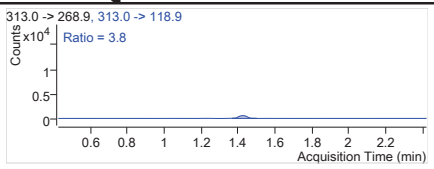
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



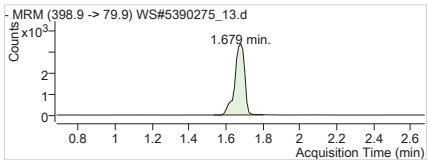


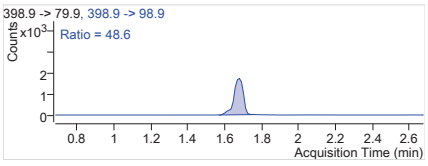
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.50 µg/L
Area ratio: 9.34893
Sample type: QC



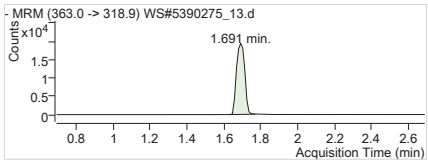


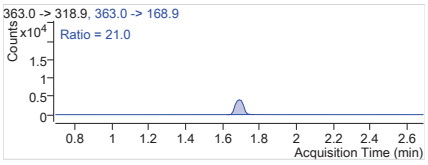
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.46 µg/L
Area ratio: 7.69933
Sample type: QC



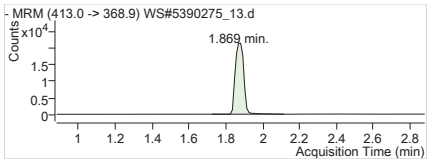


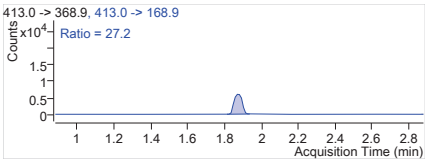
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.46 µg/L
Area ratio: 8.58844
Sample type: QC



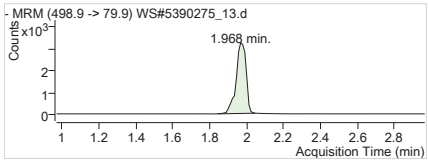


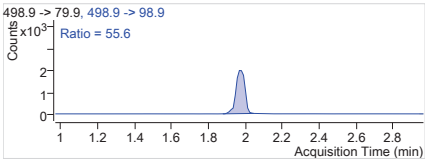
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.45 µg/L
Area ratio: 7.55893
Sample type: QC



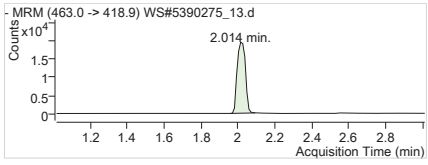


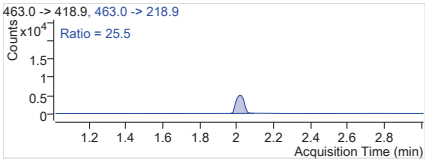
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 0.50 µg/L
Area ratio: 8.63026
Sample type: QC



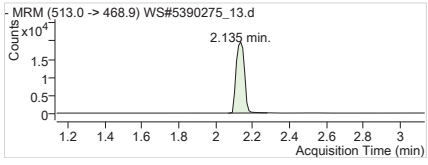


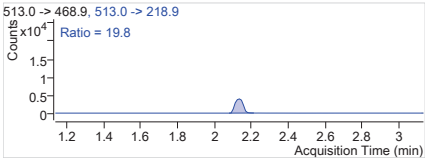
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 0.49 µg/L
Area ratio: 7.28837
Sample type: QC



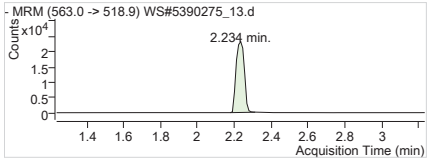


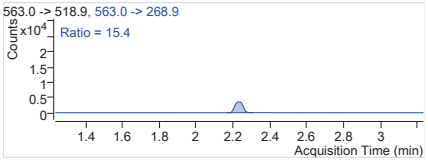
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.47 µg/L
Area ratio: 7.25096
Sample type: QC



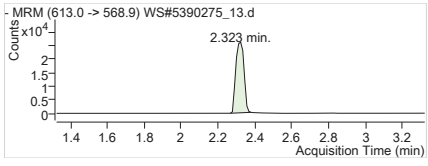


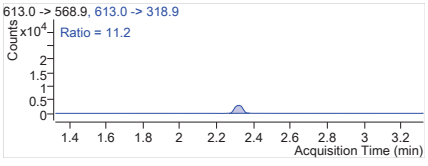
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.44 µg/L
Area ratio: 9.31298
Sample type: QC



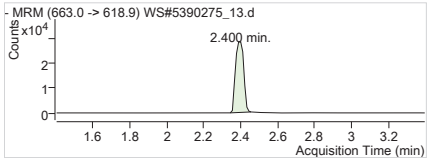


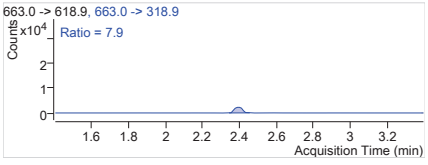
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.55 µg/L
Area ratio: 9.76218
Sample type: QC



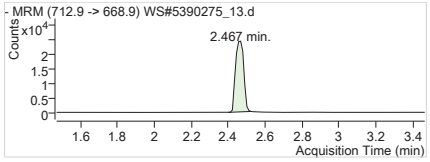


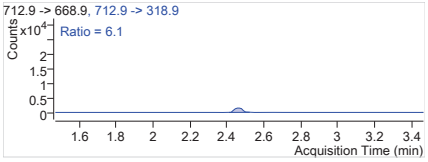
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.47 µg/L
Area ratio: 8.18031
Sample type: QC



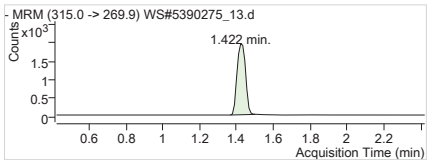


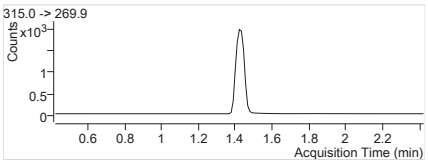
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.50 µg/L
Area ratio: 8.62311
Sample type: QC



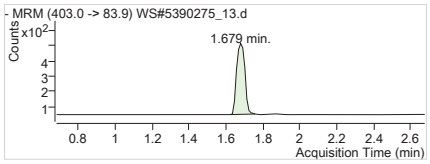


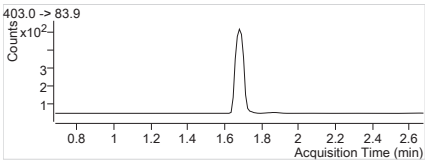
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.51 µg/L
Area ratio: 7.32845
Sample type: QC



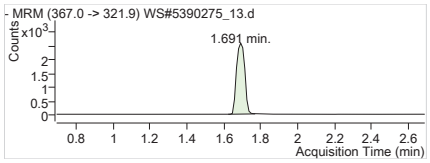


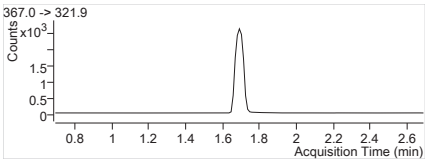
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 104.80 µg/L
Area ratio: 0.26157
Sample type: QC



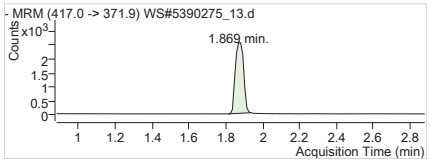


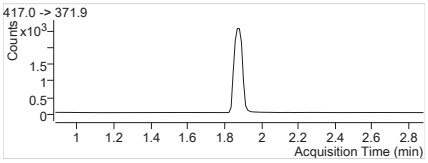
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 98.80 µg/L
Area ratio: 0.06177
Sample type: QC



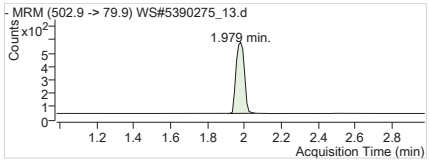


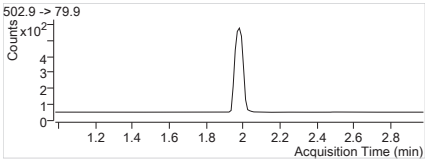
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 104.45 µg/L
Area ratio: 0.33975
Sample type: QC



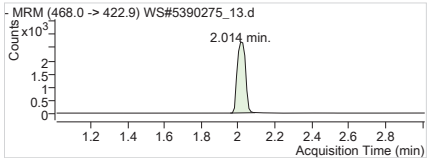


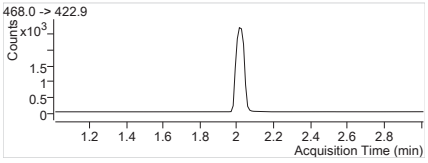
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 97.57 µg/L
Area ratio: 0.33665
Sample type: QC



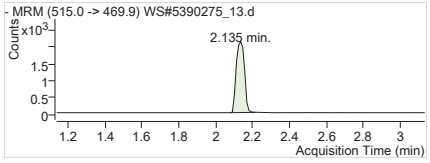


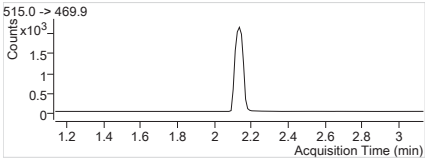
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 90.39 µg/L
Area ratio: 0.07091
Sample type: QC



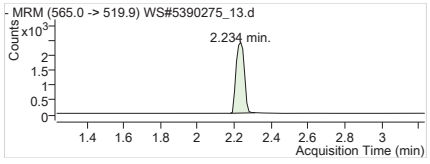


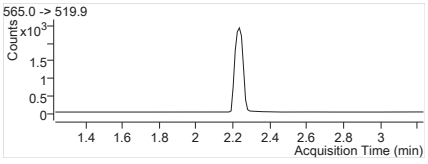
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 103.85 µg/L
Area ratio: 0.35412
Sample type: QC



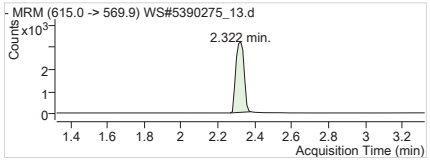


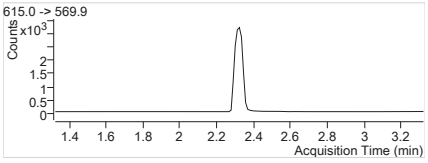
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 101.67 µg/L
Area ratio: 0.21184
Sample type: QC



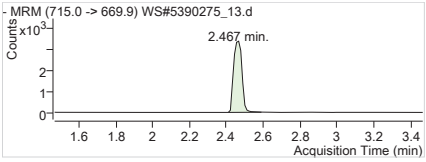


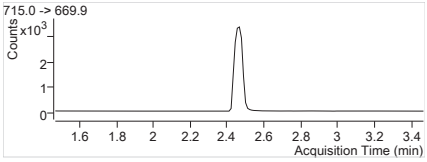
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 90.40 µg/L
Area ratio: 0.23821
Sample type: QC



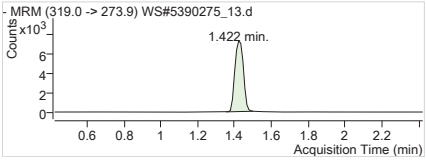


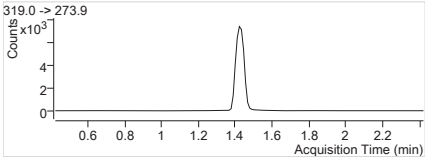
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 93.49 µg/L
Area ratio: 0.31868
Sample type: QC



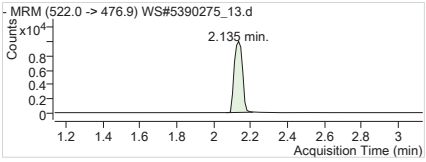


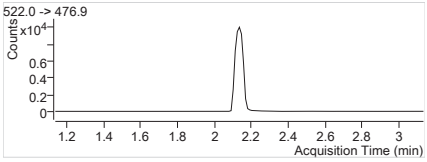
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	86.13 µg/L
Area ratio:	0.34063
Sample type:	QC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	2.41 µg/L
Area ratio:	0
Sample type:	QC





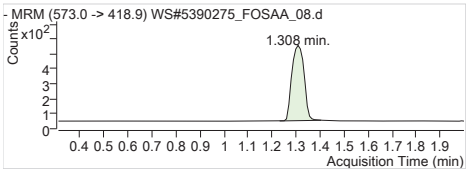
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	2.40 µg/L
Area ratio:	0
Sample type:	QC

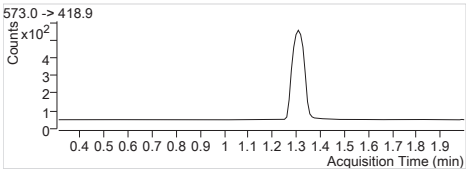
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_08.d	**Operator**	
Sample Type	Sample	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A8
Acq. Date	2018/02/10 12:44:47 AM	**Injection Volume**	Per Method
Sample Annotation	-		

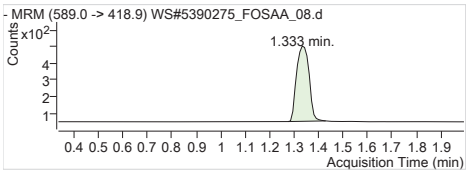
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1784	1.31	1 µg/L		
D5-EtFOSAA IS	1610	1.33	1 µg/L		
13C9-PFDA IS	21134	0.90	1 µg/L		

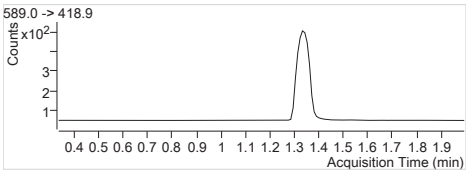
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1802	1.31	-	116.27 µg/L	-
D5-EtFOSAA	1630	1.33	-	118.28 µg/L	-
13C9-PFDA	20473	0.90	-	86.34 µg/L	-



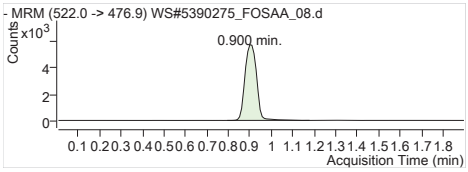


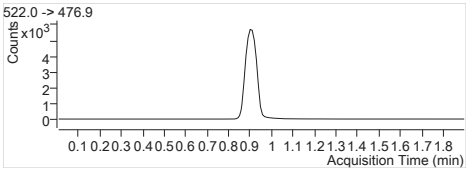
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



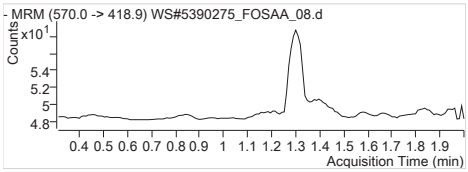


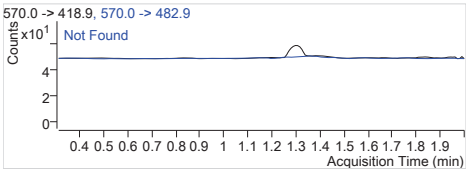
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



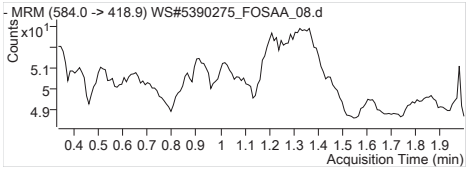


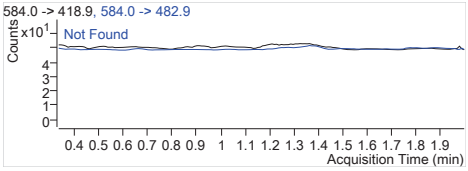
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



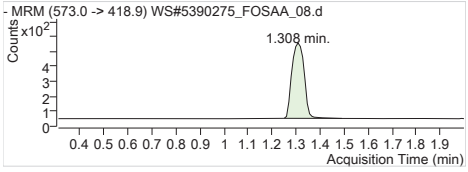


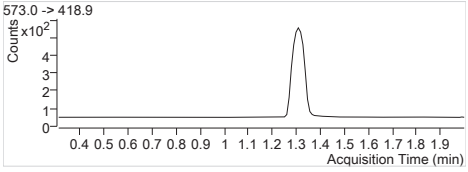
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



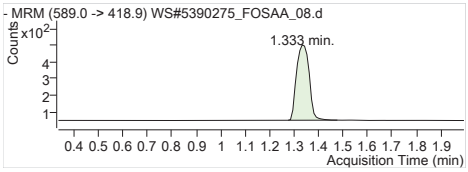


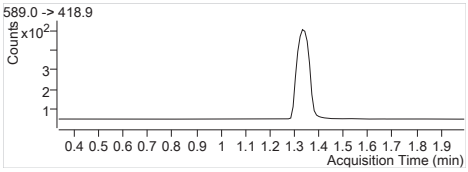
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



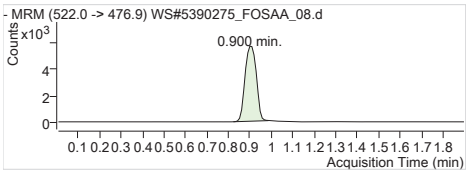


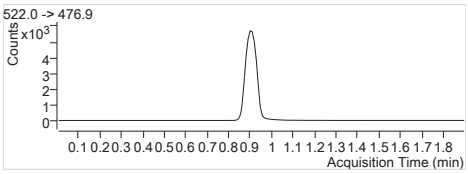
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 116.27 µg/L
Area ratio: 0.08527
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	118.28 µg/L
Area ratio:	0.07713
Sample type:	Sample





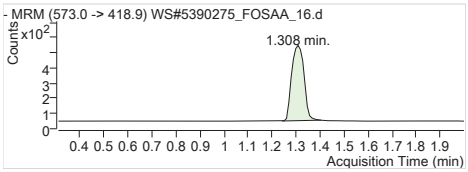
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	86.34 µg/L
Area ratio:	0
Sample type:	Sample

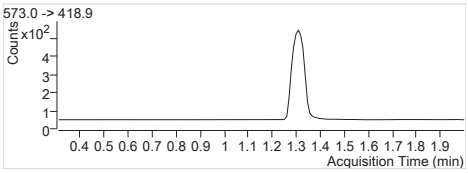
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_16.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A8
Acq. Date	2018/02/10 1:04:06 AM	**Injection Volume**	Per Method
Sample Annotation	-		

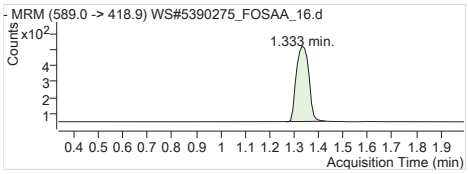
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1771	1.31	1 µg/L		
D5-EtFOSAA IS	1670	1.33	1 µg/L		
13C9-PFDA IS	21079	0.90	1 µg/L		

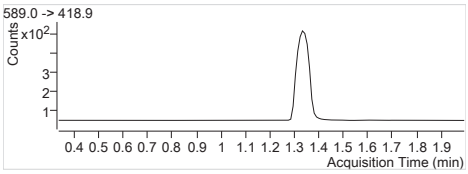
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1792	1.31	-	115.93 µg/L	-
D5-EtFOSAA	1691	1.33	-	123.02 µg/L	-
13C9-PFDA	20539	0.90	-	2.08 µg/L	-



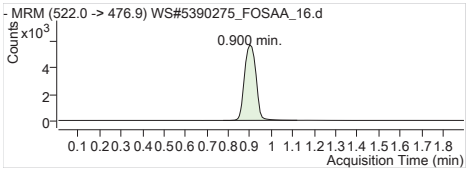


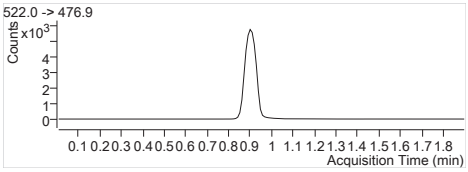
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



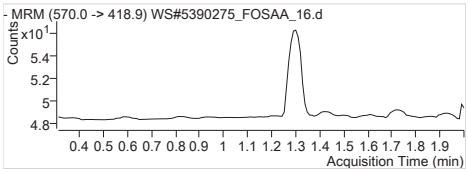


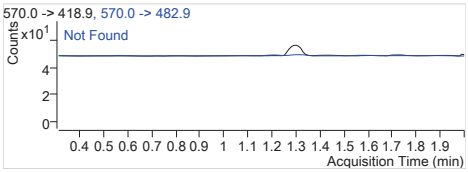
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



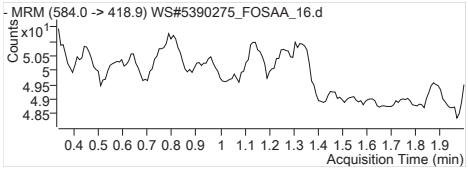


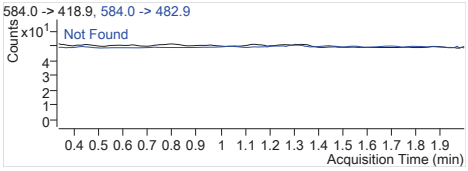
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



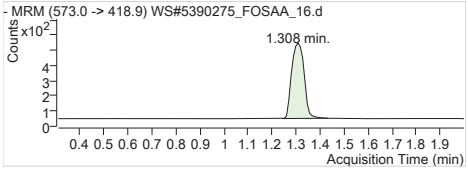


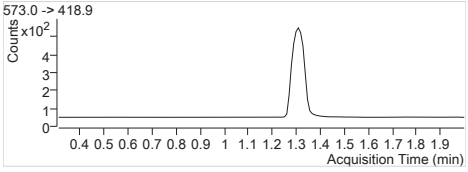
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



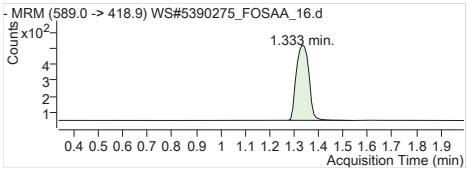


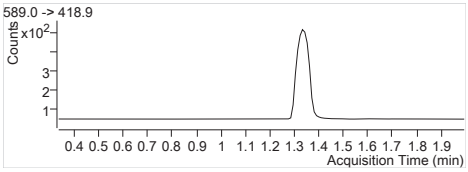
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



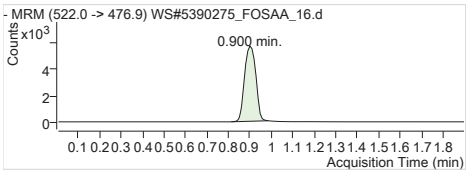


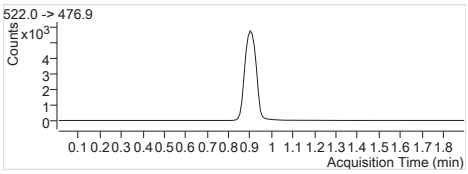
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 115.93 µg/L
Area ratio: 0.08501
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	123.02 µg/L
Area ratio:	0.08022
Sample type:	Sample





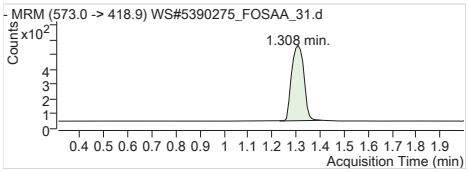
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.08 µg/L
Area ratio:	0
Sample type:	Sample

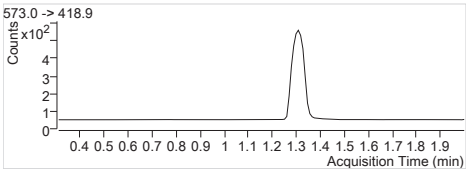
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_31.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A8
Acq. Date	2018/02/10 1:40:19 AM	**Injection Volume**	Per Method
Sample Annotation	-		

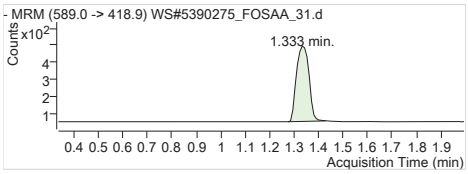
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1815	1.31	1 µg/L		
D5-EtFOSAA IS	1578	1.33	1 µg/L		
13C9-PFDA IS	20276	0.90	1 µg/L		

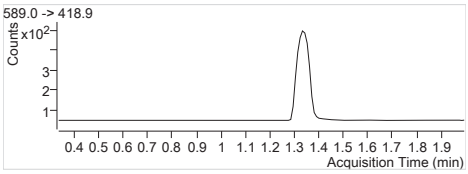
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1832	1.31	-	123.21 µg/L	-
D5-EtFOSAA	1605	1.33	-	121.39 µg/L	-
13C9-PFDA	19611	0.90	-	1.99 µg/L	-



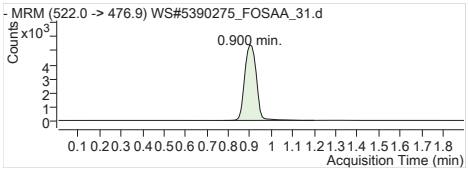


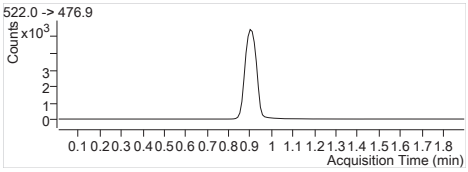
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



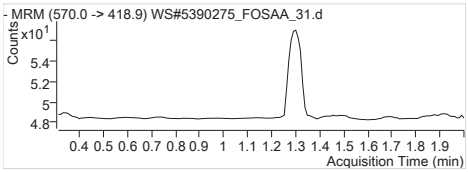


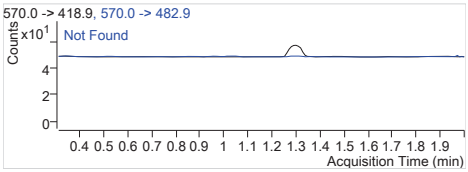
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



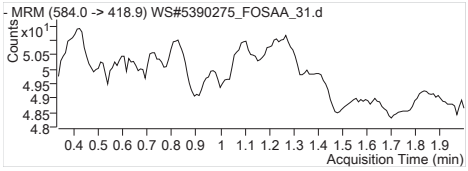


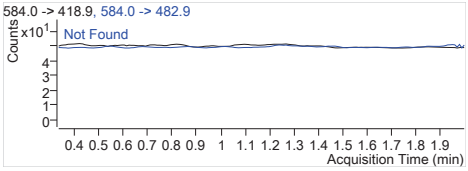
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



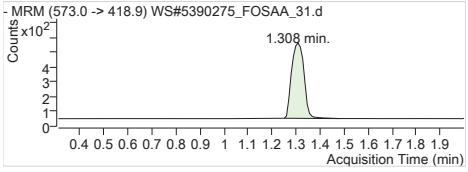


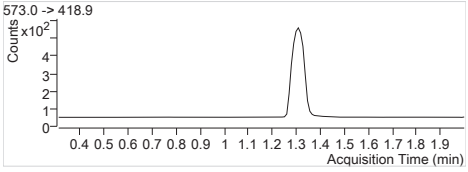
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



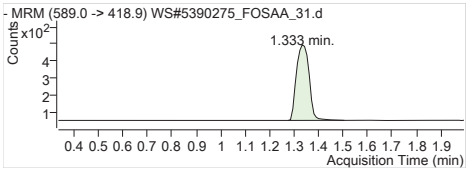


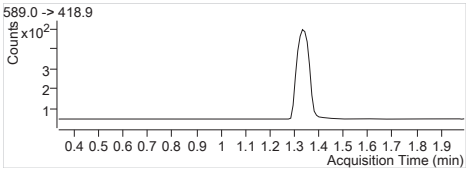
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



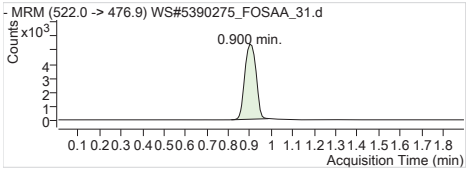


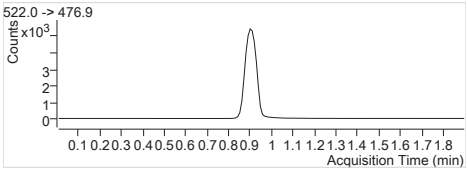
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 123.21 µg/L
Area ratio: 0.09035
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	121.39 µg/L
Area ratio:	0.07916
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	1.99 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

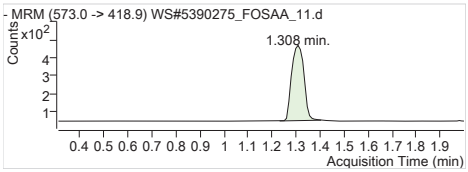
Agilent Technologies

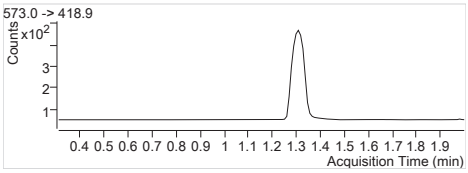
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**5390275:BLANK**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B1
Acq. Date	2018/02/10 12:52:01 AM	**Injection Volume**	Per Method
Sample Annotation	-		

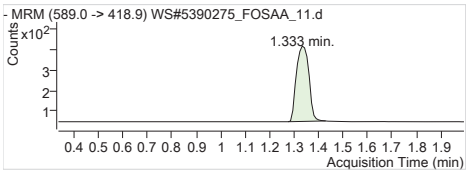
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1483	1.31	1 µg/L		
D5-EtFOSAA IS	1291	1.33	1 µg/L		
13C9-PFDA IS	25518	0.89	1 µg/L		

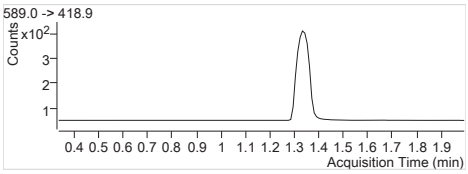
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1511	1.31	-	80.75 µg/L	-
D5-EtFOSAA	1307	1.33	-	78.55 µg/L	-
13C9-PFDA	24956	0.89	-	2.53 µg/L	-



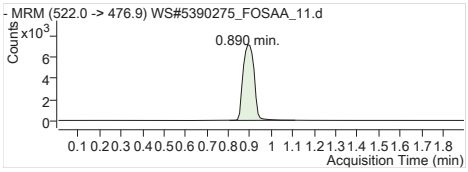


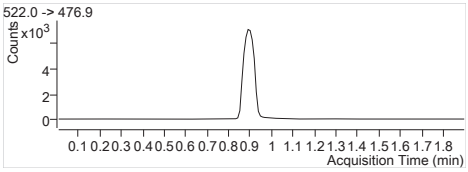
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



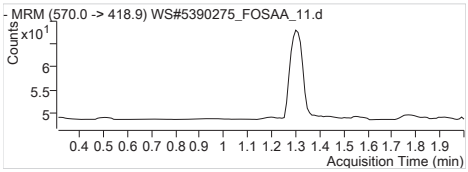


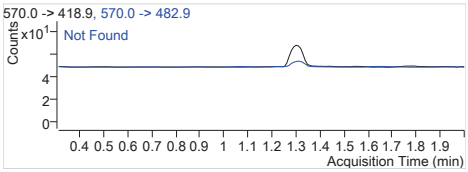
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



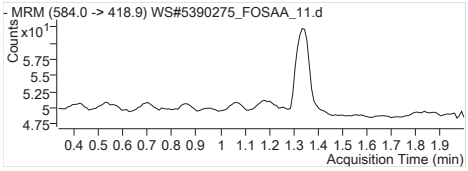


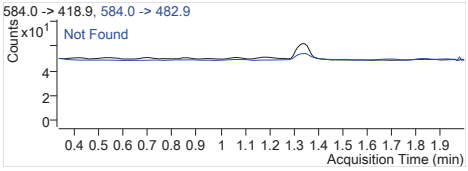
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: Sample



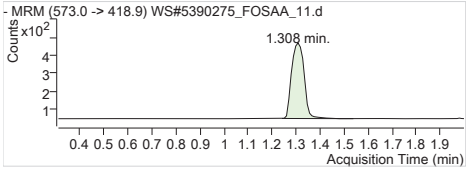


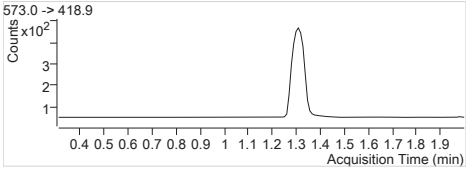
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



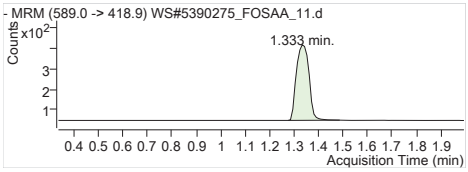


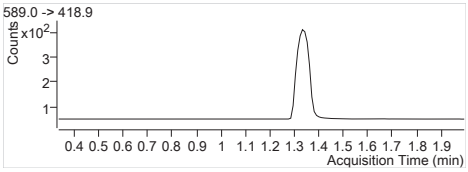
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



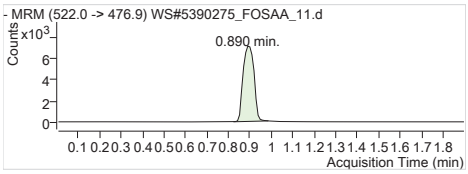


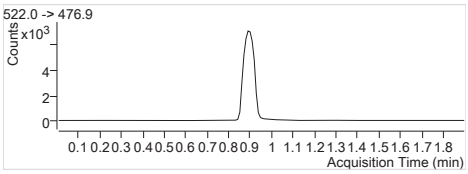
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 80.75 µg/L
Area ratio: 0.05921
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	78.55 µg/L
Area ratio:	0.05122
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	2.53 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

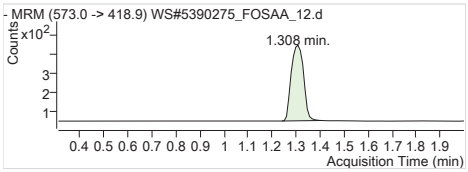
Agilent Technologies

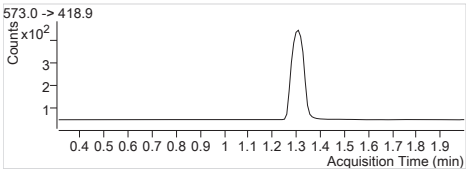
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**5390275:SPIKE**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B2
Acq. Date	2018/02/10 12:54:26 AM	**Injection Volume**	Per Method
Sample Annotation	-		

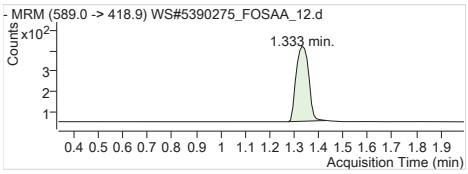
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1407	1.31	1 µg/L		
D5-EtFOSAA IS	1330	1.33	1 µg/L		
13C9-PFDA IS	21375	0.88	1 µg/L		

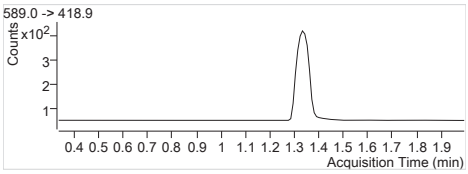
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10168	1.31	20.80	0.50 µg/L	100.11
EtFOSAA 1	11323	1.33	20.80	0.49 µg/L	98.90
D3-MeFOSAA	1419	1.31	100.00	90.53 µg/L	90.53
D5-EtFOSAA	1363	1.33	100.00	97.79 µg/L	97.79
13C9-PFDA	20888	0.88	100.00	2.11 µg/L	88.09



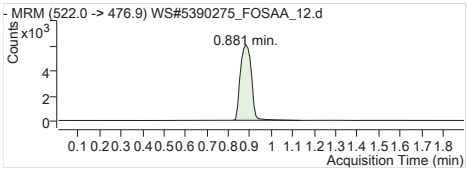


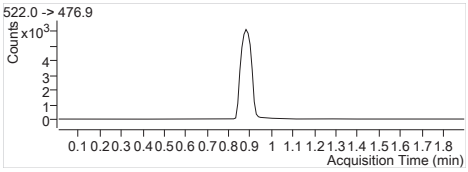
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: QC



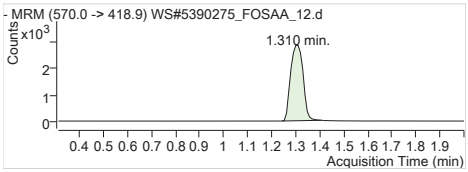


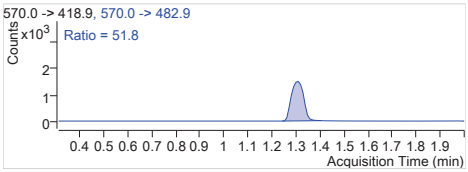
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: QC



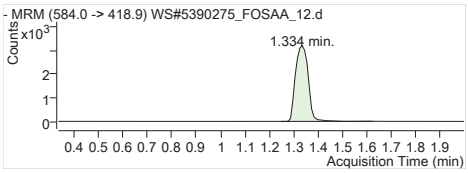


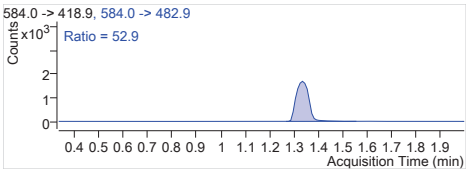
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.900)
Concentration: 1 µg/L
Sample type: QC



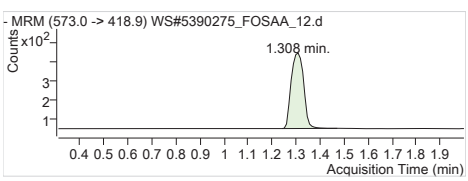


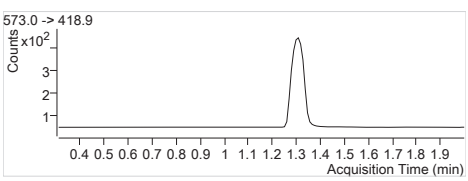
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.50 µg/L
Area ratio: 7.22672
Sample type: QC



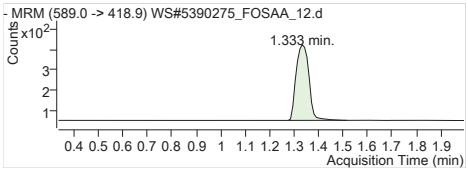


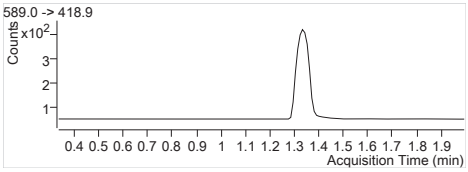
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 0.49 µg/L
Area ratio: 8.51353
Sample type: QC



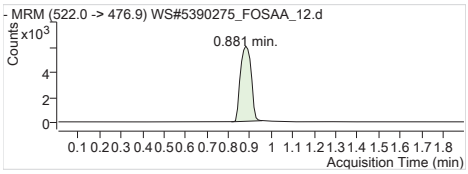


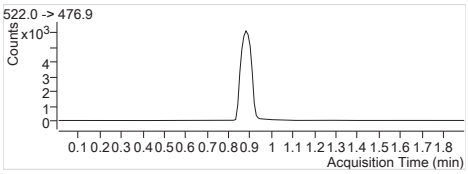
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 90.53 µg/L
Area ratio: 0.06639
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	97.79 µg/L
Area ratio:	0.06377
Sample type:	QC





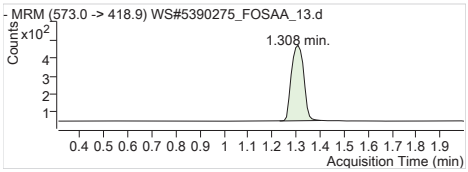
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.900)
Calc. conc.	2.11 µg/L
Area ratio:	0
Sample type:	QC

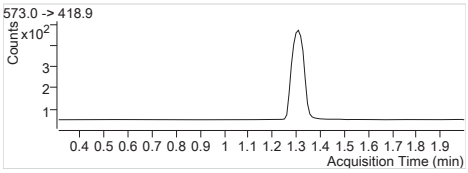
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**5390275:SPIKE:D1**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_13.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B3
Acq. Date	2018/02/10 12:56:51 AM	**Injection Volume**	Per Method
Sample Annotation	-		

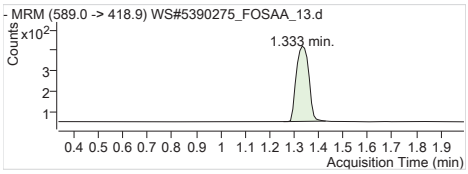
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1504	1.31	1 µg/L		
D5-EtFOSAA IS	1319	1.33	1 µg/L		
13C9-PFDA IS	23768	0.89	1 µg/L		

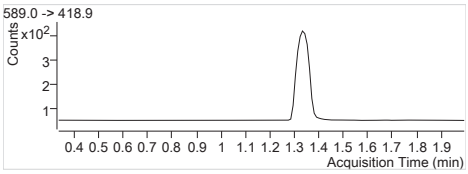
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10371	1.31	20.80	0.48 µg/L	95.51
EtFOSAA 1	11295	1.33	20.80	0.50 µg/L	99.47
D3-MeFOSAA	1509	1.31	100.00	86.58 µg/L	86.58
D5-EtFOSAA	1329	1.33	100.00	85.75 µg/L	85.75
13C9-PFDA	23524	0.89	100.00	2.38 µg/L	99.21



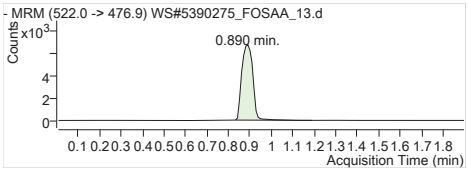


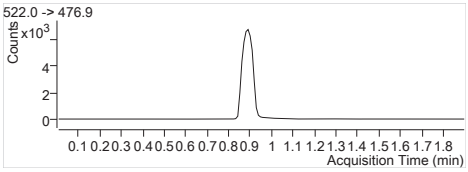
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: QC



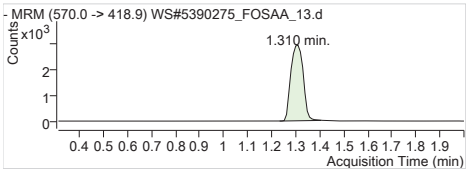


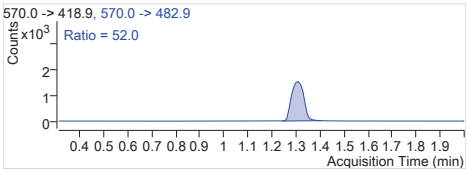
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: QC



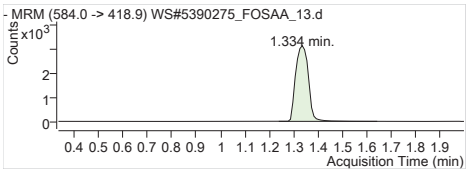


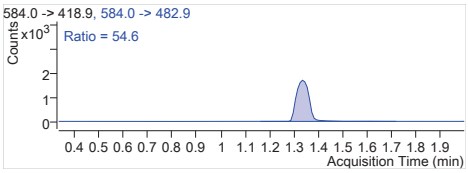
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: QC



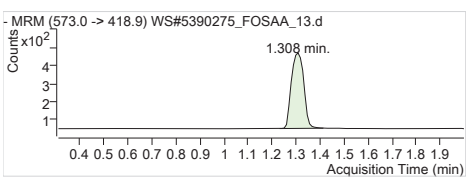


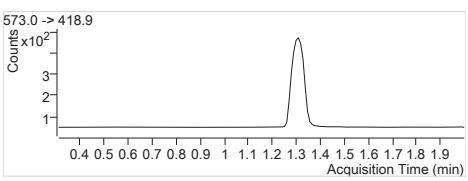
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.48 µg/L
Area ratio: 6.89561
Sample type: QC



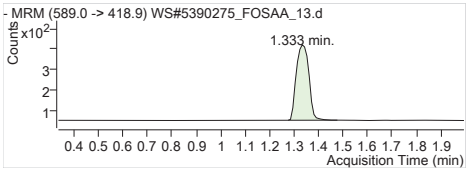


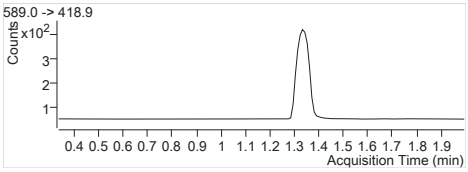
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 0.50 µg/L
Area ratio: 8.56331
Sample type: QC



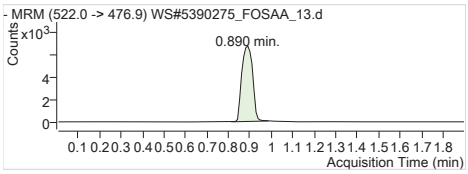


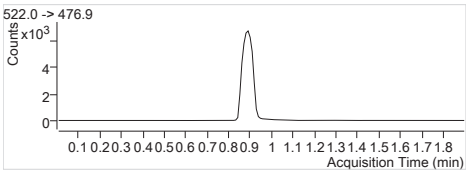
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 86.58 µg/L
Area ratio: 0.06349
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	85.75 µg/L
Area ratio:	0.05592
Sample type:	QC





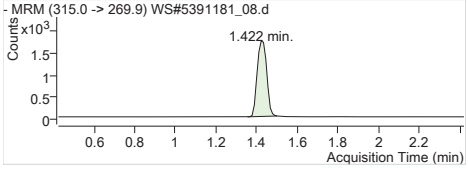
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	2.38 µg/L
Area ratio:	0
Sample type:	QC

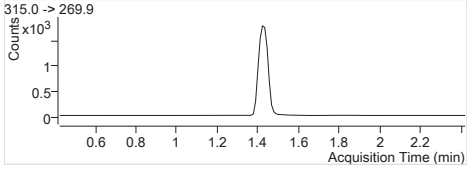
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C7
Acq. Date	2018/02/09 1:01:50 PM	**Injection Volume**	Per Method
Sample Annotation	-		

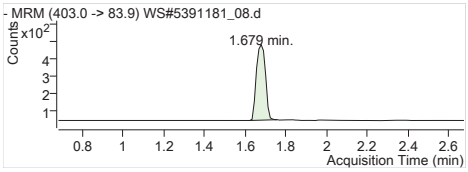
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5607	1.42	1 µg/L		
MPFHxS	1340	1.68	1 µg/L		
MPFHpA	7452	1.69	1 µg/L		
MPFOA	7977	1.87	1 µg/L		
MPFOS	1765	1.98	1 µg/L		
MPFNA	7767	2.01	1 µg/L		
MPFDA	6289	2.14	1 µg/L		
MPFUnA	8051	2.23	1 µg/L		
MPFDoA	9718	2.32	1 µg/L		
MPFTeDA	11431	2.47	1 µg/L		
13C6-PFHxA IS	21988	1.42	1 µg/L		
13C9-PFDA IS	28703	2.13	1 µg/L		

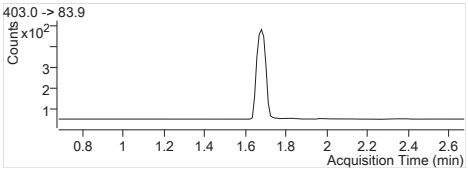
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5607	1.42	-	97.92 µg/L	-
18O2-PFHxS	1340	1.68	-	93.74 µg/L	-
13C4-PFHpA	7452	1.69	-	101.91 µg/L	-
13C4-PFOA	7977	1.87	-	103.54 µg/L	-
13C4-PFOS	1765	1.98	-	102.96 µg/L	-
13C5-PFNA	7766	2.01	-	99.82 µg/L	-
13C2-PFDA	6200	2.14	-	99.35 µg/L	-
13C2-PFUnA	8051	2.23	-	107.35 µg/L	-
13C2-PFDoA	9718	2.32	-	94.66 µg/L	-
13C2-PFTeDA	11782	2.47	-	97.46 µg/L	-
13C6-PFHxA	21988	1.42	-	2.46 µg/L	-
13C9-PFDA	28703	2.13	-	2.45 µg/L	-



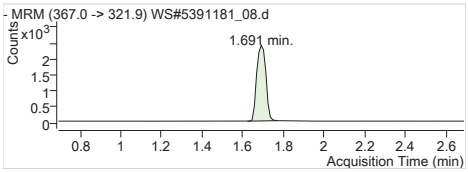


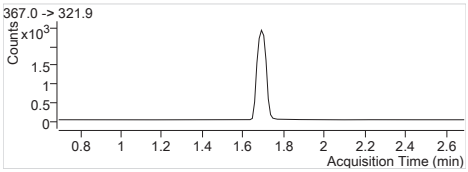
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



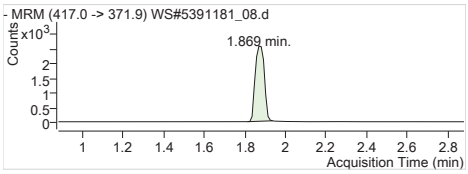


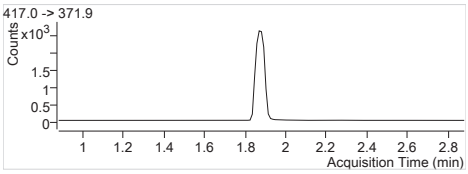
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



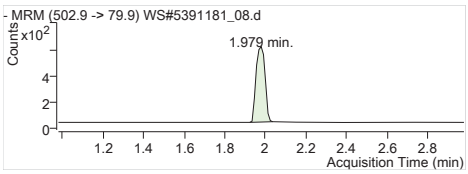


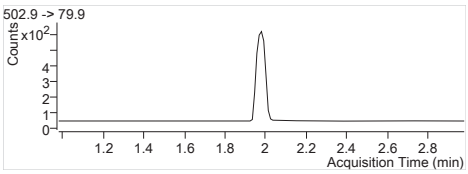
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



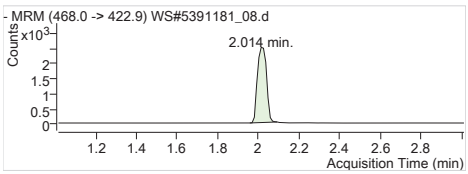


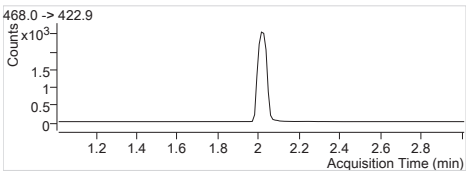
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



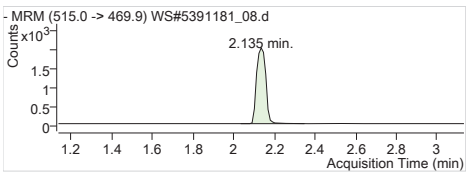


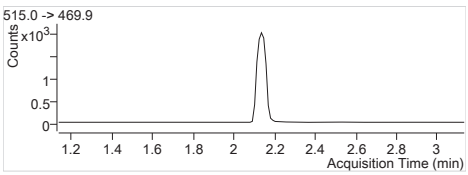
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



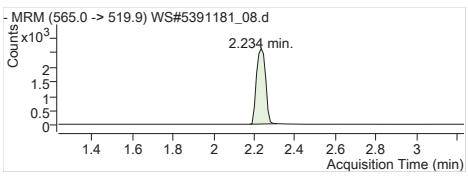


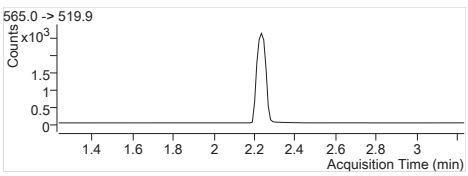
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



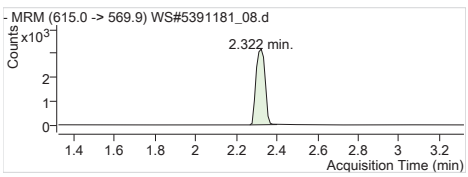


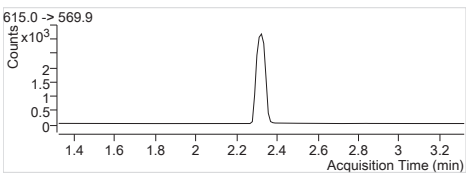
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



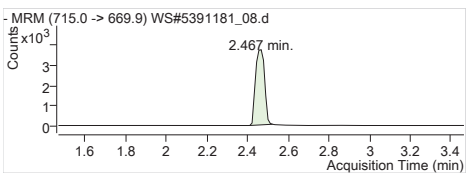


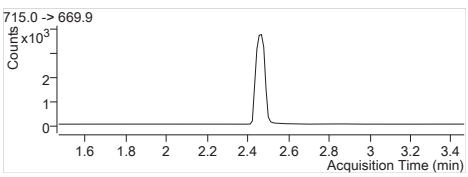
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



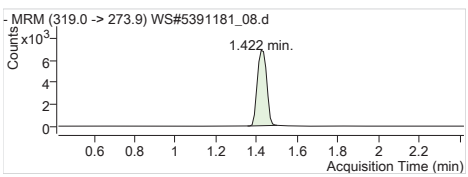


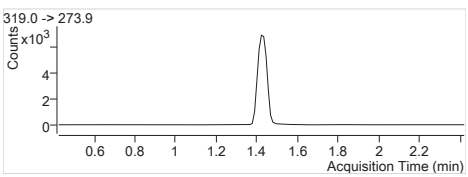
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



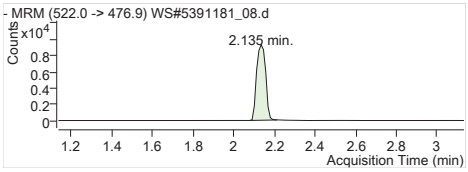


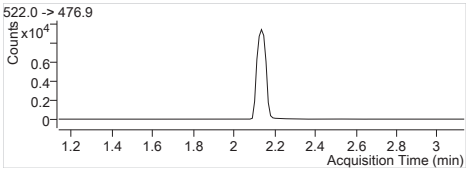
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



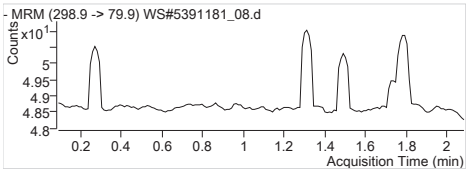


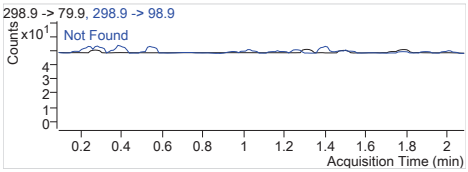
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



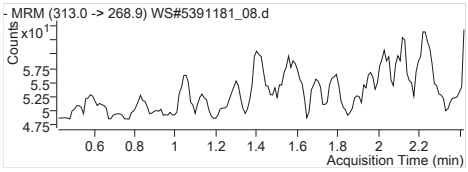


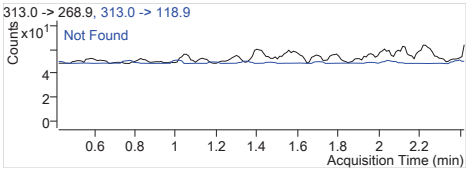
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



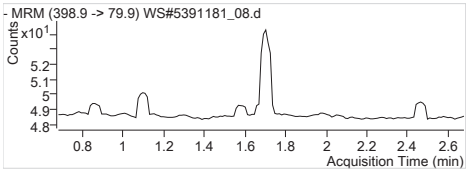


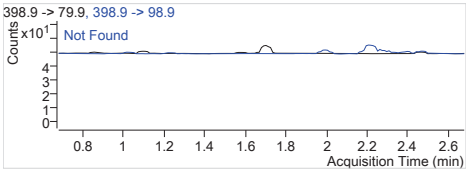
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



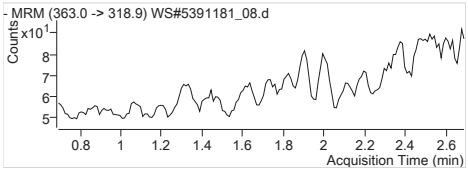


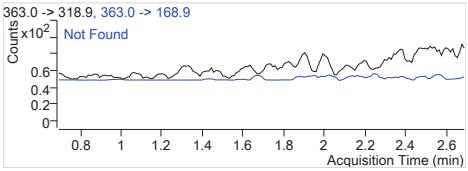
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



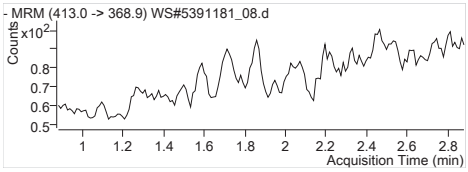


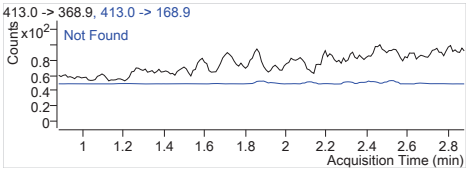
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



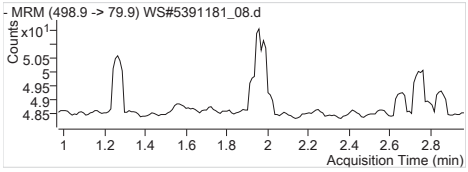


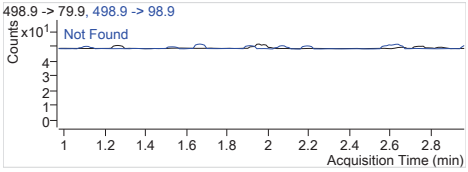
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



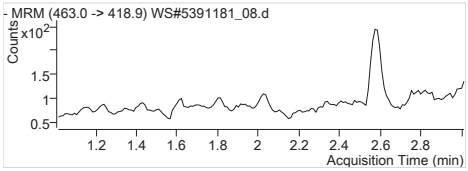


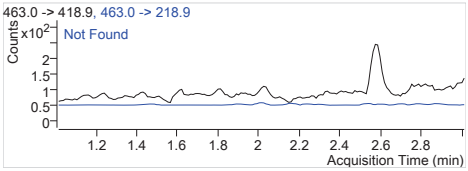
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



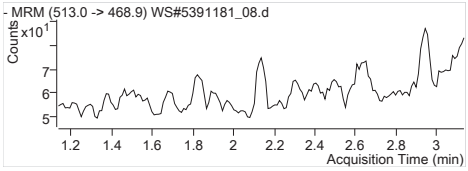


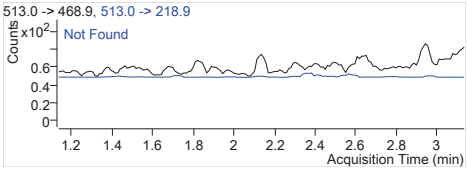
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



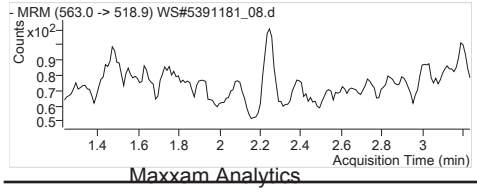


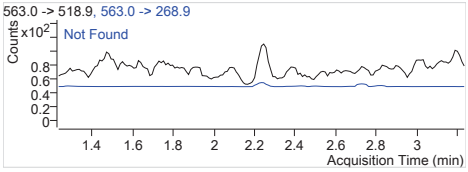
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



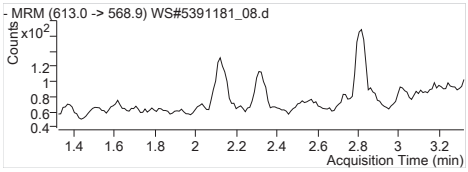


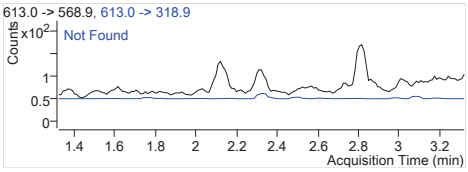
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



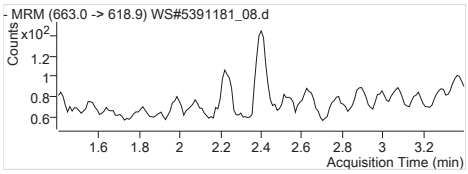


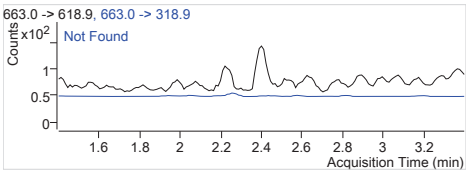
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



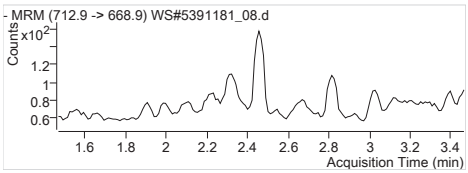


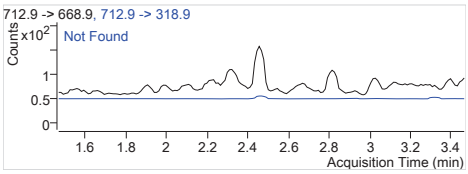
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



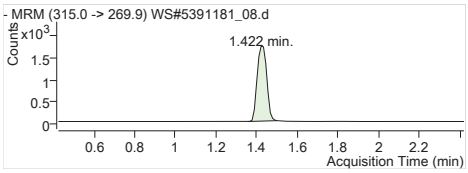


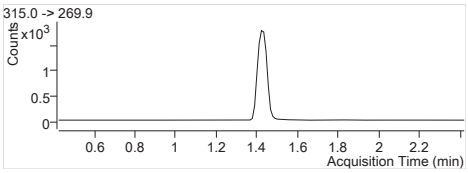
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



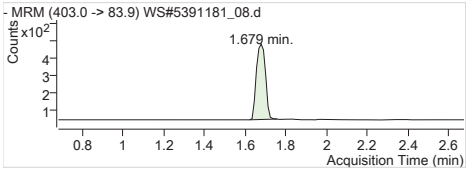


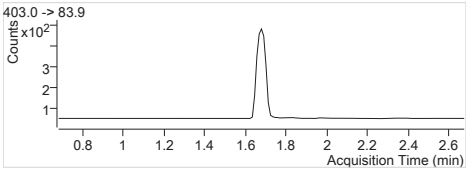
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



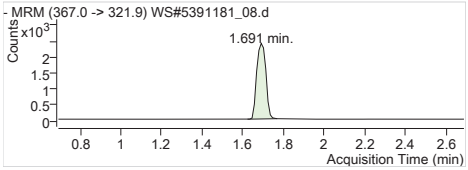


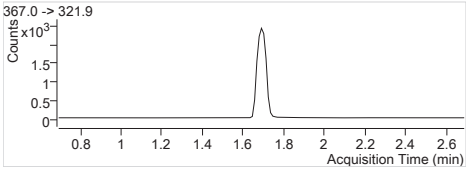
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 97.92 µg/L
Area ratio: 0.25500
Sample type: Sample



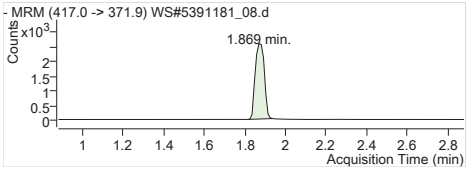


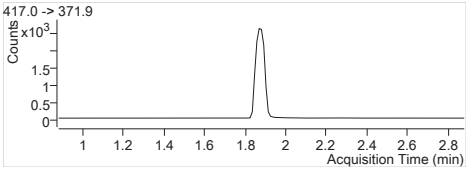
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 93.74 µg/L
Area ratio: 0.06094
Sample type: Sample



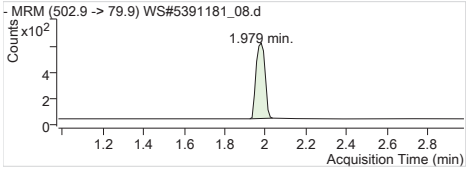


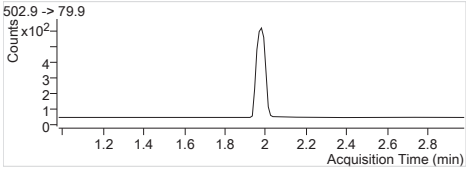
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 101.91 µg/L
Area ratio: 0.33891
Sample type: Sample



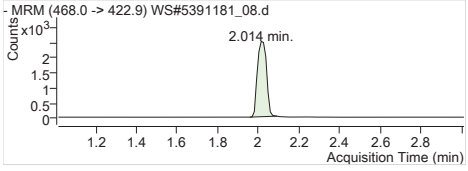


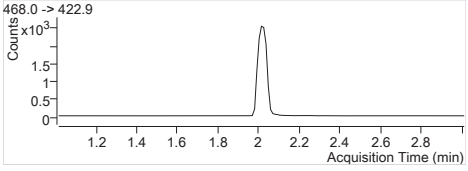
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 103.54 µg/L
Area ratio: 0.36279
Sample type: Sample



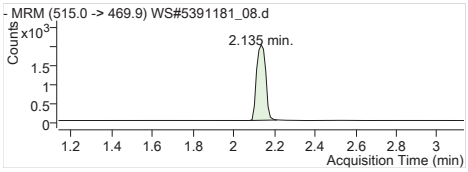


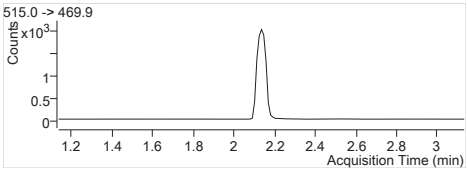
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 102.96 µg/L
Area ratio: 0.08027
Sample type: Sample



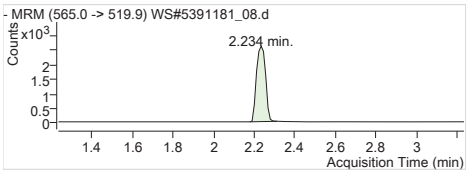


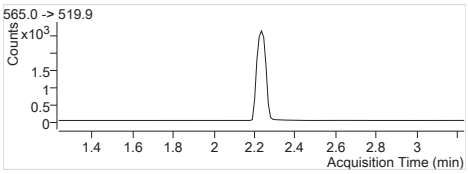
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 99.82 µg/L
Area ratio: 0.35319
Sample type: Sample



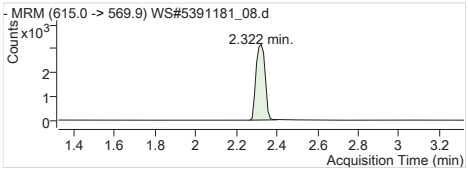


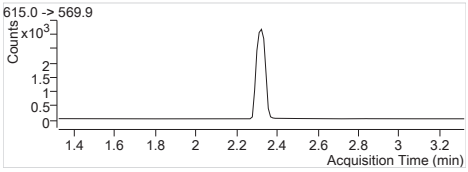
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 99.35 µg/L
Area ratio: 0.21601
Sample type: Sample



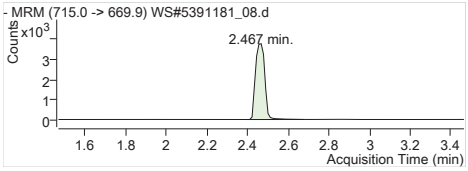


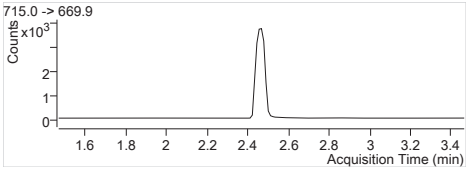
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 107.35 µg/L
Area ratio: 0.28049
Sample type: Sample



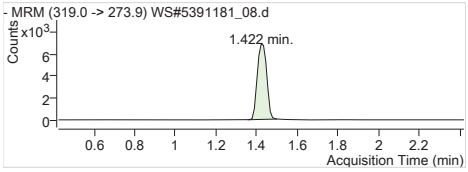


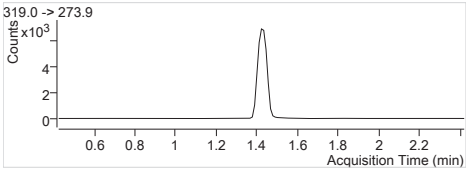
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 94.66 µg/L
Area ratio: 0.33857
Sample type: Sample



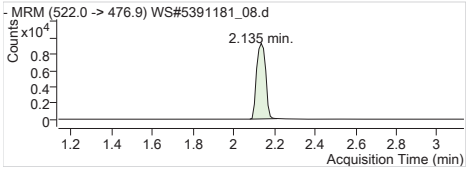


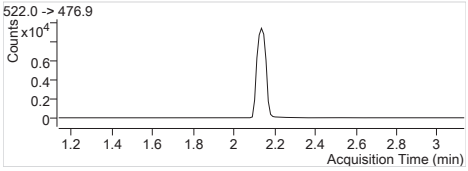
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 97.46 µg/L
Area ratio: 0.41048
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.46 µg/L
Area ratio: 0
Sample type: Sample





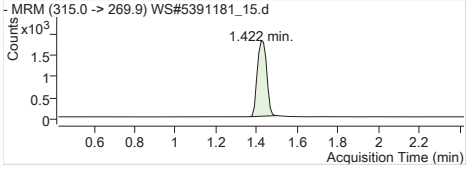
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.45 µg/L
Area ratio: 0
Sample type: Sample

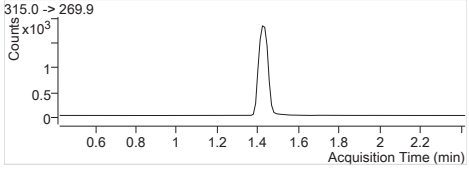
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_15.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C7
Acq. Date	2018/02/09 1:36:22 PM	**Injection Volume**	Per Method
Sample Annotation	-		

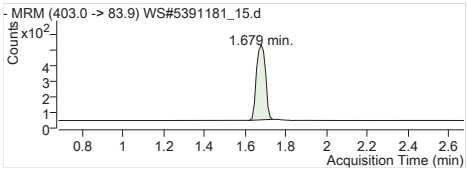
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5733	1.42	1 µg/L		
MPFHxS	1498	1.68	1 µg/L		
MPFHpA	7827	1.69	1 µg/L		
MPFOA	7632	1.88	1 µg/L		
MPFOS	1692	1.98	1 µg/L		
MPFNA	7906	2.01	1 µg/L		
MPFDA	6441	2.14	1 µg/L		
MPFUnA	7964	2.23	1 µg/L		
MPFDoA	10830	2.32	1 µg/L		
MPFTeDA	12292	2.47	1 µg/L		
13C6-PFHxA IS	21528	1.42	1 µg/L		
13C9-PFDA IS	28472	2.13	1 µg/L		

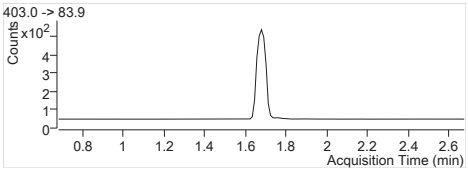
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5733	1.42	-	102.26 µg/L	-
18O2-PFHxS	1498	1.68	-	107.03 µg/L	-
13C4-PFHpA	7827	1.69	-	109.32 µg/L	-
13C4-PFOA	7632	1.88	-	101.17 µg/L	-
13C4-PFOS	1692	1.98	-	100.81 µg/L	-
13C5-PFNA	7906	2.01	-	103.79 µg/L	-
13C2-PFDA	6321	2.14	-	102.11 µg/L	-
13C2-PFUnA	7964	2.23	-	107.05 µg/L	-
13C2-PFDoA	10830	2.32	-	106.35 µg/L	-
13C2-PFTeDA	12513	2.47	-	104.35 µg/L	-
13C6-PFHxA	21528	1.42	-	2.41 µg/L	-
13C9-PFDA	28472	2.13	-	2.43 µg/L	-



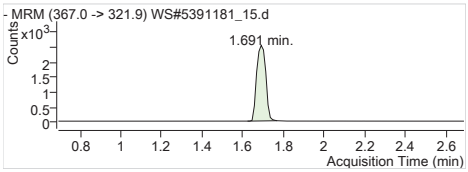


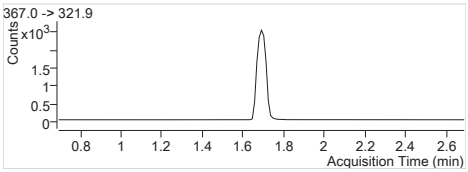
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



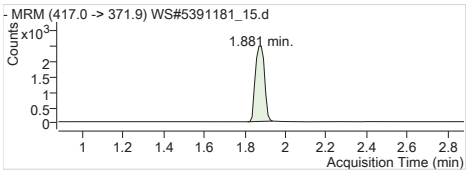


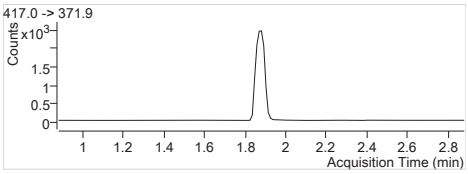
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



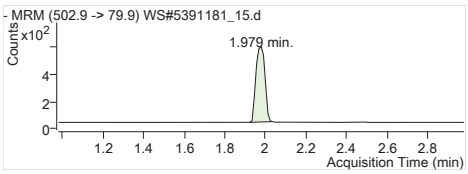


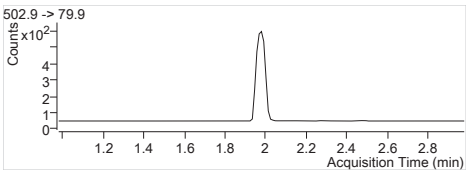
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



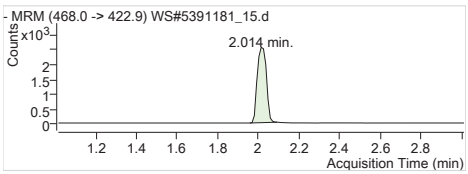


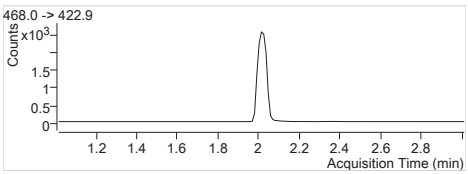
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



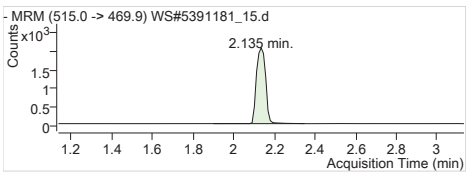


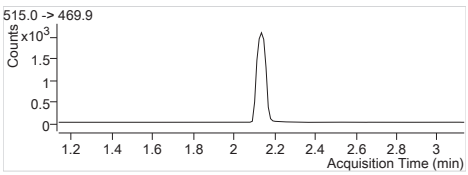
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



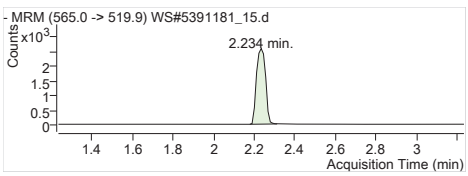


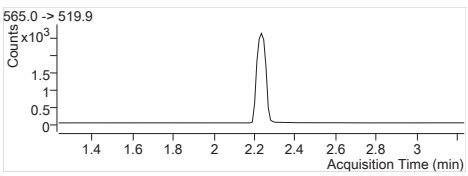
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



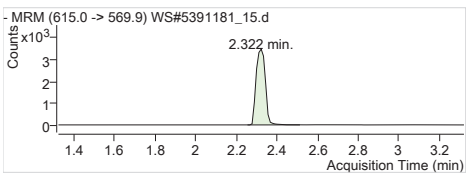


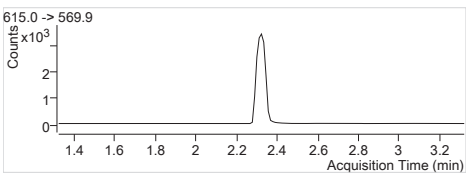
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



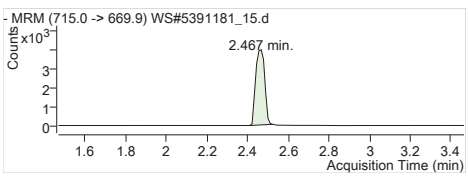


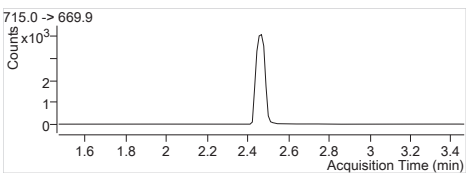
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



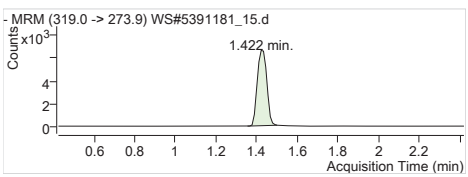


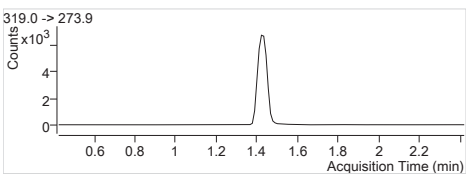
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



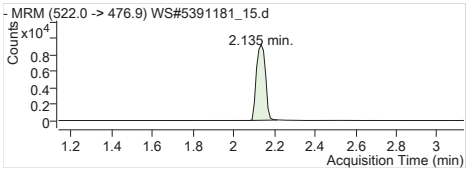


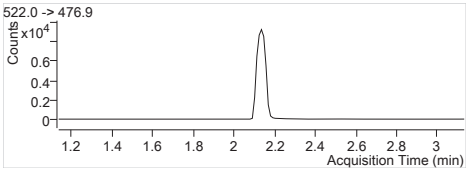
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



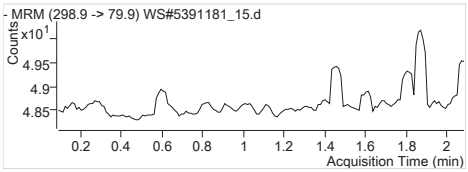


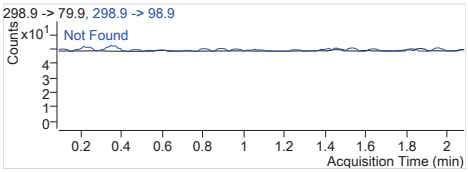
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



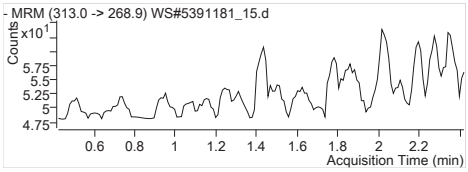


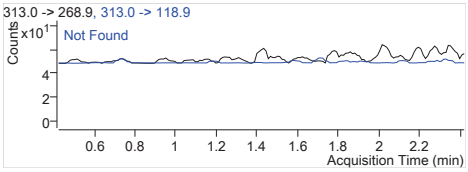
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



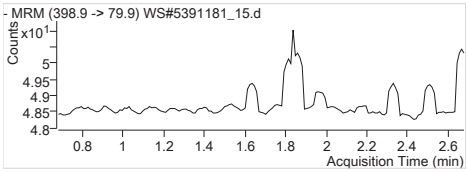


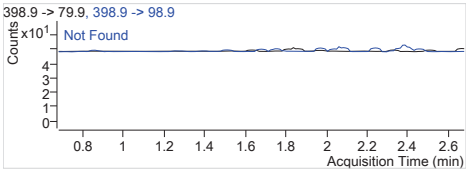
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



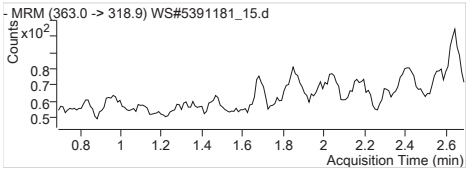


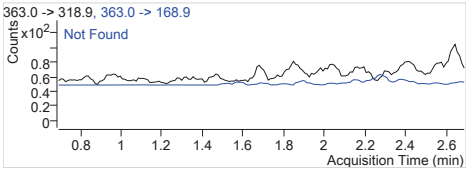
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



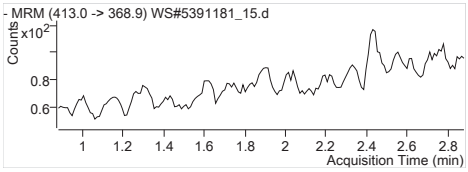


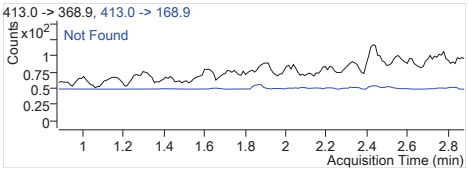
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



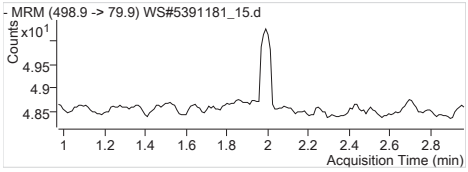


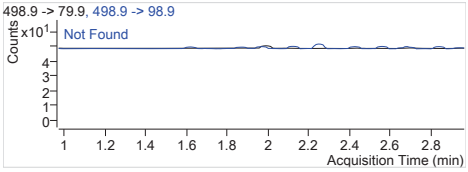
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



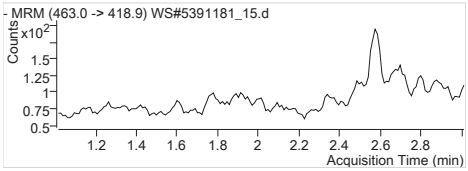


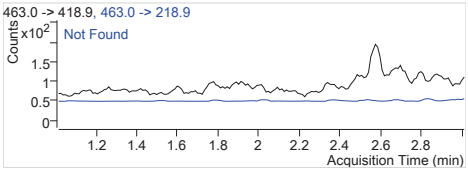
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



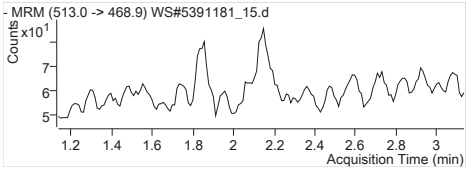


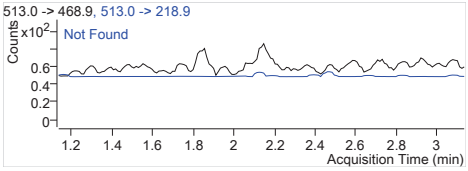
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



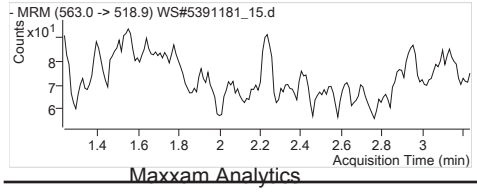


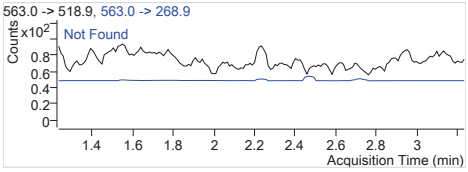
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



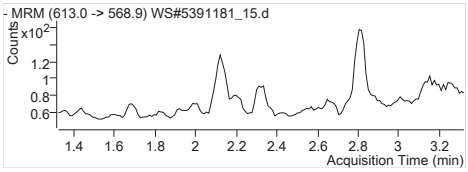


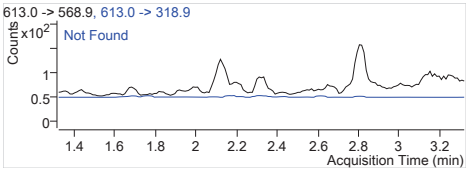
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



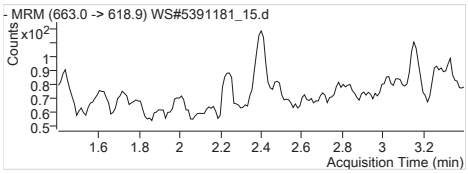


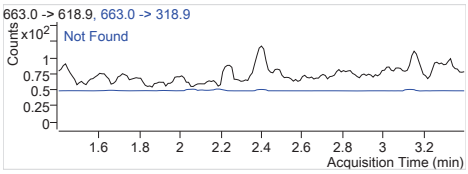
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



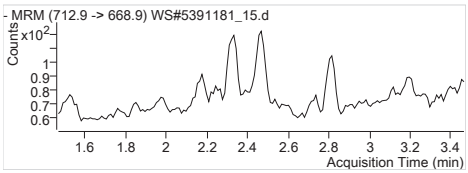


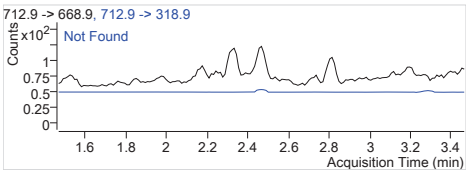
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



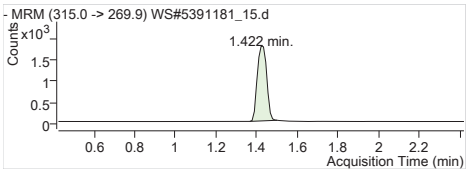


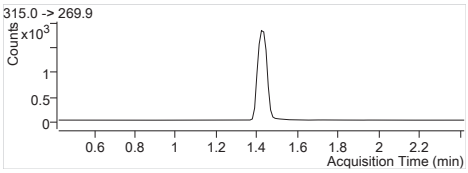
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



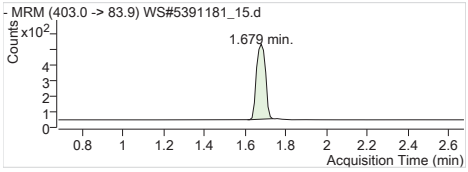


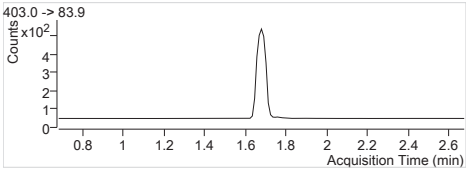
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



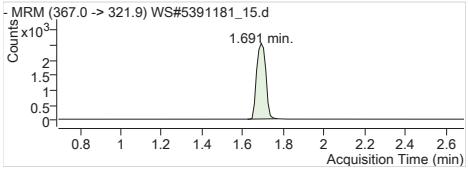


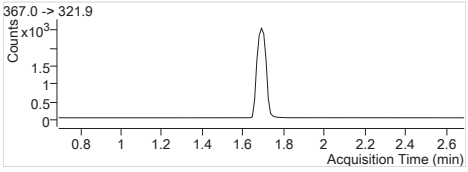
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	102.26 µg/L
Area ratio:	0.26630
Sample type:	Sample



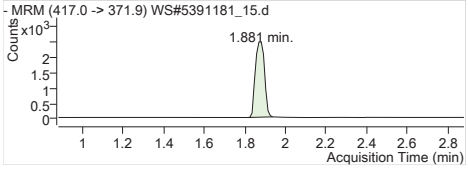


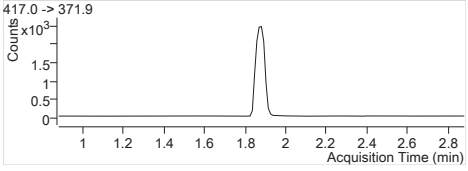
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	107.03 µg/L
Area ratio:	0.06958
Sample type:	Sample



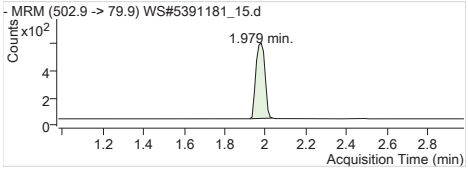


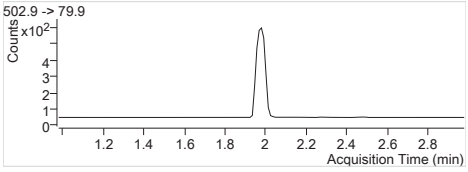
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	109.32 µg/L
Area ratio:	0.36357
Sample type:	Sample



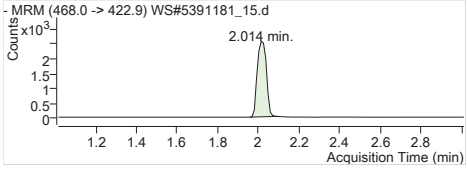


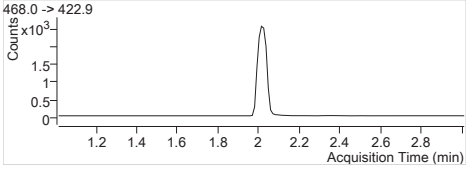
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	101.17 µg/L
Area ratio:	0.35452
Sample type:	Sample



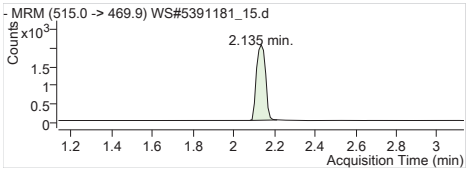


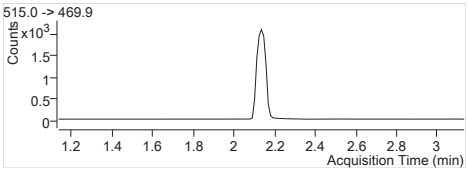
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	100.81 µg/L
Area ratio:	0.07860
Sample type:	Sample



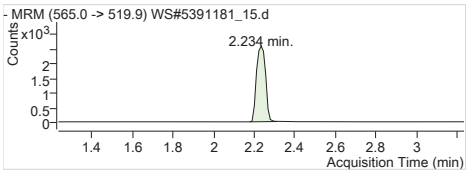


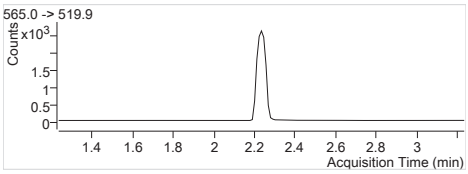
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	103.79 µg/L
Area ratio:	0.36724
Sample type:	Sample



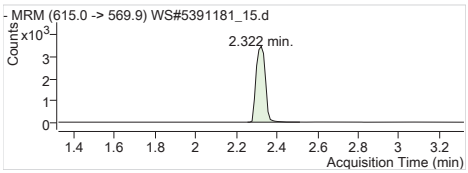


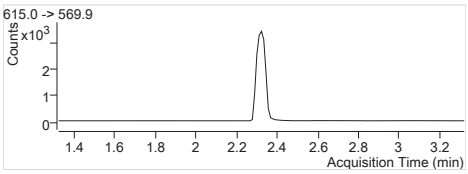
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 102.11 µg/L
Area ratio: 0.22201
Sample type: Sample



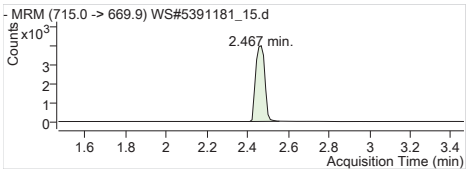


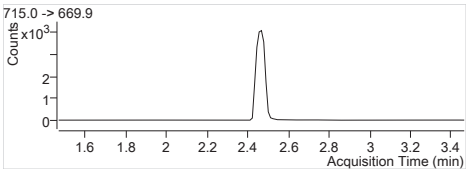
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 107.05 µg/L
Area ratio: 0.27971
Sample type: Sample



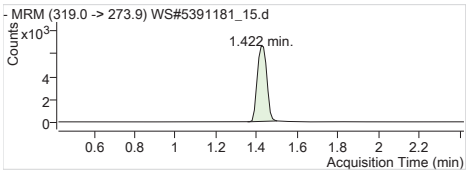


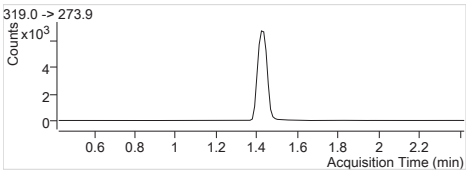
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 106.35 µg/L
Area ratio: 0.38037
Sample type: Sample



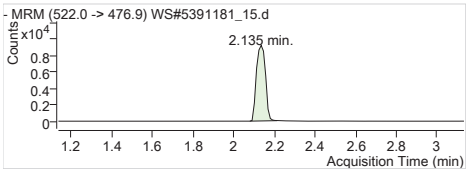


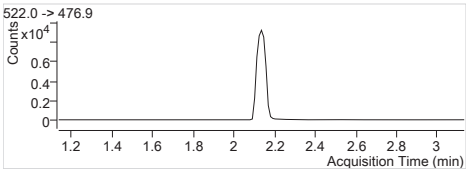
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 104.35 µg/L
Area ratio: 0.43948
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.41 µg/L
Area ratio: 0
Sample type: Sample





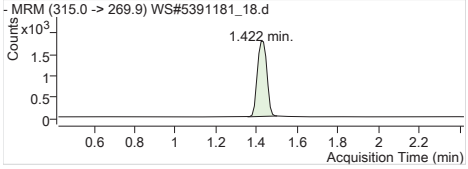
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.43 µg/L
Area ratio: 0
Sample type: Sample

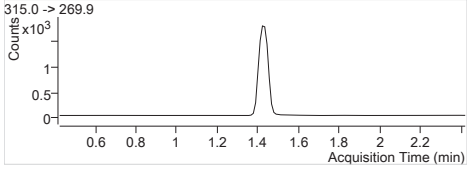
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_18.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C7
Acq. Date	2018/02/09 1:51:10 PM	**Injection Volume**	Per Method
Sample Annotation	-		

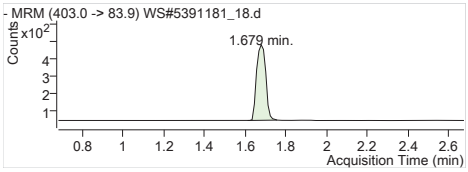
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5693	1.42	1 µg/L		
MPFHxS	1363	1.68	1 µg/L		
MPFHpA	7589	1.69	1 µg/L		
MPFOA	7841	1.88	1 µg/L		
MPFOS	1741	1.98	1 µg/L		
MPFNA	7793	2.01	1 µg/L		
MPFDA	6301	2.14	1 µg/L		
MPFUnA	7770	2.23	1 µg/L		
MPFDoA	10217	2.32	1 µg/L		
MPFTeDA	11333	2.47	1 µg/L		
13C6-PFHxA IS	21638	1.42	1 µg/L		
13C9-PFDA IS	28367	2.13	1 µg/L		

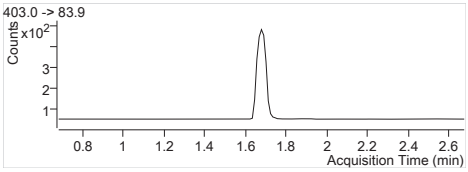
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5693	1.42	-	101.03 µg/L	-
18O2-PFHxS	1363	1.68	-	96.89 µg/L	-
13C4-PFHpA	7589	1.69	-	105.46 µg/L	-
13C4-PFOA	7841	1.88	-	103.42 µg/L	-
13C4-PFOS	1741	1.98	-	103.20 µg/L	-
13C5-PFNA	7791	2.01	-	101.76 µg/L	-
13C2-PFDA	6199	2.14	-	100.51 µg/L	-
13C2-PFUnA	7770	2.23	-	104.83 µg/L	-
13C2-PFDoA	10217	2.32	-	100.70 µg/L	-
13C2-PFTeDA	11754	2.47	-	98.38 µg/L	-
13C6-PFHxA	21638	1.42	-	2.42 µg/L	-
13C9-PFDA	28367	2.13	-	2.42 µg/L	-



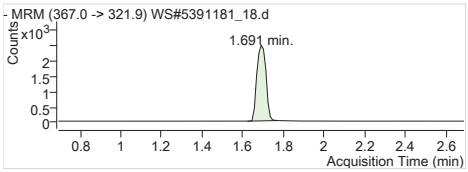


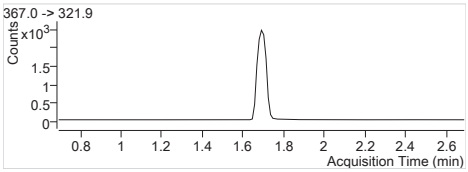
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



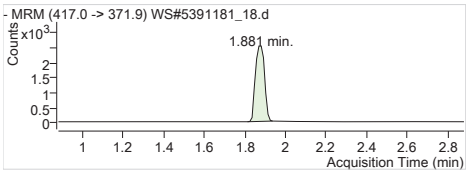


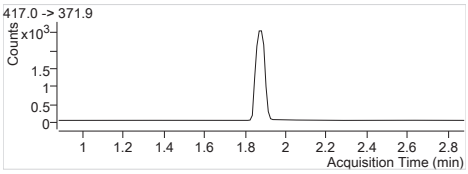
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



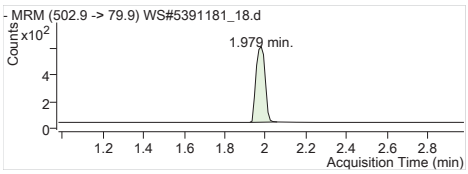


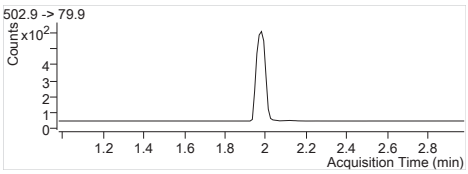
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



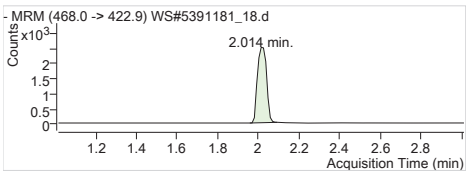


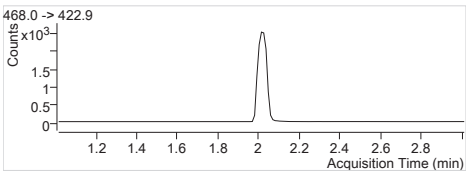
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



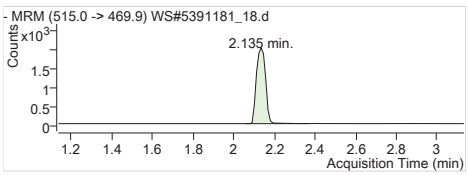


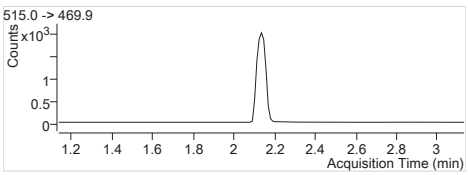
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



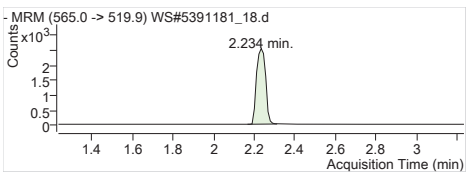


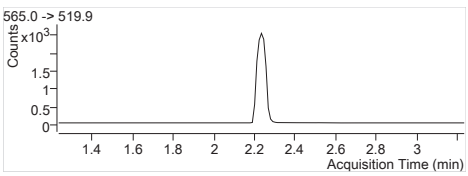
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



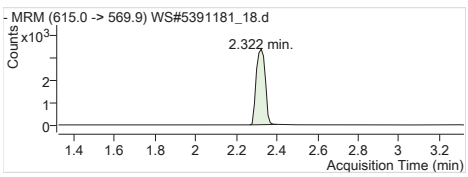


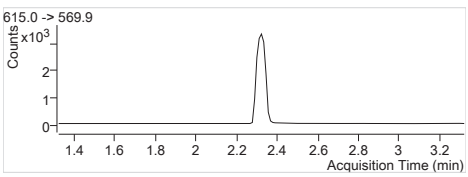
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



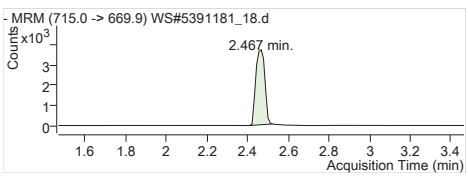


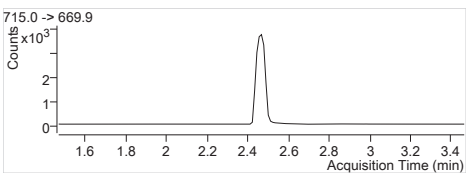
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



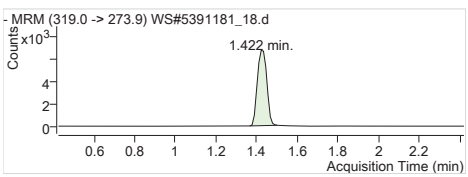


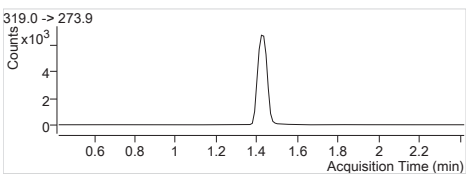
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



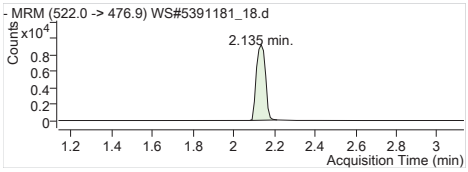


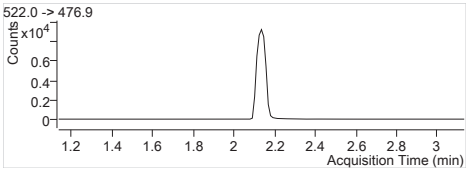
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



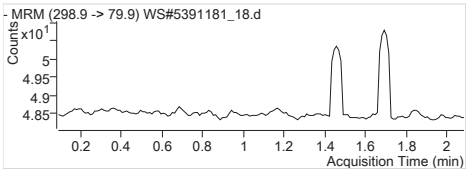


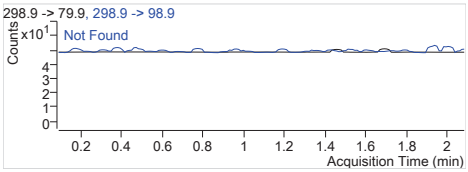
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



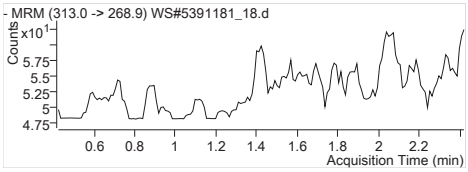


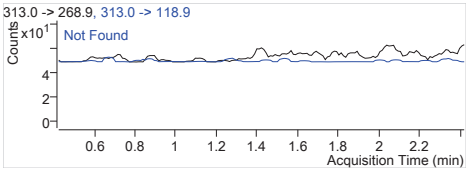
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



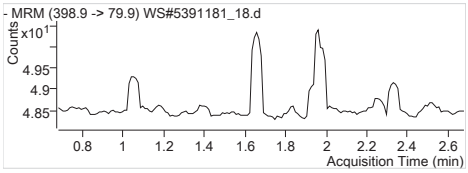


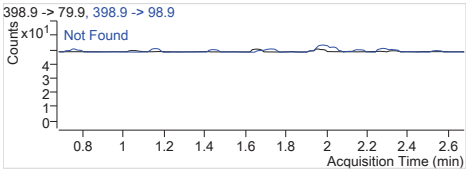
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



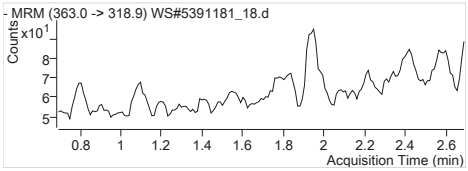


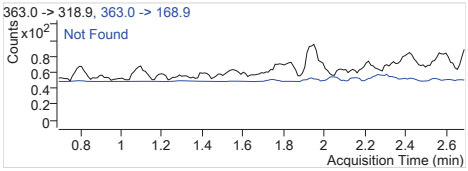
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



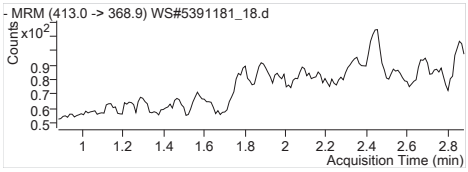


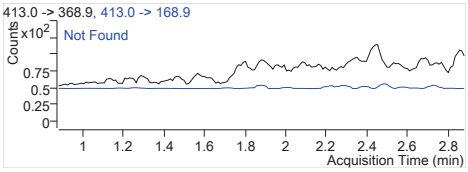
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



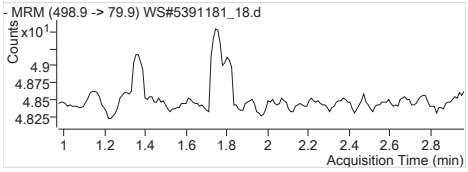


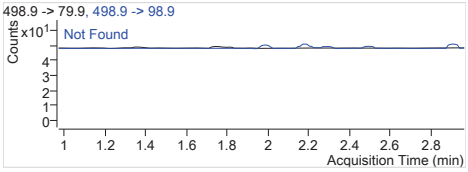
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



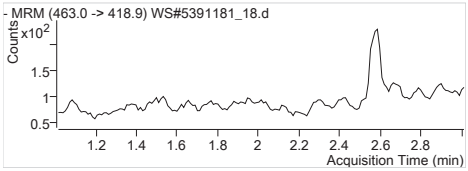


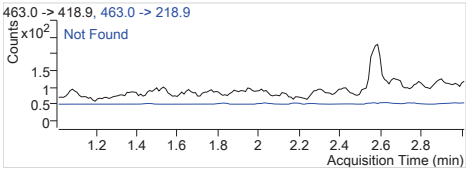
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



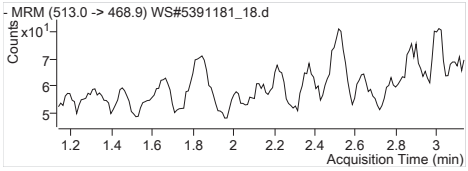


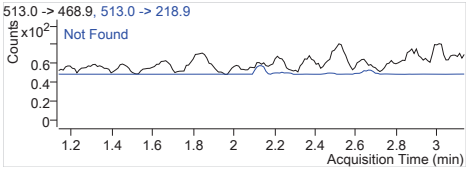
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



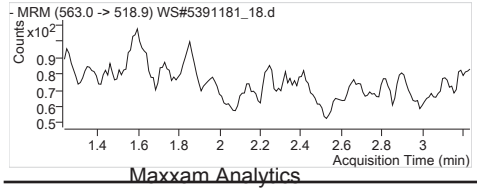


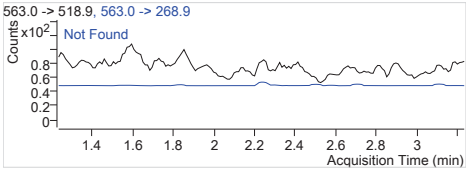
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



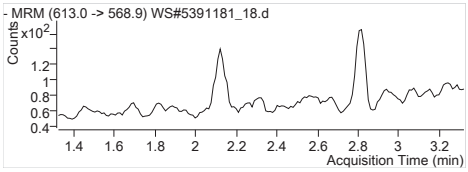


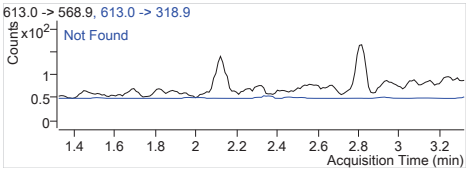
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



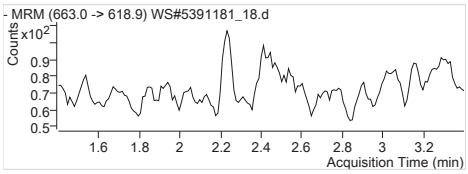


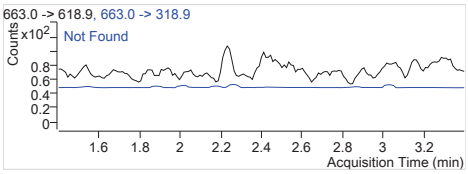
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



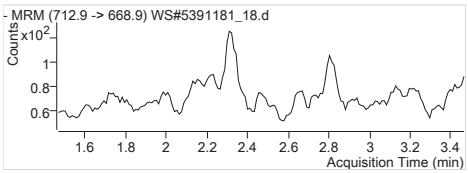


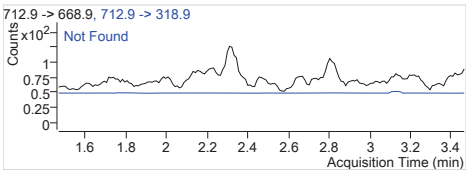
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



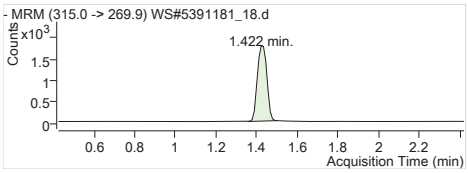


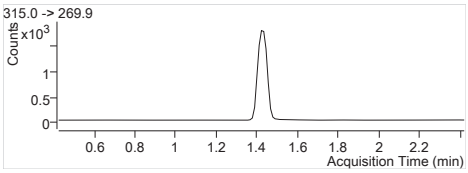
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



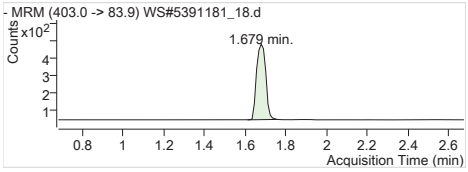


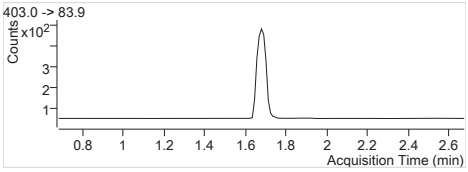
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



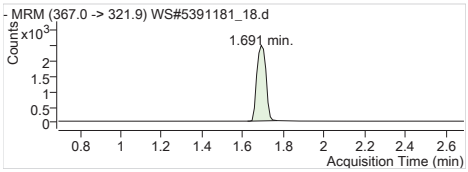


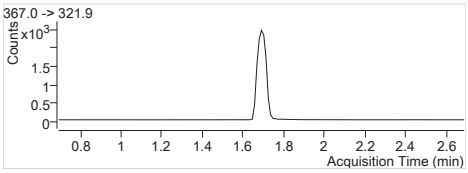
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	101.03 µg/L
Area ratio:	0.26310
Sample type:	Sample



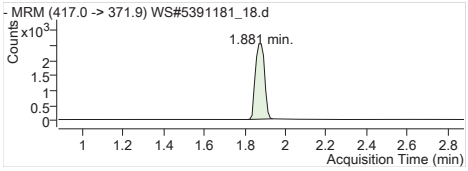


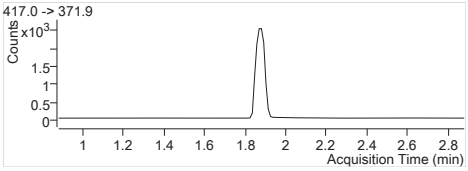
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	96.89 µg/L
Area ratio:	0.06299
Sample type:	Sample



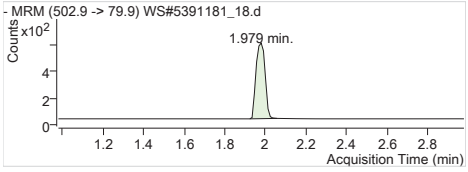


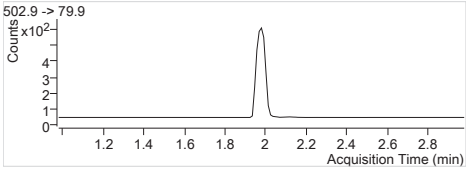
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	105.46 µg/L
Area ratio:	0.35073
Sample type:	Sample



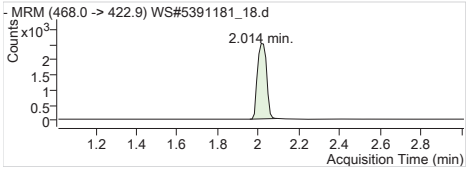


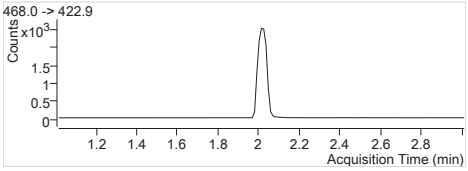
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	103.42 µg/L
Area ratio:	0.36237
Sample type:	Sample



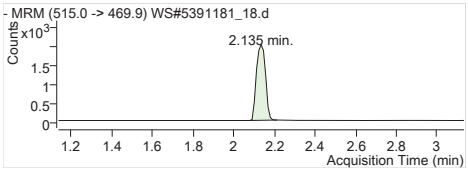


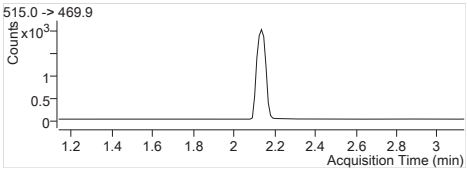
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	103.20 µg/L
Area ratio:	0.08046
Sample type:	Sample



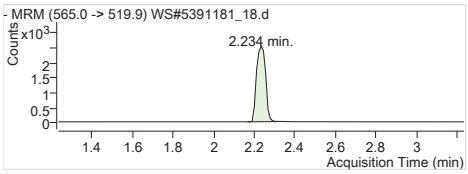


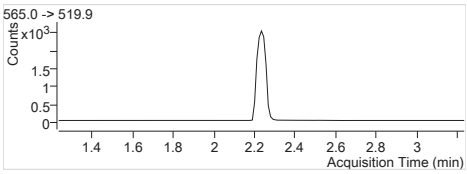
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	101.76 µg/L
Area ratio:	0.36006
Sample type:	Sample



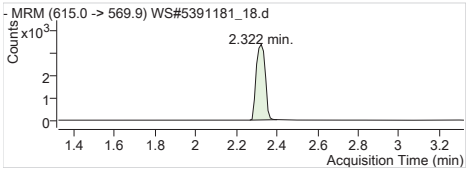


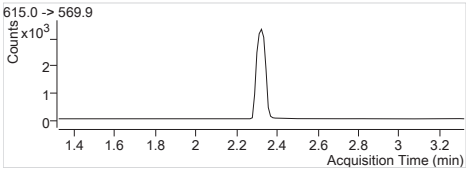
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 100.51 µg/L
Area ratio: 0.21853
Sample type: Sample



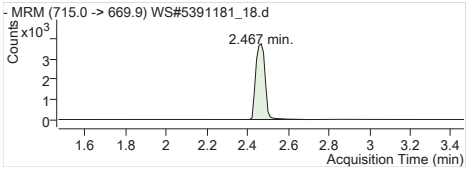


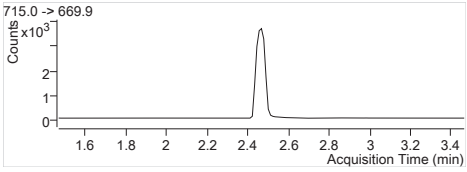
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 104.83 µg/L
Area ratio: 0.27391
Sample type: Sample



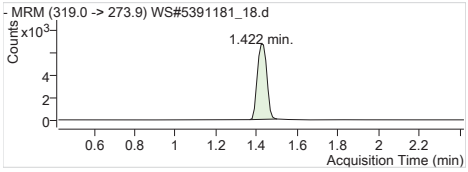


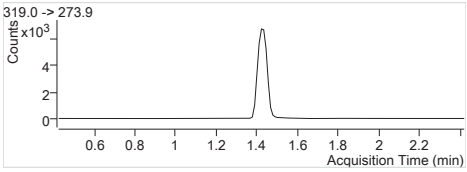
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 100.70 µg/L
Area ratio: 0.36017
Sample type: Sample



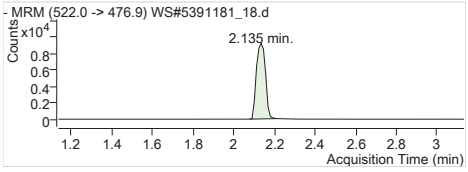


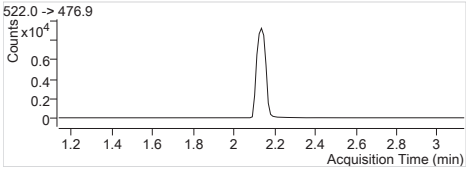
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 98.38 µg/L
Area ratio: 0.41435
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.42 µg/L
Area ratio: 0
Sample type: Sample





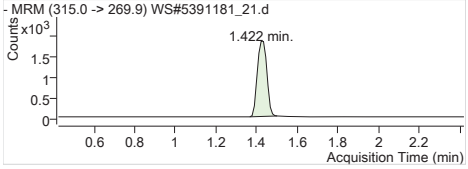
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.42 µg/L
Area ratio: 0
Sample type: Sample

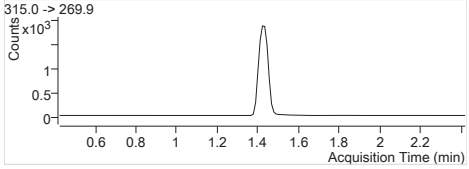
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_21.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C7
Acq. Date	2018/02/09 2:05:58 PM	**Injection Volume**	Per Method
Sample Annotation	-		

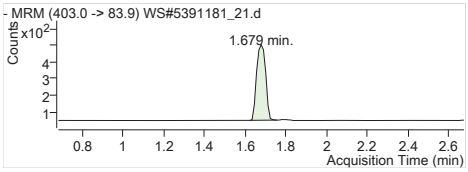
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5968	1.42	1 µg/L		
MPFHxS	1401	1.68	1 µg/L		
MPFHpA	7377	1.69	1 µg/L		
MPFOA	7102	1.87	1 µg/L		
MPFOS	1640	1.98	1 µg/L		
MPFNA	7973	2.01	1 µg/L		
MPFDA	6462	2.14	1 µg/L		
MPFUnA	7663	2.23	1 µg/L		
MPFDoA	10362	2.32	1 µg/L		
MPFTeDA	11360	2.47	1 µg/L		
13C6-PFHxA IS	22349	1.42	1 µg/L		
13C9-PFDA IS	29226	2.13	1 µg/L		

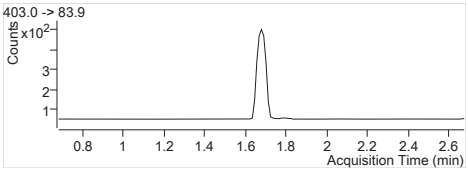
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5968	1.42	-	102.55 µg/L	-
18O2-PFHxS	1401	1.68	-	96.42 µg/L	-
13C4-PFHpA	7377	1.69	-	99.25 µg/L	-
13C4-PFOA	7102	1.87	-	90.69 µg/L	-
13C4-PFOS	1640	1.98	-	94.12 µg/L	-
13C5-PFNA	7973	2.01	-	100.83 µg/L	-
13C2-PFDA	6397	2.14	-	100.68 µg/L	-
13C2-PFUnA	7663	2.23	-	100.34 µg/L	-
13C2-PFDoA	10362	2.32	-	99.13 µg/L	-
13C2-PFTeDA	11734	2.47	-	95.33 µg/L	-
13C6-PFHxA	22349	1.42	-	2.50 µg/L	-
13C9-PFDA	29226	2.13	-	2.50 µg/L	-



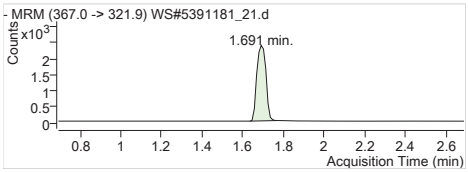


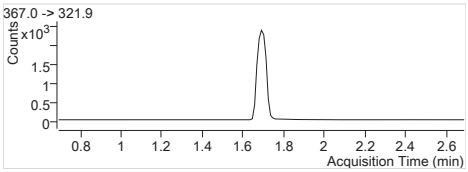
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



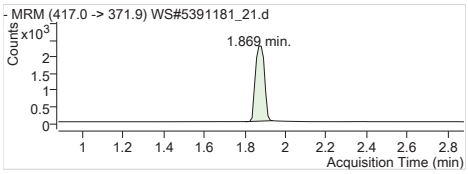


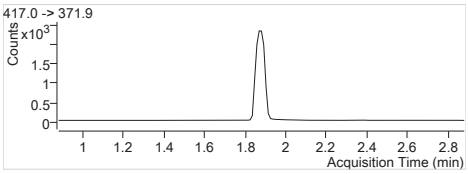
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



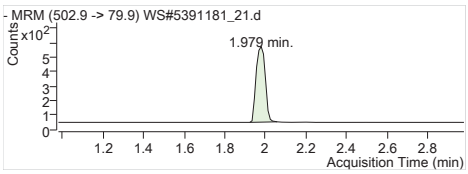


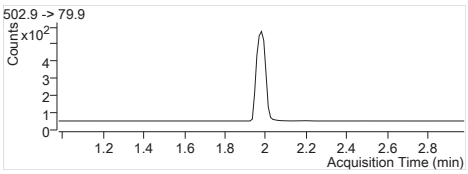
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



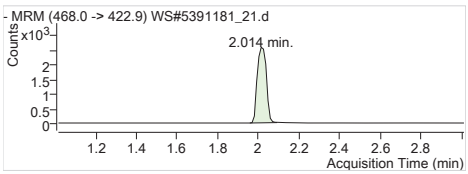


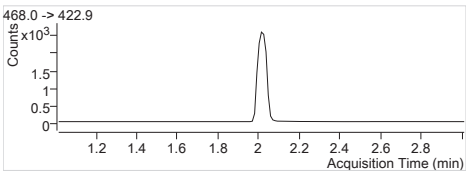
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



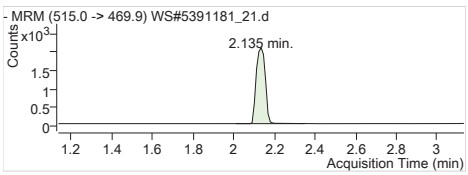


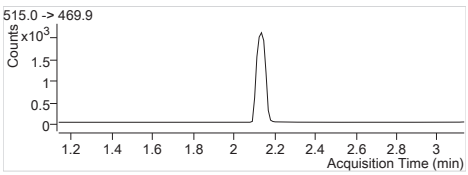
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



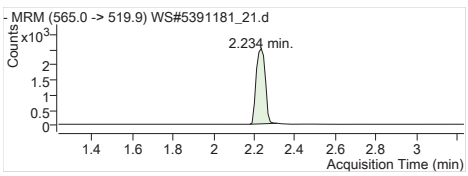


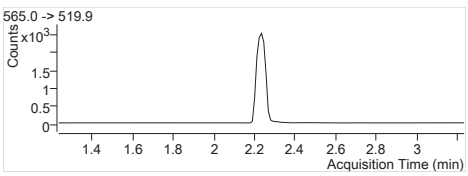
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



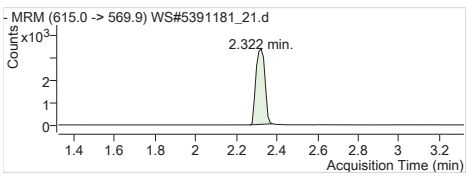


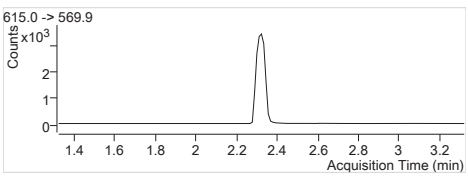
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



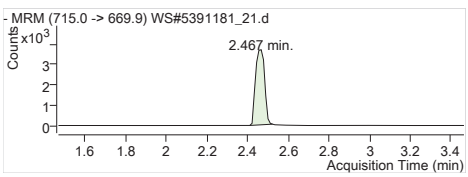


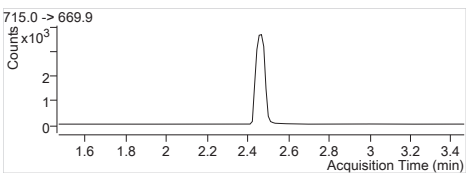
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



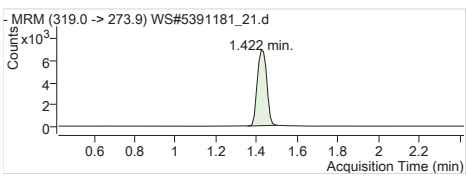


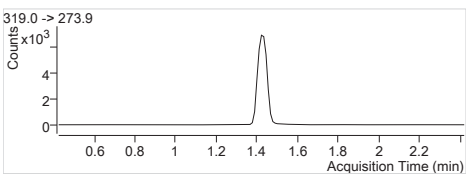
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



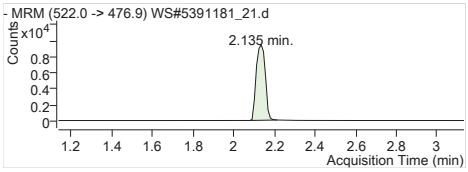


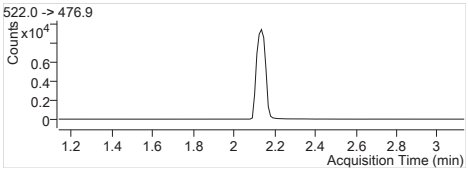
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



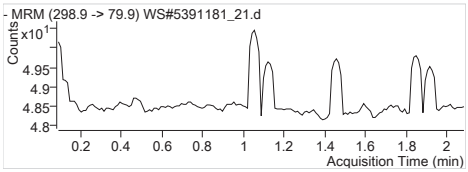


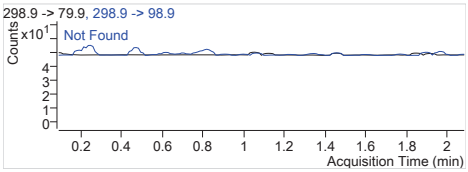
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



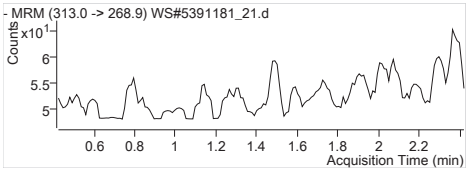


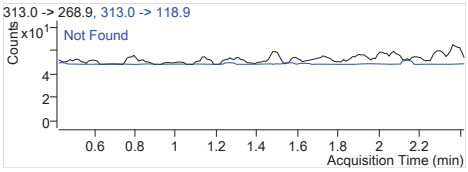
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



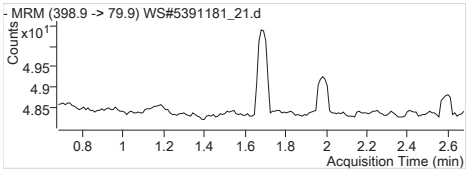


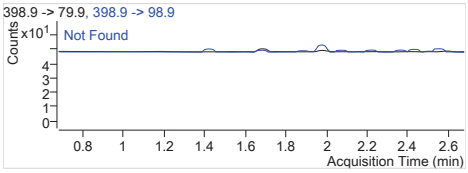
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



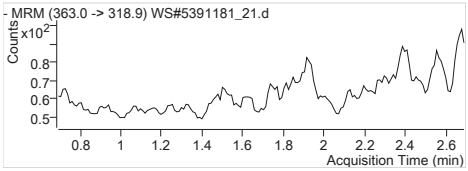


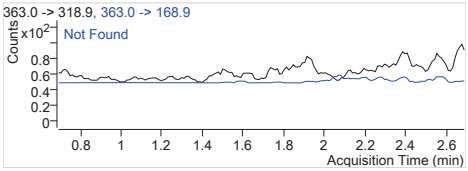
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



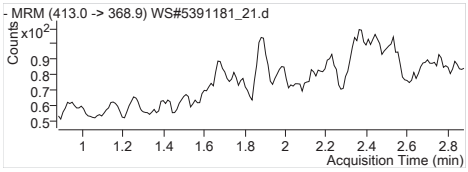


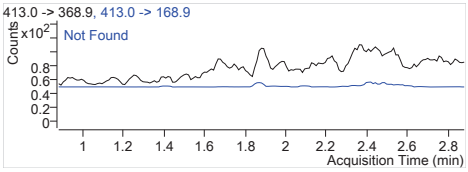
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



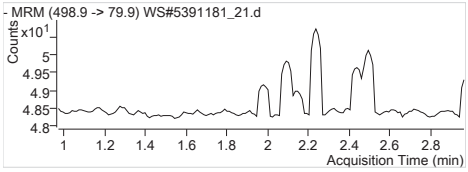


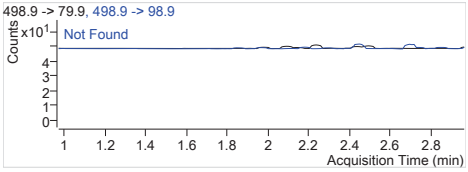
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



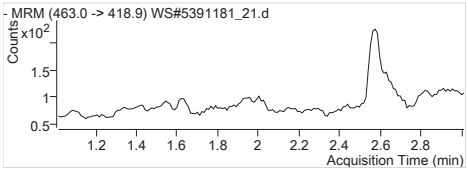


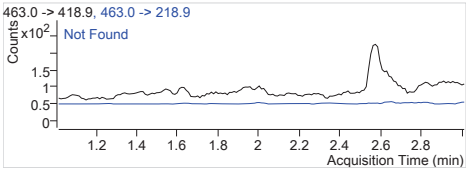
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



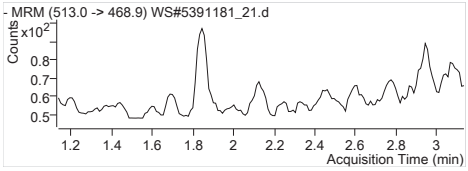


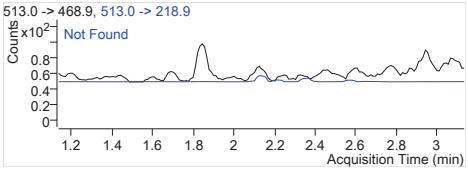
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



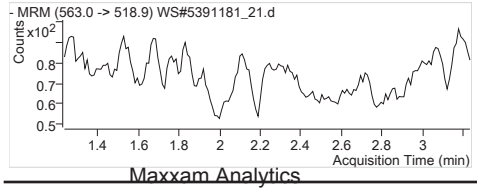


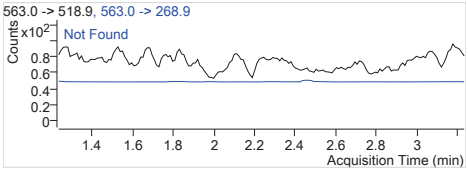
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



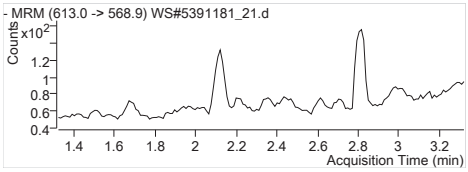


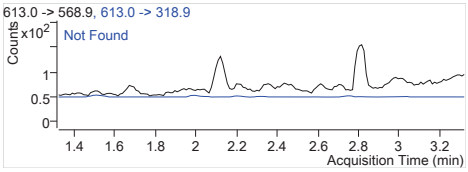
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



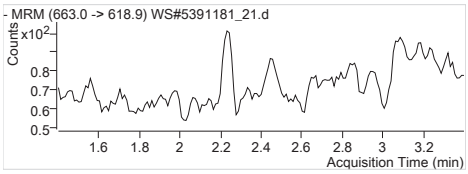


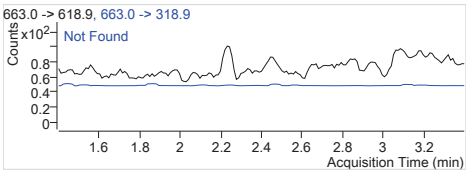
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



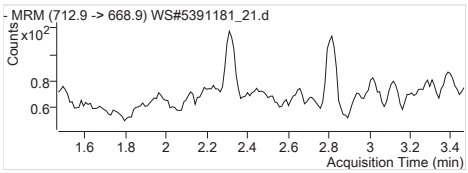


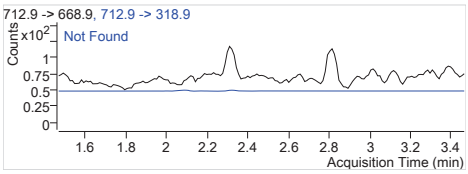
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



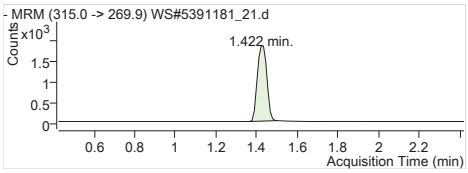


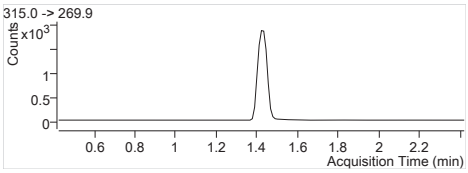
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



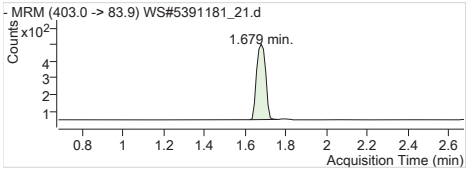


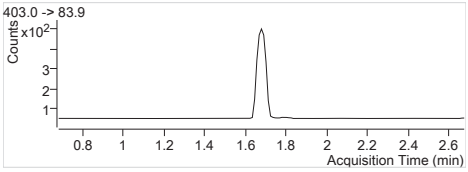
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



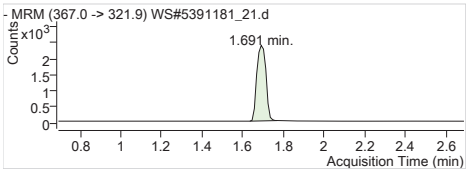


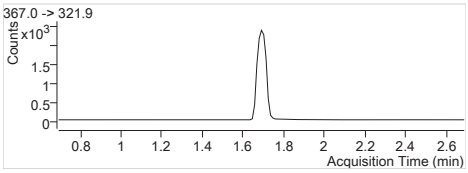
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	102.55 µg/L
Area ratio:	0.26704
Sample type:	Sample



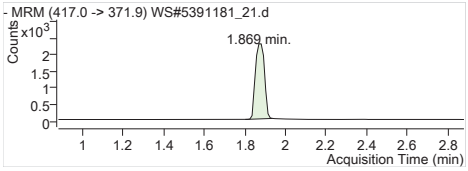


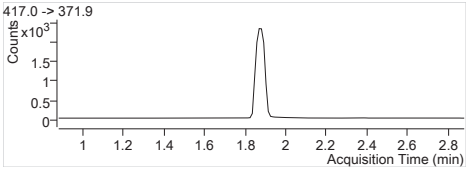
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	96.42 µg/L
Area ratio:	0.06269
Sample type:	Sample



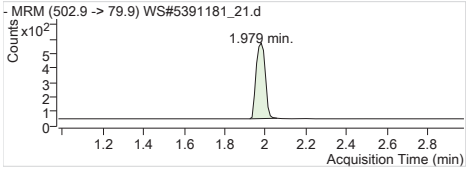


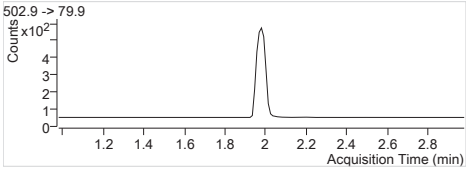
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	99.25 µg/L
Area ratio:	0.33008
Sample type:	Sample



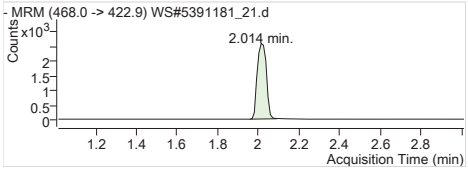


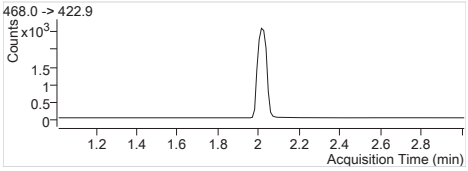
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.869 (1.881)
Calc. conc.	90.69 µg/L
Area ratio:	0.31778
Sample type:	Sample



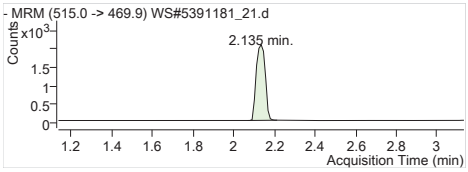


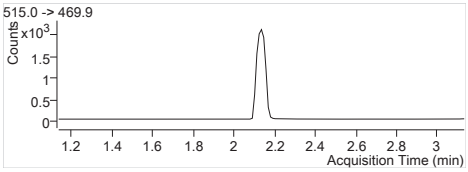
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	94.12 µg/L
Area ratio:	0.07338
Sample type:	Sample



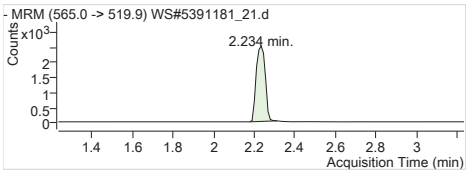


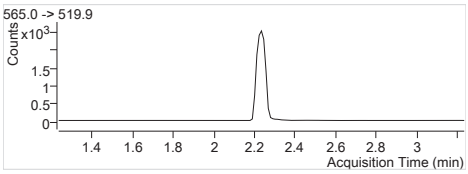
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	100.83 µg/L
Area ratio:	0.35675
Sample type:	Sample



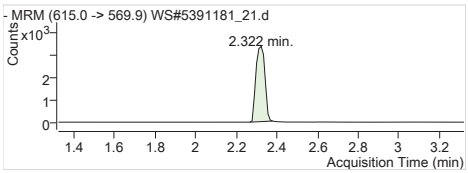


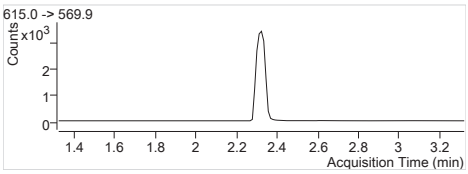
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 100.68 µg/L
Area ratio: 0.21888
Sample type: Sample



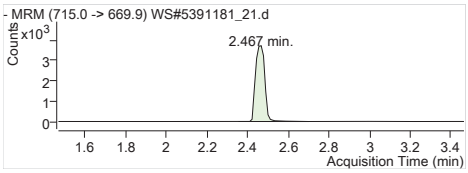


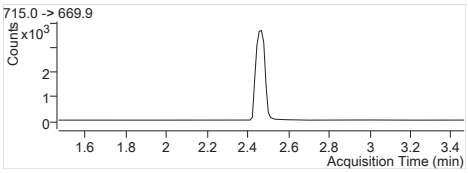
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 100.34 µg/L
Area ratio: 0.26220
Sample type: Sample



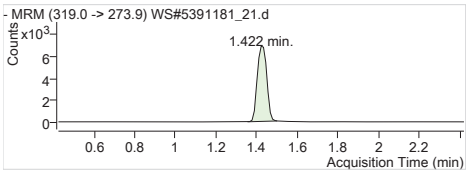


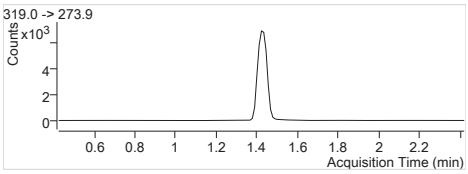
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 99.13 µg/L
Area ratio: 0.35455
Sample type: Sample



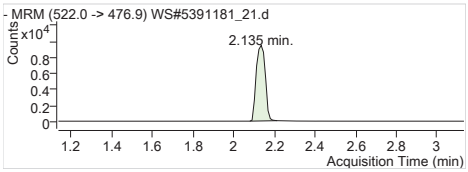


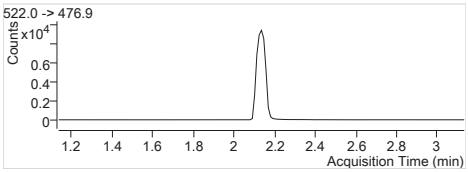
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 95.33 µg/L
Area ratio: 0.40149
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.50 µg/L
Area ratio: 0
Sample type: Sample





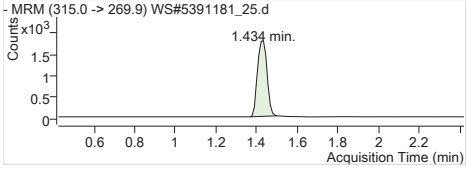
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.50 µg/L
Area ratio: 0
Sample type: Sample

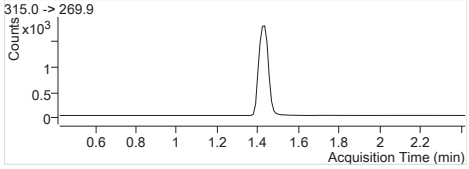
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_25.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C7
Acq. Date	2018/02/09 2:25:42 PM	**Injection Volume**	Per Method
Sample Annotation	-		

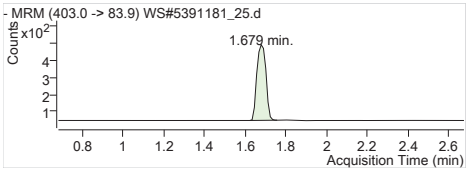
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5757	1.43	1 µg/L		
MPFHxS	1367	1.68	1 µg/L		
MPFHpA	7711	1.69	1 µg/L		
MPFOA	7867	1.87	1 µg/L		
MPFOS	1697	1.98	1 µg/L		
MPFNA	8068	2.01	1 µg/L		
MPFDA	6668	2.14	1 µg/L		
MPFUnA	7062	2.23	1 µg/L		
MPFDoA	10269	2.32	1 µg/L		
MPFTeDA	11862	2.47	1 µg/L		
13C6-PFHxA IS	21610	1.42	1 µg/L		
13C9-PFDA IS	27875	2.13	1 µg/L		

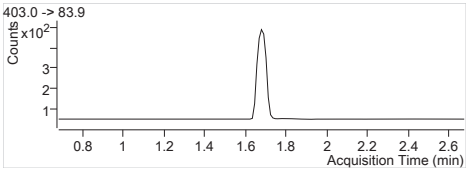
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5757	1.43	-	102.30 µg/L	-
18O2-PFHxS	1367	1.68	-	97.30 µg/L	-
13C4-PFHpA	7711	1.69	-	107.30 µg/L	-
13C4-PFOA	7867	1.87	-	103.89 µg/L	-
13C4-PFOS	1697	1.98	-	100.72 µg/L	-
13C5-PFNA	8068	2.01	-	105.52 µg/L	-
13C2-PFDA	6527	2.14	-	107.70 µg/L	-
13C2-PFUnA	7062	2.23	-	96.96 µg/L	-
13C2-PFDoA	10269	2.32	-	103.00 µg/L	-
13C2-PFTeDA	12114	2.47	-	103.18 µg/L	-
13C6-PFHxA	21610	1.42	-	2.42 µg/L	-
13C9-PFDA	27875	2.13	-	2.38 µg/L	-



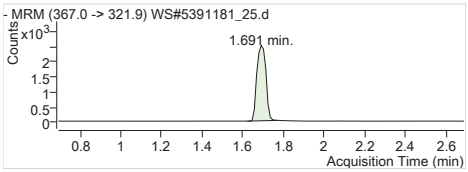


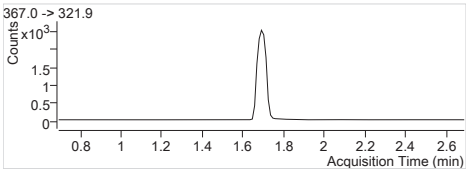
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



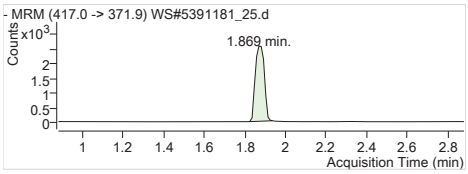


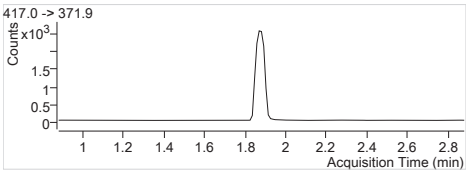
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



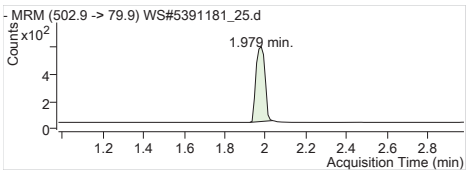


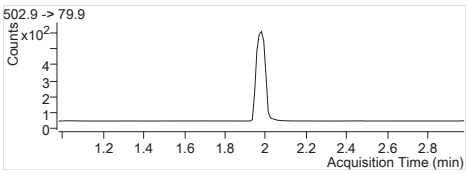
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



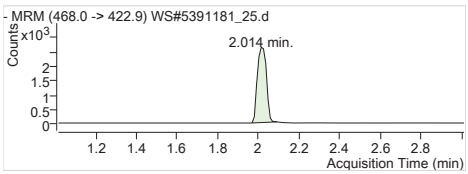


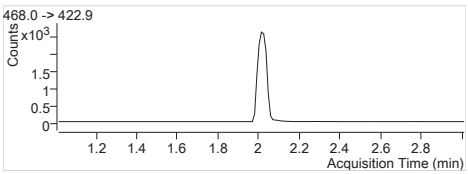
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



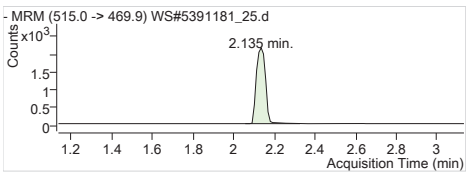


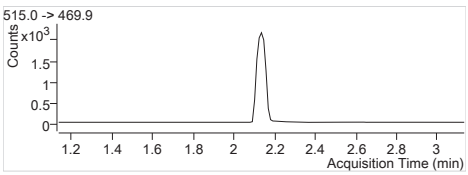
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



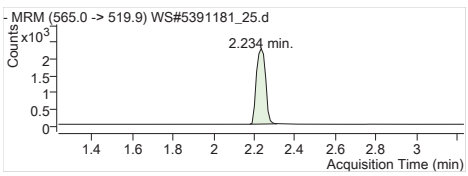


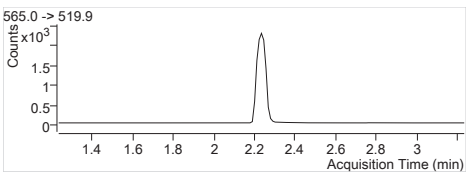
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



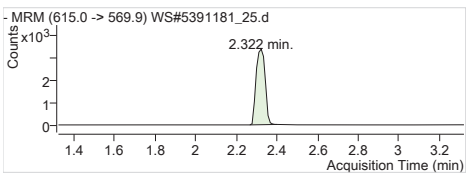


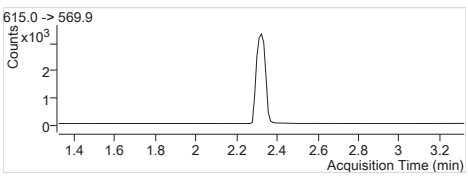
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



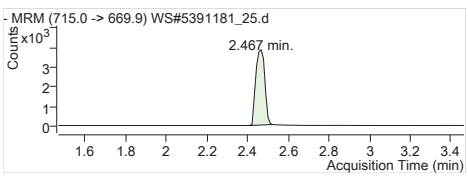


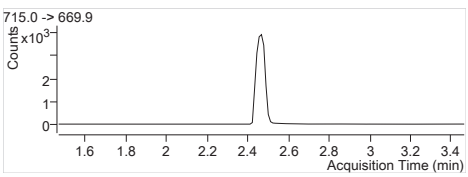
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



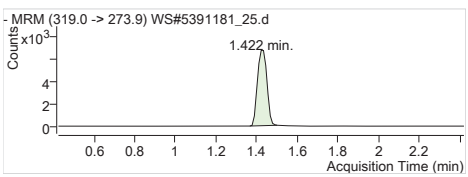


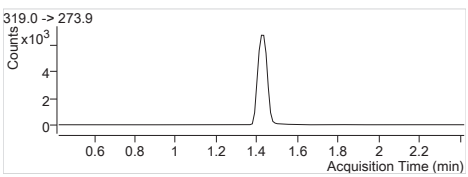
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



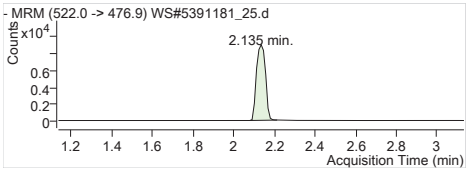


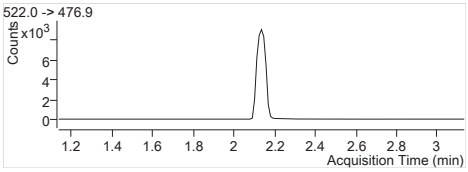
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



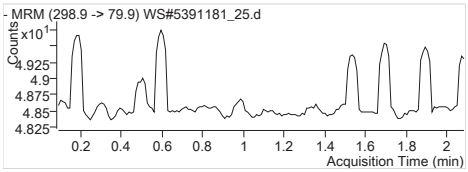


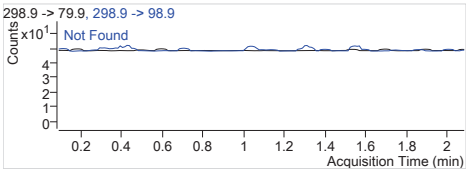
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



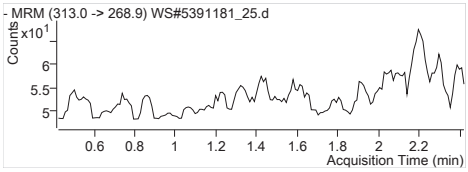


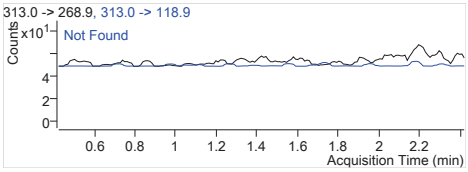
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



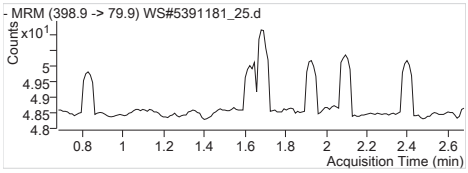


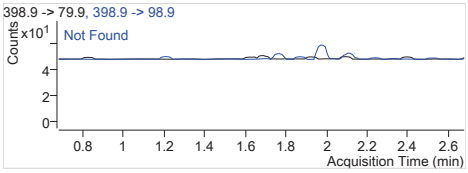
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



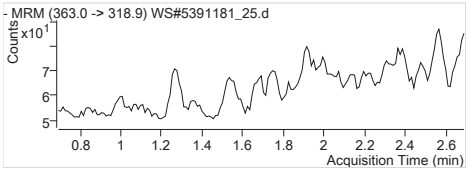


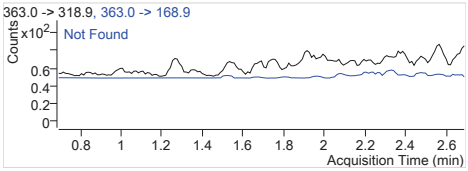
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



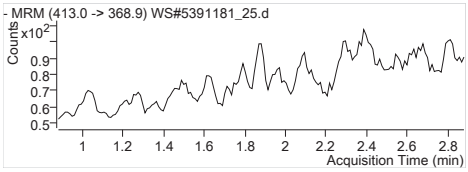


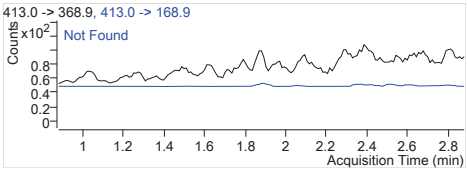
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



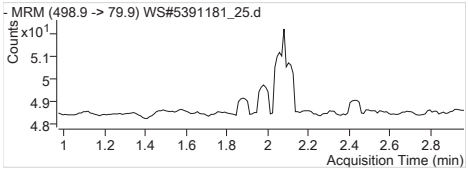


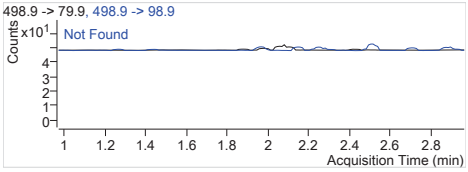
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



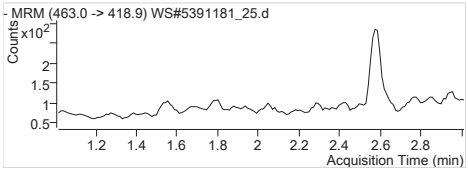


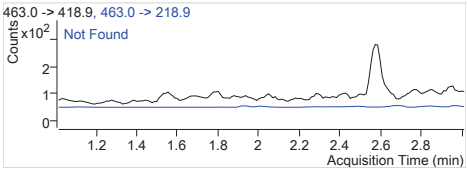
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



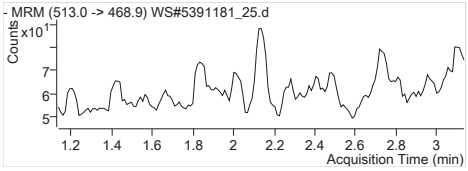


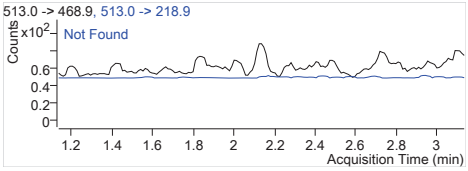
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



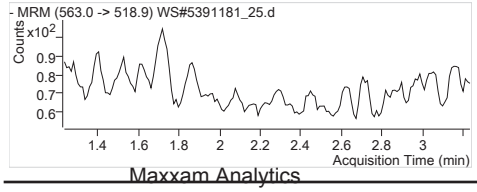


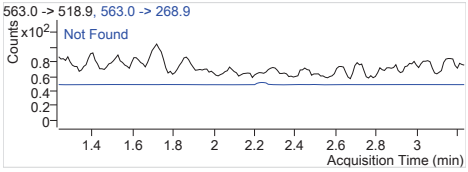
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



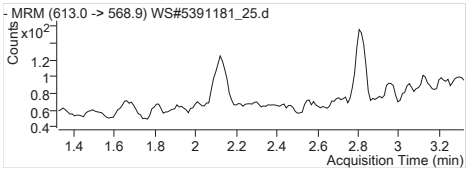


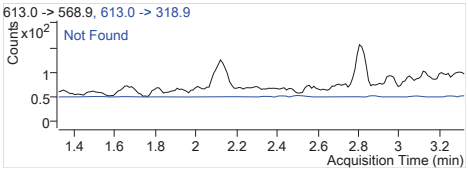
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



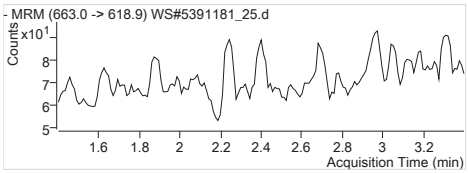


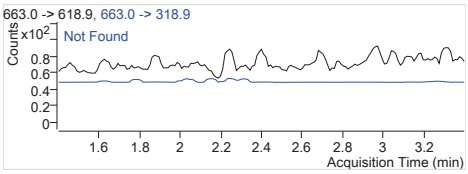
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



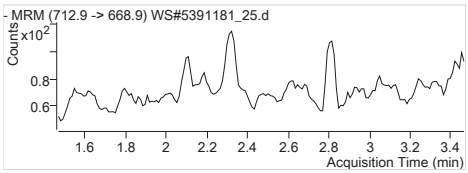


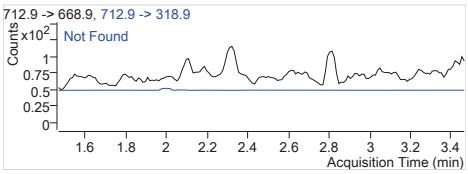
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



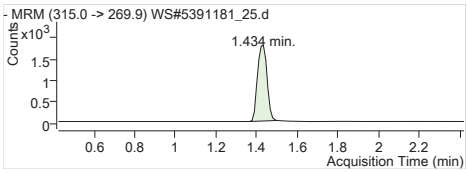


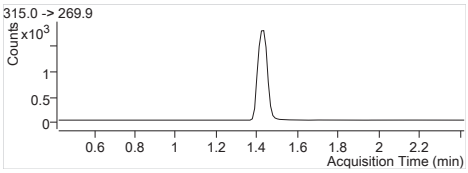
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



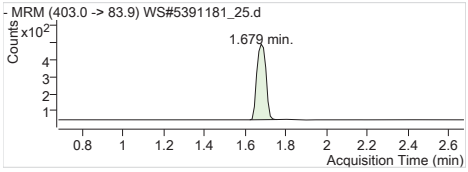


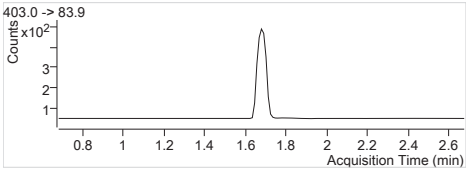
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



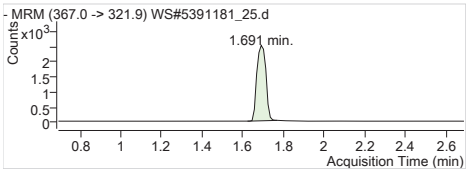


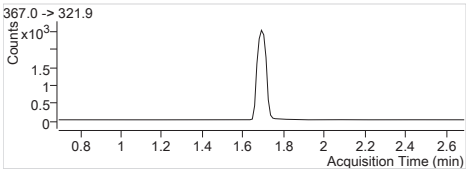
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.434 (1.422)
Calc. conc.	102.30 µg/L
Area ratio:	0.26640
Sample type:	Sample



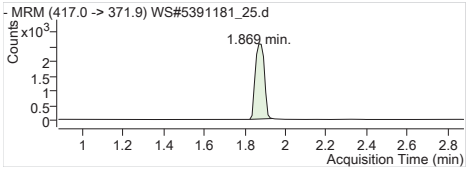


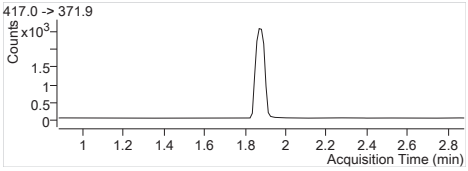
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	97.30 µg/L
Area ratio:	0.06326
Sample type:	Sample



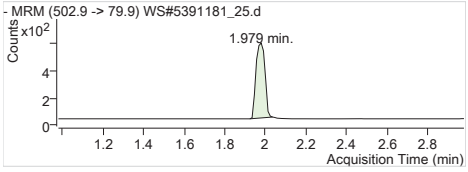


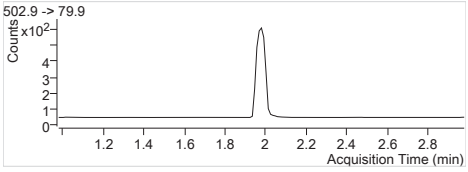
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	107.30 µg/L
Area ratio:	0.35683
Sample type:	Sample



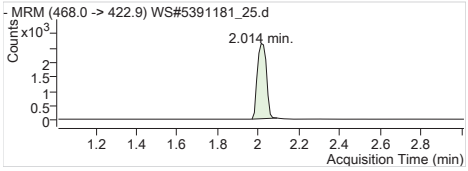


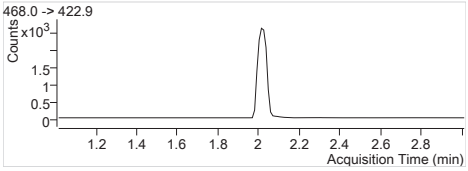
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.869 (1.881)
Calc. conc.	103.89 µg/L
Area ratio:	0.36404
Sample type:	Sample



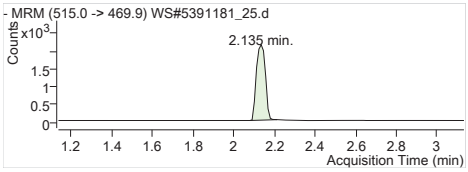


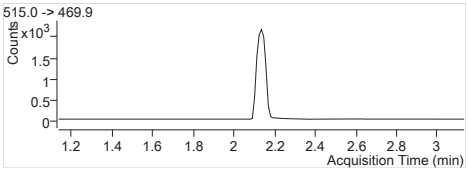
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	100.72 µg/L
Area ratio:	0.07853
Sample type:	Sample



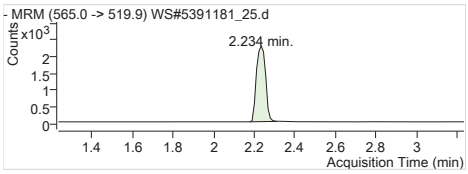


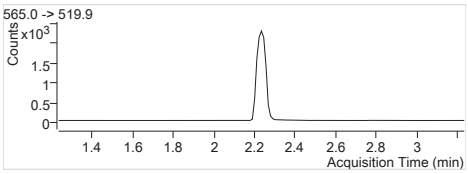
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	105.52 µg/L
Area ratio:	0.37335
Sample type:	Sample



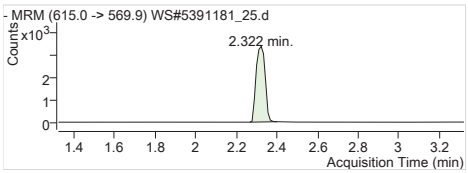


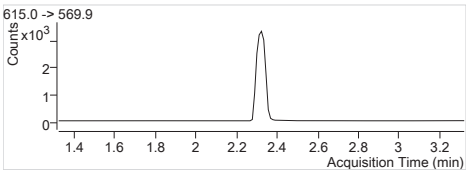
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 107.70 µg/L
Area ratio: 0.23415
Sample type: Sample



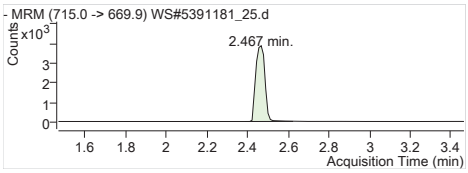


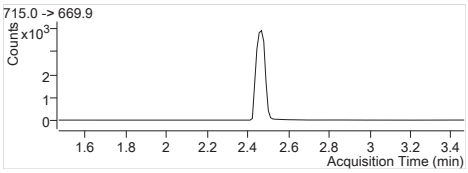
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 96.96 µg/L
Area ratio: 0.25335
Sample type: Sample



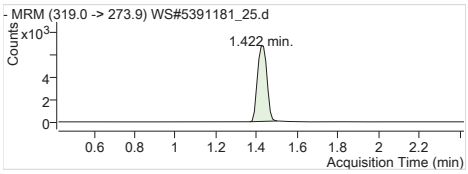


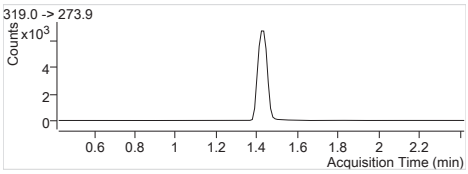
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 103.00 µg/L
Area ratio: 0.36839
Sample type: Sample



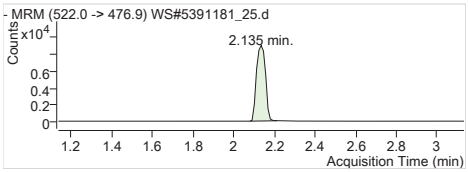


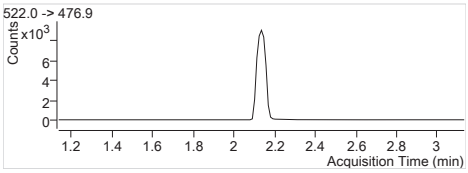
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 103.18 µg/L
Area ratio: 0.43458
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.42 µg/L
Area ratio: 0
Sample type: Sample





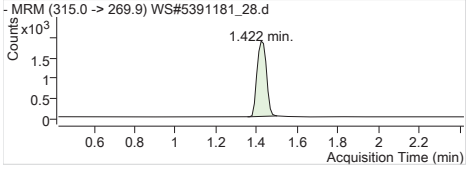
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.38 µg/L
Area ratio: 0
Sample type: Sample

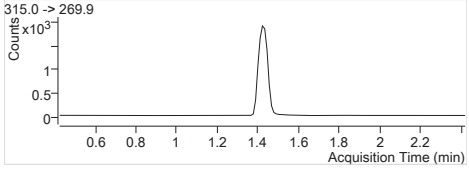
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_28.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C7
Acq. Date	2018/02/09 2:40:30 PM	**Injection Volume**	Per Method
Sample Annotation	-		

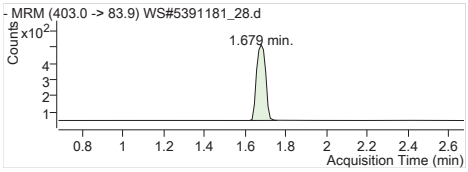
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5937	1.42	1 µg/L		
MPFHxS	1454	1.68	1 µg/L		
MPFHpA	7559	1.69	1 µg/L		
MPFOA	7464	1.87	1 µg/L		
MPFOS	1718	1.98	1 µg/L		
MPFNA	8151	2.01	1 µg/L		
MPFDA	6406	2.14	1 µg/L		
MPFUnA	7515	2.23	1 µg/L		
MPFDoA	9885	2.32	1 µg/L		
MPFTeDA	11675	2.47	1 µg/L		
13C6-PFHxA IS	21027	1.42	1 µg/L		
13C9-PFDA IS	29672	2.13	1 µg/L		

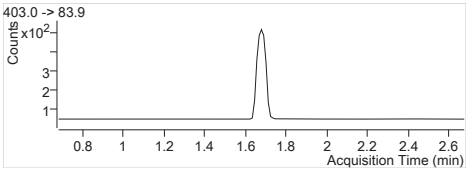
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5937	1.42	-	108.43 µg/L	-
18O2-PFHxS	1454	1.68	-	106.36 µg/L	-
13C4-PFHpA	7559	1.69	-	108.10 µg/L	-
13C4-PFOA	7464	1.87	-	101.31 µg/L	-
13C4-PFOS	1718	1.98	-	104.79 µg/L	-
13C5-PFNA	8152	2.01	-	109.57 µg/L	-
13C2-PFDA	6394	2.14	-	99.12 µg/L	-
13C2-PFUnA	7515	2.23	-	96.93 µg/L	-
13C2-PFDoA	9885	2.32	-	93.15 µg/L	-
13C2-PFTeDA	11894	2.47	-	95.17 µg/L	-
13C6-PFHxA	21027	1.42	-	2.35 µg/L	-
13C9-PFDA	29672	2.13	-	2.53 µg/L	-



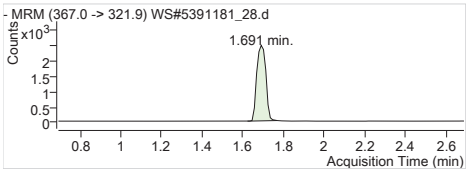


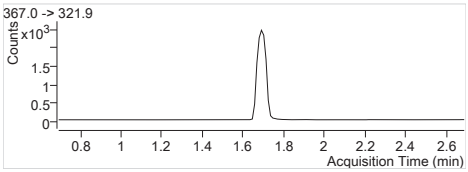
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



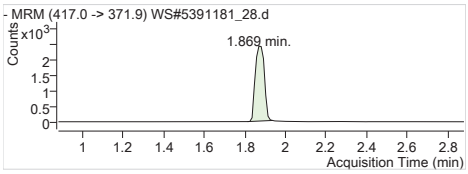


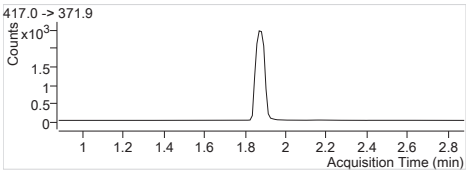
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



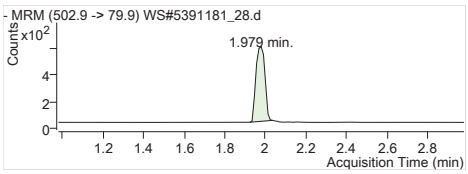


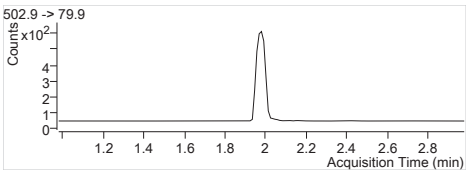
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



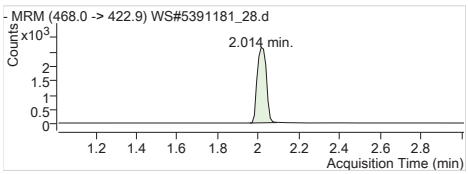


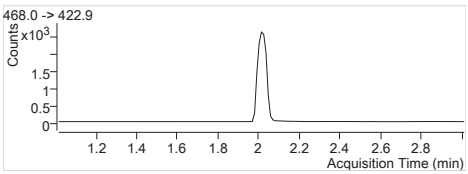
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



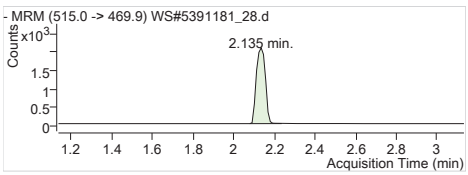


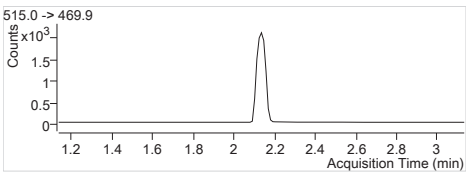
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



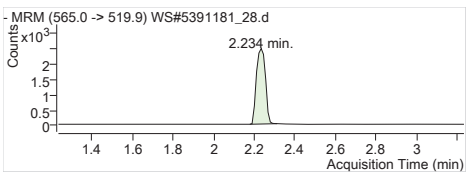


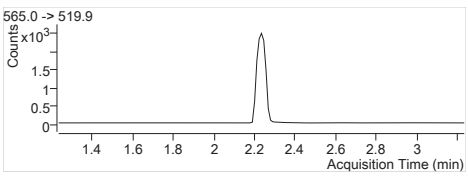
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



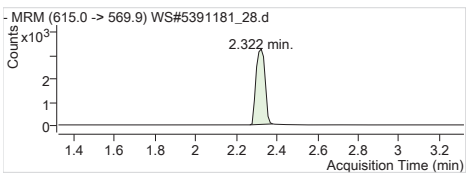


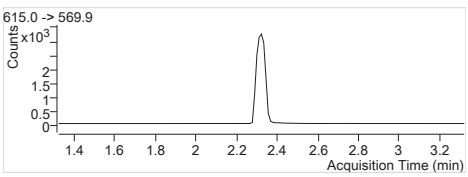
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



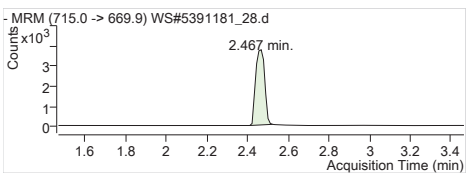


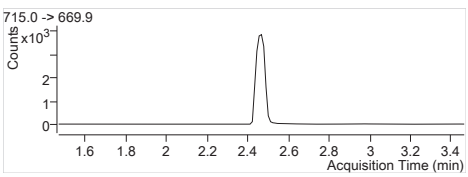
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



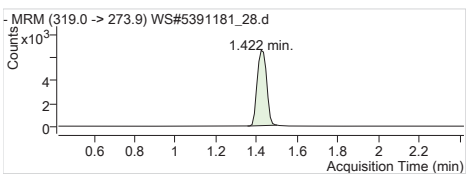


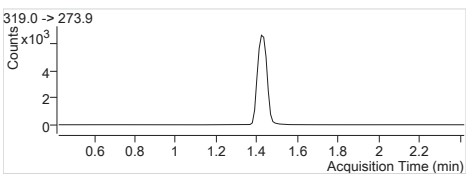
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



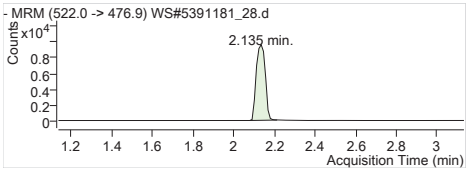


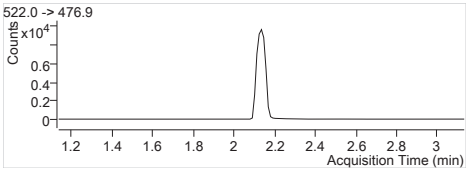
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



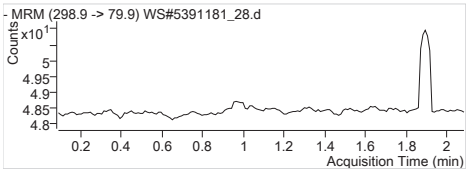


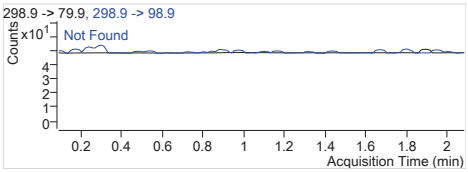
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



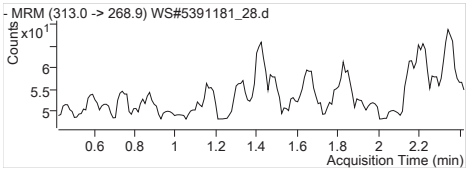


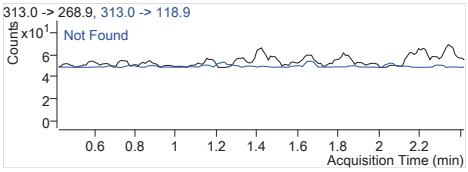
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



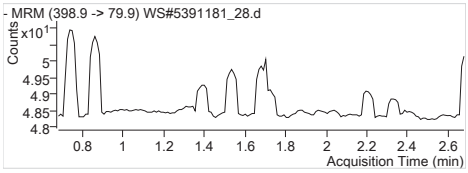


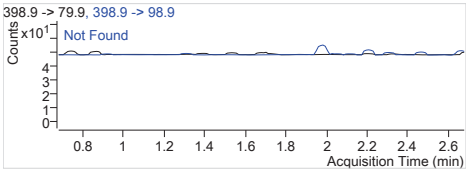
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



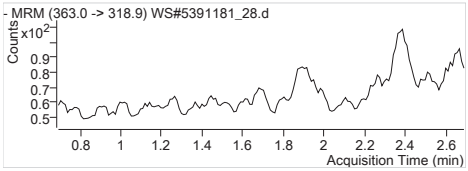


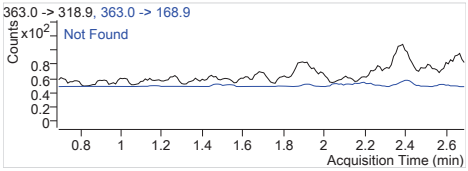
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



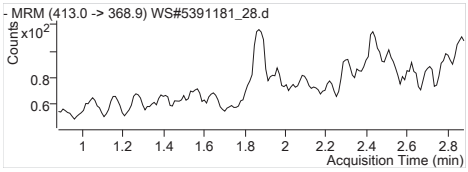


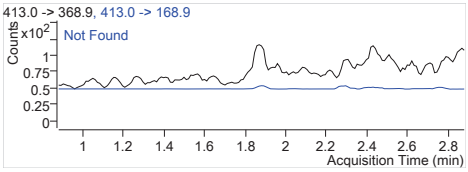
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



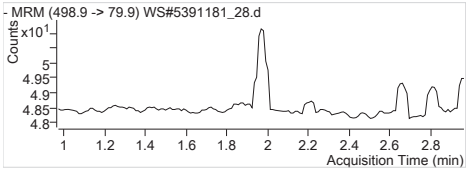


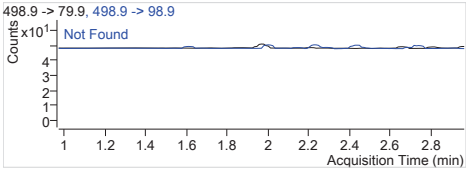
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



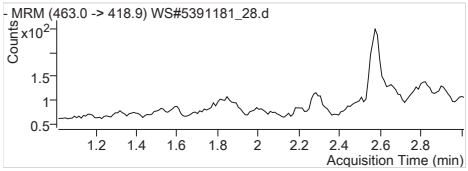


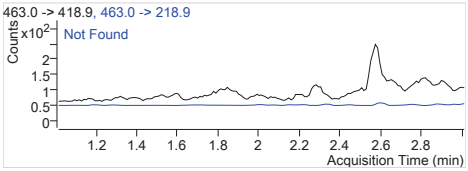
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



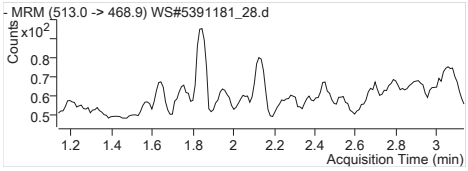


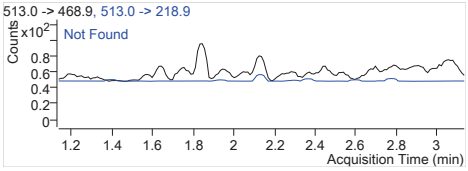
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



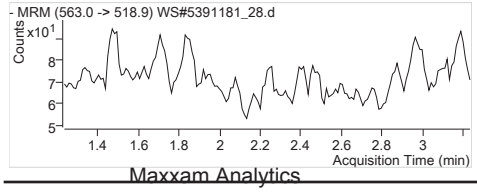


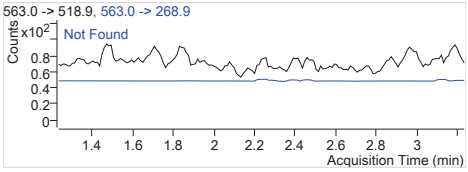
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



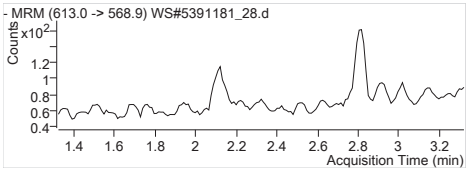


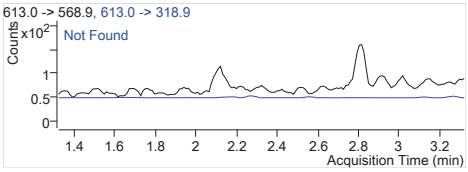
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



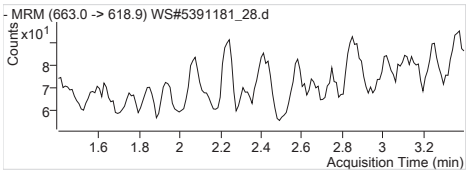


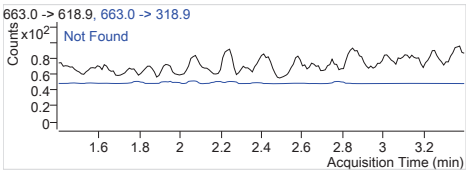
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



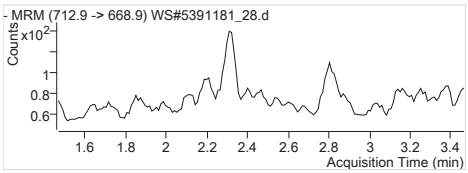


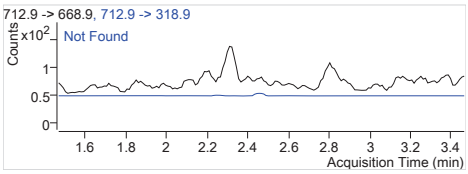
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



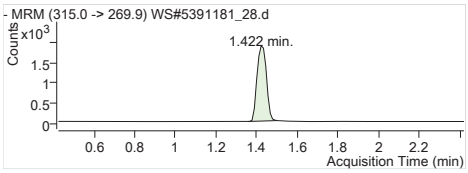


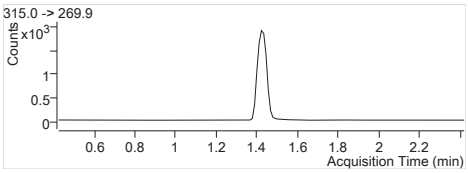
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



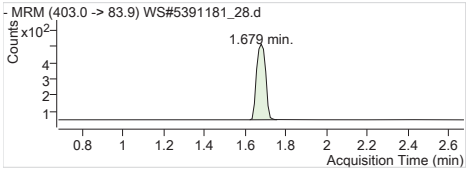


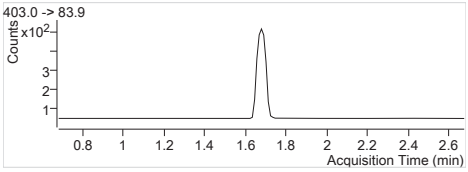
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



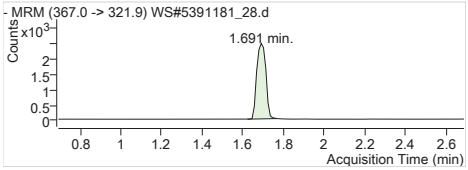


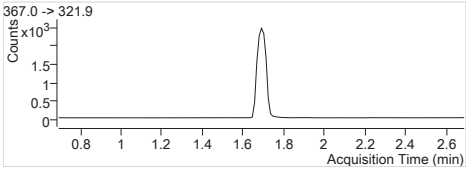
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 108.43 µg/L
Area ratio: 0.28235
Sample type: Sample



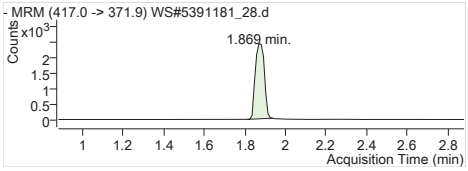


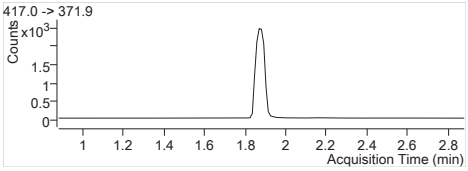
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 106.36 µg/L
Area ratio: 0.06915
Sample type: Sample



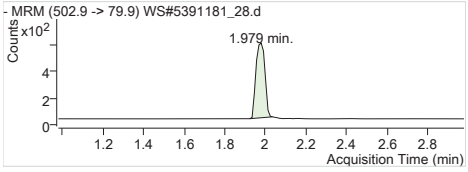


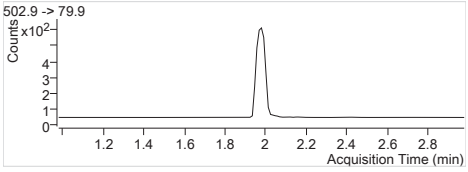
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 108.10 µg/L
Area ratio: 0.35949
Sample type: Sample



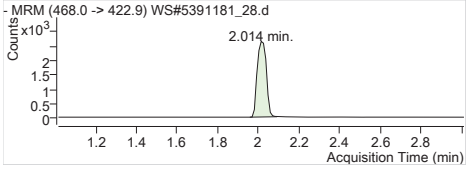


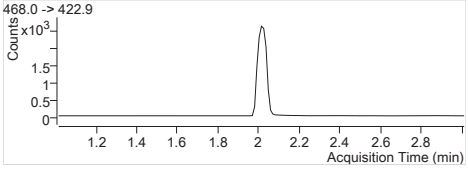
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 101.31 µg/L
Area ratio: 0.35497
Sample type: Sample



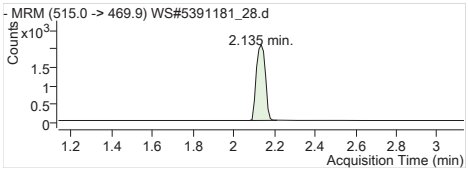


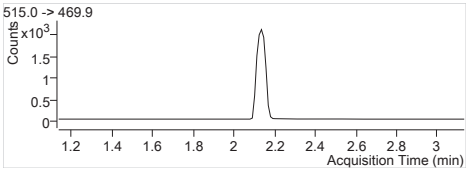
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 104.79 µg/L
Area ratio: 0.08170
Sample type: Sample



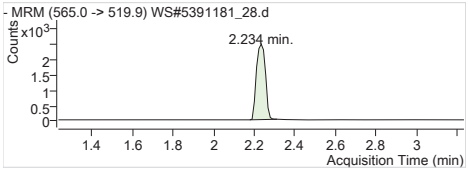


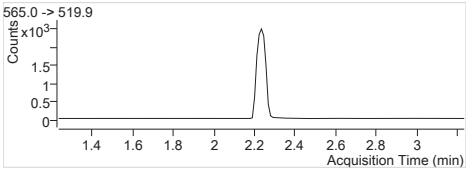
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 109.57 µg/L
Area ratio: 0.38769
Sample type: Sample



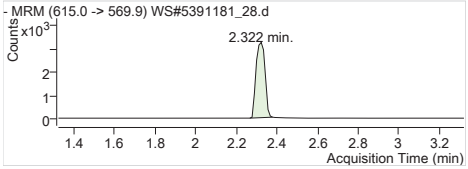


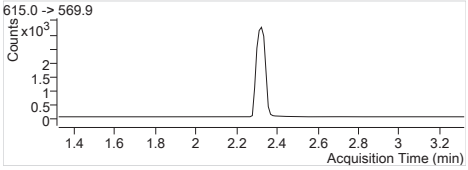
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 99.12 µg/L
Area ratio: 0.21549
Sample type: Sample



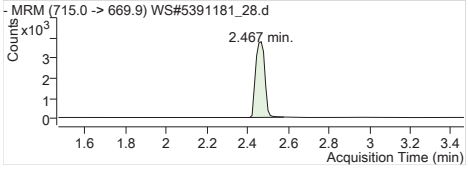


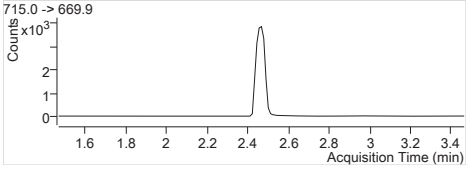
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 96.93 µg/L
Area ratio: 0.25327
Sample type: Sample



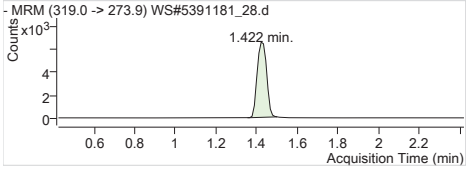


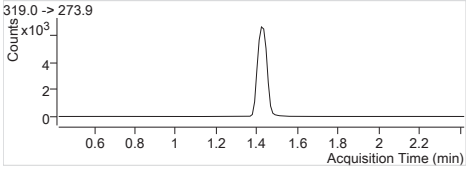
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 93.15 µg/L
Area ratio: 0.33314
Sample type: Sample



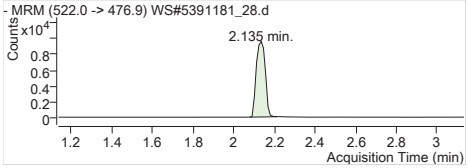


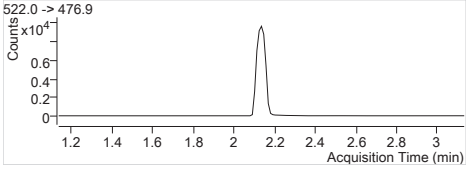
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 95.17 µg/L
Area ratio: 0.40085
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.35 µg/L
Area ratio: 0
Sample type: Sample





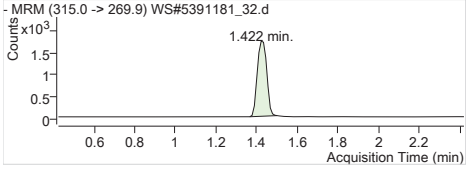
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.53 µg/L
Area ratio: 0
Sample type: Sample

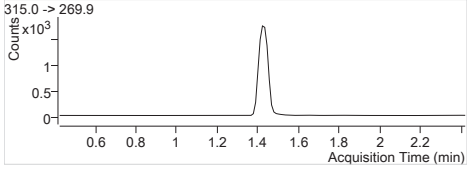
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_32.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C7
Acq. Date	2018/02/09 3:00:14 PM	**Injection Volume**	Per Method
Sample Annotation	-		

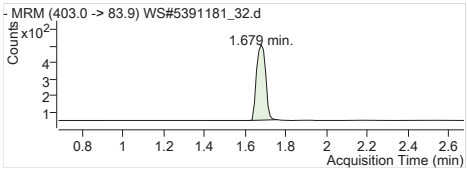
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5485	1.42	1 µg/L		
MPFHxS	1433	1.68	1 µg/L		
MPFHpA	7488	1.69	1 µg/L		
MPFOA	8081	1.88	1 µg/L		
MPFOS	1678	1.98	1 µg/L		
MPFNA	7597	2.01	1 µg/L		
MPFDA	6142	2.14	1 µg/L		
MPFUnA	7403	2.23	1 µg/L		
MPFDoA	9951	2.32	1 µg/L		
MPFTeDA	11698	2.47	1 µg/L		
13C6-PFHxA IS	21481	1.42	1 µg/L		
13C9-PFDA IS	29056	2.13	1 µg/L		

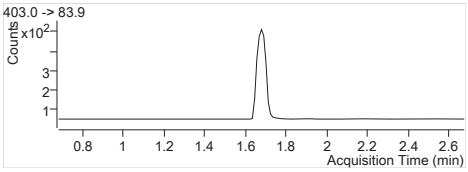
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5485	1.42	-	98.05 µg/L	-
18O2-PFHxS	1433	1.68	-	102.61 µg/L	-
13C4-PFHpA	7488	1.69	-	104.82 µg/L	-
13C4-PFOA	8081	1.88	-	107.36 µg/L	-
13C4-PFOS	1678	1.98	-	100.19 µg/L	-
13C5-PFNA	7597	2.01	-	99.95 µg/L	-
13C2-PFDA	6082	2.14	-	96.28 µg/L	-
13C2-PFUnA	7403	2.23	-	97.51 µg/L	-
13C2-PFDoA	9951	2.32	-	95.75 µg/L	-
13C2-PFTeDA	11973	2.47	-	97.84 µg/L	-
13C6-PFHxA	21481	1.42	-	2.40 µg/L	-
13C9-PFDA	29056	2.13	-	2.48 µg/L	-



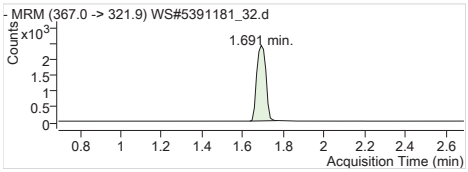


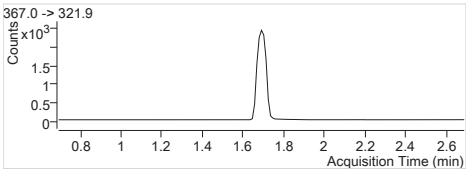
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



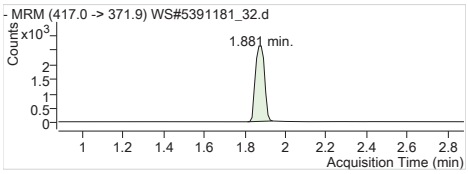


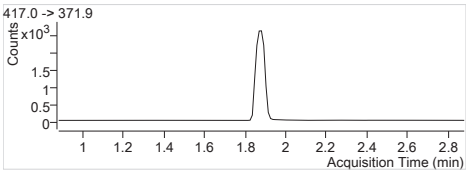
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



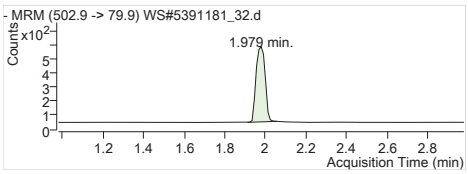


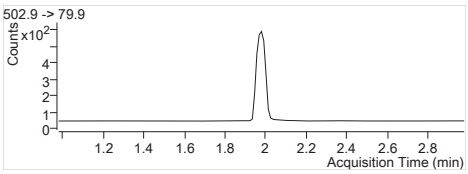
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



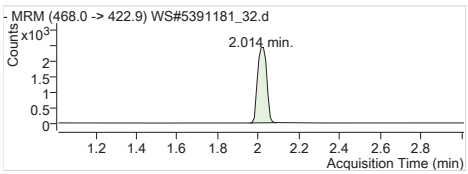


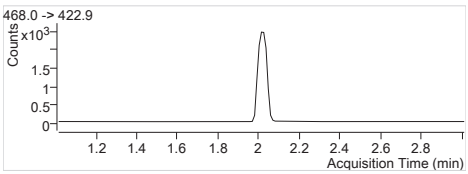
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



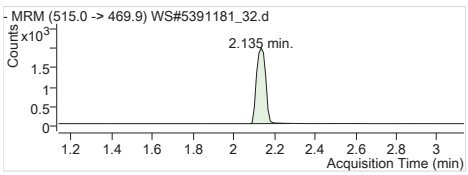


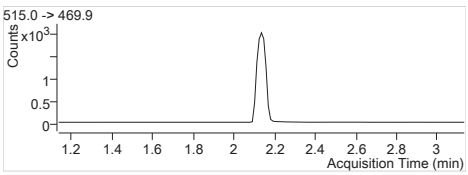
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



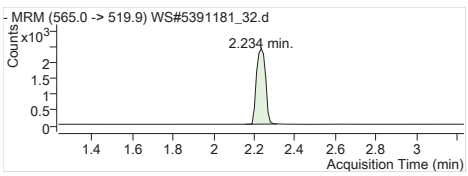


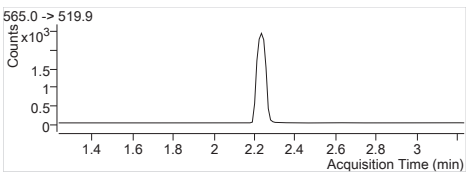
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



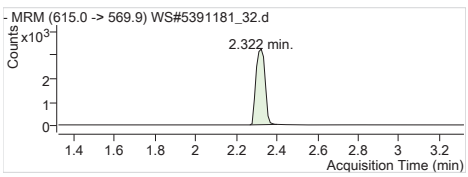


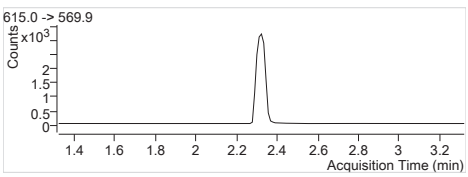
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



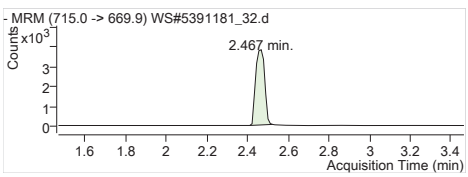


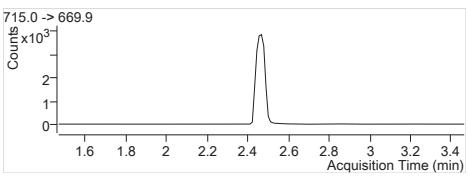
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



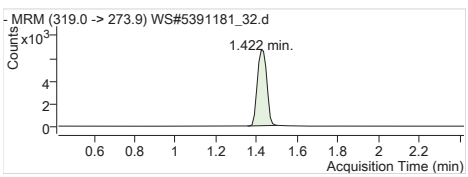


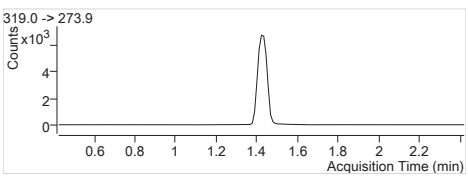
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



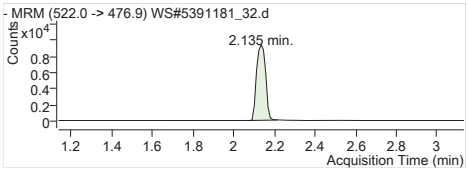


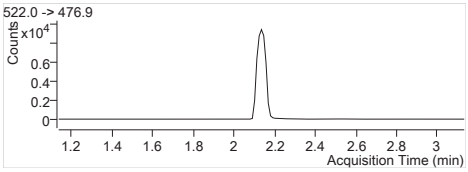
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



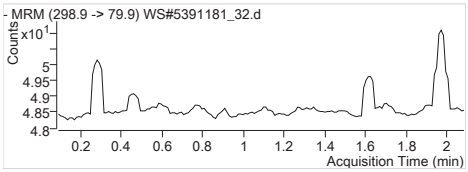


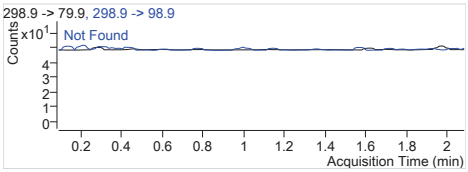
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



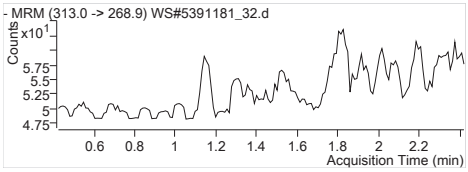


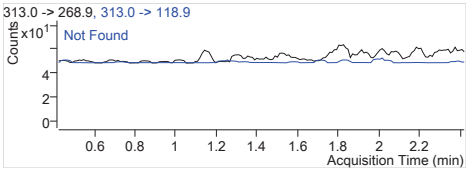
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



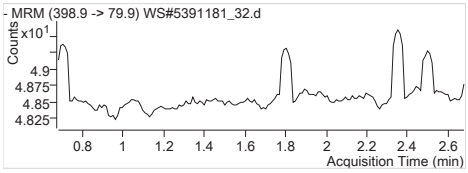


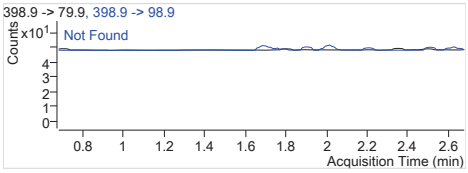
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



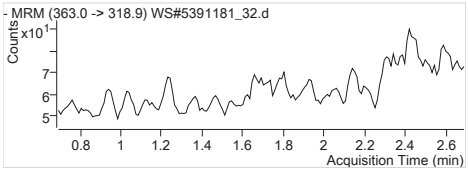


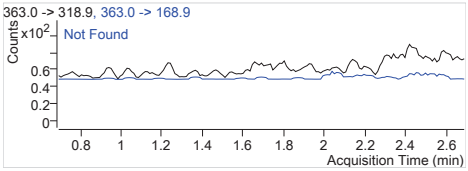
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



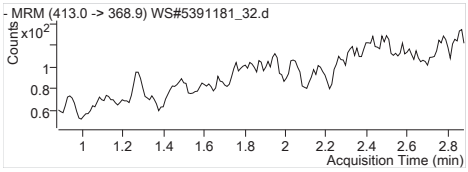


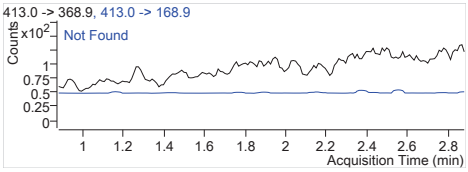
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



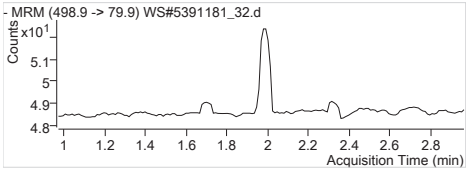


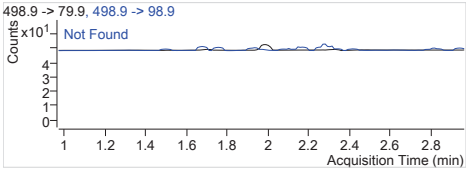
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



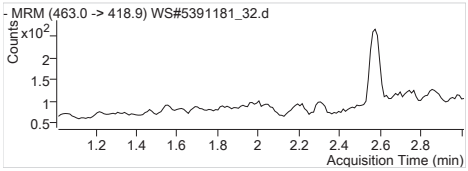


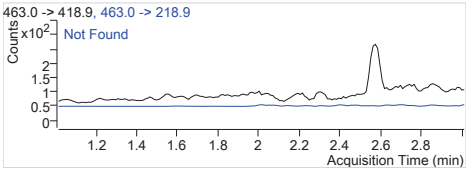
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



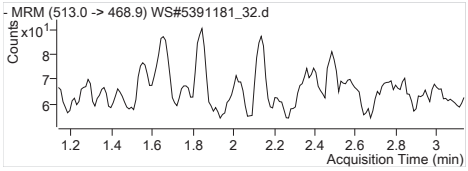


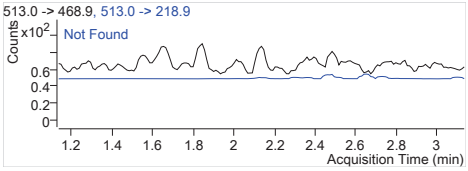
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



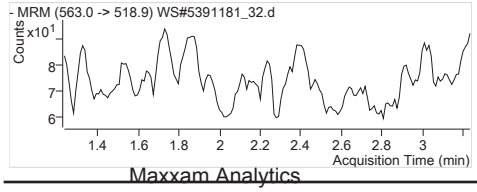


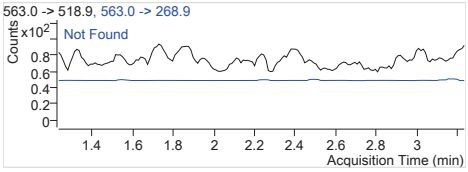
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



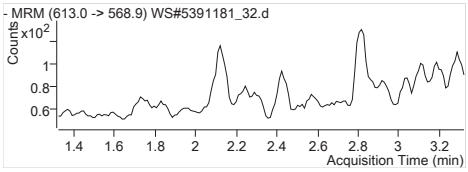


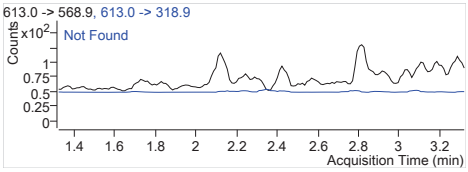
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



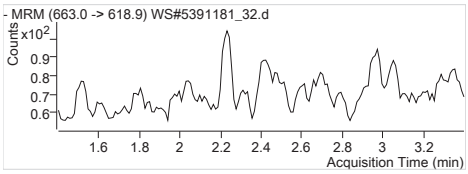


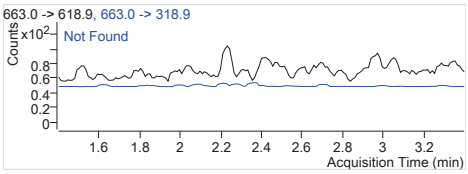
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



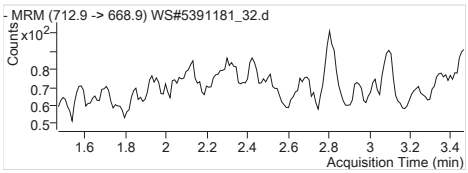


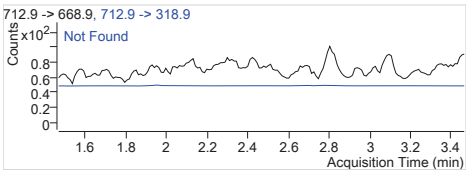
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



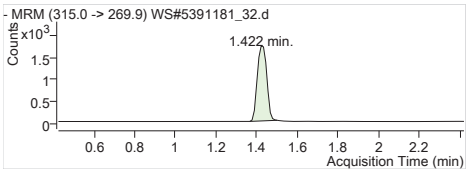


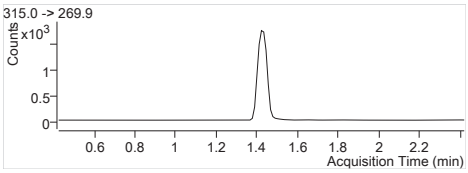
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



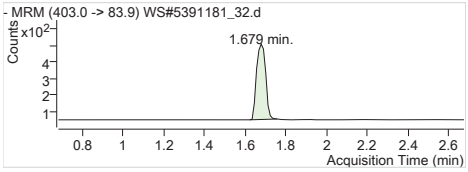


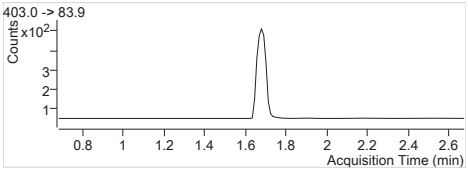
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



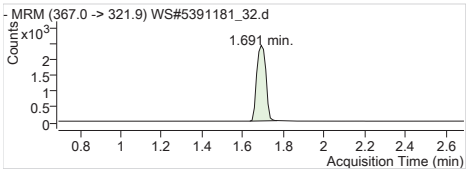


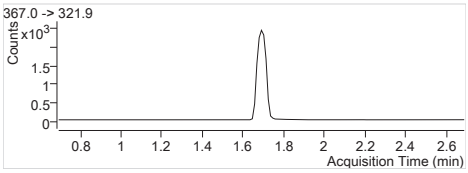
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	98.05 µg/L
Area ratio:	0.25534
Sample type:	Sample



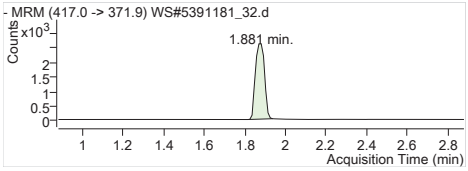


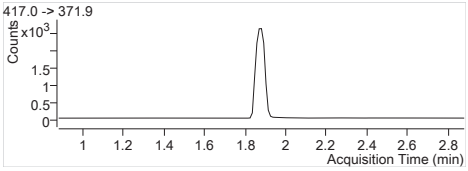
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	102.61 µg/L
Area ratio:	0.06671
Sample type:	Sample



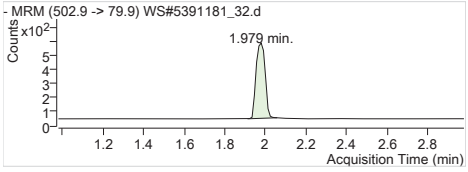


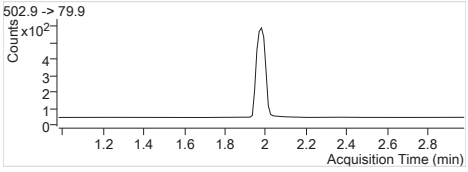
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	104.82 µg/L
Area ratio:	0.34859
Sample type:	Sample



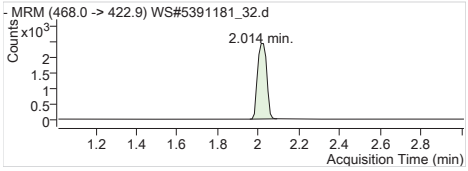


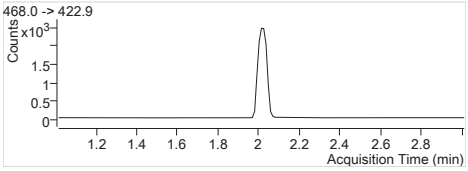
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	107.36 µg/L
Area ratio:	0.37619
Sample type:	Sample



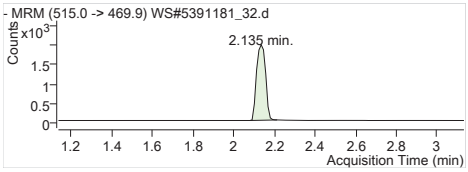


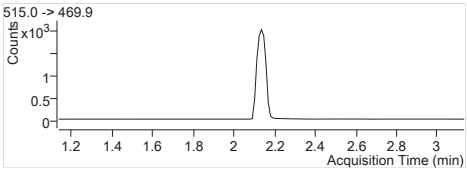
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	100.19 µg/L
Area ratio:	0.07812
Sample type:	Sample



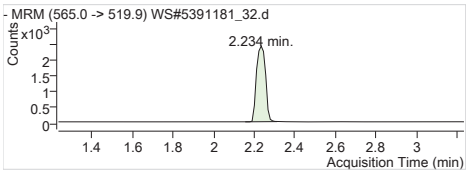


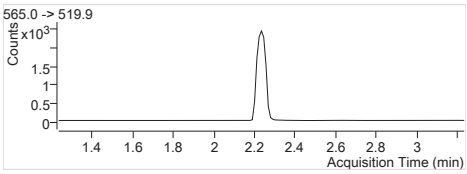
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	99.95 µg/L
Area ratio:	0.35366
Sample type:	Sample



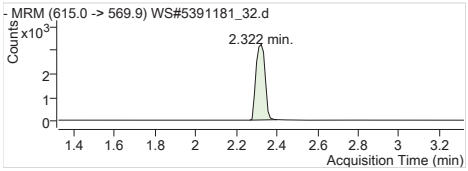


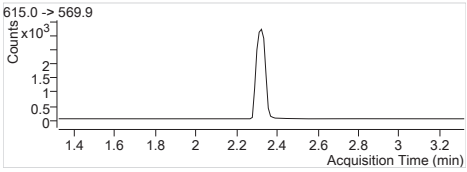
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 96.28 µg/L
Area ratio: 0.20932
Sample type: Sample



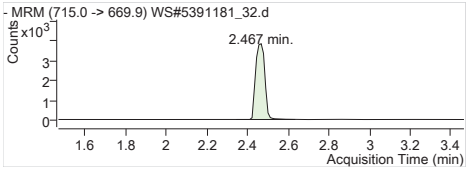


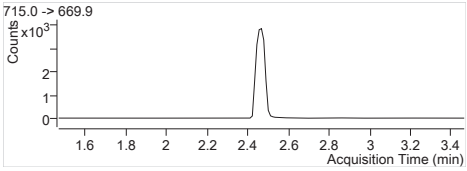
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 97.51 µg/L
Area ratio: 0.25478
Sample type: Sample



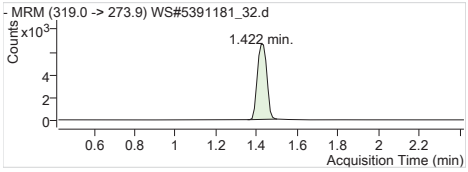


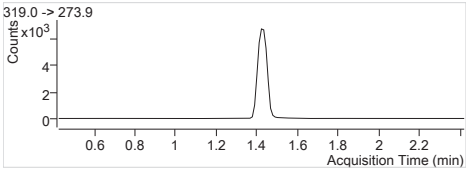
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 95.75 µg/L
Area ratio: 0.34248
Sample type: Sample



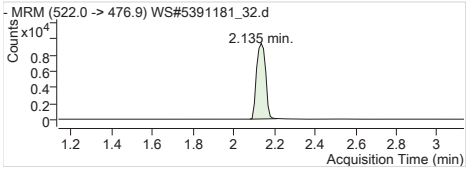


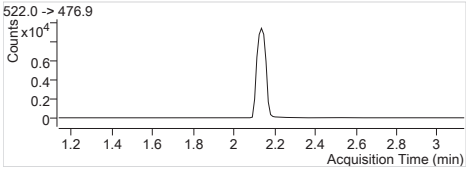
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 97.84 µg/L
Area ratio: 0.41207
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.40 µg/L
Area ratio: 0
Sample type: Sample





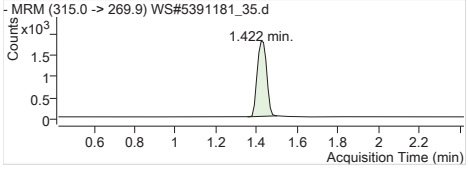
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.48 µg/L
Area ratio: 0
Sample type: Sample

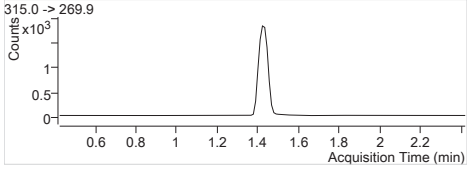
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_35.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C7
Acq. Date	2018/02/09 3:15:02 PM	**Injection Volume**	Per Method
Sample Annotation	-		

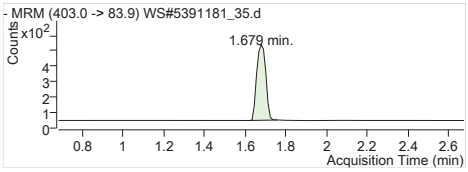
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5747	1.42	1 µg/L		
MPFHxS	1523	1.68	1 µg/L		
MPFHpA	7223	1.69	1 µg/L		
MPFOA	7910	1.88	1 µg/L		
MPFOS	1769	1.98	1 µg/L		
MPFNA	7667	2.01	1 µg/L		
MPFDA	6557	2.14	1 µg/L		
MPFUnA	7383	2.23	1 µg/L		
MPFDoA	10827	2.32	1 µg/L		
MPFTeDA	12048	2.47	1 µg/L		
13C6-PFHxA IS	22099	1.42	1 µg/L		
13C9-PFDA IS	28898	2.13	1 µg/L		

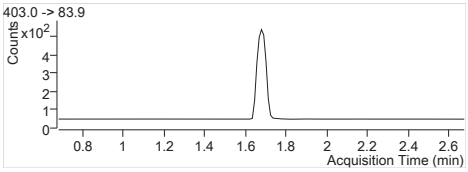
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5747	1.42	-	99.87 µg/L	-
18O2-PFHxS	1523	1.68	-	106.01 µg/L	-
13C4-PFHpA	7223	1.69	-	98.28 µg/L	-
13C4-PFOA	7910	1.88	-	102.15 µg/L	-
13C4-PFOS	1769	1.98	-	102.67 µg/L	-
13C5-PFNA	7667	2.01	-	98.05 µg/L	-
13C2-PFDA	6542	2.14	-	104.13 µg/L	-
13C2-PFUnA	7383	2.23	-	97.78 µg/L	-
13C2-PFDoA	10827	2.32	-	104.75 µg/L	-
13C2-PFTeDA	12381	2.47	-	101.72 µg/L	-
13C6-PFHxA	22099	1.42	-	2.47 µg/L	-
13C9-PFDA	28898	2.13	-	2.47 µg/L	-



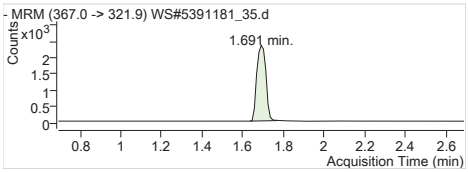


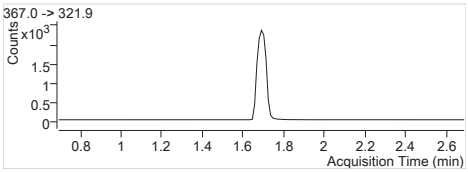
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



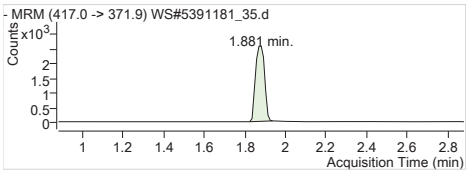


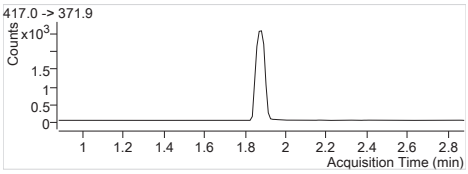
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



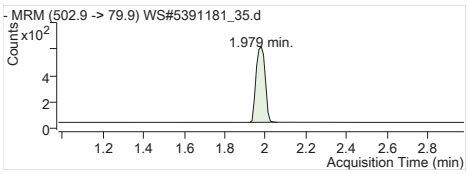


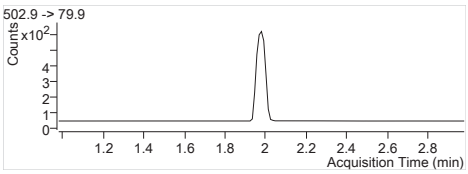
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



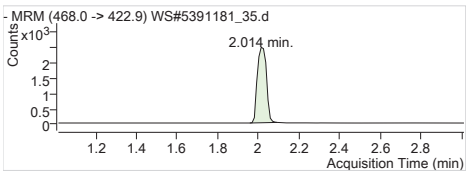


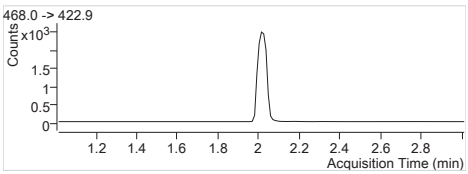
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



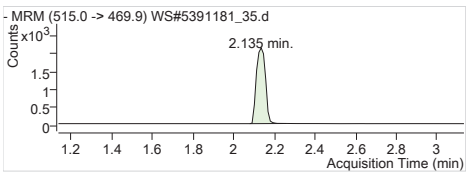


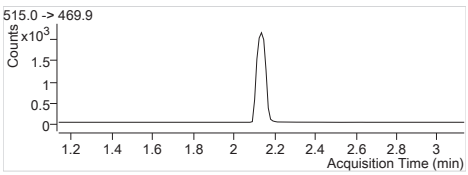
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



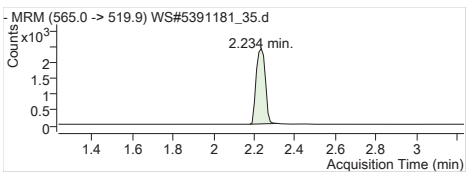


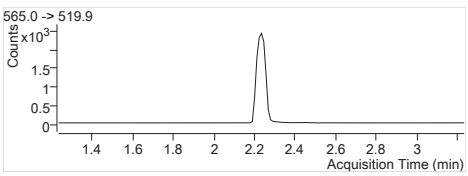
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



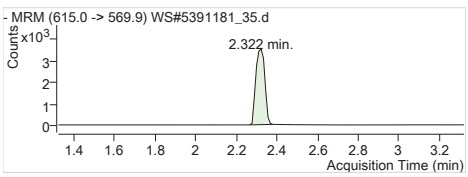


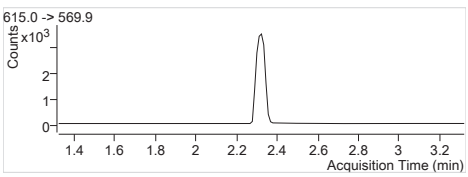
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



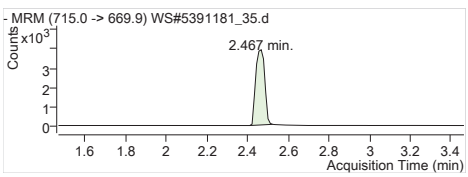


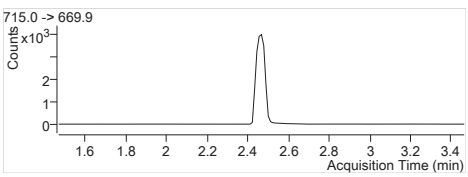
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



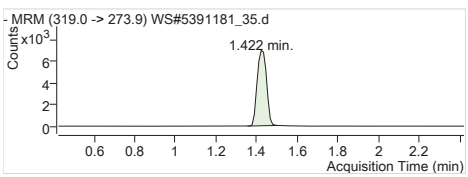


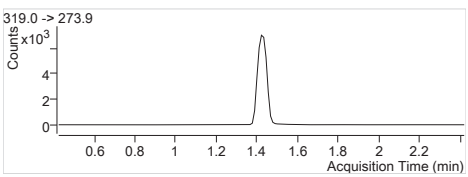
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



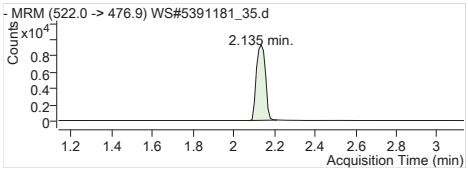


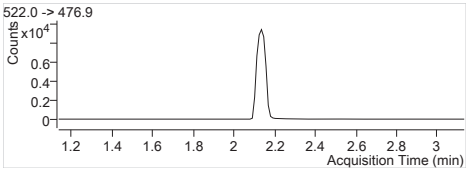
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



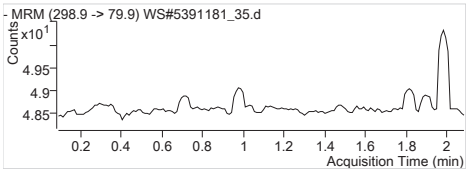


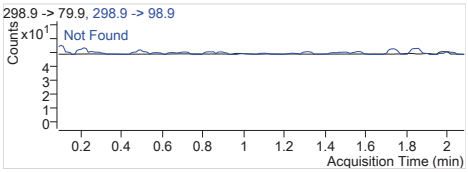
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



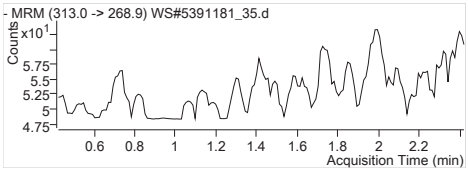


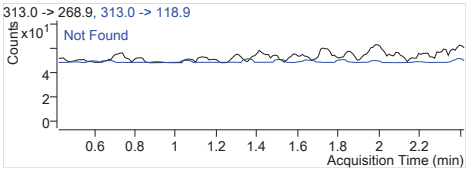
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



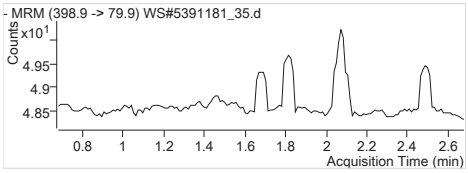


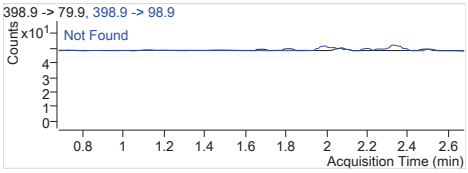
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



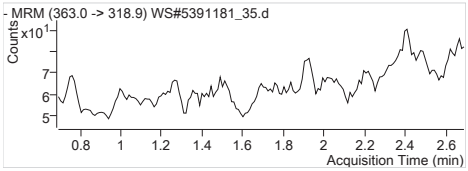


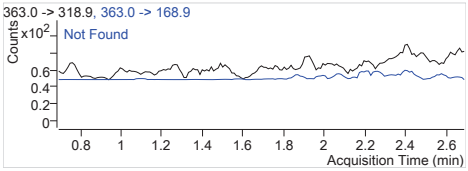
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



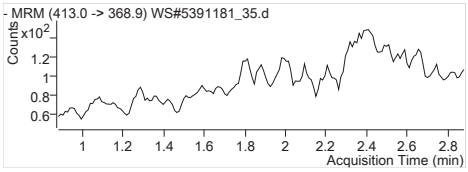


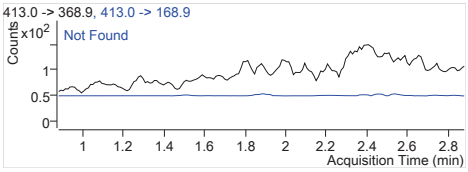
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



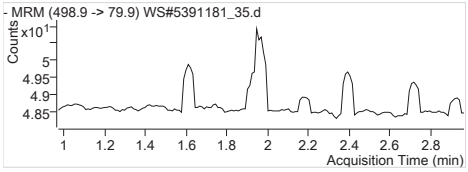


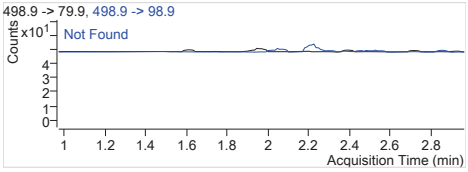
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



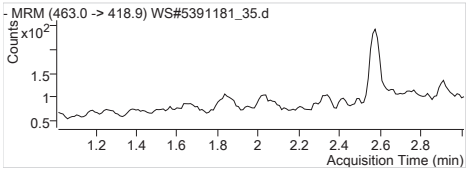


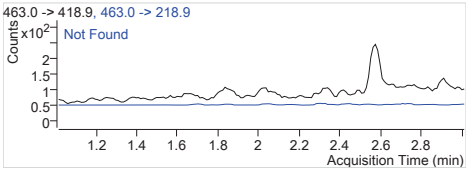
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



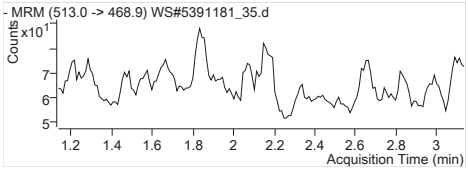


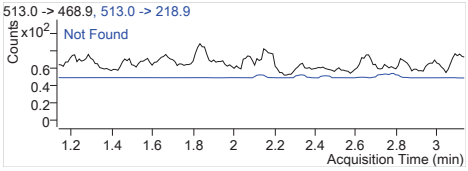
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



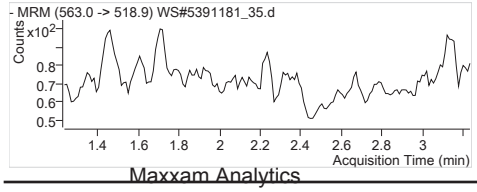


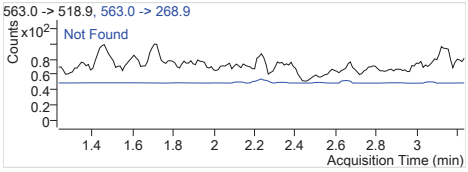
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



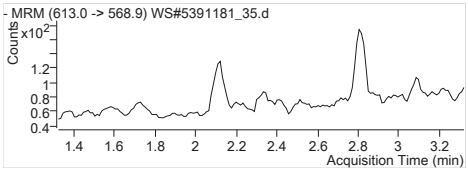


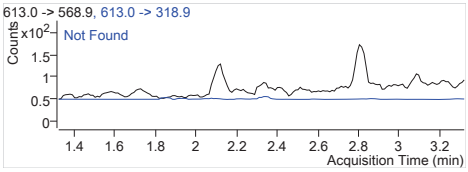
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



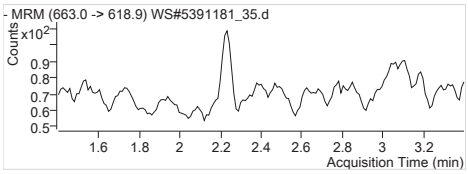


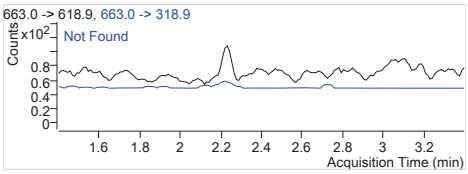
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



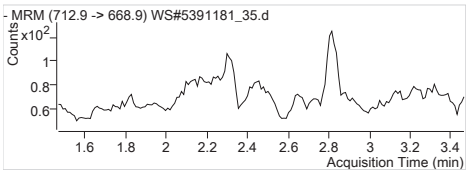


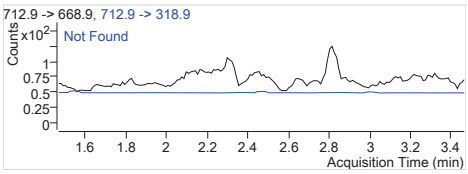
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



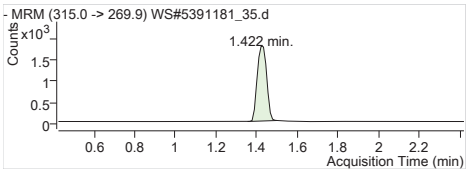


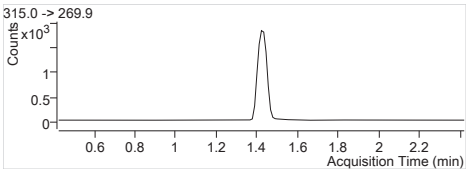
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



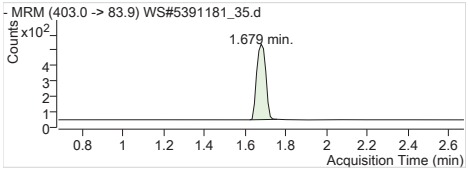


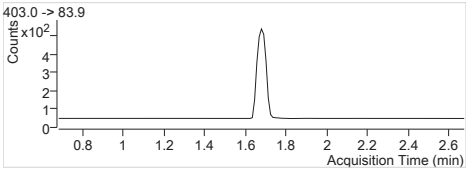
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



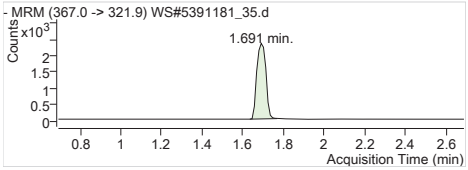


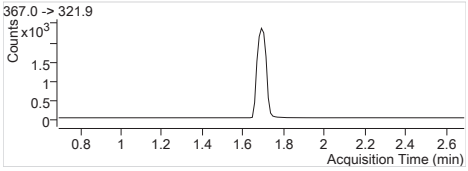
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 99.87 µg/L
Area ratio: 0.26006
Sample type: Sample



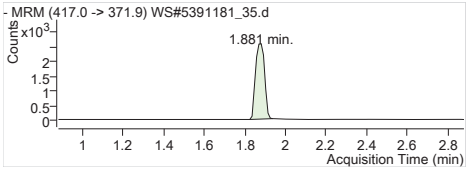


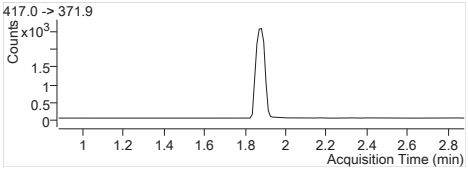
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 106.01 µg/L
Area ratio: 0.06892
Sample type: Sample



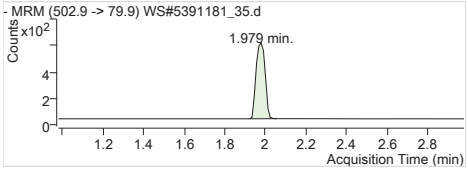


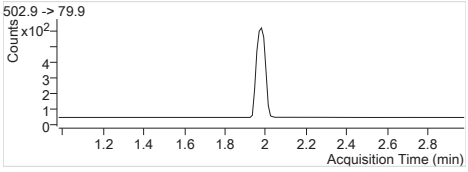
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 98.28 µg/L
Area ratio: 0.32685
Sample type: Sample



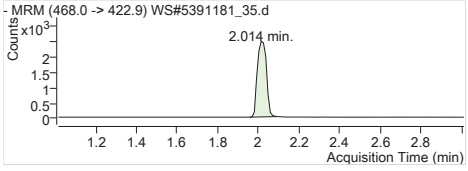


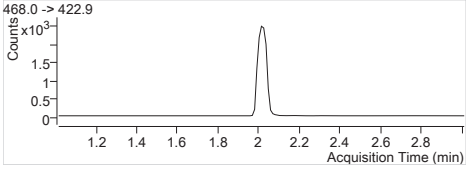
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 102.15 µg/L
Area ratio: 0.35793
Sample type: Sample



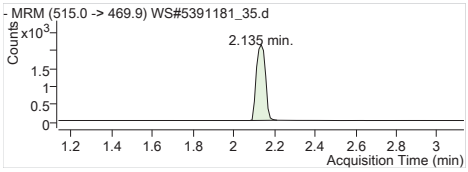


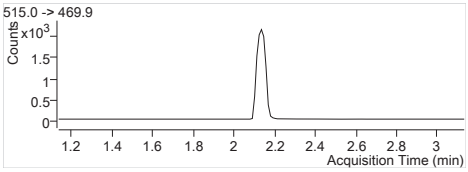
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 102.67 µg/L
Area ratio: 0.08005
Sample type: Sample



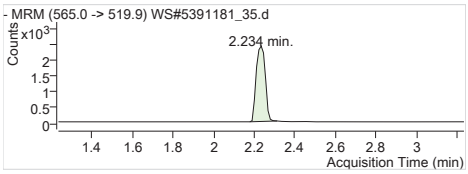


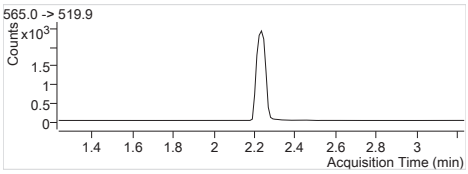
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 98.05 µg/L
Area ratio: 0.34694
Sample type: Sample



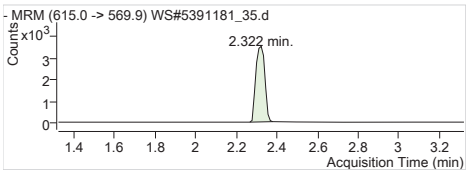


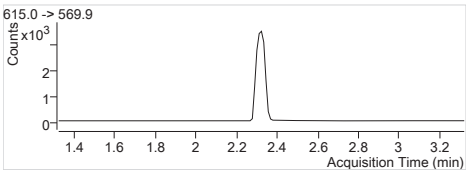
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 104.13 µg/L
Area ratio: 0.22638
Sample type: Sample



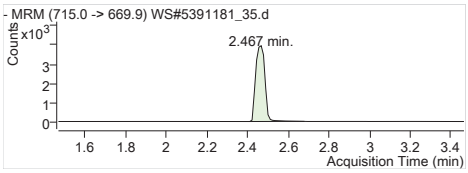


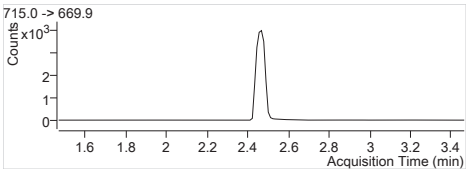
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 97.78 µg/L
Area ratio: 0.25548
Sample type: Sample



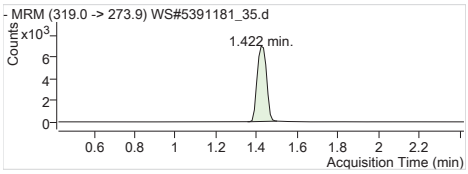


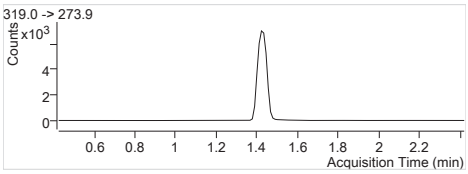
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 104.75 µg/L
Area ratio: 0.37466
Sample type: Sample



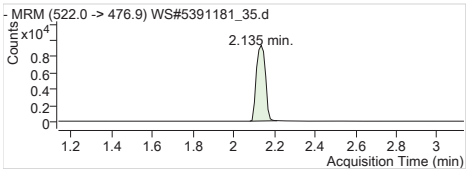


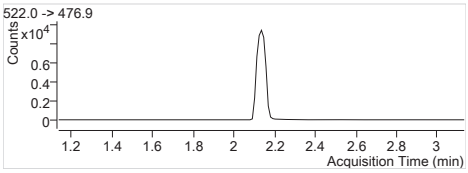
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 101.72 µg/L
Area ratio: 0.42844
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.47 µg/L
Area ratio: 0
Sample type: Sample





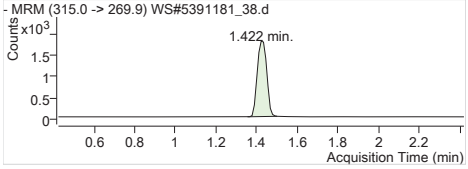
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.47 µg/L
Area ratio: 0
Sample type: Sample

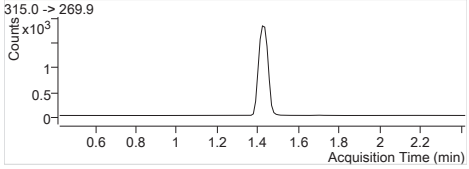
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_38.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C7
Acq. Date	2018/02/09 3:29:50 PM	**Injection Volume**	Per Method
Sample Annotation	-		

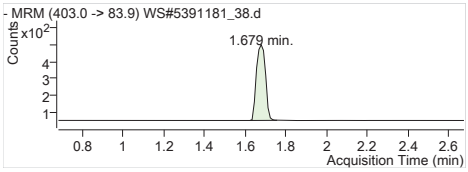
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5786	1.42	1 µg/L		
MPFHxS	1406	1.68	1 µg/L		
MPFHpA	7540	1.69	1 µg/L		
MPFOA	7673	1.87	1 µg/L		
MPFOS	1648	1.98	1 µg/L		
MPFNA	7215	2.01	1 µg/L		
MPFDA	6305	2.14	1 µg/L		
MPFUnA	7721	2.23	1 µg/L		
MPFDoA	10772	2.32	1 µg/L		
MPFTeDA	11416	2.47	1 µg/L		
13C6-PFHxA IS	21579	1.42	1 µg/L		
13C9-PFDA IS	29029	2.13	1 µg/L		

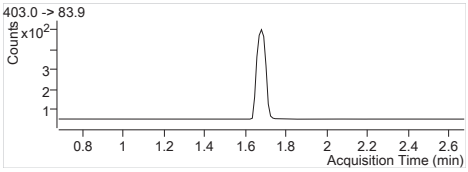
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5786	1.42	-	102.97 µg/L	-
18O2-PFHxS	1406	1.68	-	100.22 µg/L	-
13C4-PFHpA	7540	1.69	-	105.07 µg/L	-
13C4-PFOA	7673	1.87	-	101.48 µg/L	-
13C4-PFOS	1648	1.98	-	97.95 µg/L	-
13C5-PFNA	7214	2.01	-	94.48 µg/L	-
13C2-PFDA	6216	2.14	-	98.49 µg/L	-
13C2-PFUnA	7721	2.23	-	101.79 µg/L	-
13C2-PFDoA	10772	2.32	-	103.75 µg/L	-
13C2-PFTeDA	11680	2.47	-	95.53 µg/L	-
13C6-PFHxA	21579	1.42	-	2.41 µg/L	-
13C9-PFDA	29029	2.13	-	2.48 µg/L	-



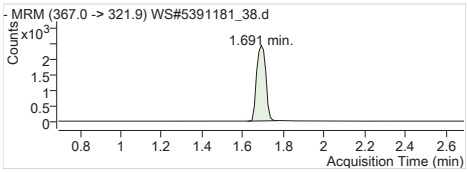


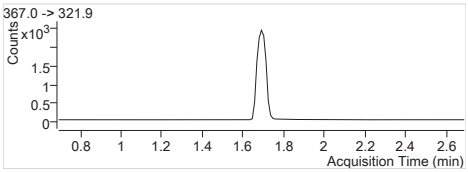
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



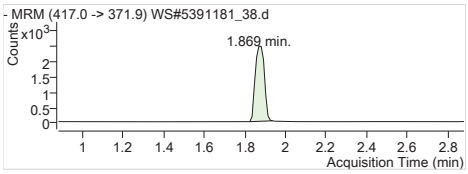


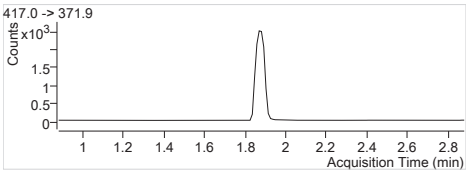
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



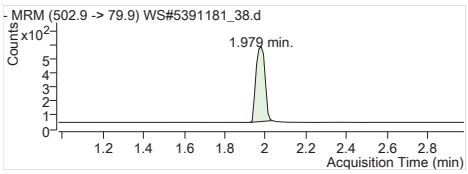


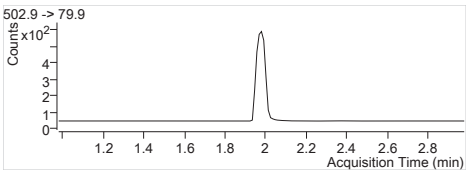
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



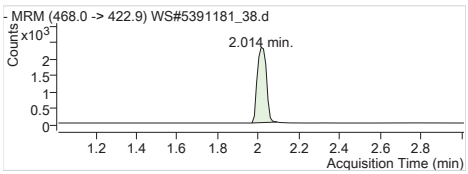


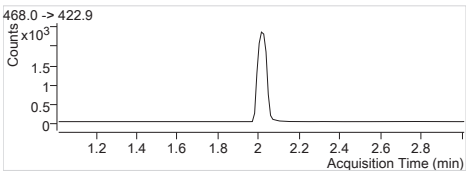
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



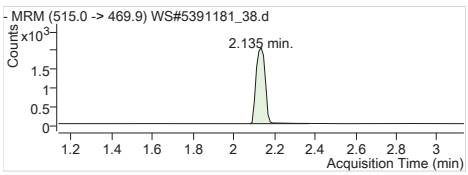


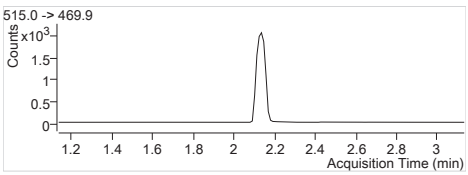
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



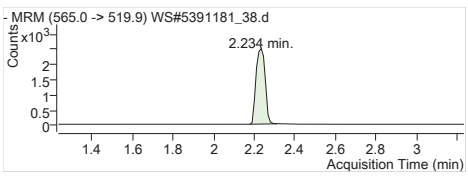


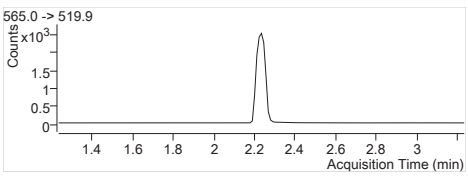
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



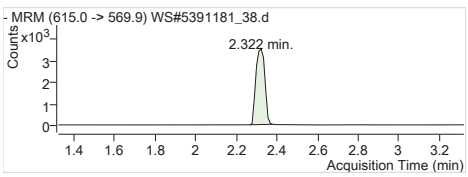


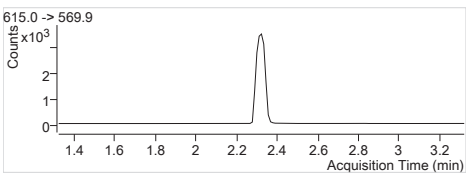
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



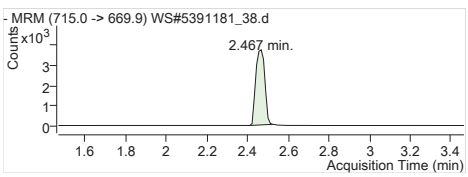


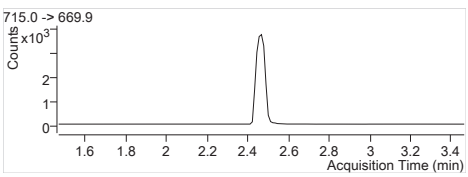
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



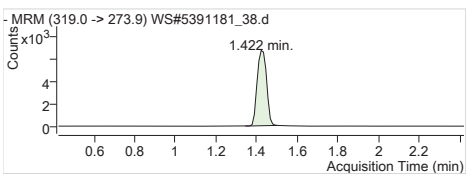


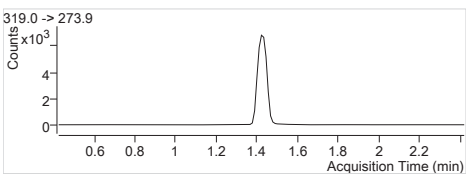
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



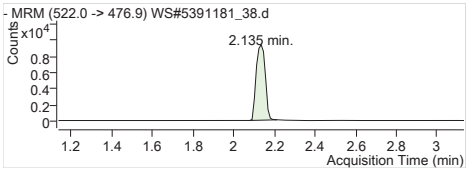


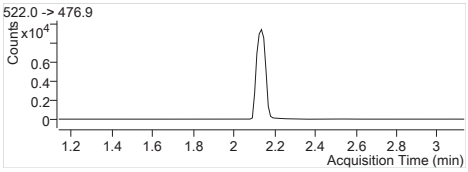
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



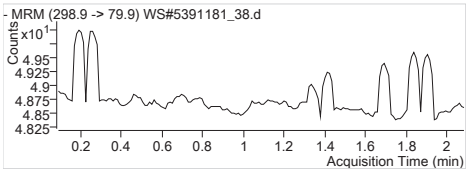


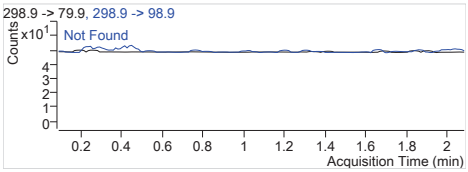
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



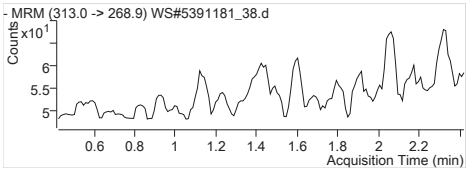


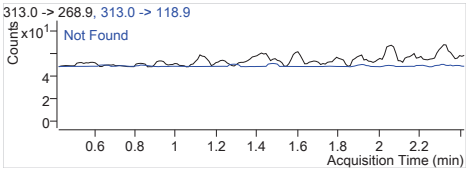
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



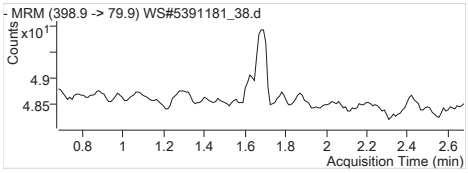


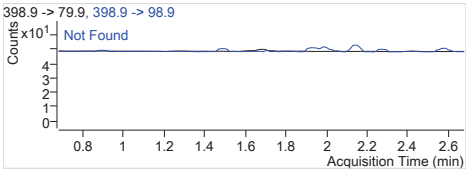
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



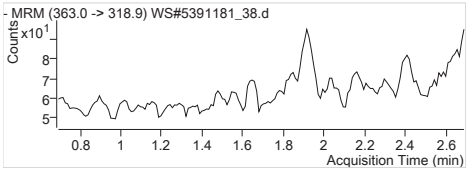


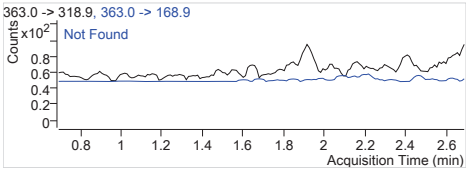
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



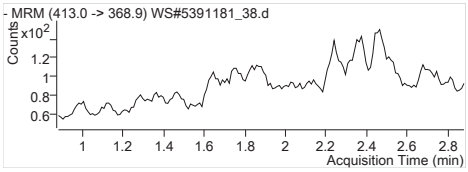


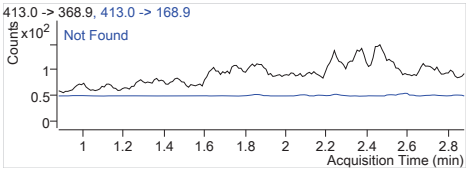
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



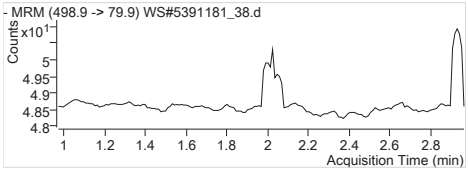


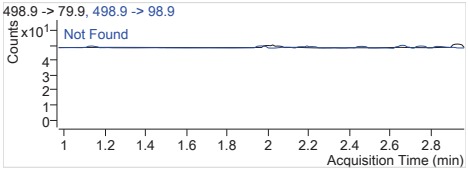
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



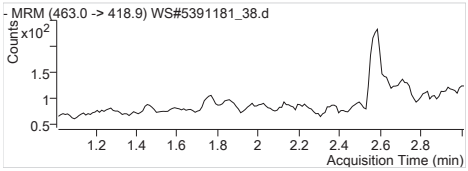


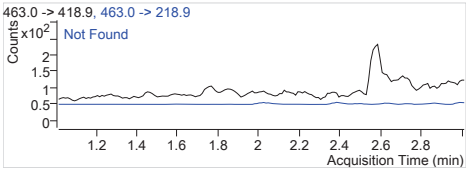
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



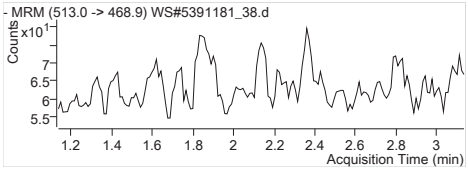


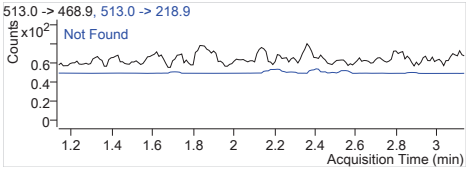
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



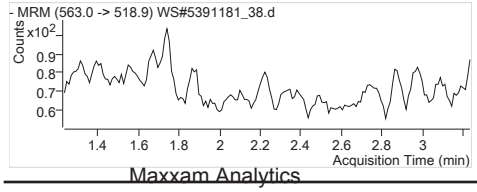


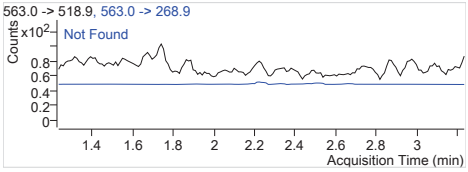
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



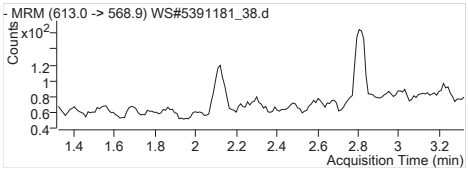


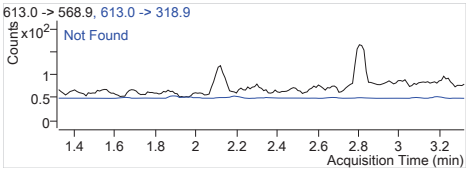
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



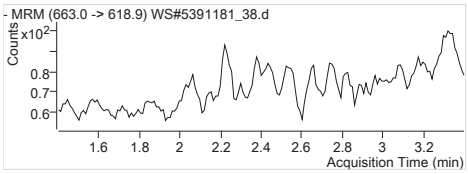


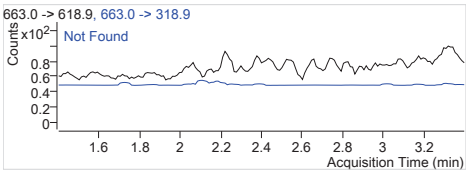
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



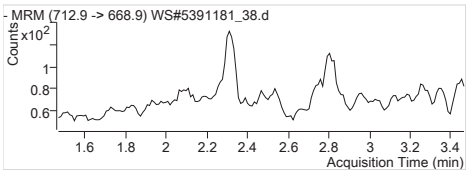


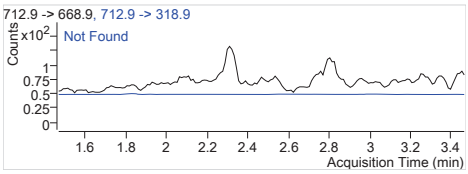
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 0.000 (2.323)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



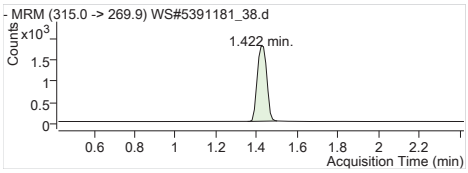


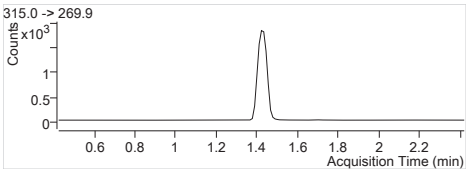
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 0.000 (2.400)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



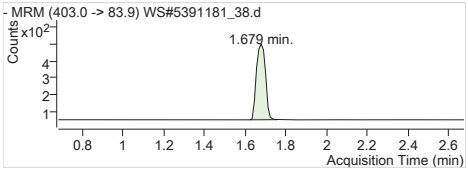


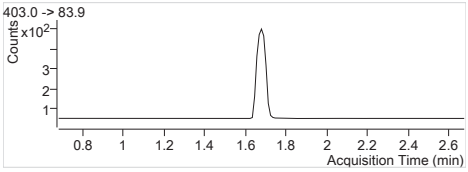
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



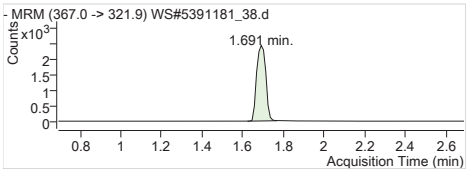


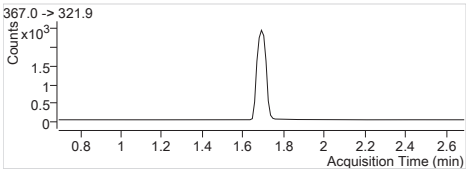
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 102.97 µg/L
Area ratio: 0.26813
Sample type: Sample



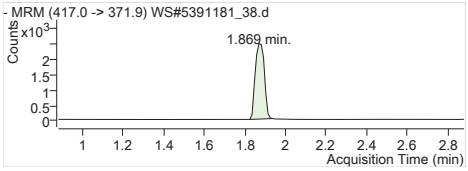


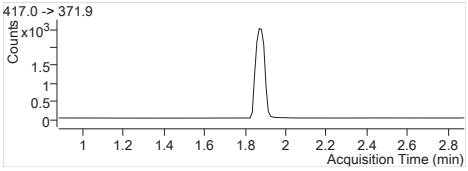
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 100.22 µg/L
Area ratio: 0.06516
Sample type: Sample



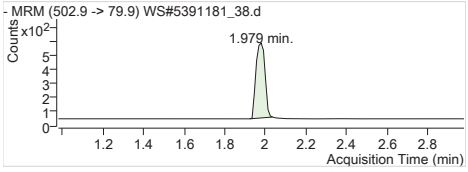


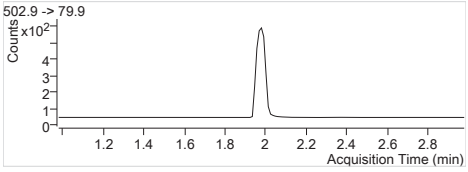
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 105.07 µg/L
Area ratio: 0.34941
Sample type: Sample



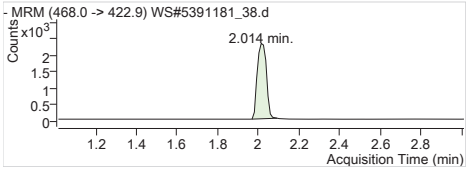


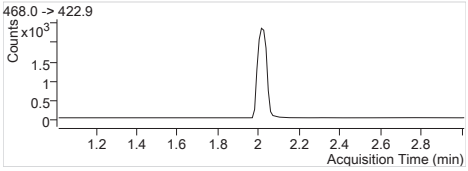
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 101.48 µg/L
Area ratio: 0.35558
Sample type: Sample



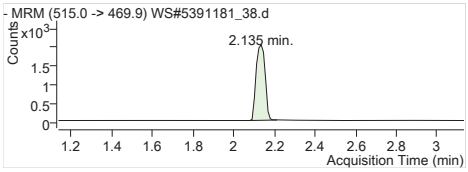


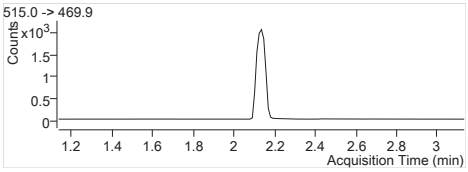
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 97.95 µg/L
Area ratio: 0.07637
Sample type: Sample



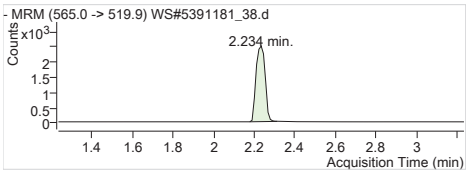


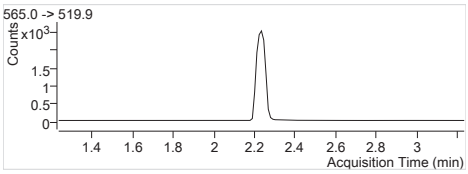
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 94.48 µg/L
Area ratio: 0.33431
Sample type: Sample



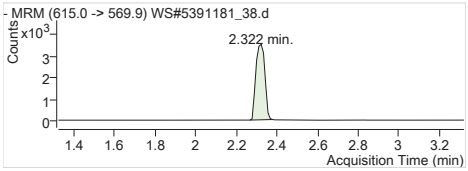


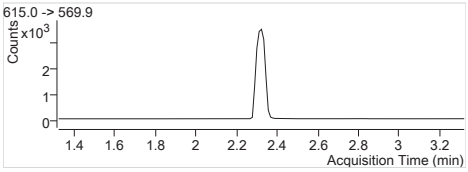
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 98.49 µg/L
Area ratio: 0.21413
Sample type: Sample



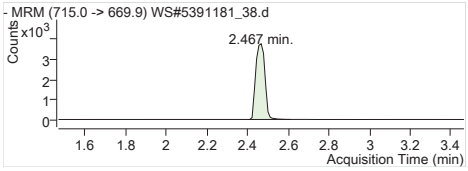


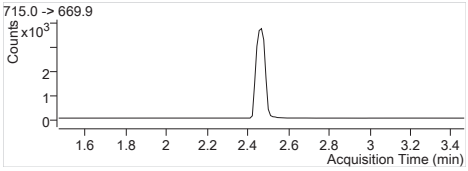
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 101.79 µg/L
Area ratio: 0.26598
Sample type: Sample



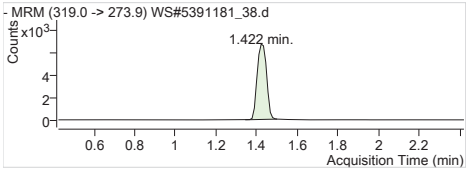


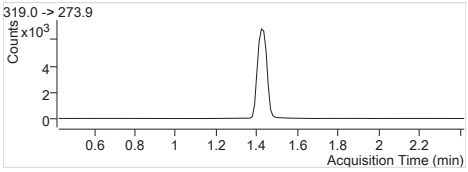
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 103.75 µg/L
Area ratio: 0.37108
Sample type: Sample



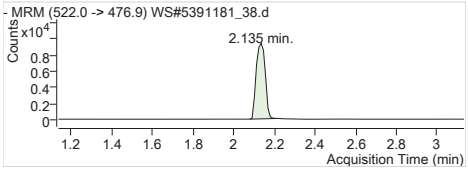


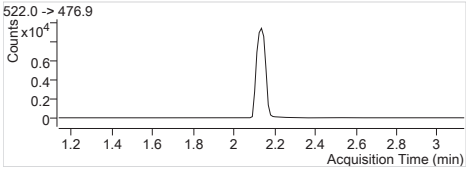
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 95.53 µg/L
Area ratio: 0.40236
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.41 µg/L
Area ratio: 0
Sample type: Sample





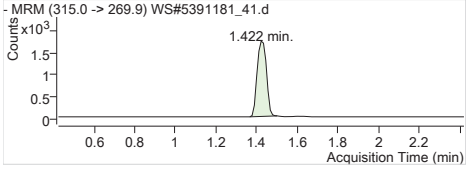
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.48 µg/L
Area ratio: 0
Sample type: Sample

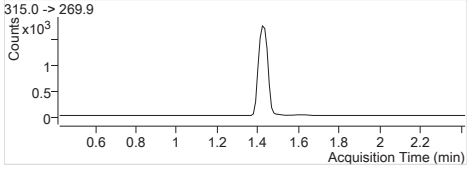
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_41.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C7
Acq. Date	2018/02/09 3:44:38 PM	**Injection Volume**	Per Method
Sample Annotation	-		

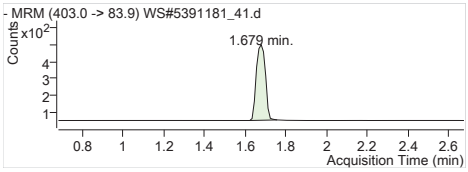
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5433	1.42	1 µg/L		
MPFHxS	1405	1.68	1 µg/L		
MPFHpA	7414	1.69	1 µg/L		
MPFOA	8043	1.88	1 µg/L		
MPFOS	1747	1.98	1 µg/L		
MPFNA	7807	2.01	1 µg/L		
MPFDA	6899	2.14	1 µg/L		
MPFUnA	7486	2.23	1 µg/L		
MPFDoA	10371	2.32	1 µg/L		
MPFTeDA	11484	2.47	1 µg/L		
13C6-PFHxA IS	22089	1.42	1 µg/L		
13C9-PFDA IS	28204	2.13	1 µg/L		

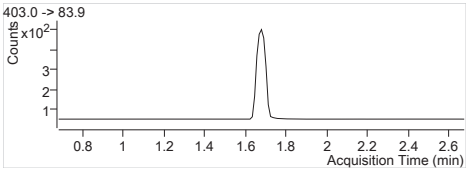
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5433	1.42	-	94.45 µg/L	-
18O2-PFHxS	1405	1.68	-	97.84 µg/L	-
13C4-PFHpA	7414	1.69	-	100.93 µg/L	-
13C4-PFOA	8043	1.88	-	103.92 µg/L	-
13C4-PFOS	1747	1.98	-	101.44 µg/L	-
13C5-PFNA	7808	2.01	-	99.90 µg/L	-
13C2-PFDA	6820	2.14	-	111.22 µg/L	-
13C2-PFUnA	7486	2.23	-	101.58 µg/L	-
13C2-PFDoA	10371	2.32	-	102.81 µg/L	-
13C2-PFTeDA	11816	2.47	-	99.47 µg/L	-
13C6-PFHxA	22089	1.42	-	2.47 µg/L	-
13C9-PFDA	28204	2.13	-	2.41 µg/L	-



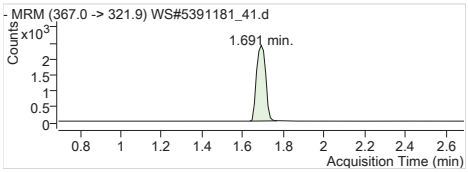


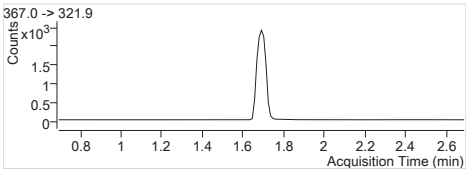
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



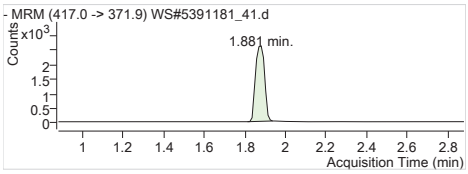


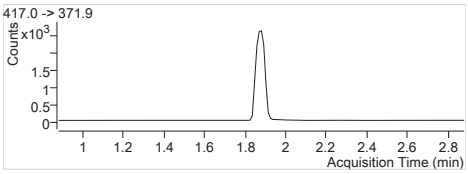
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



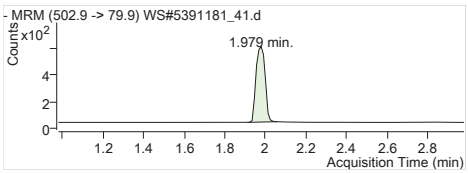


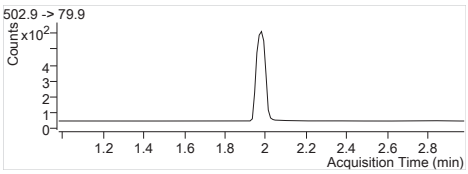
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



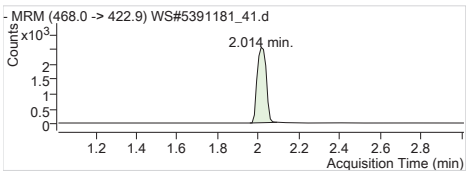


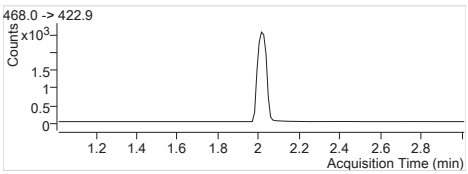
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



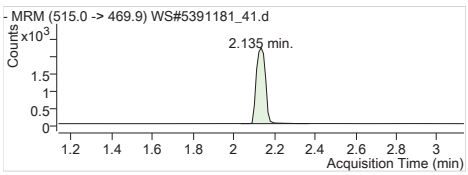


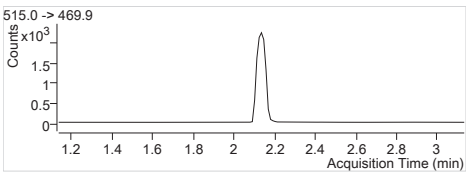
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



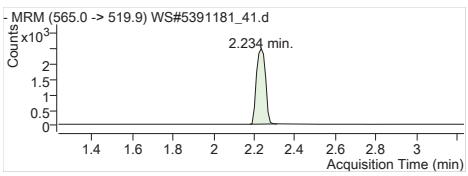


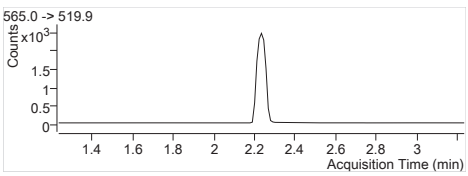
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



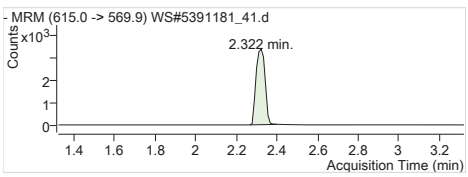


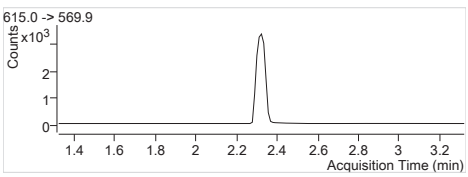
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



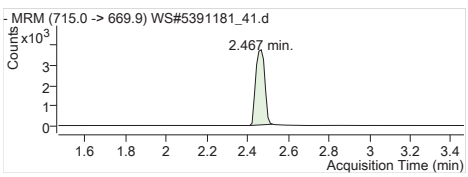


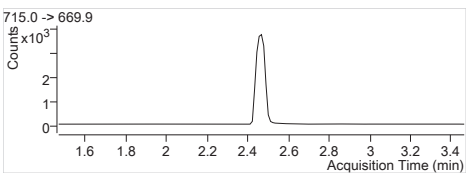
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



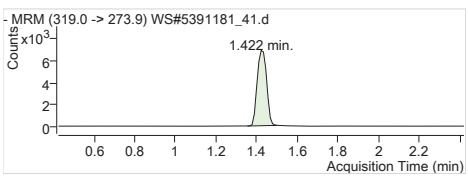


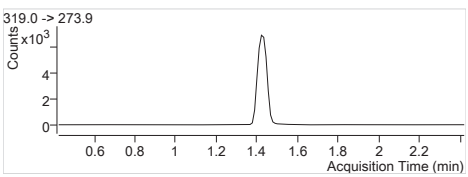
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



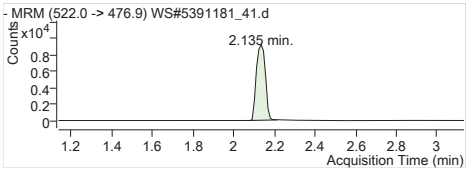


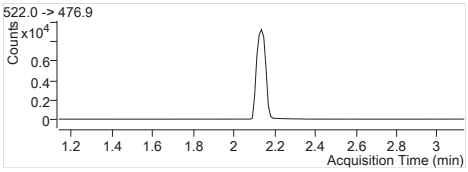
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



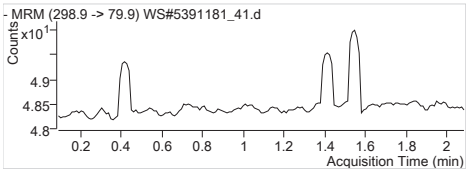


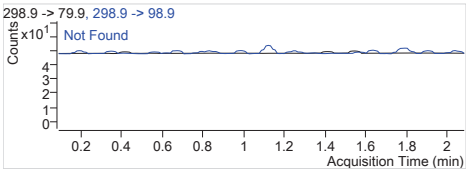
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



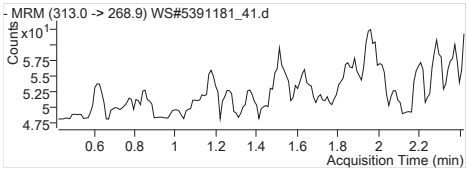


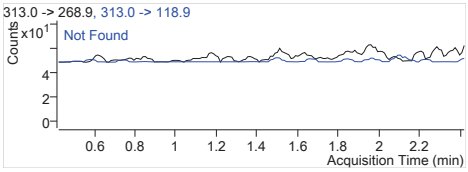
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



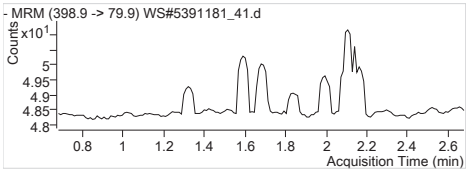


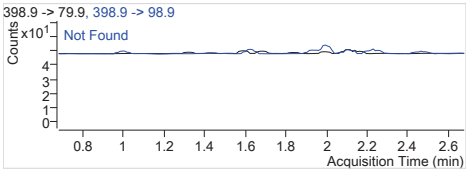
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



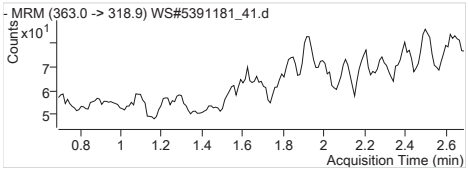


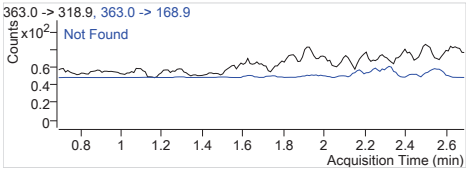
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



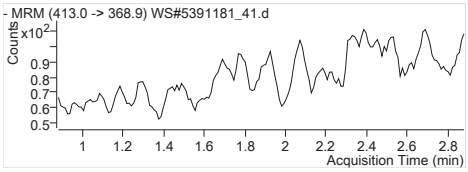


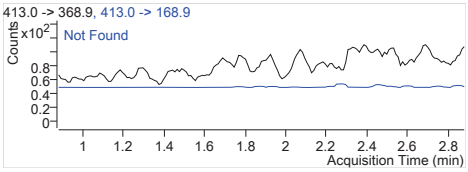
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



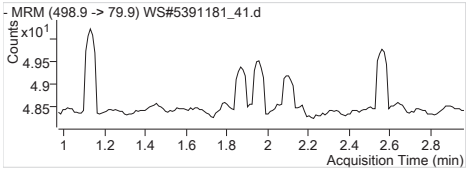


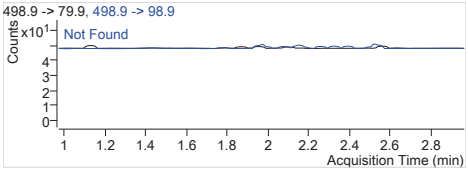
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



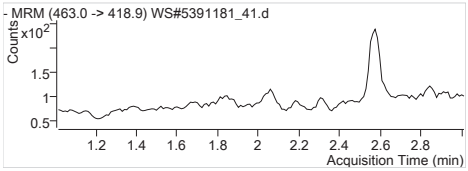


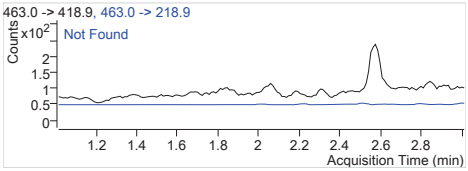
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



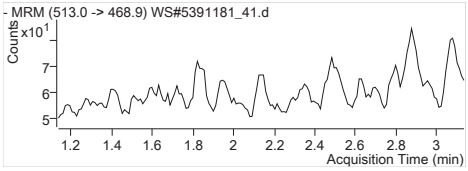


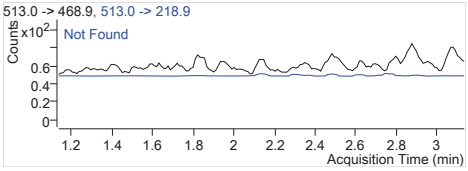
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



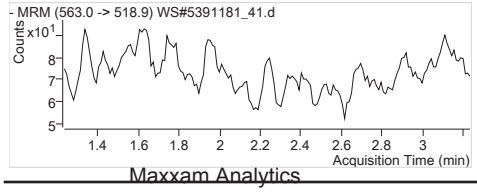


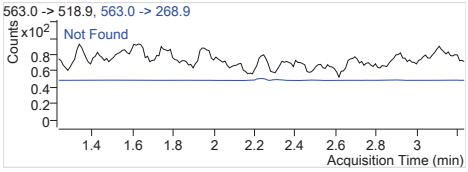
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



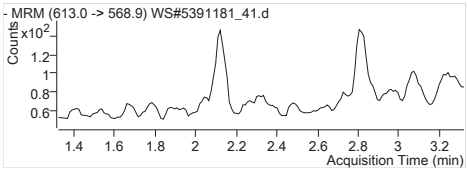


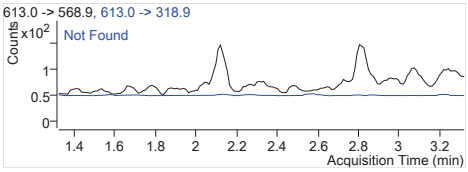
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



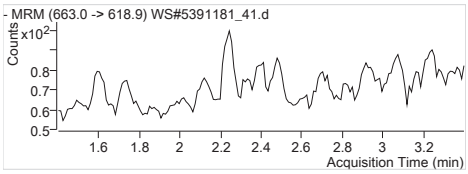


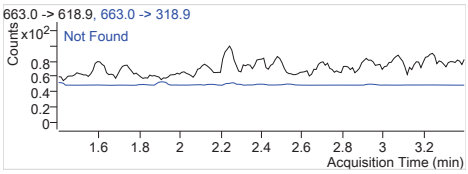
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



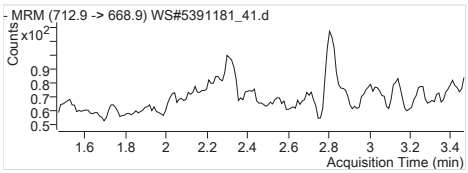


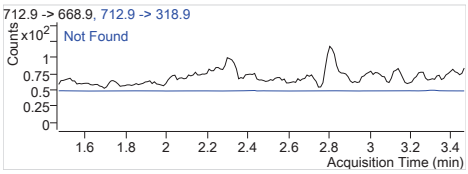
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



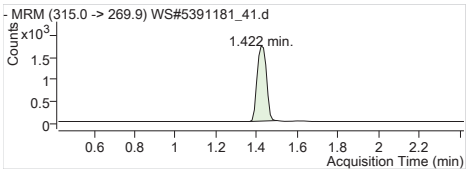


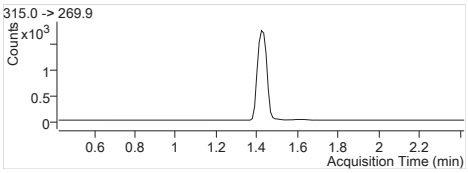
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



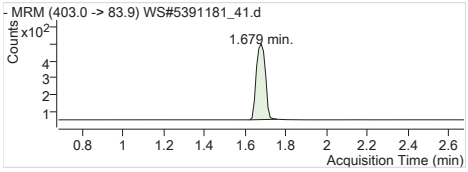


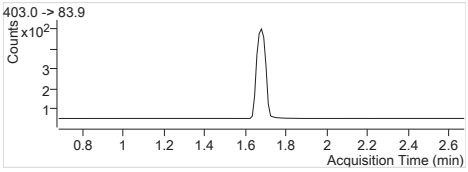
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



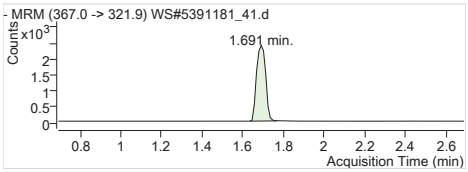


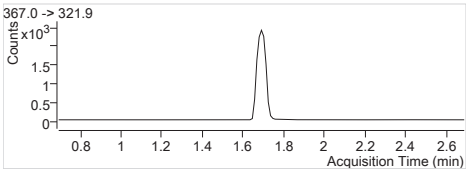
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	94.45 µg/L
Area ratio:	0.24596
Sample type:	Sample



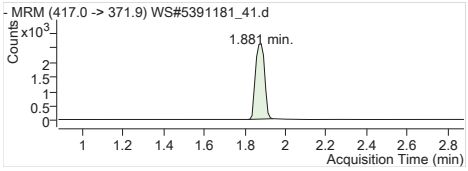


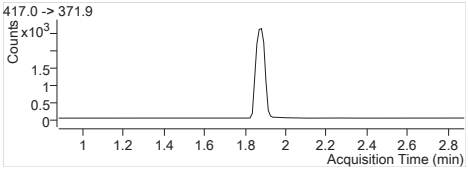
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	97.84 µg/L
Area ratio:	0.06361
Sample type:	Sample



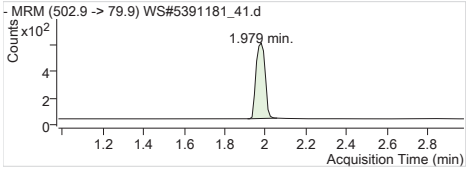


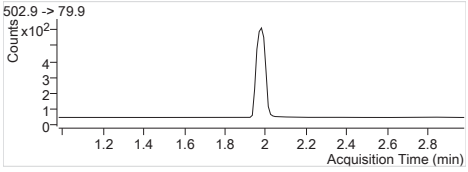
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	100.93 µg/L
Area ratio:	0.33564
Sample type:	Sample



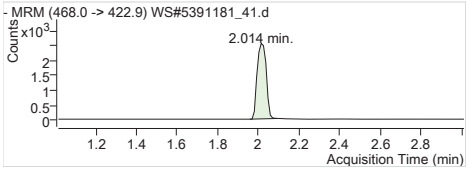


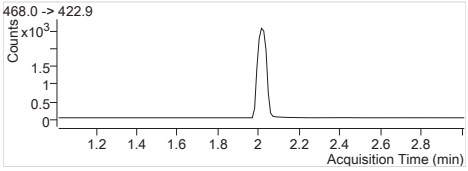
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	103.92 µg/L
Area ratio:	0.36412
Sample type:	Sample



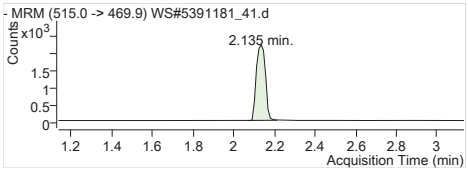


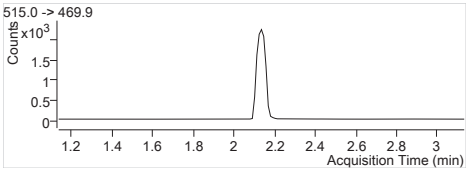
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	101.44 µg/L
Area ratio:	0.07909
Sample type:	Sample



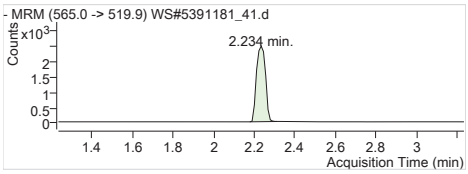


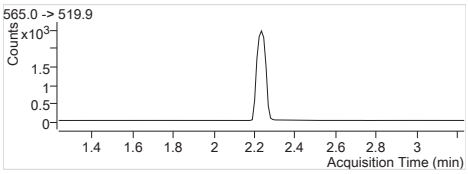
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	99.90 µg/L
Area ratio:	0.35348
Sample type:	Sample



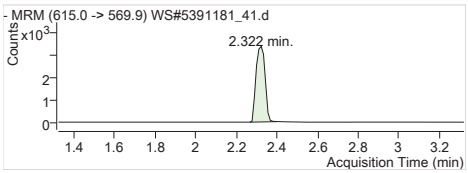


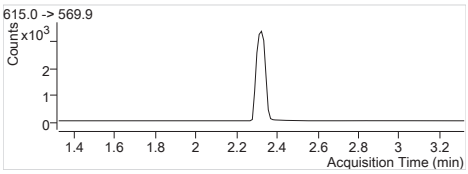
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 111.22 µg/L
Area ratio: 0.24181
Sample type: Sample



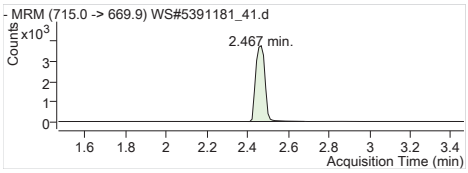


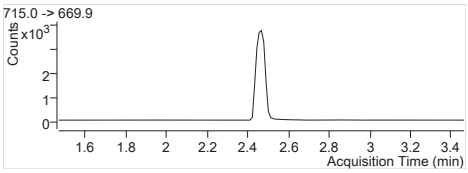
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 101.58 µg/L
Area ratio: 0.26542
Sample type: Sample



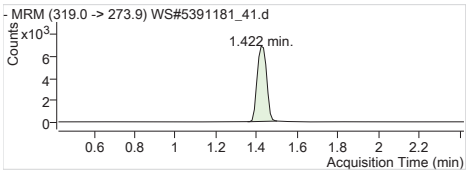


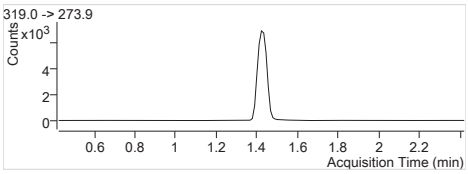
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 102.81 µg/L
Area ratio: 0.36771
Sample type: Sample



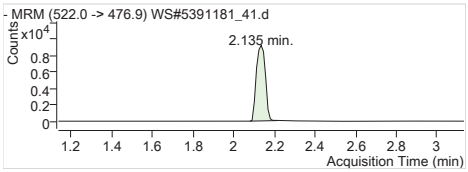


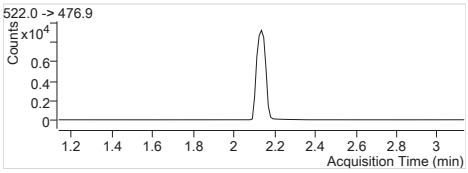
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 99.47 µg/L
Area ratio: 0.41895
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.47 µg/L
Area ratio: 0
Sample type: Sample





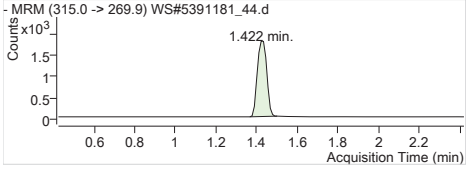
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.41 µg/L
Area ratio: 0
Sample type: Sample

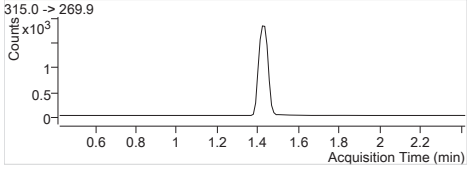
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_44.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C7
Acq. Date	2018/02/09 3:59:26 PM	**Injection Volume**	Per Method
Sample Annotation	-		

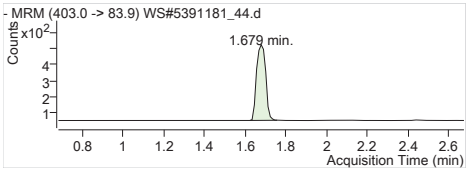
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5774	1.42	1 µg/L		
MPFHxS	1489	1.68	1 µg/L		
MPFHpA	7219	1.69	1 µg/L		
MPFOA	7400	1.87	1 µg/L		
MPFOS	1666	1.98	1 µg/L		
MPFNA	8064	2.01	1 µg/L		
MPFDA	6649	2.14	1 µg/L		
MPFUnA	7107	2.23	1 µg/L		
MPFDoA	10179	2.32	1 µg/L		
MPFTeDA	11682	2.47	1 µg/L		
13C6-PFHxA IS	21713	1.42	1 µg/L		
13C9-PFDA IS	29059	2.13	1 µg/L		

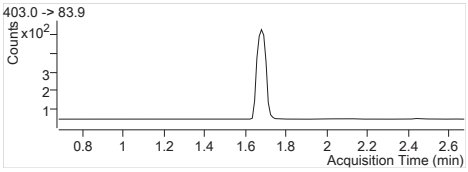
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5774	1.42	-	102.12 µg/L	-
18O2-PFHxS	1489	1.68	-	105.48 µg/L	-
13C4-PFHpA	7219	1.69	-	99.97 µg/L	-
13C4-PFOA	7400	1.87	-	97.26 µg/L	-
13C4-PFOS	1666	1.98	-	98.41 µg/L	-
13C5-PFNA	8064	2.01	-	104.97 µg/L	-
13C2-PFDA	6565	2.14	-	103.91 µg/L	-
13C2-PFUnA	7107	2.23	-	93.60 µg/L	-
13C2-PFDoA	10179	2.32	-	97.94 µg/L	-
13C2-PFTeDA	12023	2.47	-	98.24 µg/L	-
13C6-PFHxA	21713	1.42	-	2.43 µg/L	-
13C9-PFDA	29059	2.13	-	2.48 µg/L	-



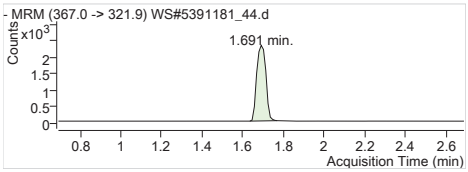


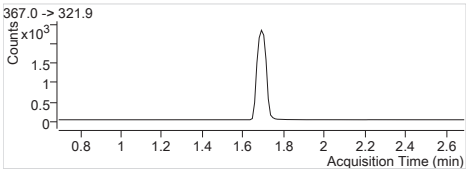
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



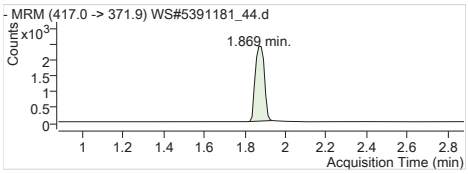


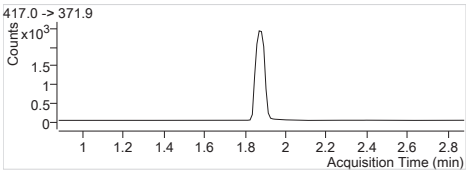
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



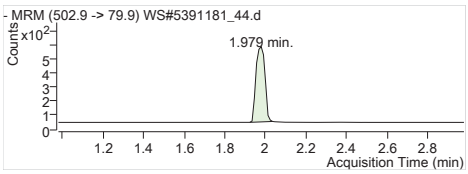


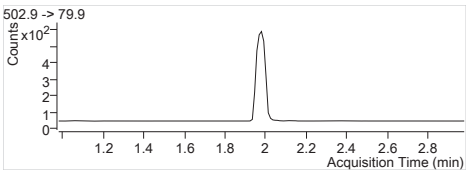
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



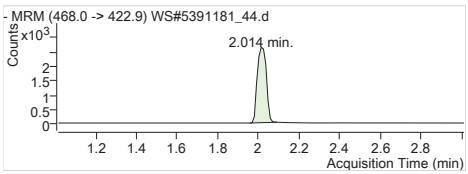


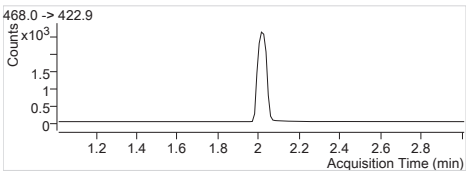
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



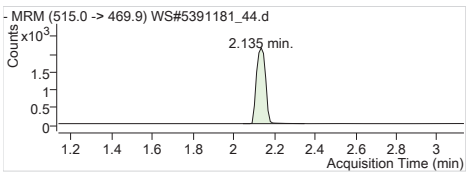


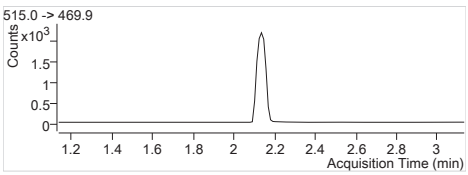
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



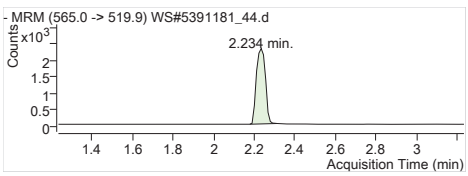


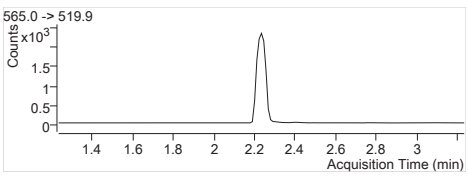
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



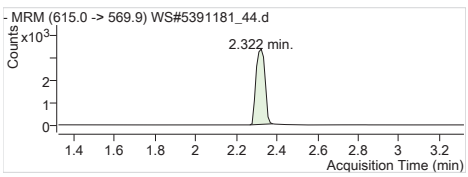


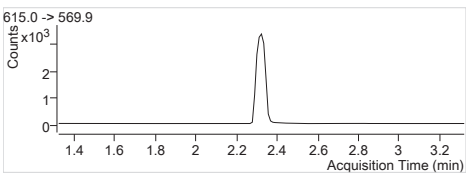
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



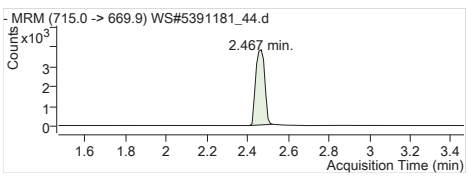


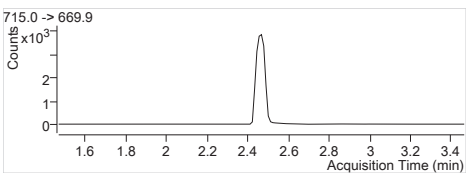
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



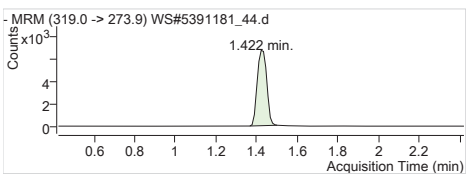


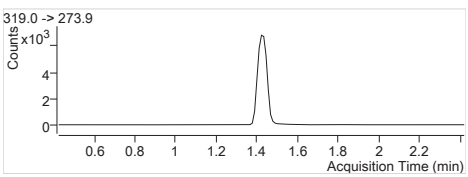
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



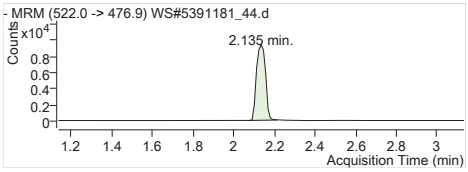


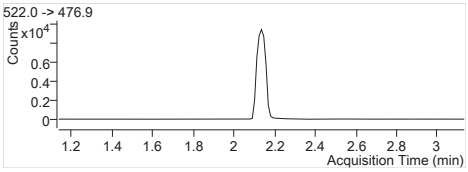
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



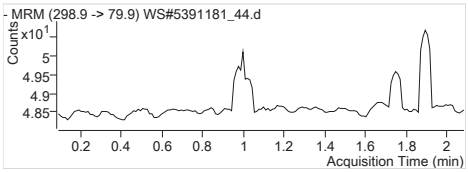


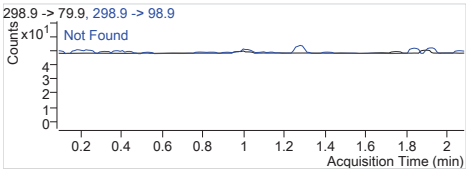
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



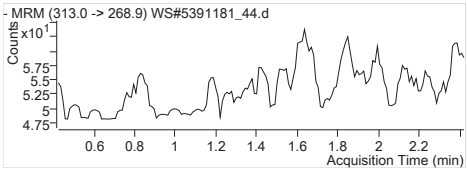


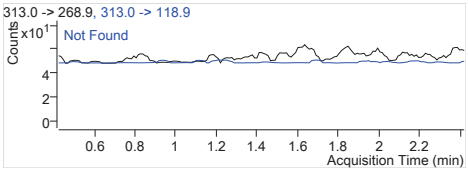
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



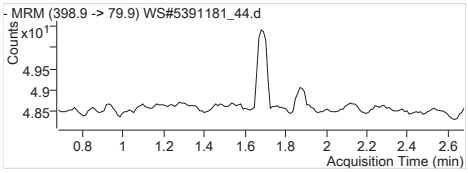


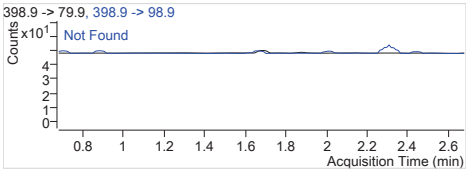
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



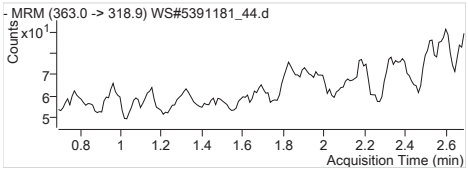


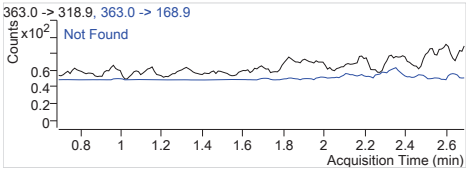
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



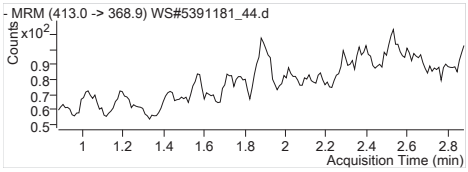


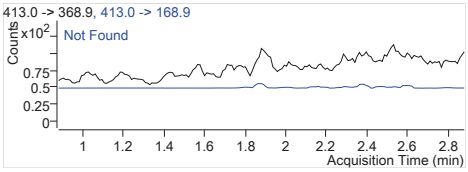
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



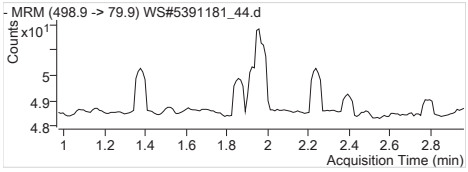


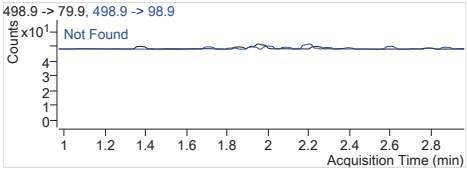
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



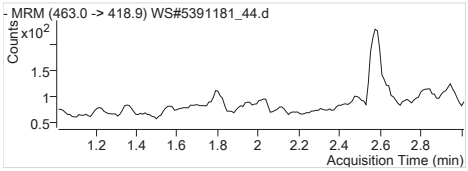


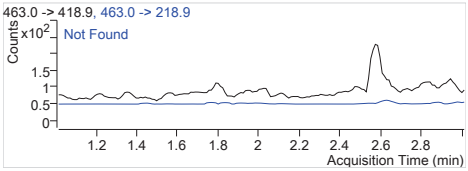
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



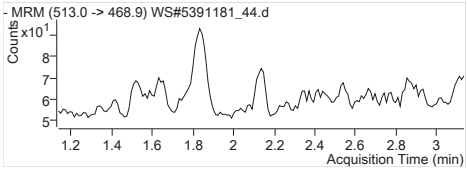


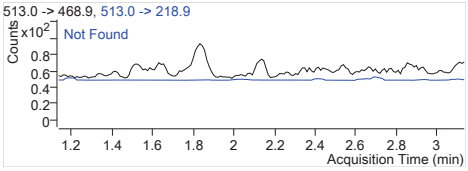
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



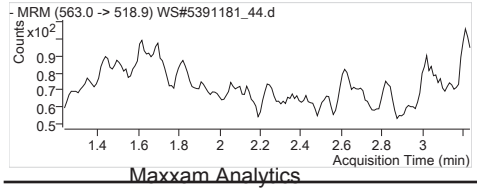


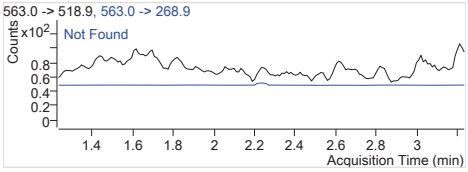
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



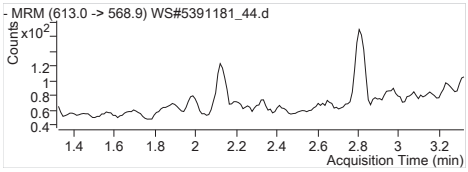


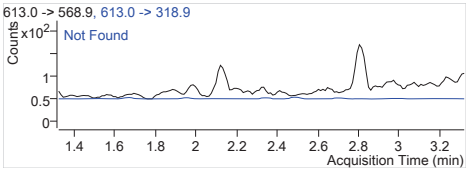
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



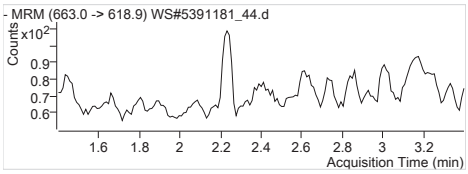


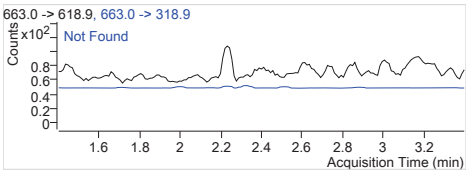
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



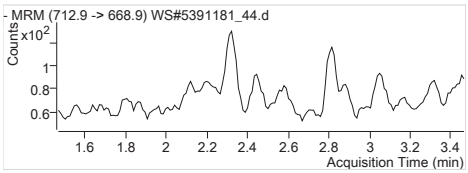


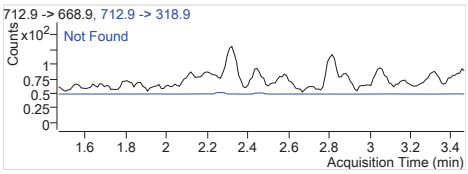
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



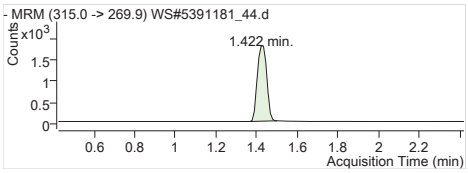


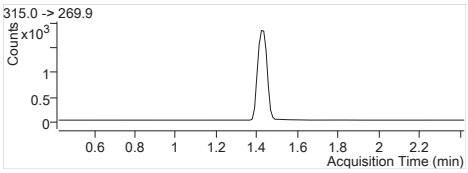
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



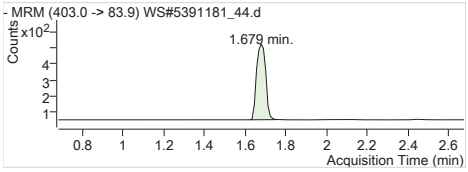


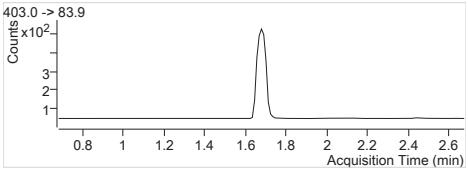
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



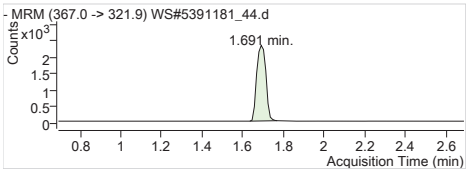


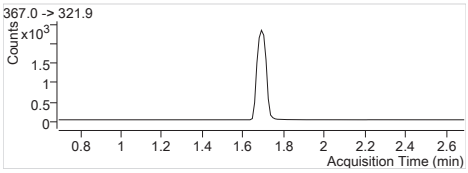
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	102.12 µg/L
Area ratio:	0.26592
Sample type:	Sample



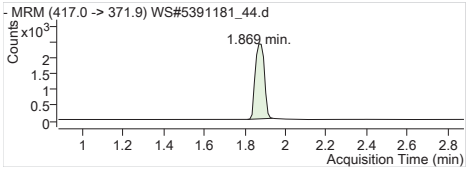


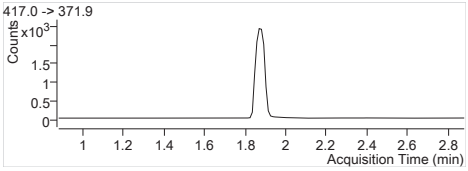
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	105.48 µg/L
Area ratio:	0.06858
Sample type:	Sample



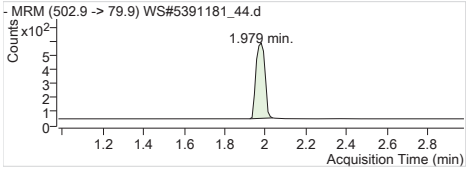


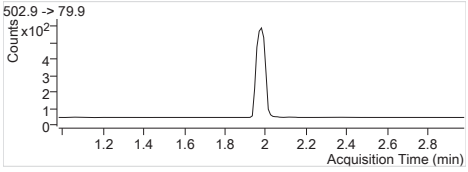
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	99.97 µg/L
Area ratio:	0.33247
Sample type:	Sample



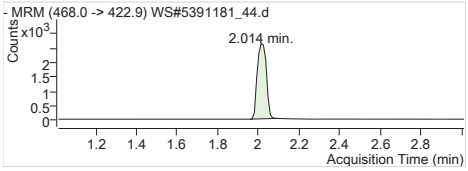


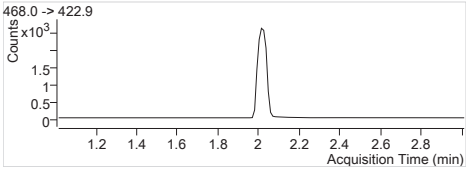
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.869 (1.881)
Calc. conc.	97.26 µg/L
Area ratio:	0.34081
Sample type:	Sample



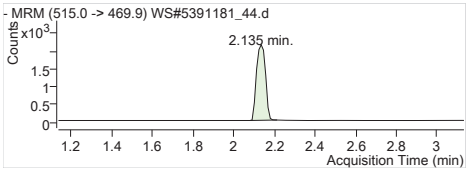


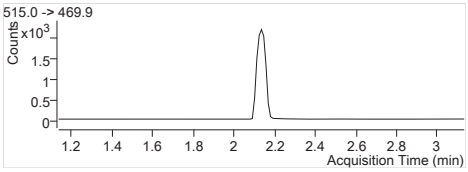
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	98.41 µg/L
Area ratio:	0.07673
Sample type:	Sample



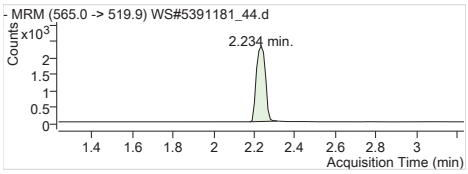


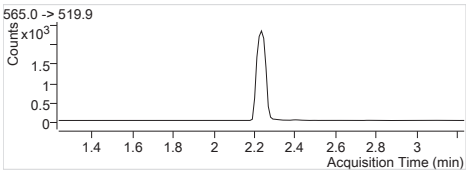
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	104.97 µg/L
Area ratio:	0.37139
Sample type:	Sample



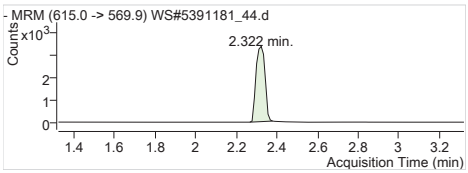


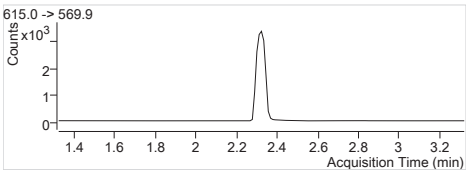
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 103.91 µg/L
Area ratio: 0.22592
Sample type: Sample



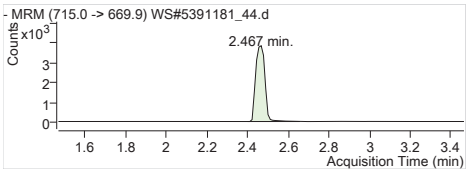


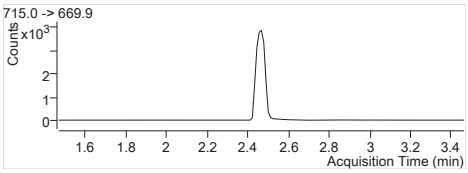
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 93.60 µg/L
Area ratio: 0.24457
Sample type: Sample



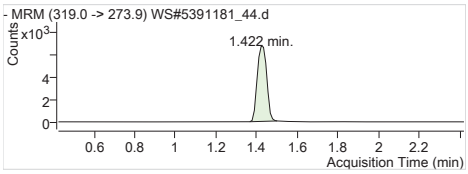


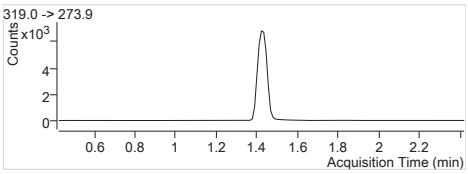
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 97.94 µg/L
Area ratio: 0.35029
Sample type: Sample



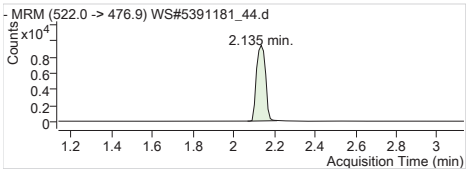


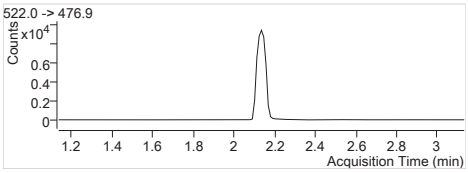
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 98.24 µg/L
Area ratio: 0.41374
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.43 µg/L
Area ratio: 0
Sample type: Sample





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.48 µg/L
Area ratio: 0
Sample type: Sample

Quantitation Results

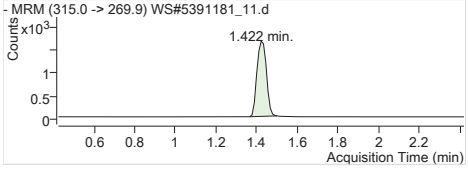
Agilent Technologies

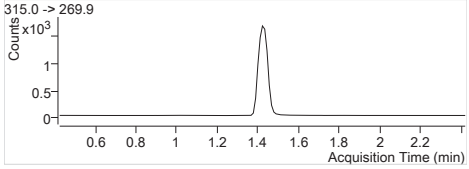
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**5391181:BLANK**	**Instrument**	LCMS04
Data File	WS#5391181_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-C9
Acq. Date	2018/02/09 1:16:38 PM	**Injection Volume**	Per Method
Sample Annotation	-		

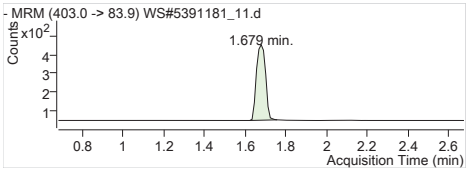
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5306	1.42	1 µg/L		
MPFHxS	1263	1.68	1 µg/L		
MPFHpA	6773	1.69	1 µg/L		
MPFOA	7681	1.87	1 µg/L		
MPFOS	1575	1.98	1 µg/L		
MPFNA	6602	2.01	1 µg/L		
MPFDA	5967	2.14	1 µg/L		
MPFUnA	6539	2.23	1 µg/L		
MPFDoA	8368	2.32	1 µg/L		
MPFTeDA	9418	2.47	1 µg/L		
13C6-PFHxA IS	20411	1.42	1 µg/L		
13C9-PFDA IS	27053	2.13	1 µg/L		

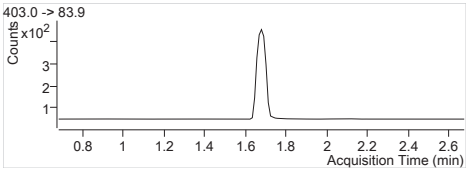
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1			-	ND	-
PFHxS 1			-	ND	-
PFHpA 1			-	ND	-
PFOA 1			-	ND	-
PFOS 1			-	ND	-
PFNA 1			-	ND	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5306	1.42	-	99.83 µg/L	-
18O2-PFHxS	1263	1.68	-	95.18 µg/L	-
13C4-PFHpA	6773	1.69	-	99.78 µg/L	-
13C4-PFOA	7681	1.87	-	107.40 µg/L	-
13C4-PFOS	1575	1.98	-	98.97 µg/L	-
13C5-PFNA	6603	2.01	-	91.43 µg/L	-
13C2-PFDA	5956	2.14	-	101.26 µg/L	-
13C2-PFUnA	6539	2.23	-	92.50 µg/L	-
13C2-PFDoA	8368	2.32	-	86.48 µg/L	-
13C2-PFTeDA	9783	2.47	-	85.86 µg/L	-
13C6-PFHxA	20411	1.42	-	2.28 µg/L	-
13C9-PFDA	27053	2.13	-	2.31 µg/L	-



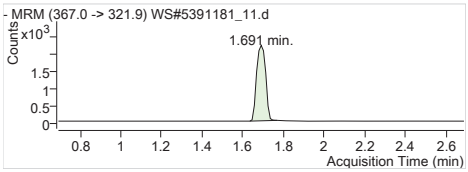


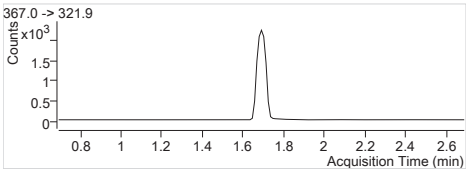
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Sample



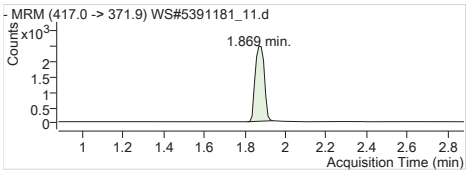


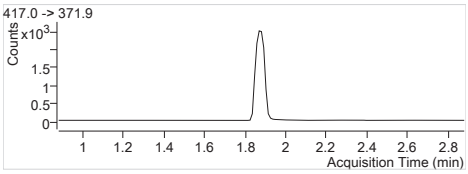
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Sample



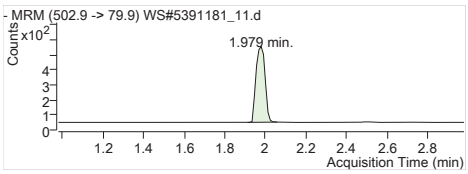


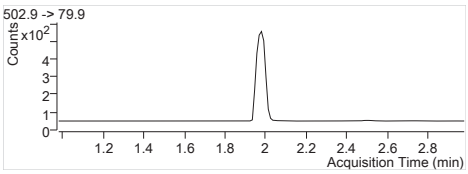
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Sample



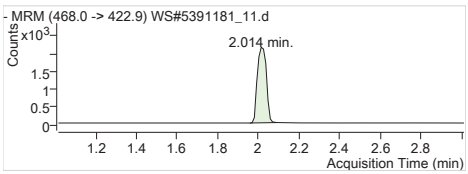


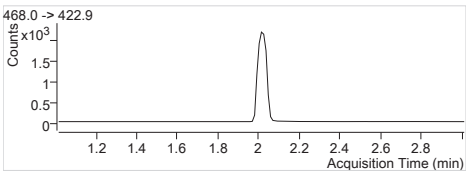
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Sample



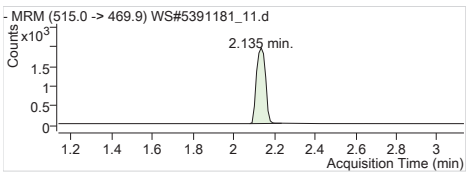


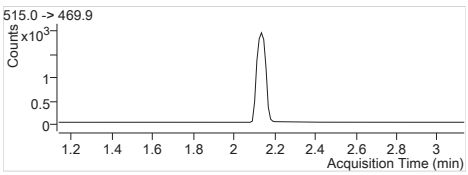
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



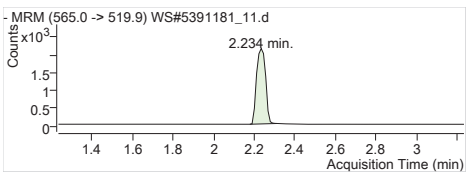


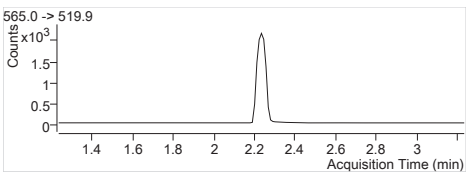
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Sample



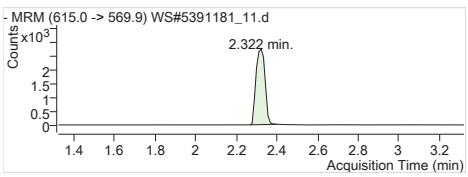


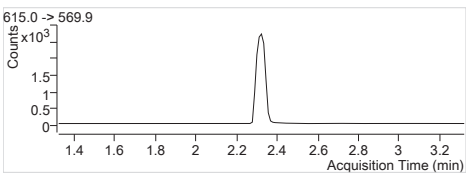
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



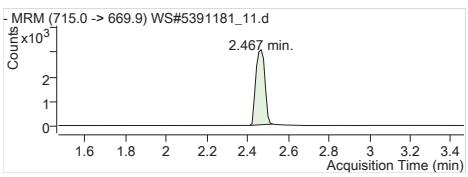


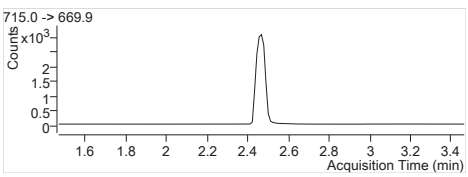
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Sample



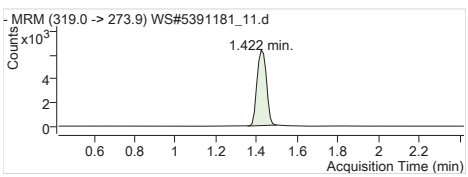


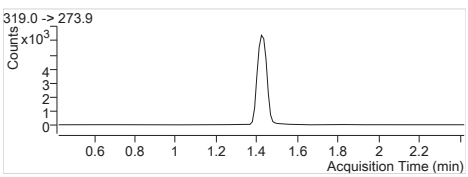
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



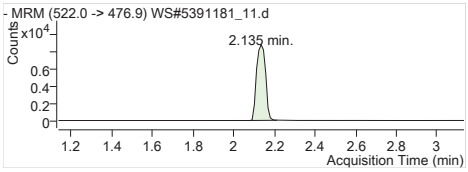


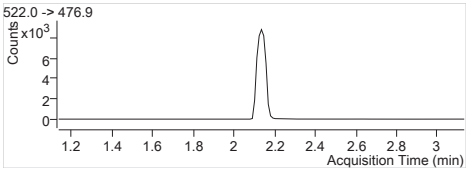
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



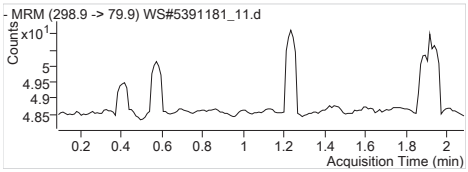


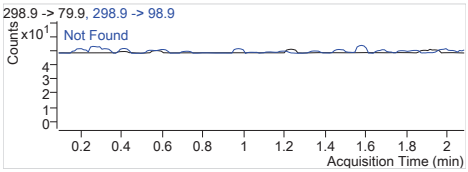
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Sample



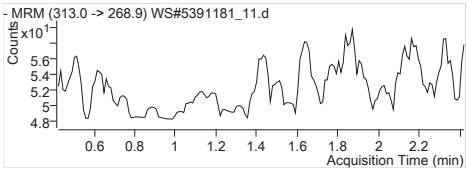


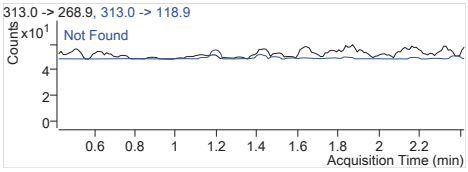
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Sample



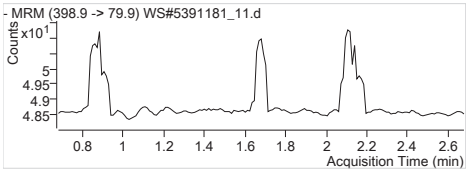


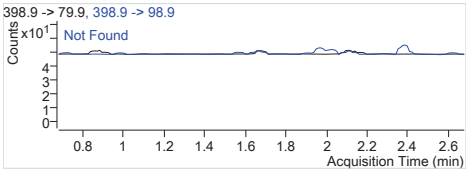
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.087)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



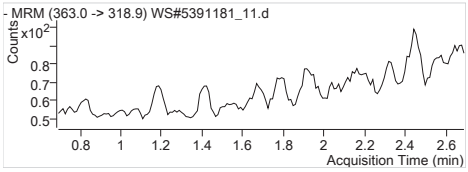


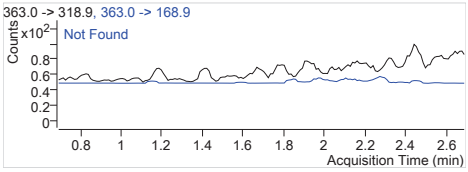
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 0.000 (1.423)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



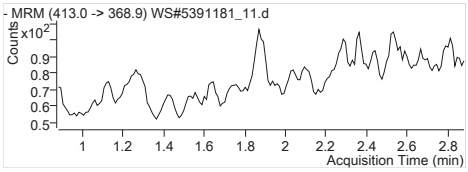


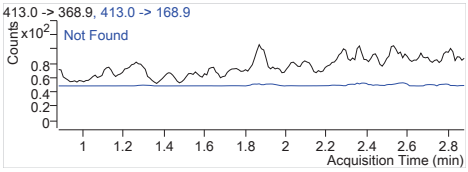
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 0.000 (1.679)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



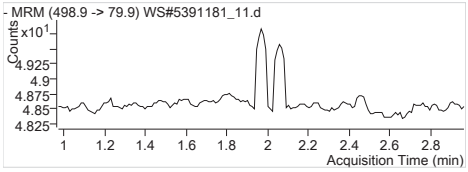


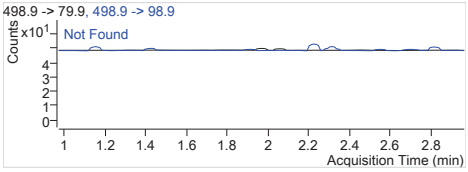
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 0.000 (1.691)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



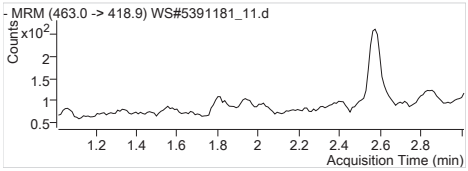


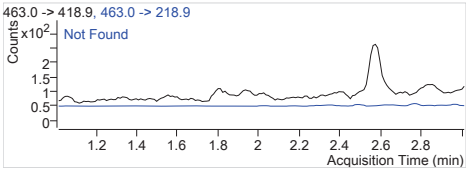
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 0.000 (1.881)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



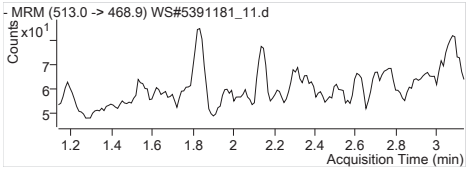


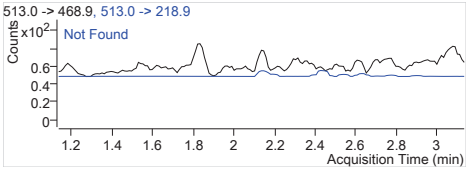
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 0.000 (1.968)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



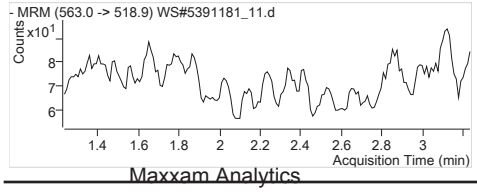


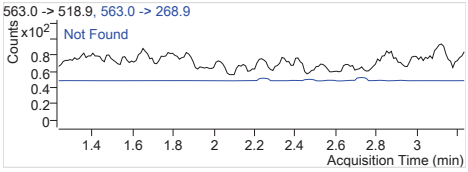
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 0.000 (2.014)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



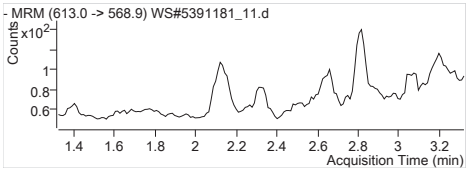


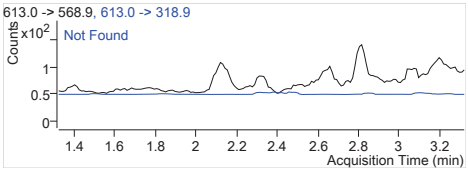
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 0.000 (2.135)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



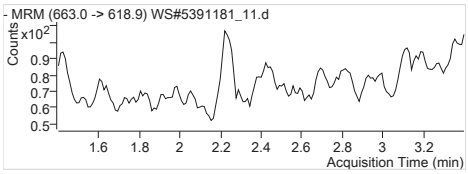


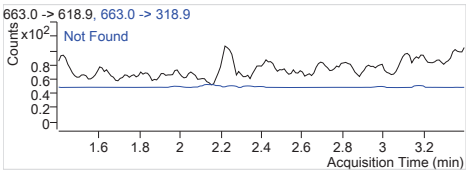
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.234)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



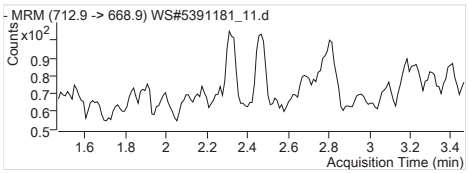


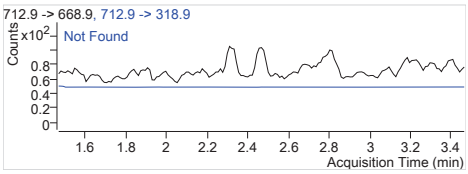
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



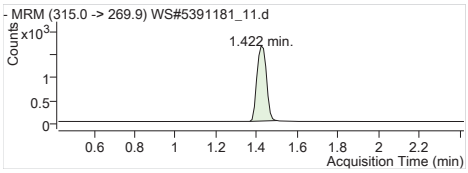


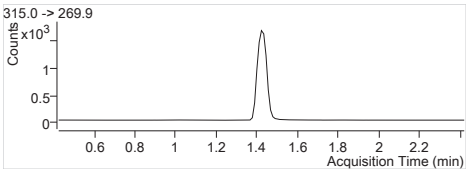
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



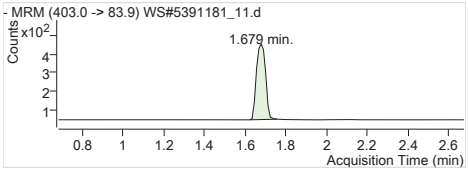


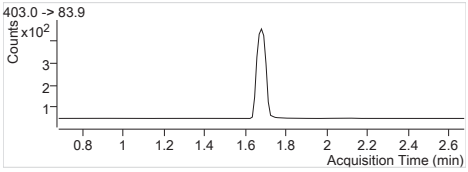
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.467)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



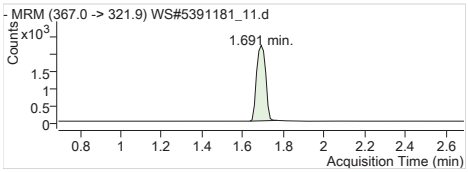


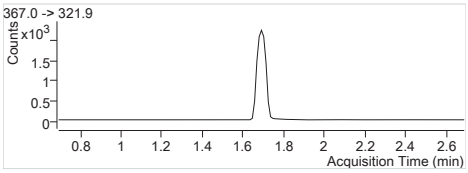
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	99.83 µg/L
Area ratio:	0.25996
Sample type:	Sample



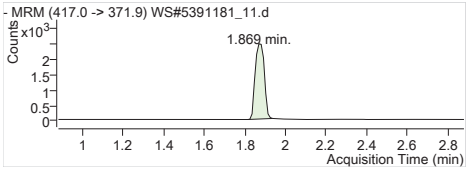


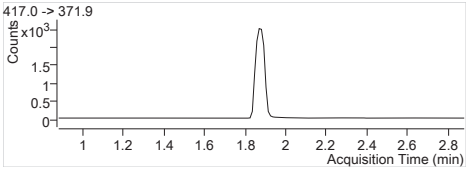
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	95.18 µg/L
Area ratio:	0.06188
Sample type:	Sample



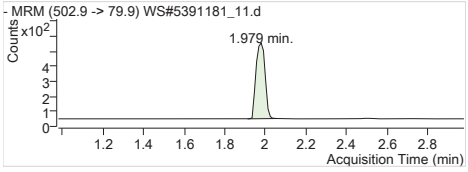


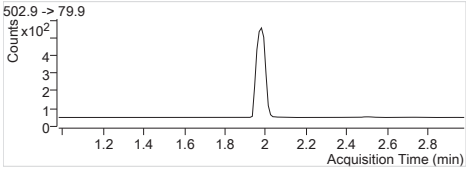
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	99.78 µg/L
Area ratio:	0.33183
Sample type:	Sample



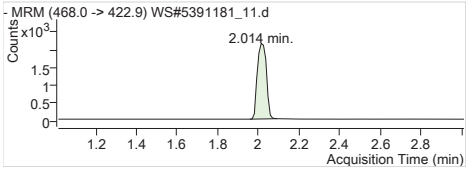


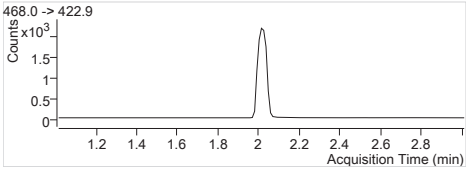
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.869 (1.881)
Calc. conc.	107.40 µg/L
Area ratio:	0.37632
Sample type:	Sample



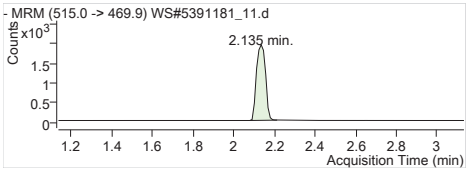


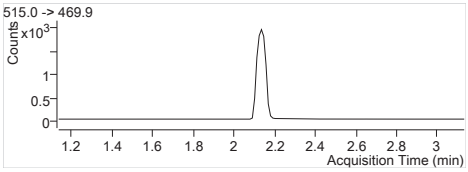
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	98.97 µg/L
Area ratio:	0.07716
Sample type:	Sample



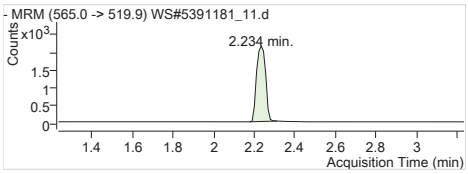


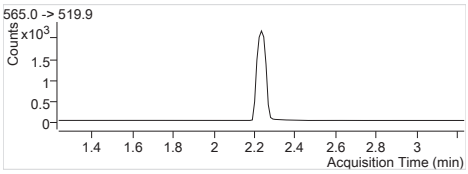
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	91.43 µg/L
Area ratio:	0.32350
Sample type:	Sample



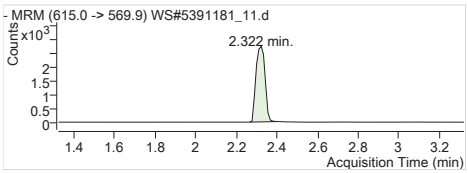


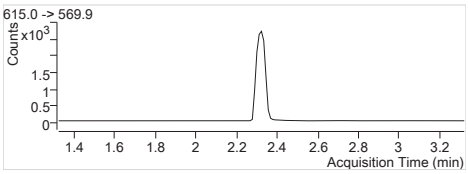
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 101.26 µg/L
Area ratio: 0.22016
Sample type: Sample



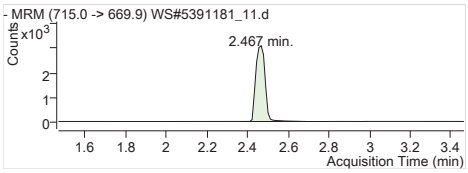


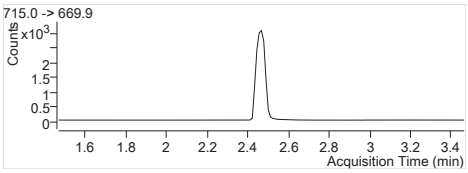
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 92.50 µg/L
Area ratio: 0.24171
Sample type: Sample



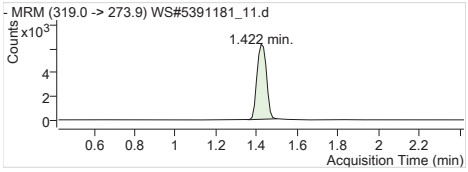


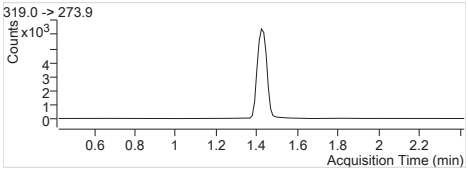
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 86.48 µg/L
Area ratio: 0.30932
Sample type: Sample



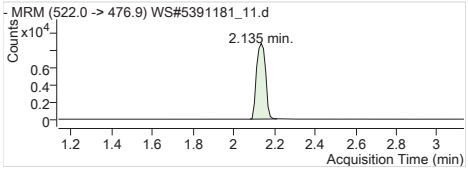


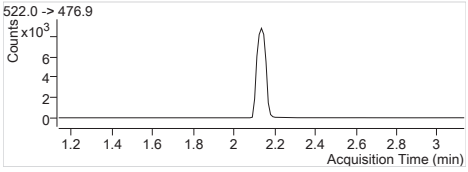
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 85.86 µg/L
Area ratio: 0.36162
Sample type: Sample





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.28 µg/L
Area ratio: 0
Sample type: Sample





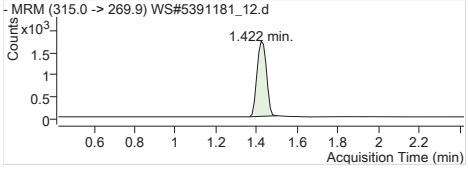
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.31 µg/L
Area ratio: 0
Sample type: Sample

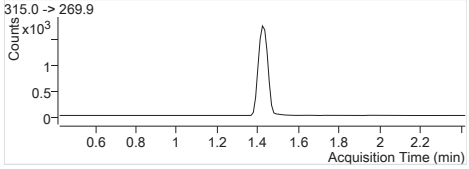
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**5391181:SPIKE**	**Instrument**	LCMS04
Data File	WS#5391181_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-D1
Acq. Date	2018/02/09 1:21:34 PM	**Injection Volume**	Per Method
Sample Annotation	-		

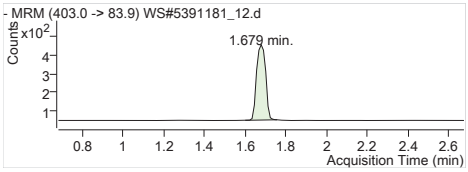
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5514	1.42	1 µg/L		
MPFHxS	1264	1.68	1 µg/L		
MPFHpA	6602	1.69	1 µg/L		
MPFOA	7089	1.88	1 µg/L		
MPFOS	1803	1.98	1 µg/L		
MPFNA	7243	2.01	1 µg/L		
MPFDA	5831	2.14	1 µg/L		
MPFUnA	6885	2.23	1 µg/L		
MPFDoA	8537	2.32	1 µg/L		
MPFTeDA	9273	2.47	1 µg/L		
13C6-PFHxA IS	22104	1.42	1 µg/L		
13C9-PFDA IS	28291	2.13	1 µg/L		

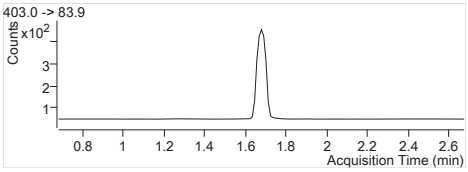
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	13297	1.09	20.80	0.52 µg/L	104.67
PFHxA 1	45719	1.42	20.80	0.44 µg/L	88.78
PFHxS 1	12848	1.68	20.80	0.52 µg/L	104.99
PFHpA 1	61253	1.69	20.80	0.51 µg/L	102.68
PFOA 1	67449	1.88	20.80	0.52 µg/L	104.64
PFOS 1	11837	1.97	20.80	0.40 µg/L	80.03
PFNA 1	60671	2.01	20.80	0.50 µg/L	100.73
PFDA 1	62738	2.14	20.80	0.48 µg/L	96.63
PFUnA 1	67922	2.23	20.80	0.48 µg/L	97.05
PFDoA 1	78884	2.32	20.80	0.48 µg/L	96.99
PFTrDA 1	90489	2.40	20.80	0.53 µg/L	106.69
PFTeDA 1	74023	2.47	20.80	0.51 µg/L	102.79
13C2-PFHxA	5514	1.42	100.00	95.79 µg/L	95.79
18O2-PFHxS	1264	1.68	100.00	87.96 µg/L	87.96
13C4-PFHpA	6602	1.69	100.00	89.81 µg/L	89.81
13C4-PFOA	7089	1.88	100.00	91.53 µg/L	91.53
13C4-PFOS	1803	1.98	100.00	104.62 µg/L	104.62
13C5-PFNA	7242	2.01	100.00	92.60 µg/L	92.60
13C2-PFDA	5752	2.14	100.00	93.52 µg/L	93.52
13C2-PFUnA	6885	2.23	100.00	93.14 µg/L	93.14
13C2-PFDoA	8537	2.32	100.00	84.37 µg/L	84.37
13C2-PFTeDA	9591	2.47	100.00	80.49 µg/L	80.49
13C6-PFHxA	22104	1.42	100.00	2.47 µg/L	102.97
13C9-PFDA	28291	2.13	100.00	2.42 µg/L	100.64



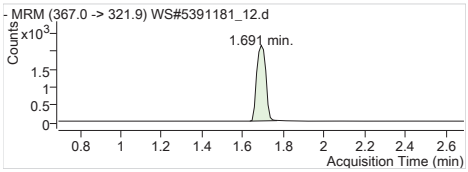


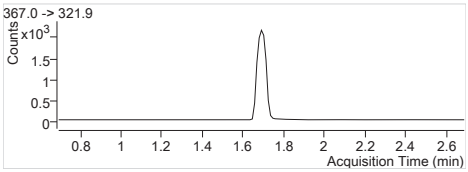
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: QC



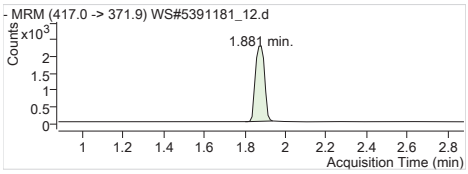


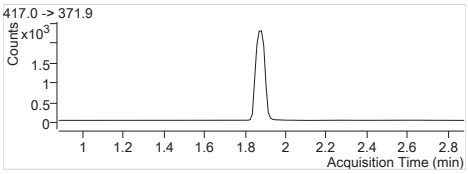
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



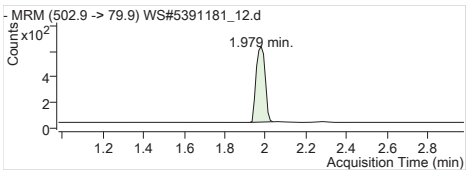


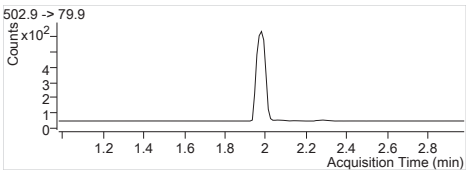
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: QC



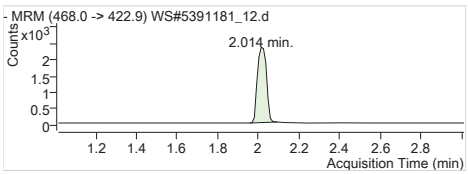


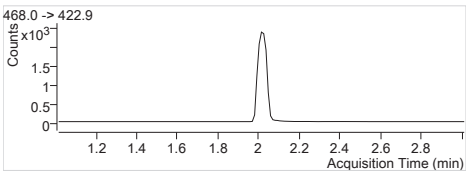
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: QC



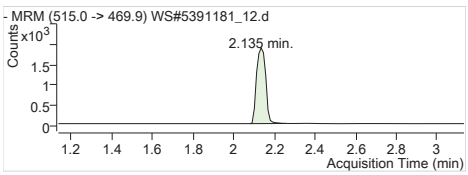


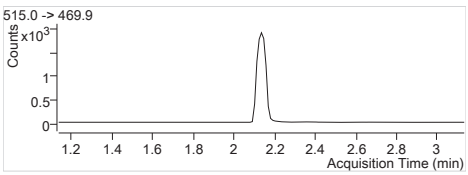
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



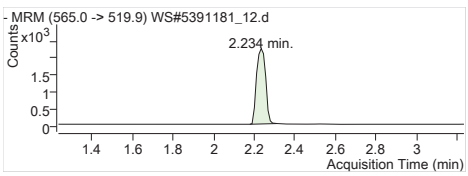


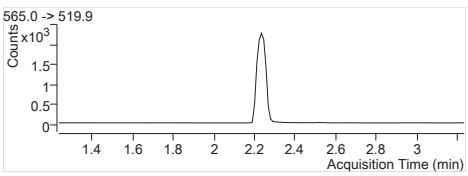
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: QC



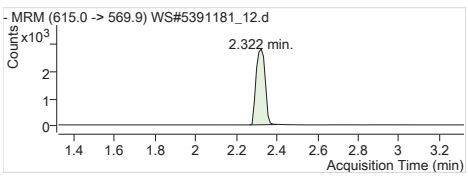


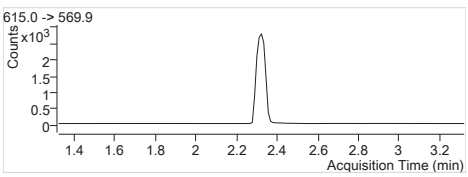
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



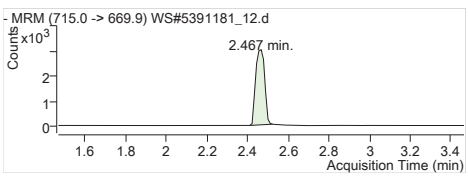


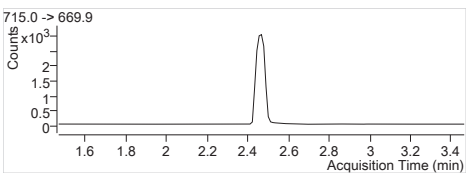
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: QC



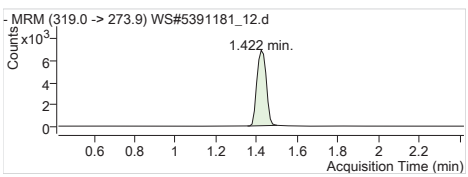


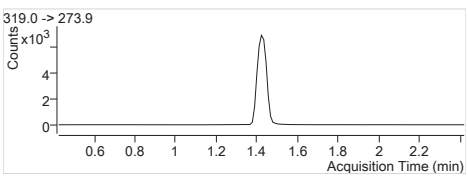
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



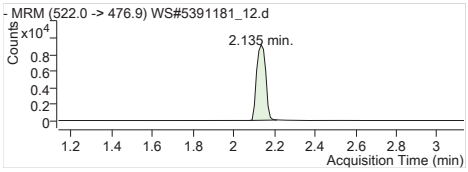


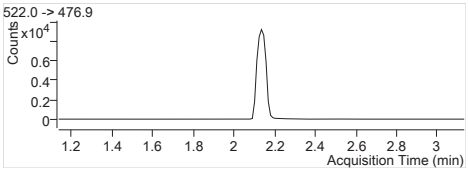
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



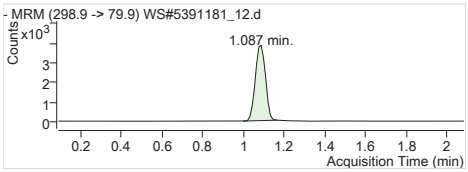


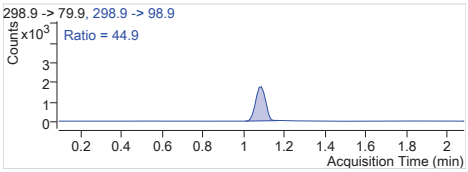
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: QC



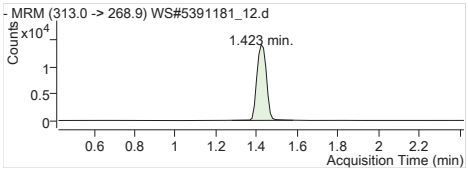


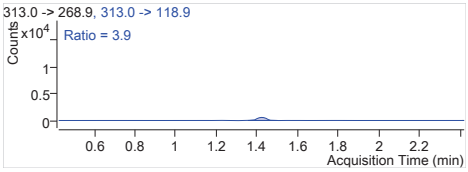
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



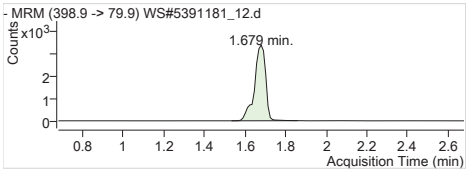


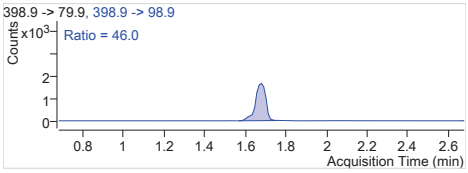
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.52 µg/L
Area ratio: 10.51978
Sample type: QC



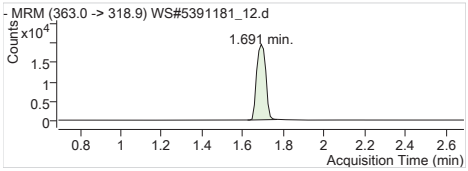


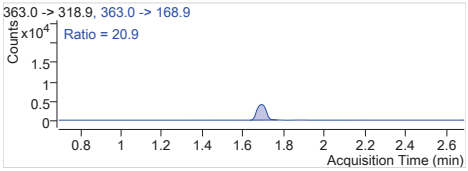
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.44 µg/L
Area ratio: 8.29144
Sample type: QC



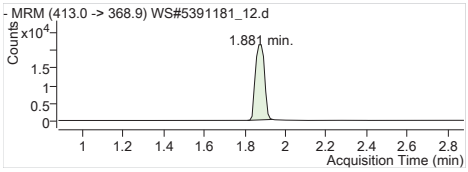


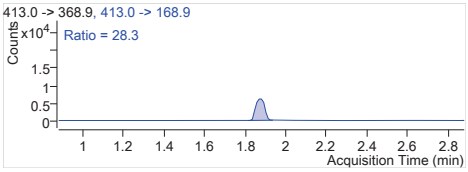
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.52 µg/L
Area ratio: 10.16456
Sample type: QC



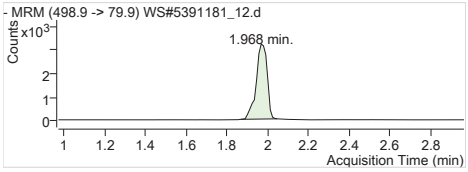


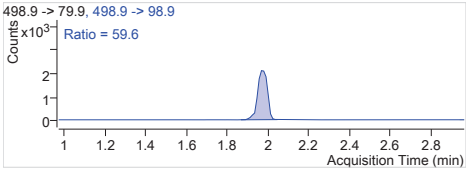
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.51 µg/L
Area ratio: 9.27795
Sample type: QC



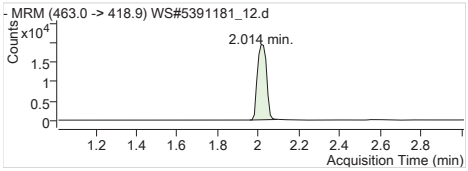


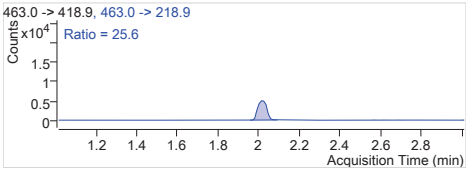
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.52 µg/L
Area ratio: 9.51460
Sample type: QC



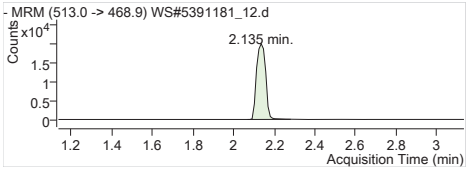


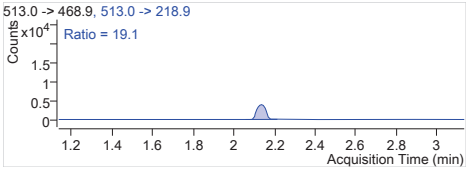
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 0.40 µg/L
Area ratio: 6.56517
Sample type: QC



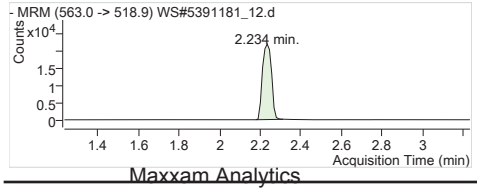


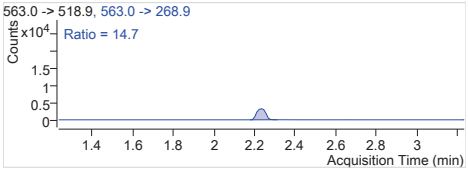
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.50 µg/L
Area ratio: 8.37650
Sample type: QC



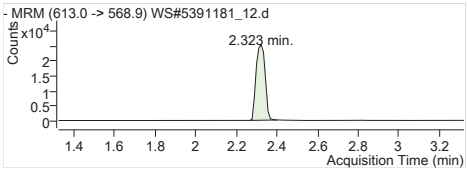


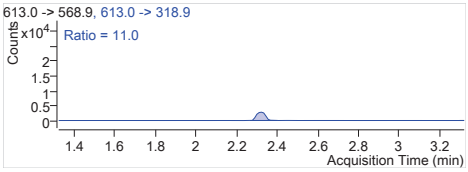
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.48 µg/L
Area ratio: 10.75939
Sample type: QC



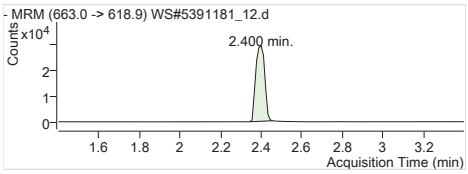


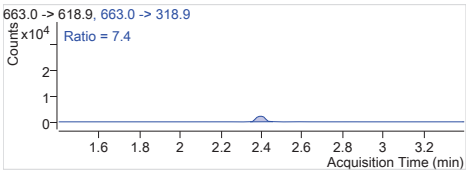
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.48 µg/L
Area ratio: 9.86521
Sample type: QC



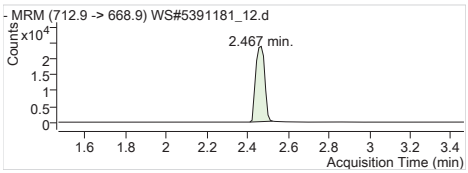


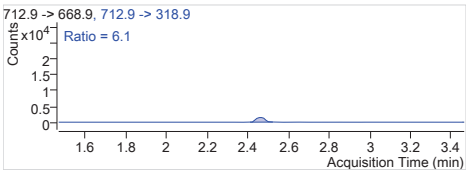
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.48 µg/L
Area ratio: 9.24025
Sample type: QC



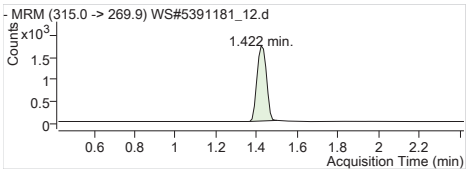


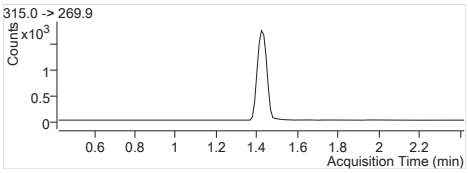
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.53 µg/L
Area ratio: 9.75833
Sample type: QC



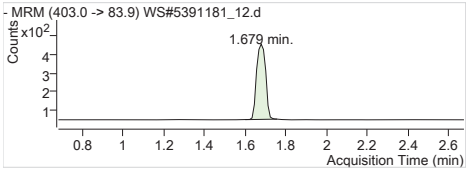


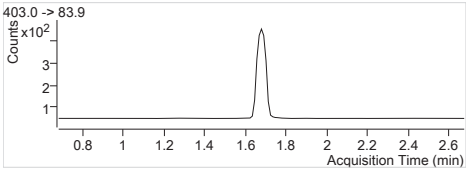
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.51 µg/L
Area ratio: 7.98264
Sample type: QC



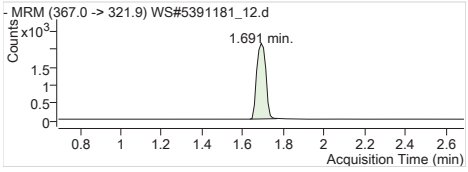


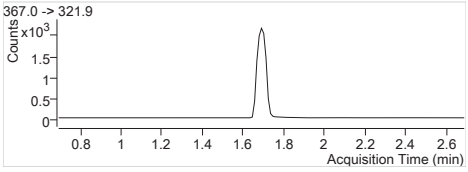
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 95.79 µg/L
Area ratio: 0.24946
Sample type: QC



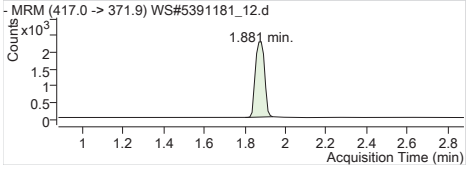


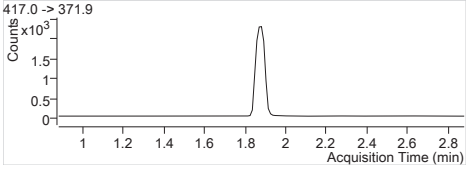
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 87.96 µg/L
Area ratio: 0.05718
Sample type: QC



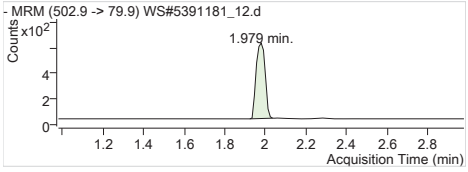


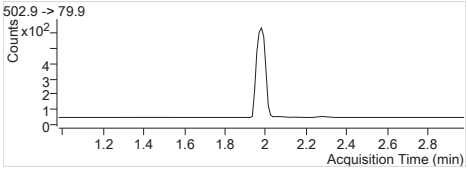
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 89.81 µg/L
Area ratio: 0.29868
Sample type: QC



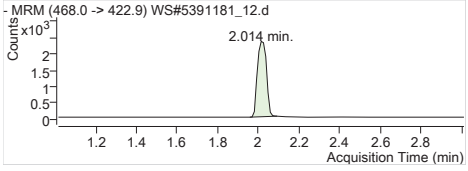


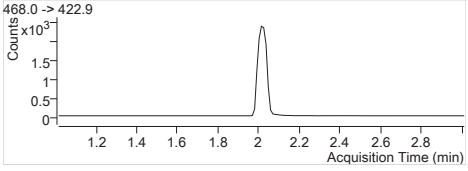
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 91.53 µg/L
Area ratio: 0.32071
Sample type: QC



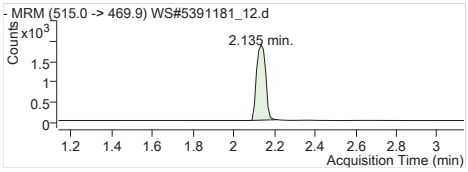


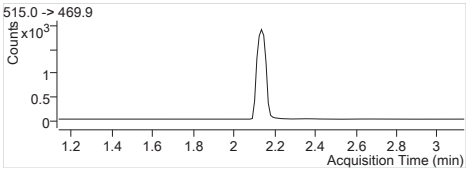
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 104.62 µg/L
Area ratio: 0.08157
Sample type: QC



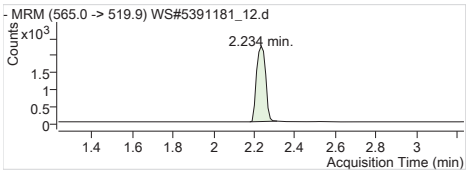


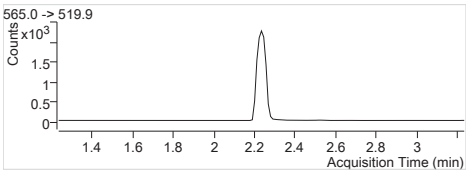
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 92.60 µg/L
Area ratio: 0.32763
Sample type: QC



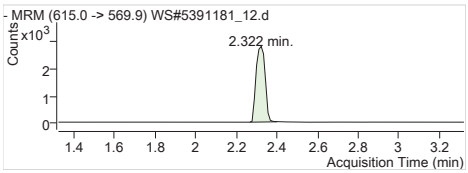


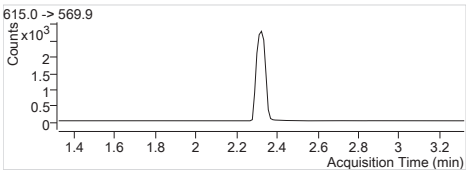
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 93.52 µg/L
Area ratio: 0.20332
Sample type: QC



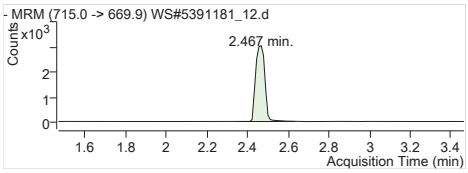


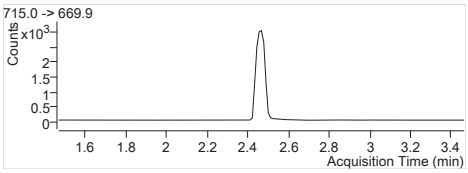
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 93.14 µg/L
Area ratio: 0.24336
Sample type: QC



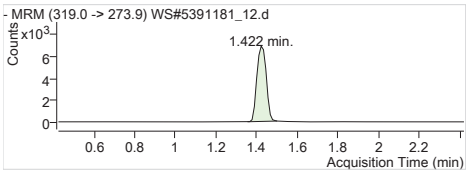


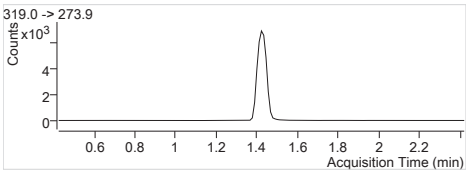
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 84.37 µg/L
Area ratio: 0.30176
Sample type: QC



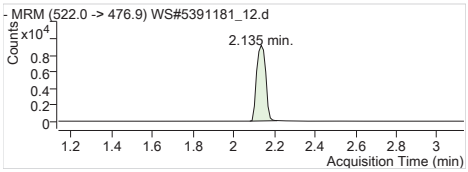


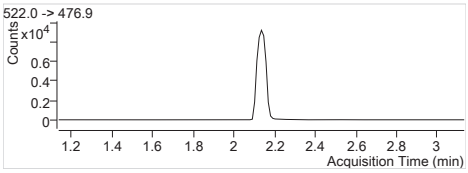
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 80.49 µg/L
Area ratio: 0.33901
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.47 µg/L
Area ratio: 0
Sample type: QC





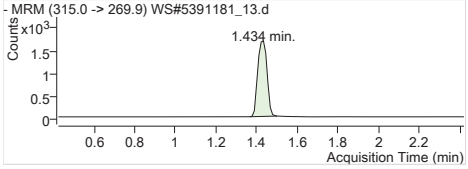
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.42 µg/L
Area ratio: 0
Sample type: QC

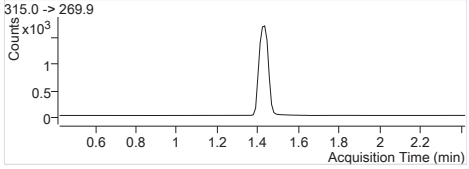
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**5391181:MTRX SPK**	**Instrument**	LCMS04
Data File	WS#5391181_13.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-D2
Acq. Date	2018/02/09 1:26:30 PM	**Injection Volume**	Per Method
Sample Annotation	FZJ955		

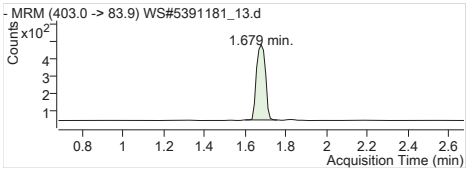
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5293	1.43	1 µg/L		
MPFHxS	1313	1.68	1 µg/L		
MPFHpA	6647	1.69	1 µg/L		
MPFOA	6824	1.87	1 µg/L		
MPFOS	1338	1.98	1 µg/L		
MPFNA	7037	2.01	1 µg/L		
MPFDA	5396	2.14	1 µg/L		
MPFUnA	5958	2.23	1 µg/L		
MPFDoA	7225	2.32	1 µg/L		
MPFTeDA	5245	2.47	1 µg/L		
13C6-PFHxA IS	21073	1.43	1 µg/L		
13C9-PFDA IS	27955	2.13	1 µg/L		

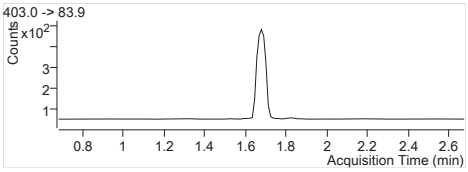
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	13592	1.09	20.80	0.51 µg/L	103.01
PFHxA 1	71219	1.43	20.80	0.72 µg/L	143.47
PFHxS 1	39727	1.68	20.80	1.56 µg/L	311.73
PFHpA 1	62607	1.69	20.80	0.52 µg/L	104.23
PFOA 1	75989	1.87	20.80	0.61 µg/L	122.48
PFOS 1	42677	1.97	20.80	1.94 µg/L	388.61
PFNA 1	57963	2.01	20.80	0.49 µg/L	99.05
PFDA 1	54608	2.14	20.80	0.45 µg/L	90.93
PFUnA 1	56607	2.23	20.80	0.47 µg/L	93.48
PFDoA 1	63673	2.32	20.80	0.46 µg/L	92.53
PFTrDA 1	62886	2.40	20.80	0.65 µg/L	131.00
PFTeDA 1	37814	2.47	20.80	0.46 µg/L	92.87
13C2-PFHxA	5293	1.43	100.00	96.45 µg/L	96.45
18O2-PFHxS	1313	1.68	100.00	95.84 µg/L	95.84
13C4-PFHpA	6647	1.69	100.00	94.85 µg/L	94.85
13C4-PFOA	6824	1.87	100.00	92.42 µg/L	92.42
13C4-PFOS	1338	1.98	100.00	81.44 µg/L	81.44
13C5-PFNA	7037	2.01	100.00	94.38 µg/L	94.38
13C2-PFDA	5330	2.14	100.00	87.70 µg/L	87.70
13C2-PFUnA	5958	2.23	100.00	81.57 µg/L	81.57
13C2-PFDoA	7225	2.32	100.00	72.26 µg/L	72.26
13C2-PFTeDA	5424	2.47	100.00	46.07 µg/L	46.07
13C6-PFHxA	21073	1.43	100.00	2.36 µg/L	98.17
13C9-PFDA	27955	2.13	100.00	2.39 µg/L	99.44



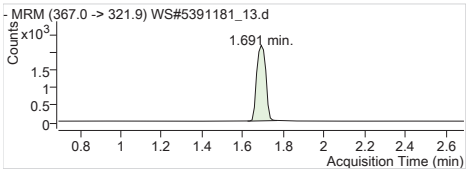


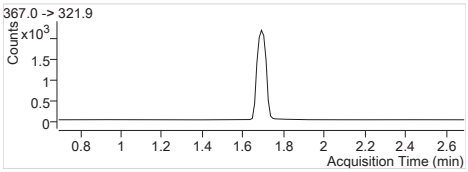
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.422)
Concentration:	1 µg/L
Sample type:	QC



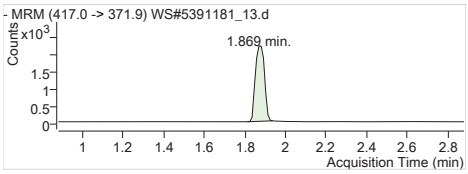


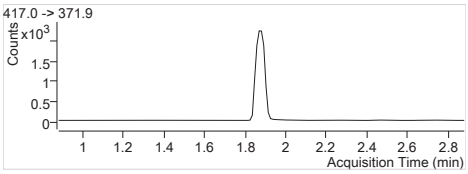
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



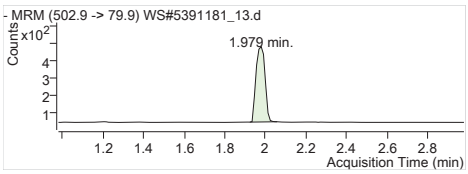


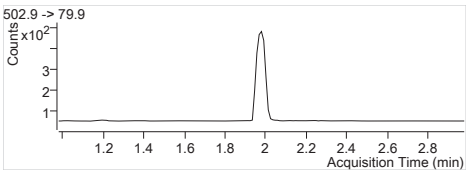
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: QC



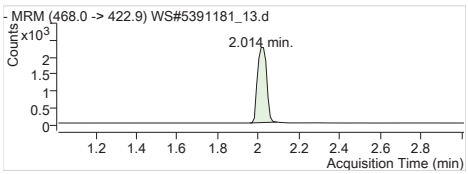


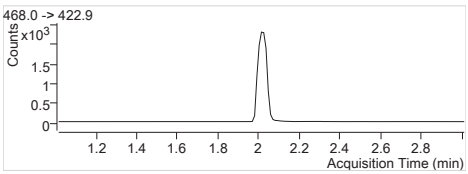
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: QC



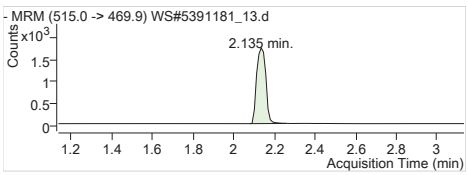


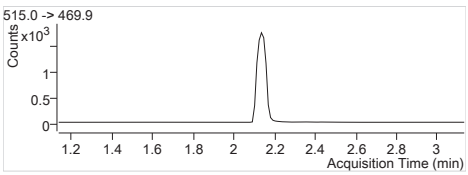
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



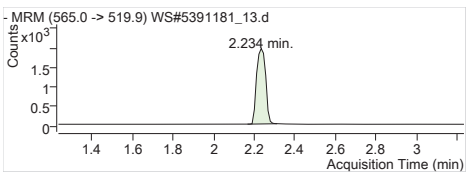


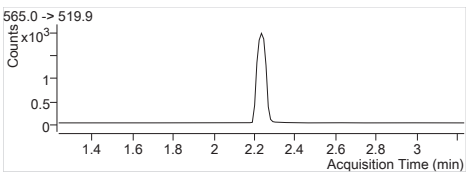
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: QC



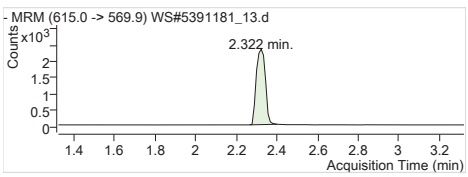


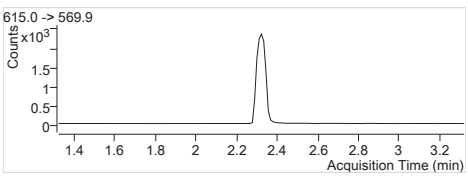
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



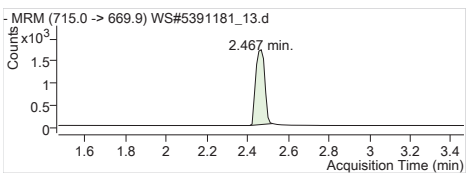


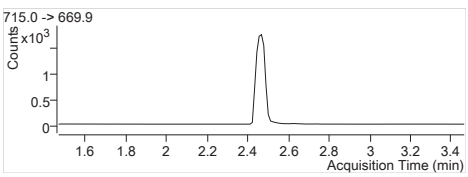
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: QC



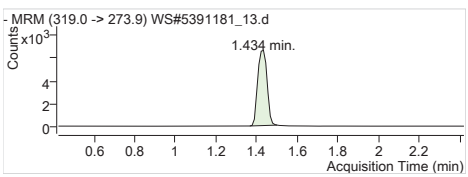


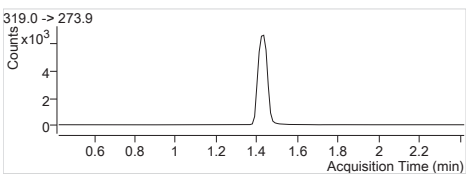
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



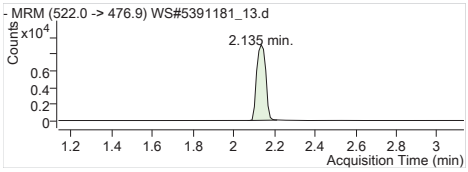


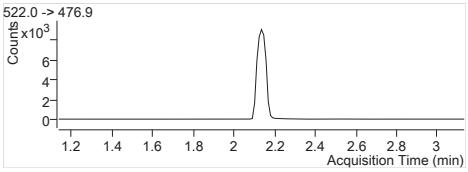
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



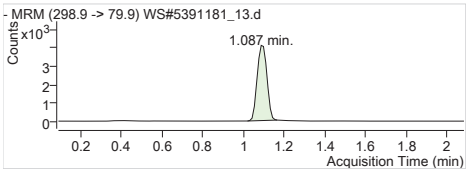


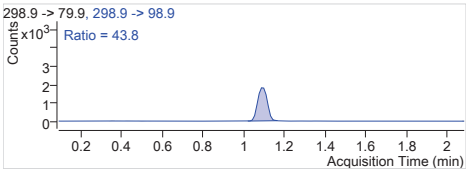
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.422)
Concentration: 1 µg/L
Sample type: QC



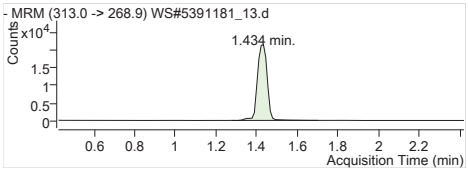


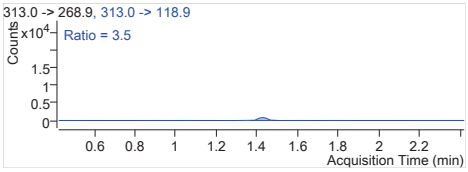
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



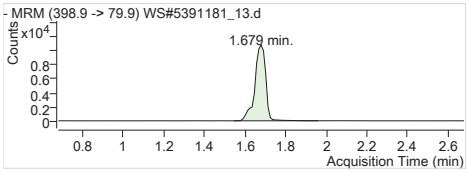


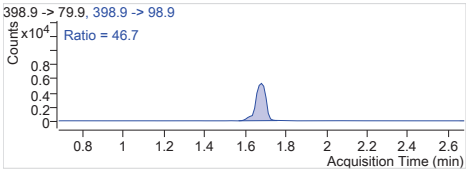
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.51 µg/L
Area ratio: 10.35187
Sample type: QC



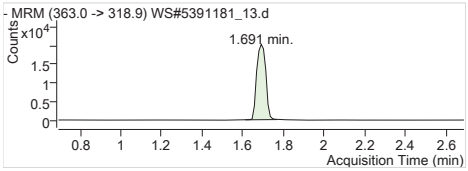


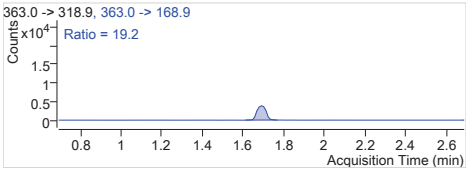
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.423)
Calc. conc. 0.72 µg/L
Area ratio: 13.45532
Sample type: QC



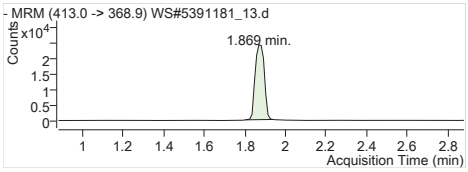


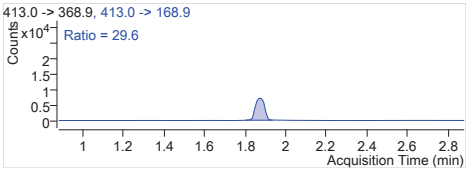
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 1.56 µg/L
Area ratio: 30.25666
Sample type: QC



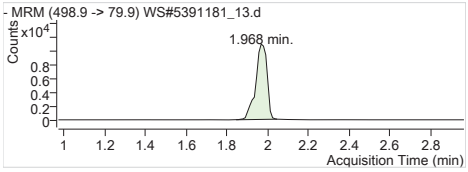


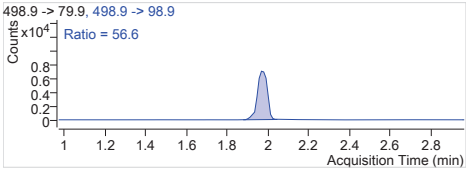
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.52 µg/L
Area ratio: 9.41884
Sample type: QC



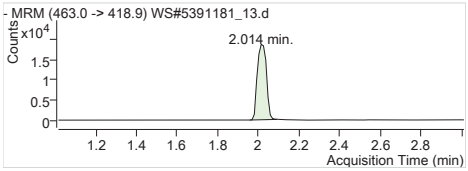


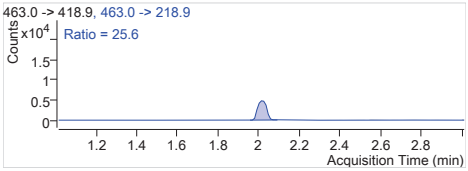
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 0.61 µg/L
Area ratio: 11.13555
Sample type: QC



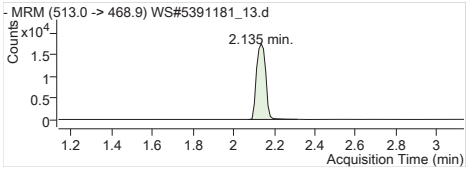


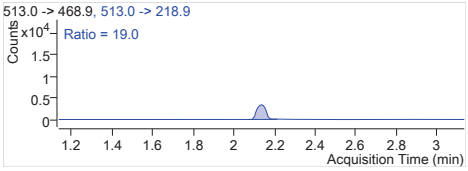
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 1.94 µg/L
Area ratio: 31.89611
Sample type: QC



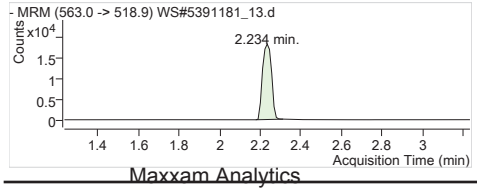


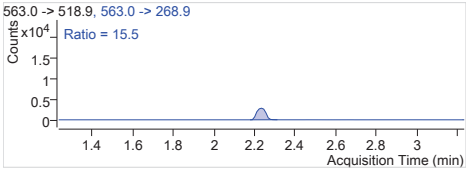
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.49 µg/L
Area ratio: 8.23689
Sample type: QC



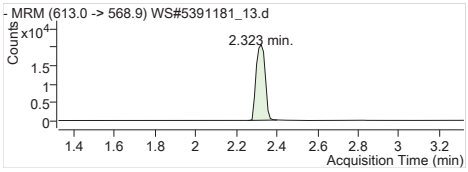


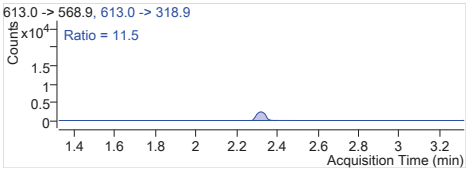
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.45 µg/L
Area ratio: 10.12009
Sample type: QC



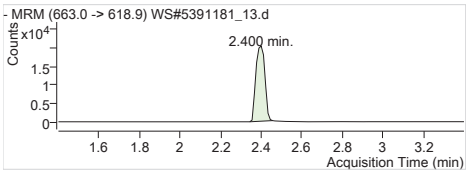


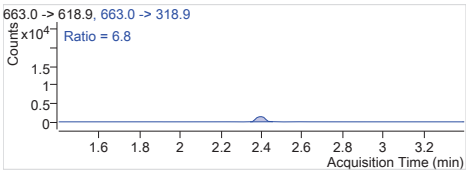
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.47 µg/L
Area ratio: 9.50101
Sample type: QC



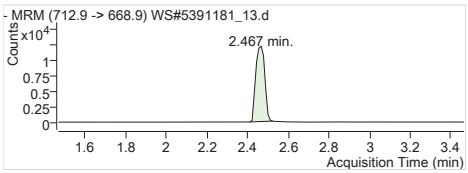


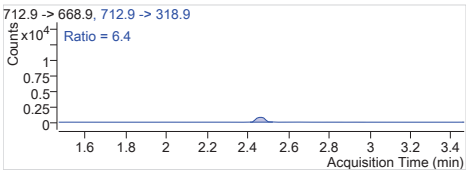
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.46 µg/L
Area ratio: 8.81287
Sample type: QC



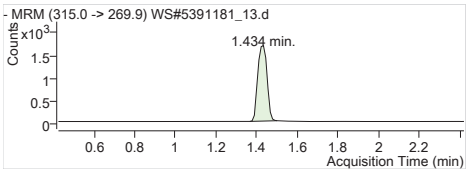


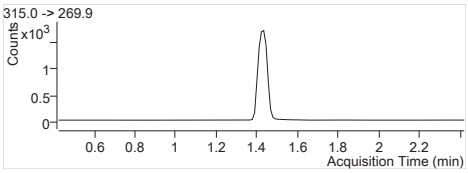
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.65 µg/L
Area ratio: 11.98970
Sample type: QC



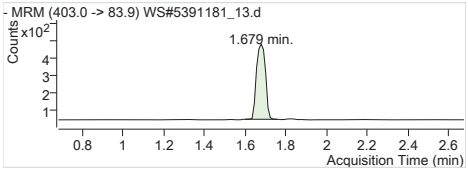


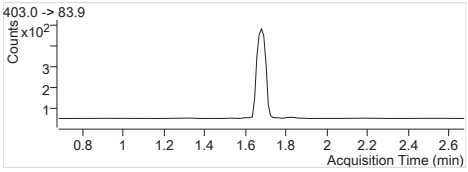
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.46 µg/L
Area ratio: 7.20953
Sample type: QC



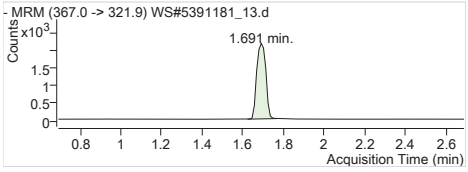


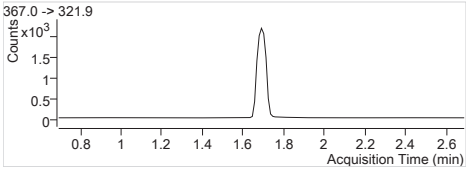
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.422)
Calc. conc. 96.45 µg/L
Area ratio: 0.25117
Sample type: QC



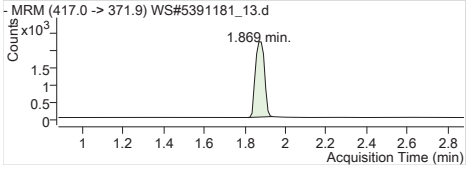


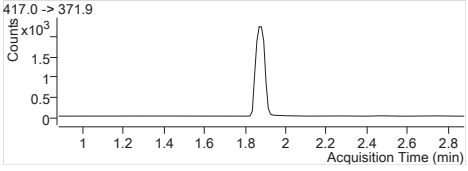
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 95.84 µg/L
Area ratio: 0.06231
Sample type: QC



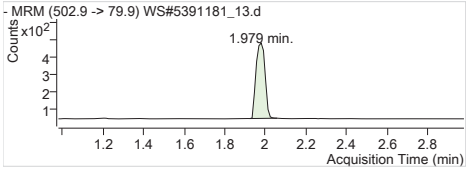


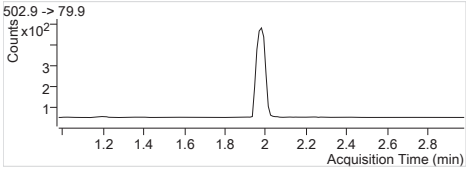
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 94.85 µg/L
Area ratio: 0.31543
Sample type: QC



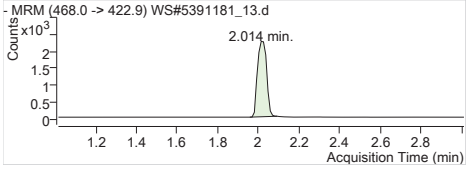


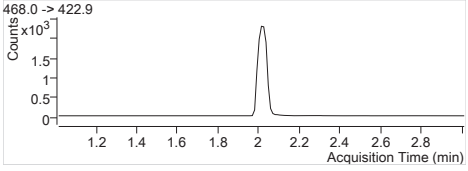
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 92.42 µg/L
Area ratio: 0.32383
Sample type: QC



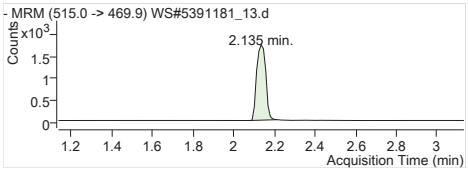


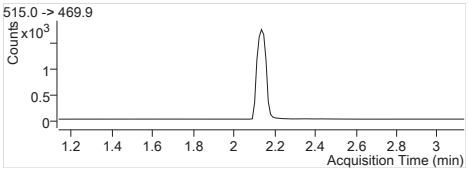
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 81.44 µg/L
Area ratio: 0.06349
Sample type: QC



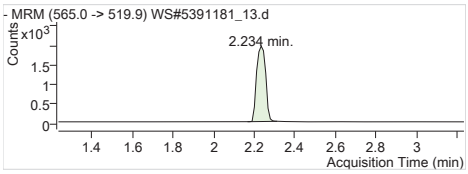


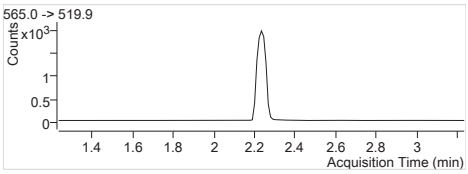
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 94.38 µg/L
Area ratio: 0.33393
Sample type: QC



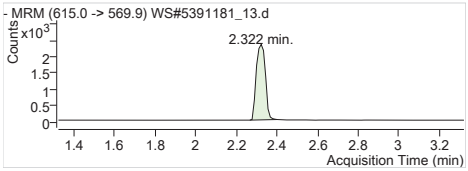


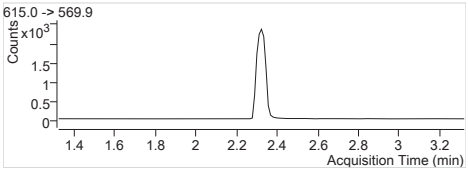
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 87.70 µg/L
Area ratio: 0.19066
Sample type: QC



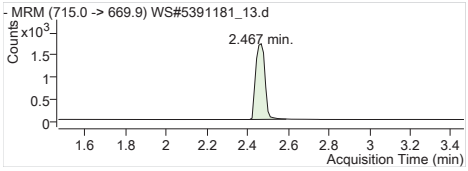


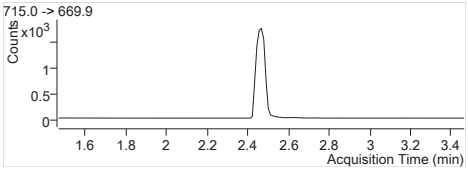
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 81.57 µg/L
Area ratio: 0.21313
Sample type: QC



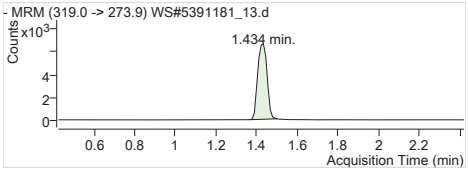


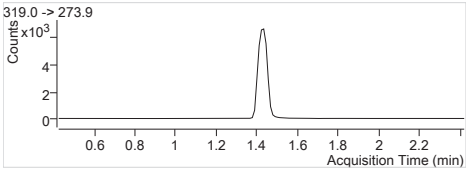
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 72.26 µg/L
Area ratio: 0.25845
Sample type: QC



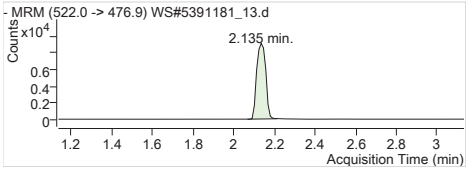


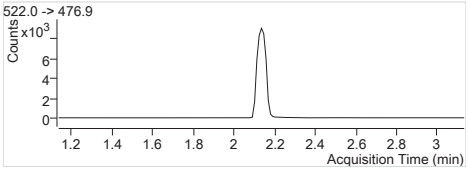
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 46.07 µg/L
Area ratio: 0.19403
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.422)
Calc. conc. 2.36 µg/L
Area ratio: 0
Sample type: QC





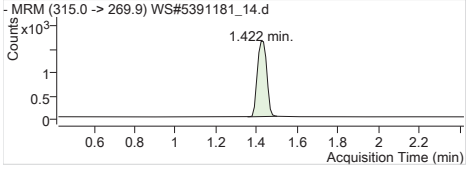
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.39 µg/L
Area ratio: 0
Sample type: QC

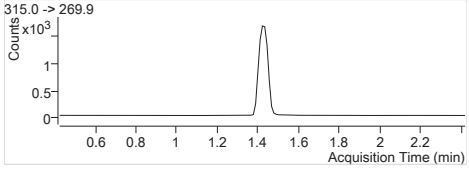
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**5391181:MTRX SPK:D1**	**Instrument**	LCMS04
Data File	WS#5391181_14.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P1-D3
Acq. Date	2018/02/09 1:31:26 PM	**Injection Volume**	Per Method
Sample Annotation	FZJ955		

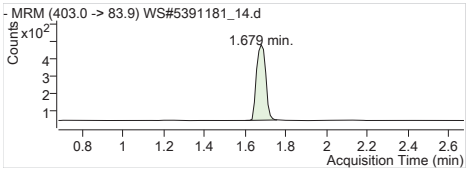
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5211	1.42	1 µg/L		
MPFHxS	1364	1.68	1 µg/L		
MPFHpA	6315	1.69	1 µg/L		
MPFOA	6952	1.88	1 µg/L		
MPFOS	1444	1.98	1 µg/L		
MPFNA	6623	2.01	1 µg/L		
MPFDA	5245	2.14	1 µg/L		
MPFUnA	5516	2.23	1 µg/L		
MPFDoA	6852	2.32	1 µg/L		
MPFTeDA	4589	2.47	1 µg/L		
13C6-PFHxA IS	20854	1.42	1 µg/L		
13C9-PFDA IS	29597	2.13	1 µg/L		

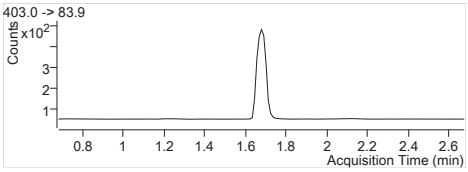
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	13945	1.09	20.80	0.51 µg/L	101.73
PFHxA 1	70972	1.42	20.80	0.72 µg/L	145.21
PFHxS 1	39938	1.68	20.80	1.51 µg/L	301.68
PFHpA 1	61191	1.69	20.80	0.54 µg/L	107.22
PFOA 1	75601	1.87	20.80	0.60 µg/L	119.61
PFOS 1	43090	1.97	20.80	1.81 µg/L	363.57
PFNA 1	56007	2.01	20.80	0.51 µg/L	101.68
PFDA 1	55198	2.14	20.80	0.47 µg/L	94.53
PFUnA 1	58065	2.23	20.80	0.52 µg/L	103.52
PFDoA 1	65345	2.32	20.80	0.50 µg/L	100.08
PFTrDA 1	61598	2.40	20.80	0.73 µg/L	146.62
PFTeDA 1	36980	2.47	20.80	0.52 µg/L	103.76
13C2-PFHxA	5211	1.42	100.00	95.96 µg/L	95.96
18O2-PFHxS	1364	1.68	100.00	100.61 µg/L	100.61
13C4-PFHpA	6315	1.69	100.00	91.06 µg/L	91.06
13C4-PFOA	6952	1.88	100.00	95.14 µg/L	95.14
13C4-PFOS	1444	1.98	100.00	88.81 µg/L	88.81
13C5-PFNA	6623	2.01	100.00	89.76 µg/L	89.76
13C2-PFDA	5216	2.14	100.00	81.06 µg/L	81.06
13C2-PFUnA	5516	2.23	100.00	71.32 µg/L	71.32
13C2-PFDoA	6852	2.32	100.00	64.73 µg/L	64.73
13C2-PFTeDA	4702	2.47	100.00	37.72 µg/L	37.72
13C6-PFHxA	20854	1.42	100.00	2.33 µg/L	97.15
13C9-PFDA	29597	2.13	100.00	2.53 µg/L	105.28



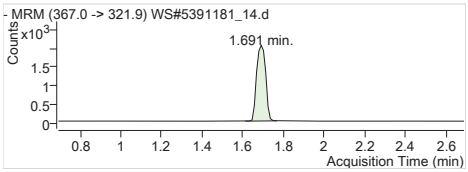


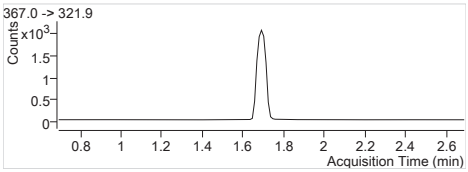
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	QC



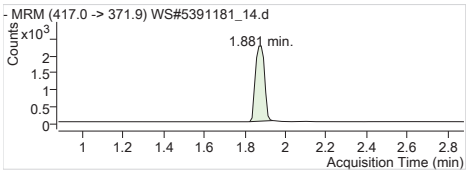


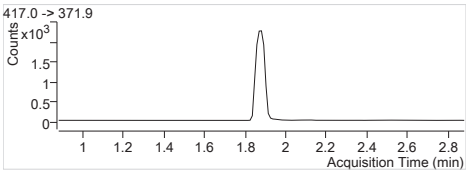
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



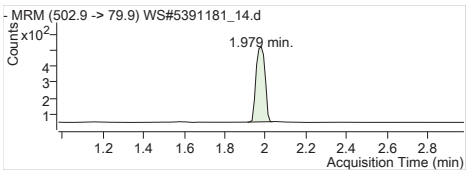


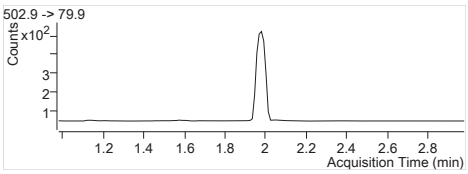
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: QC



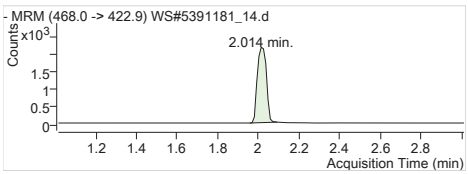


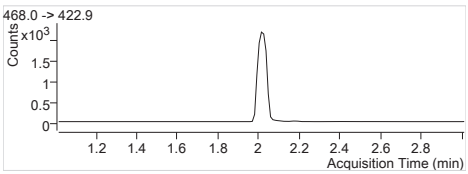
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: QC



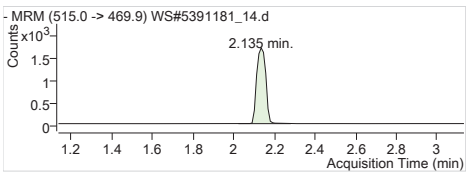


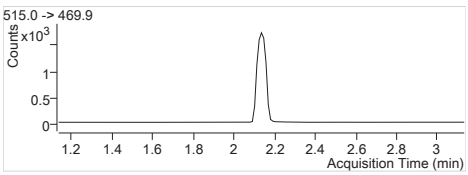
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



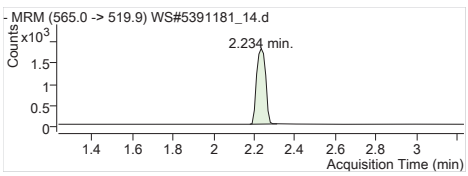


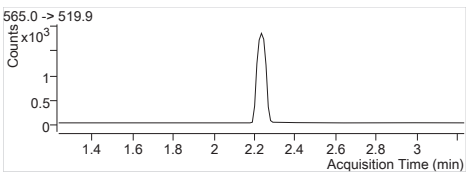
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: QC



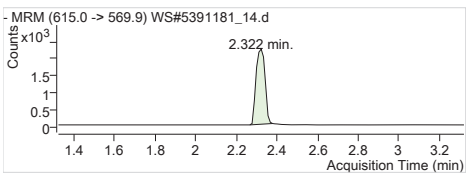


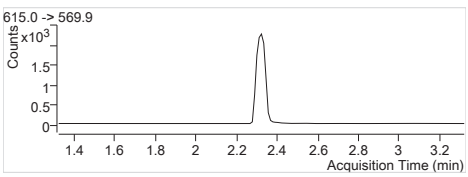
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



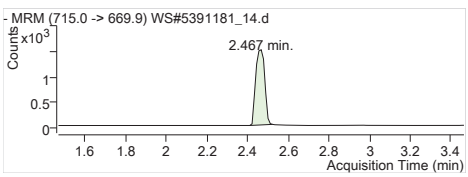


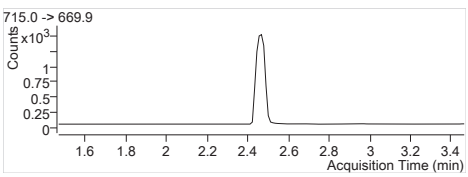
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: QC



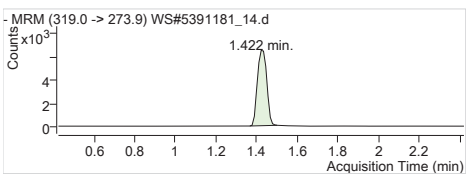


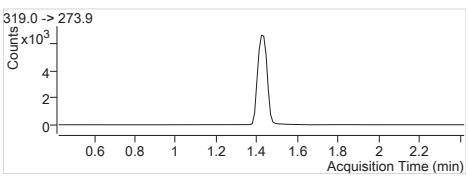
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



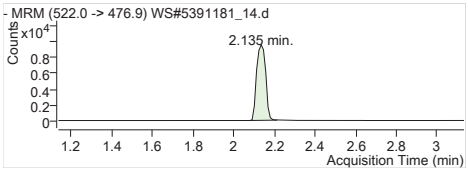


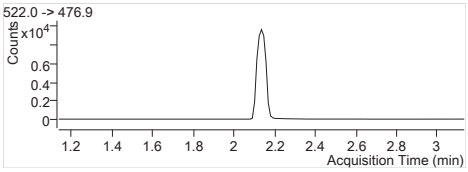
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



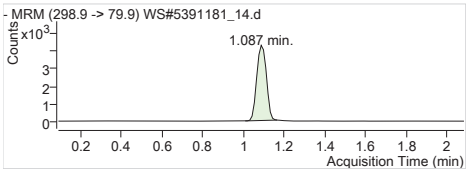


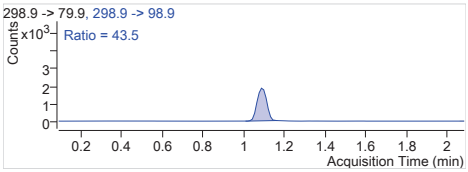
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: QC



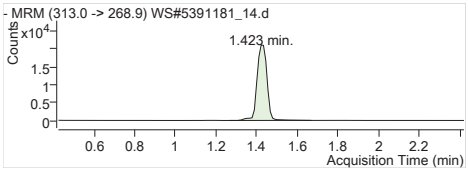


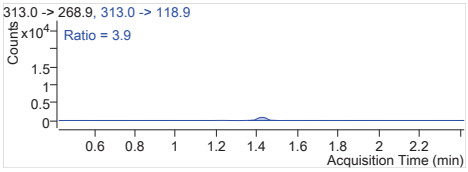
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



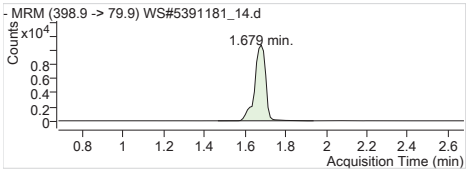


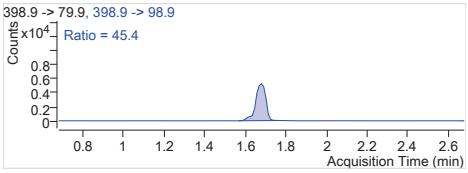
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.51 µg/L
Area ratio: 10.22361
Sample type: QC



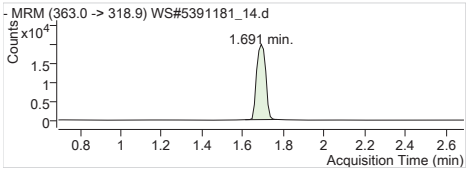


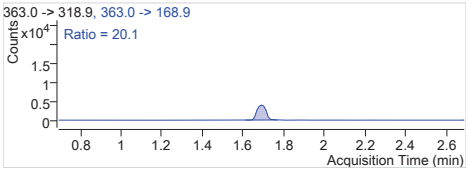
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.72 µg/L
Area ratio: 13.61965
Sample type: QC



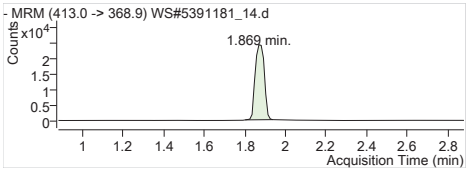


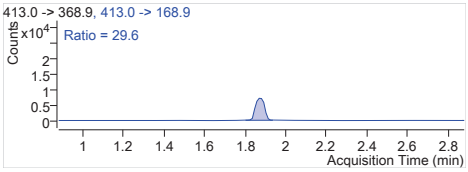
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 1.51 µg/L
Area ratio: 29.28006
Sample type: QC



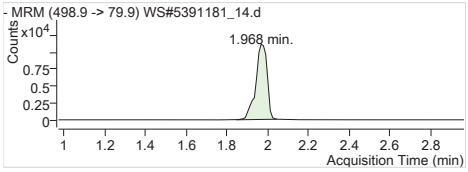


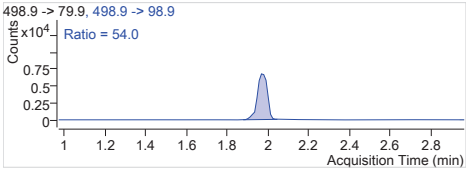
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.54 µg/L
Area ratio: 9.68979
Sample type: QC



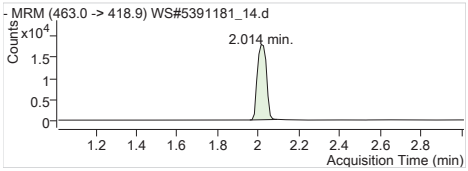


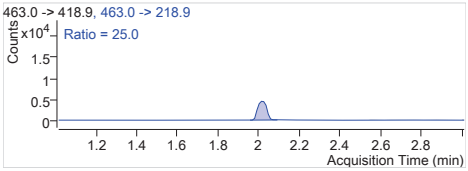
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 0.60 µg/L
Area ratio: 10.87471
Sample type: QC



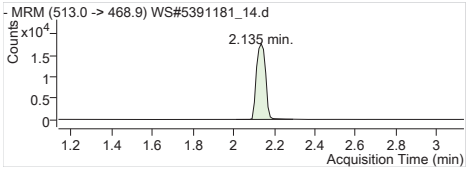


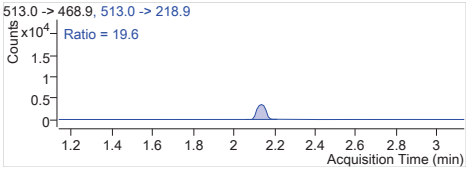
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 1.81 µg/L
Area ratio: 29.84072
Sample type: QC



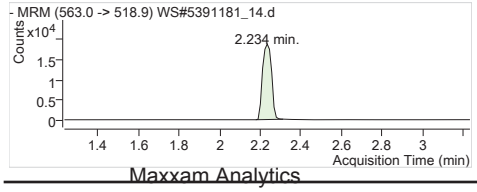


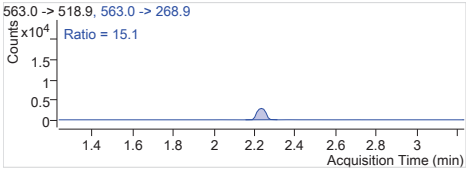
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.51 µg/L
Area ratio: 8.45644
Sample type: QC



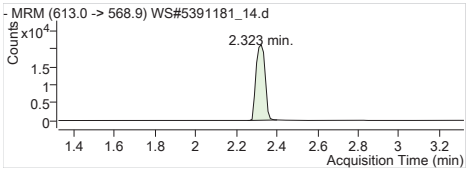


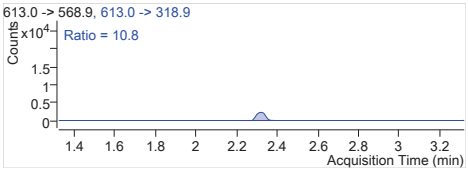
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.47 µg/L
Area ratio: 10.52393
Sample type: QC



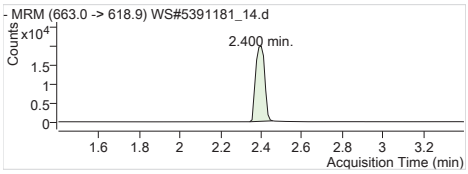


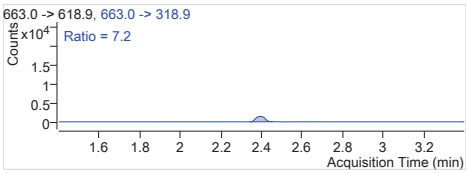
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.52 µg/L
Area ratio: 10.52665
Sample type: QC



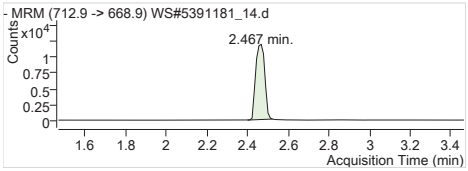


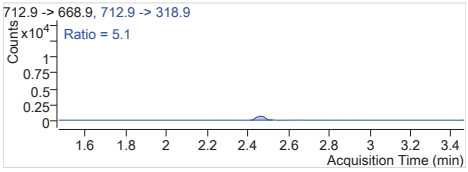
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.50 µg/L
Area ratio: 9.53663
Sample type: QC



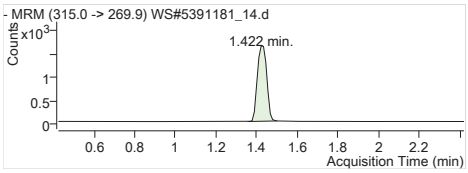


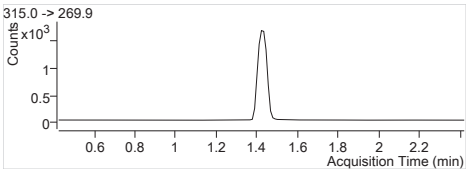
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.73 µg/L
Area ratio: 13.42297
Sample type: QC



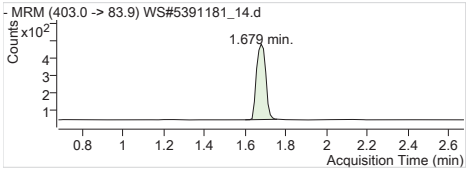


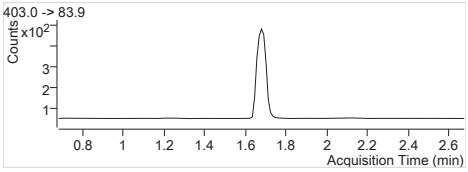
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.52 µg/L
Area ratio: 8.05840
Sample type: QC



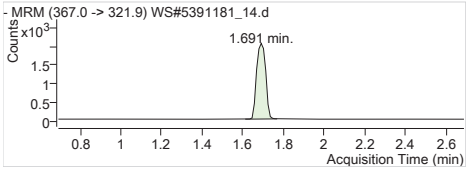


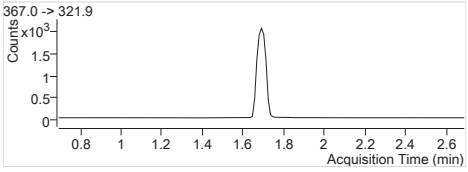
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 95.96 µg/L
Area ratio: 0.24988
Sample type: QC



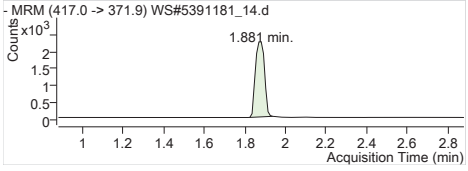


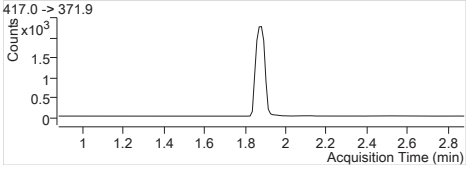
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 100.61 µg/L
Area ratio: 0.06541
Sample type: QC



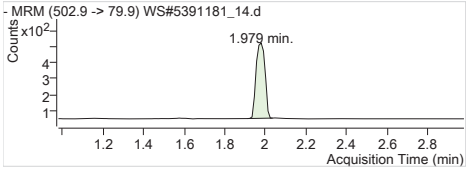


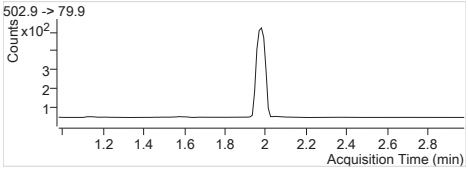
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 91.06 µg/L
Area ratio: 0.30282
Sample type: QC



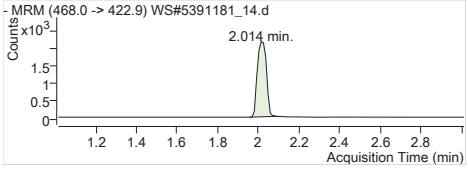


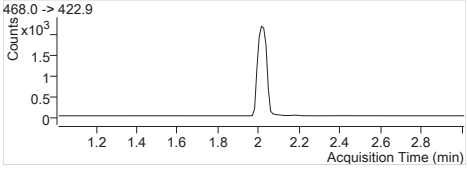
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 95.14 µg/L
Area ratio: 0.33337
Sample type: QC



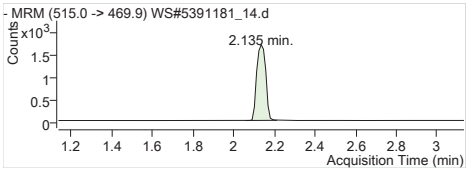


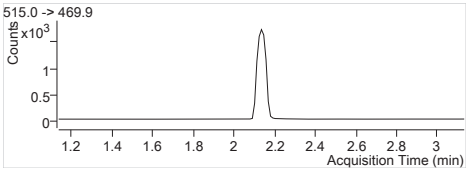
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 88.81 µg/L
Area ratio: 0.06924
Sample type: QC



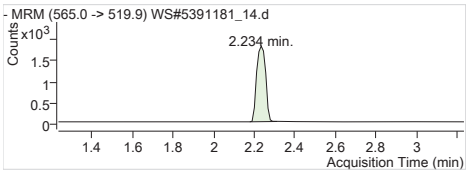


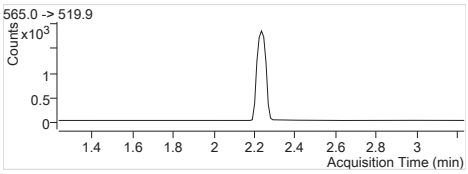
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 89.76 µg/L
Area ratio: 0.31759
Sample type: QC



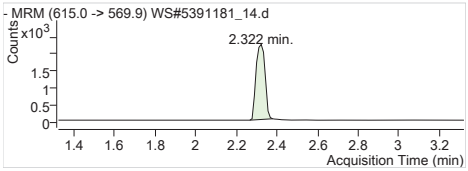


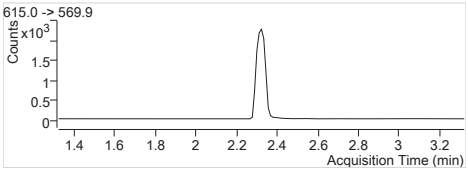
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 81.06 µg/L
Area ratio: 0.17623
Sample type: QC



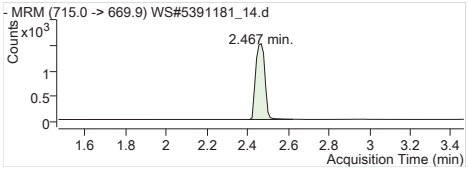


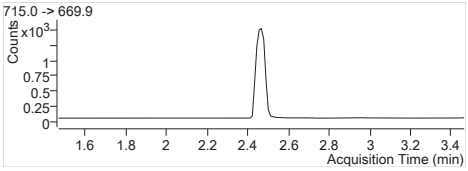
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 71.32 µg/L
Area ratio: 0.18637
Sample type: QC



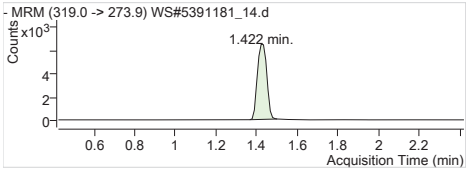


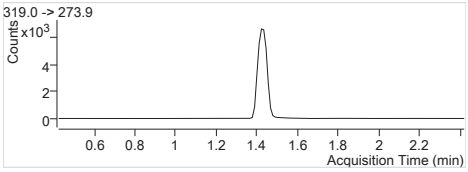
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 64.73 µg/L
Area ratio: 0.23151
Sample type: QC



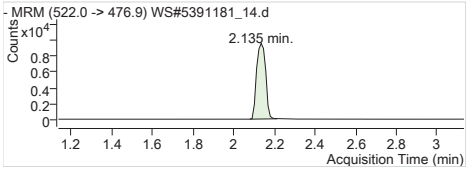


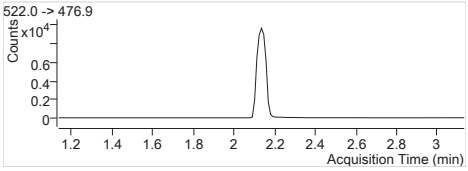
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 37.72 µg/L
Area ratio: 0.15887
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 2.33 µg/L
Area ratio: 0
Sample type: QC





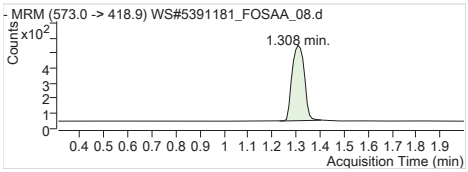
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 2.53 µg/L
Area ratio: 0
Sample type: QC

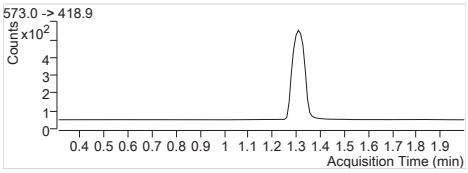
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C7
Acq. Date	2018/02/09 10:43:59 PM	**Injection Volume**	Per Method
Sample Annotation	-		

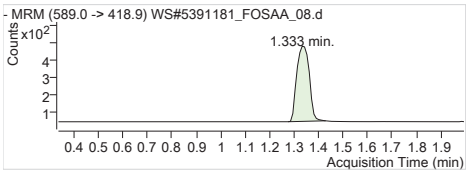
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1784	1.31	1 µg/L		
D5-EtFOSAA IS	1529	1.33	1 µg/L		
13C9-PFDA IS	22864	0.91	1 µg/L		

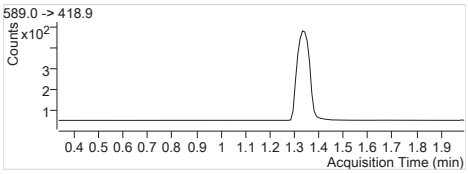
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1799	1.31	-	106.50 µg/L	-
D5-EtFOSAA	1551	1.33	-	102.21 µg/L	-
13C9-PFDA	22116	0.91	-	2.38 µg/L	-



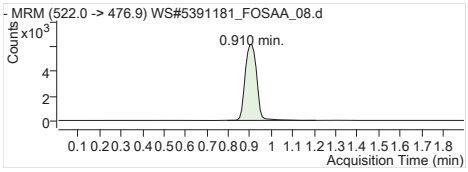


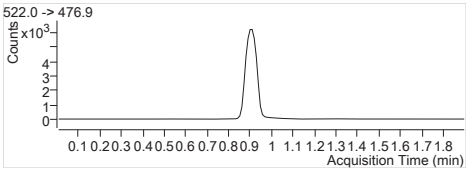
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



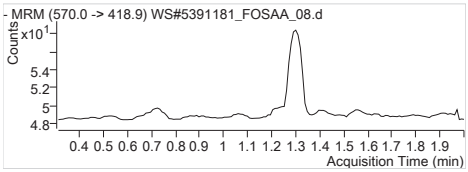


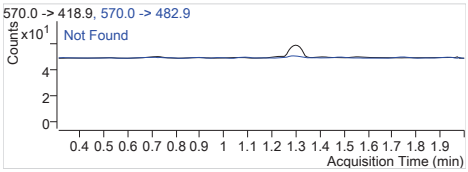
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



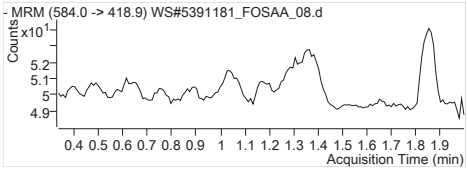


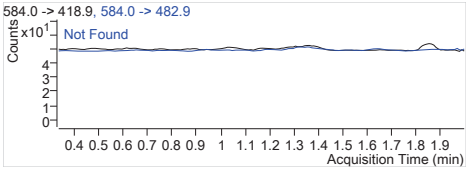
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.900)
Concentration: 1 µg/L
Sample type: Sample



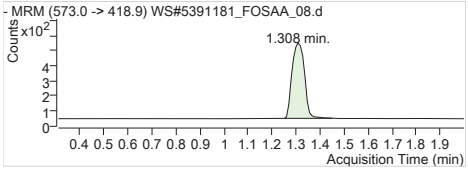


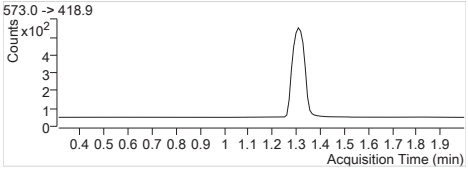
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



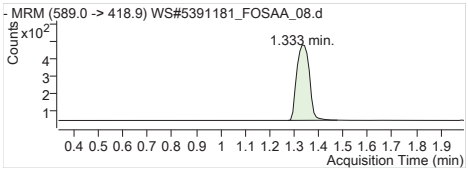


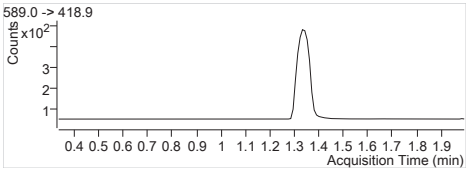
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



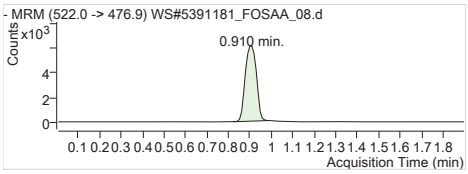


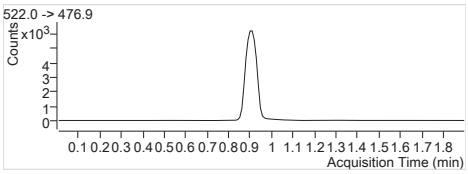
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 106.50 µg/L
Area ratio: 0.07868
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	102.21 µg/L
Area ratio:	0.06784
Sample type:	Sample





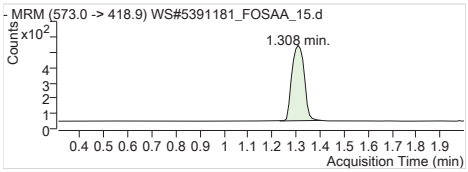
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.900)
Calc. conc.	2.38 µg/L
Area ratio:	0
Sample type:	Sample

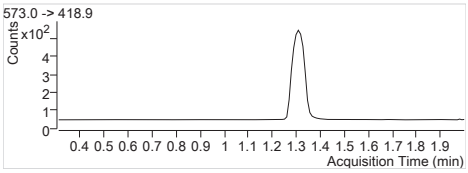
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_15.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C7
Acq. Date	2018/02/09 11:00:52 PM	**Injection Volume**	Per Method
Sample Annotation	-		

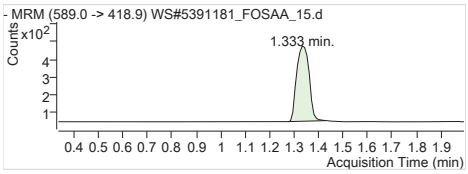
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1771	1.31	1 µg/L		
D5-EtFOSAA IS	1511	1.33	1 µg/L		
13C9-PFDA IS	22743	0.90	1 µg/L		

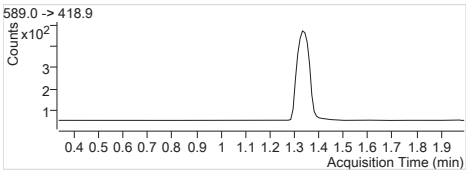
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1795	1.31	-	106.83 µg/L	-
D5-EtFOSAA	1547	1.33	-	102.48 µg/L	-
13C9-PFDA	22013	0.90	-	2.37 µg/L	-



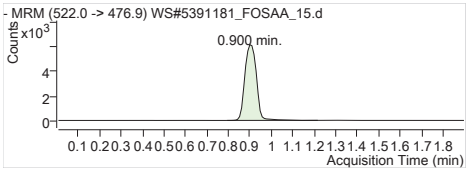


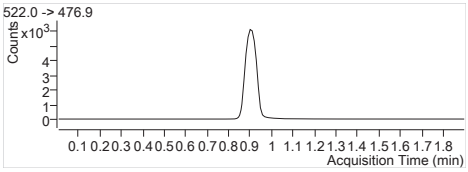
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



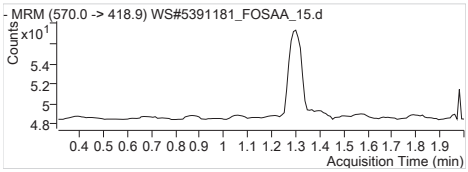


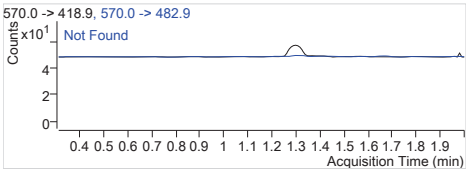
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



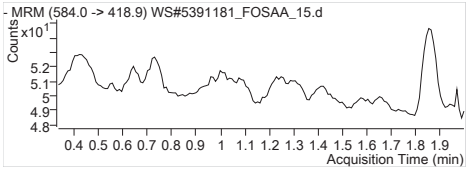


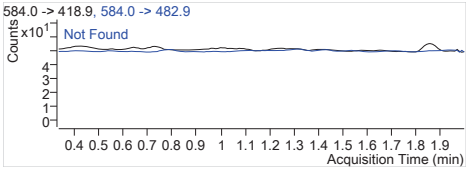
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



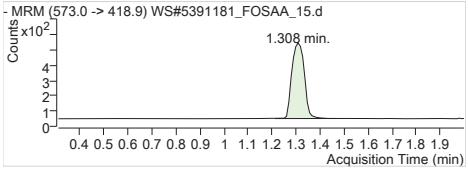


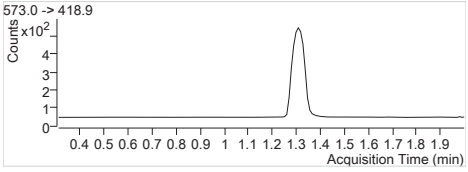
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



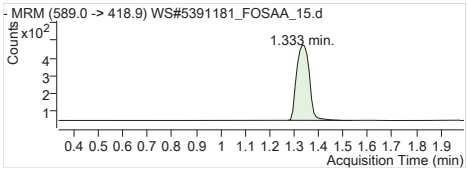


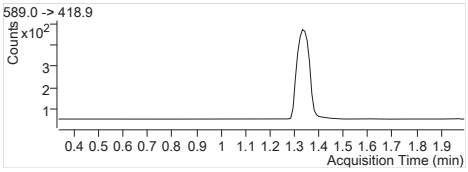
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



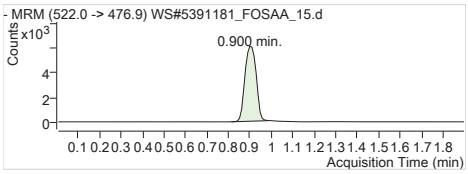


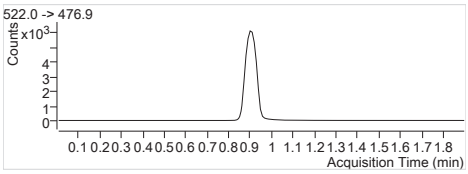
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 106.83 µg/L
Area ratio: 0.07893
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	102.48 µg/L
Area ratio:	0.06802
Sample type:	Sample





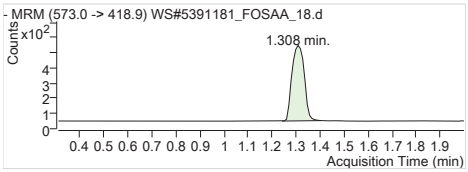
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.37 µg/L
Area ratio:	0
Sample type:	Sample

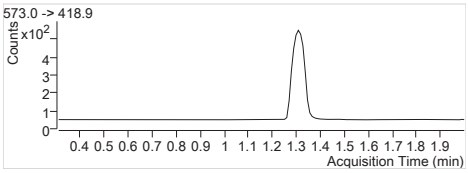
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_18.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C7
Acq. Date	2018/02/09 11:08:04 PM	**Injection Volume**	Per Method
Sample Annotation	-		

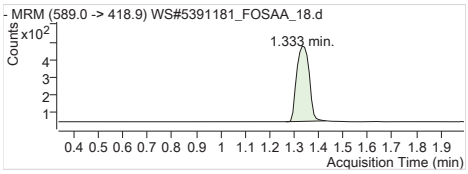
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1778	1.31	1 µg/L		
D5-EtFOSAA IS	1525	1.33	1 µg/L		
13C9-PFDA IS	22872	0.90	1 µg/L		

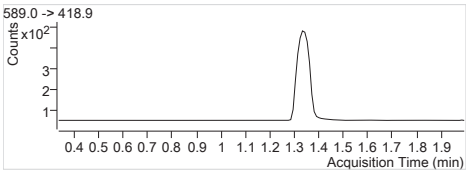
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1776	1.31	-	105.11 µg/L	-
D5-EtFOSAA	1558	1.33	-	102.63 µg/L	-
13C9-PFDA	22151	0.90	-	2.38 µg/L	-



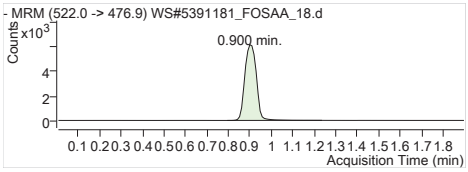


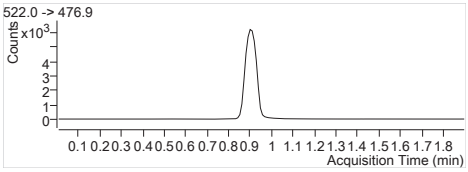
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



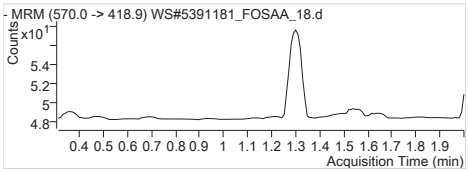


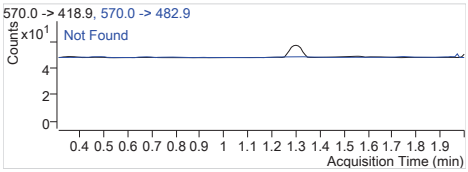
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



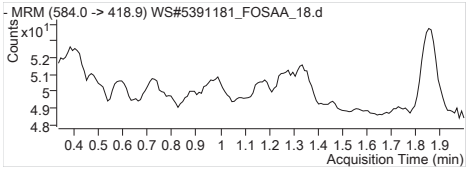


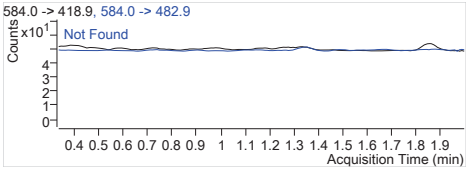
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



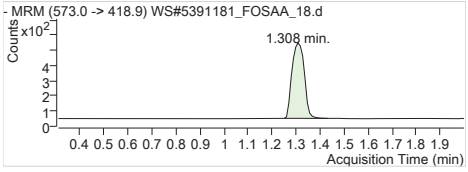


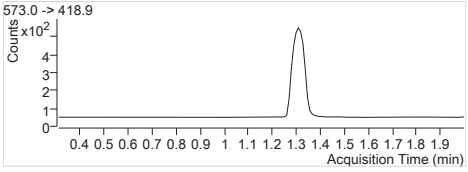
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



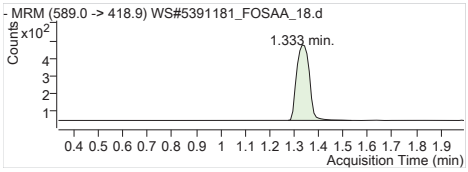


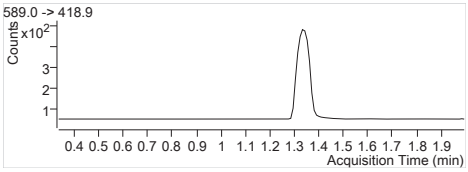
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



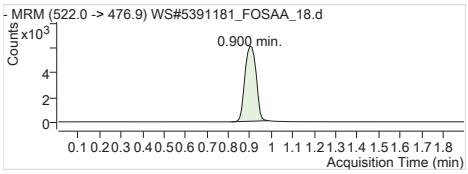


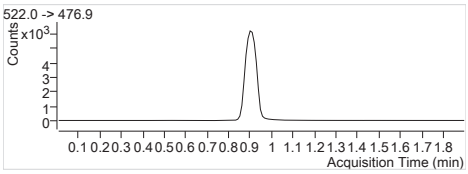
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 105.11 µg/L
Area ratio: 0.07765
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	102.63 µg/L
Area ratio:	0.06812
Sample type:	Sample





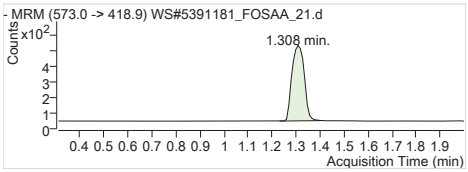
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.38 µg/L
Area ratio:	0
Sample type:	Sample

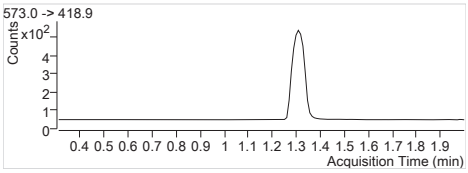
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_21.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C7
Acq. Date	2018/02/09 11:15:19 PM	**Injection Volume**	Per Method
Sample Annotation	-		

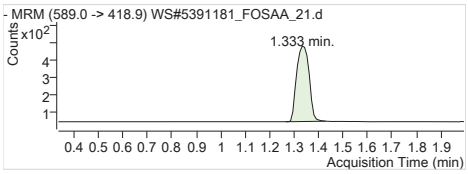
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1727	1.31	1 µg/L		
D5-EtFOSAA IS	1531	1.33	1 µg/L		
13C9-PFDA IS	22764	0.90	1 µg/L		

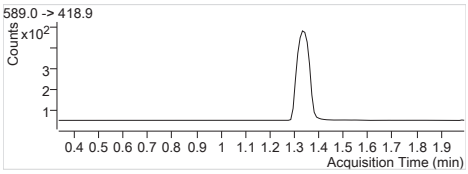
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1728	1.31	-	102.75 µg/L	-
D5-EtFOSAA	1538	1.33	-	101.79 µg/L	-
13C9-PFDA	22048	0.90	-	2.37 µg/L	-



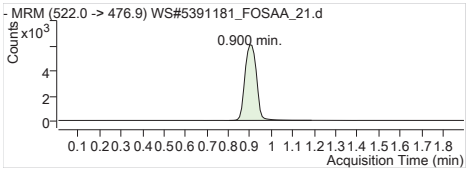


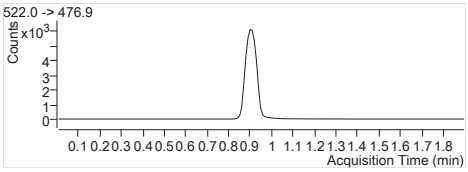
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



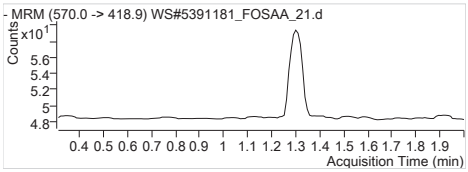


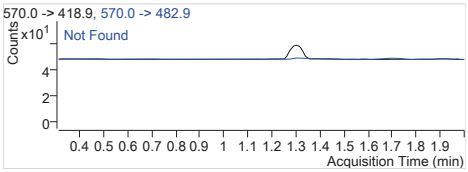
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



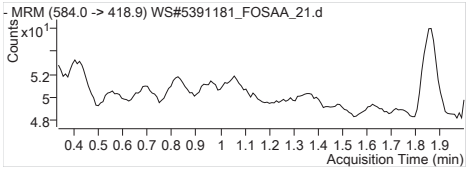


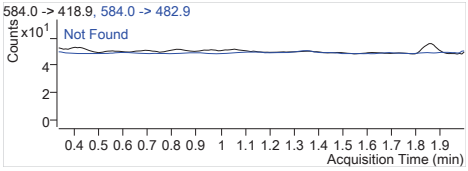
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



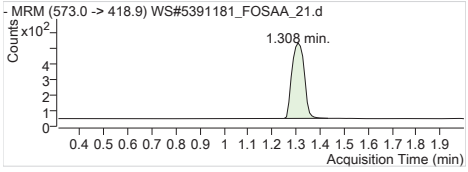


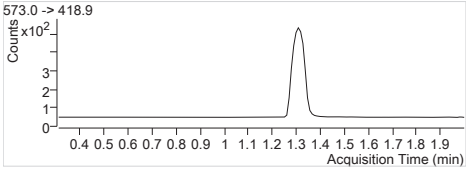
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



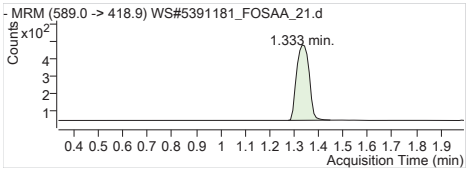


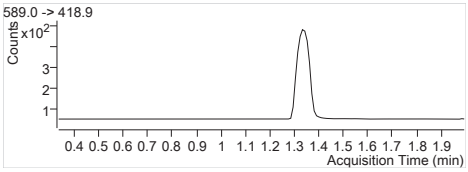
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



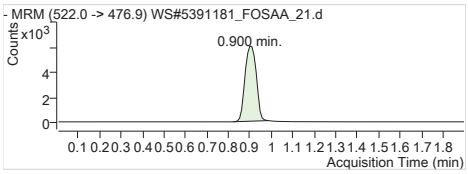


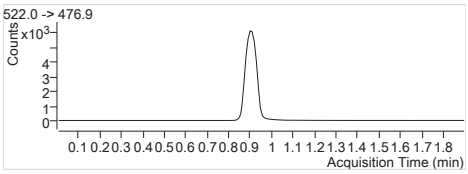
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 102.75 µg/L
Area ratio: 0.07591
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	101.79 µg/L
Area ratio:	0.06756
Sample type:	Sample





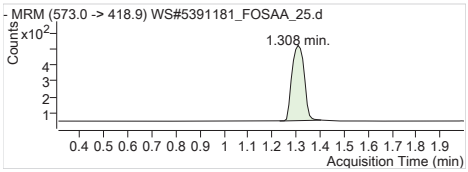
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.37 µg/L
Area ratio:	0
Sample type:	Sample

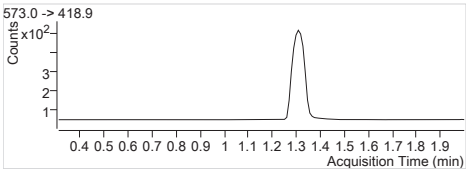
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_25.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C7
Acq. Date	2018/02/09 11:24:58 PM	**Injection Volume**	Per Method
Sample Annotation	-		

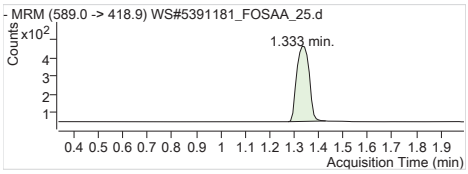
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1667	1.31	1 µg/L		
D5-EtFOSAA IS	1474	1.33	1 µg/L		
13C9-PFDA IS	22676	0.90	1 µg/L		

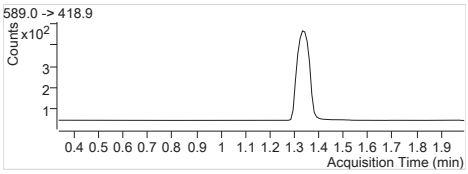
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1695	1.31	-	101.18 µg/L	-
D5-EtFOSAA	1487	1.33	-	98.80 µg/L	-
13C9-PFDA	21985	0.90	-	2.37 µg/L	-



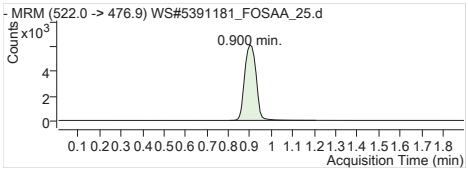


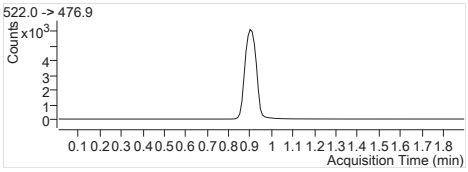
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



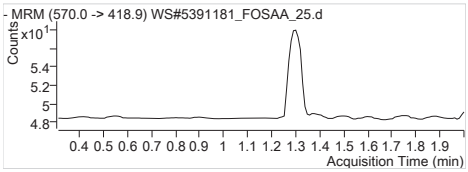


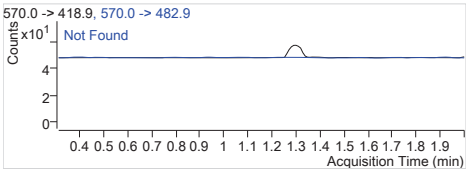
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



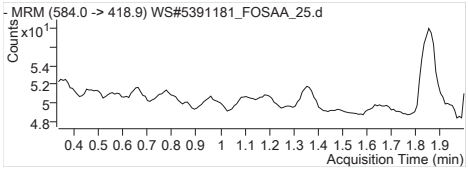


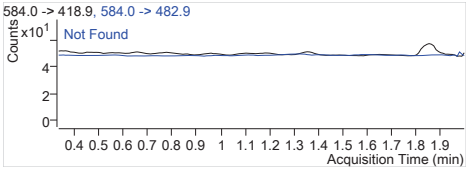
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



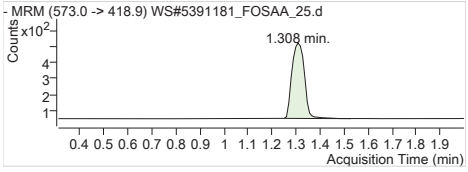


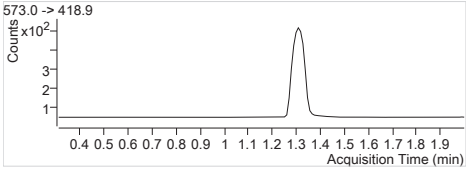
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



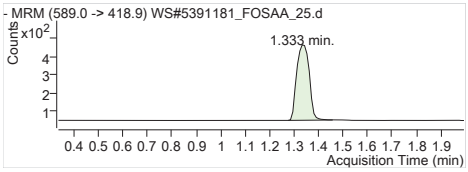


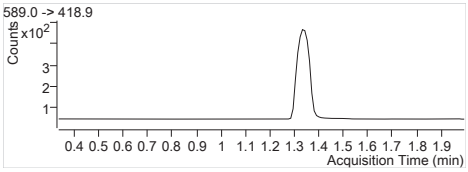
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



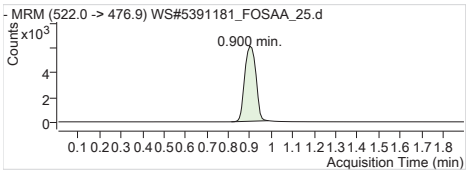


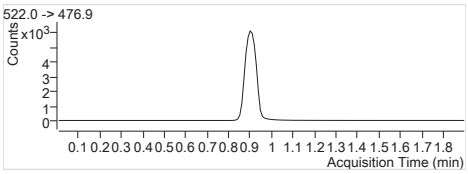
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 101.18 µg/L
Area ratio: 0.07475
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	98.80 µg/L
Area ratio:	0.06558
Sample type:	Sample





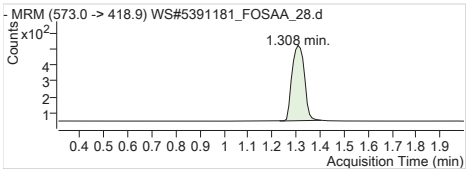
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.37 µg/L
Area ratio:	0
Sample type:	Sample

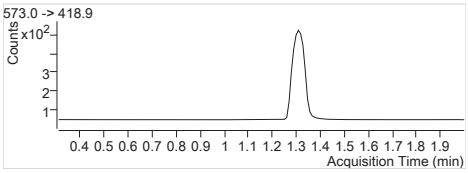
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_28.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C7
Acq. Date	2018/02/09 11:32:10 PM	**Injection Volume**	Per Method
Sample Annotation	-		

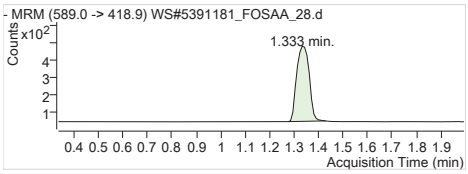
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1689	1.31	1 µg/L		
D5-EtFOSAA IS	1525	1.33	1 µg/L		
13C9-PFDA IS	22552	0.90	1 µg/L		

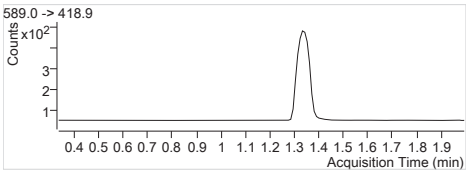
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1702	1.31	-	102.16 µg/L	-
D5-EtFOSAA	1545	1.33	-	103.22 µg/L	-
13C9-PFDA	21830	0.90	-	2.35 µg/L	-



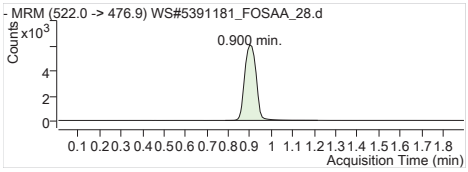


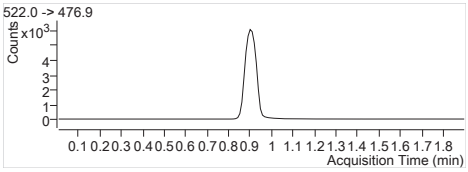
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



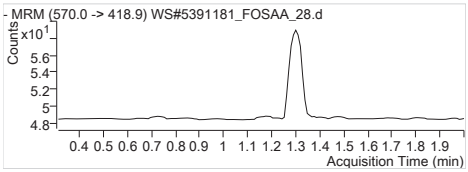


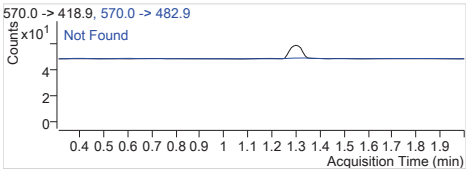
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



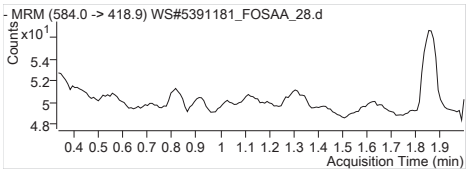


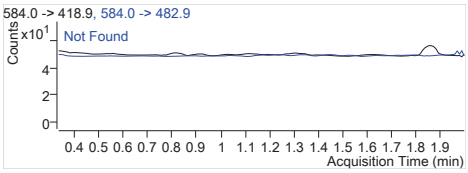
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



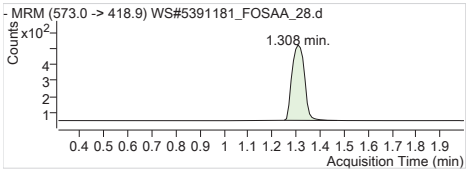


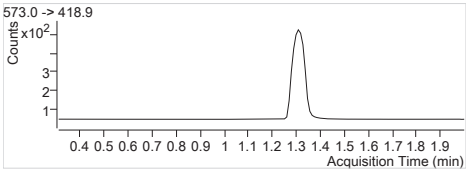
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



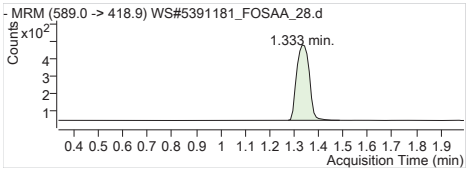


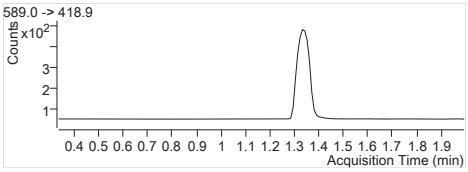
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



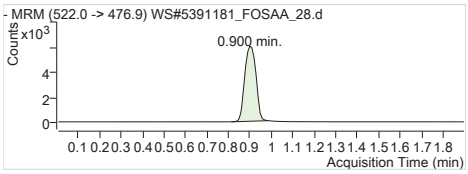


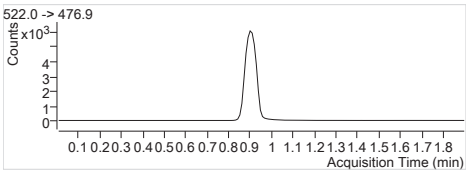
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 102.16 µg/L
Area ratio: 0.07547
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	103.22 µg/L
Area ratio:	0.06851
Sample type:	Sample





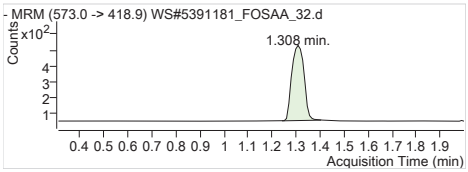
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.35 µg/L
Area ratio:	0
Sample type:	Sample

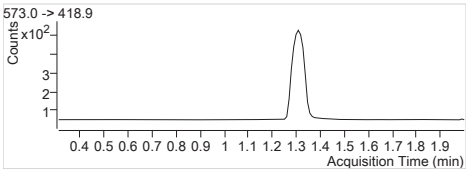
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_32.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C7
Acq. Date	2018/02/09 11:41:50 PM	**Injection Volume**	Per Method
Sample Annotation	-		

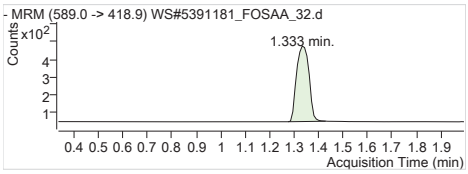
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1693	1.31	1 µg/L		
D5-EtFOSAA IS	1508	1.33	1 µg/L		
13C9-PFDA IS	22603	0.90	1 µg/L		

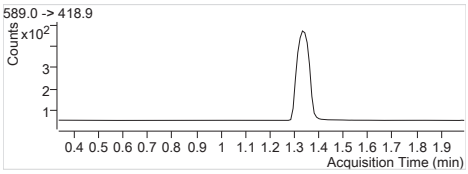
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1738	1.31	-	104.08 µg/L	-
D5-EtFOSAA	1510	1.33	-	100.65 µg/L	-
13C9-PFDA	21901	0.90	-	2.36 µg/L	-



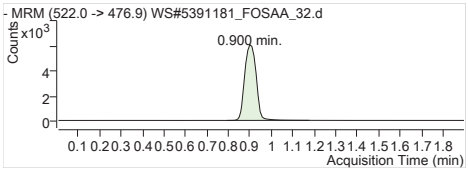


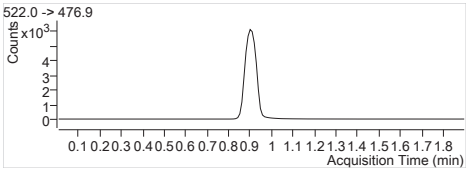
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



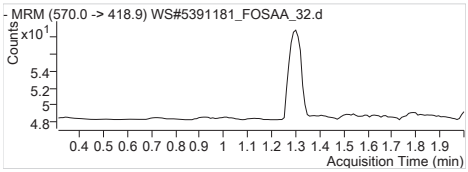


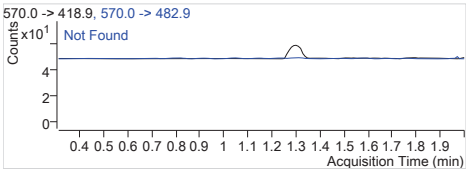
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



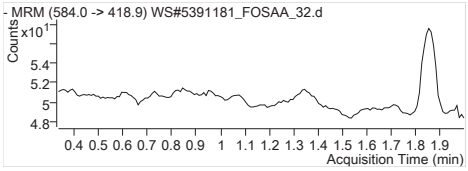


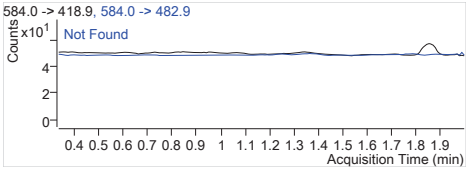
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



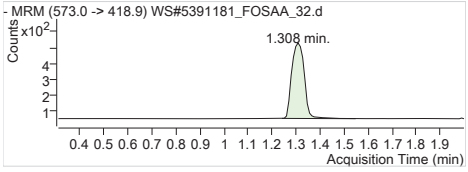


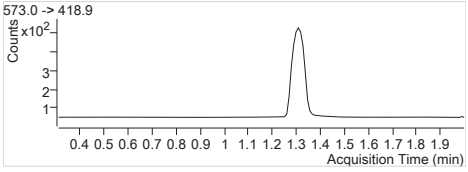
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



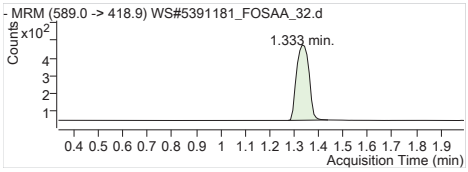


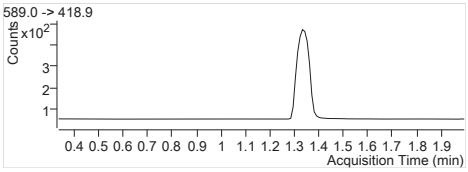
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



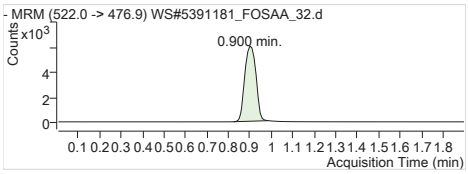


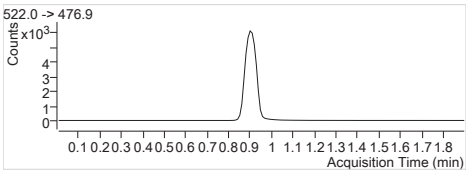
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 104.08 µg/L
Area ratio: 0.07689
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	100.65 µg/L
Area ratio:	0.06681
Sample type:	Sample





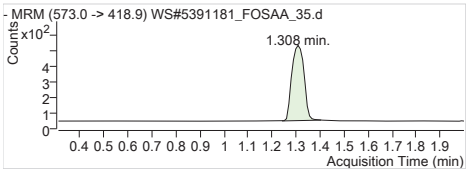
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.36 µg/L
Area ratio:	0
Sample type:	Sample

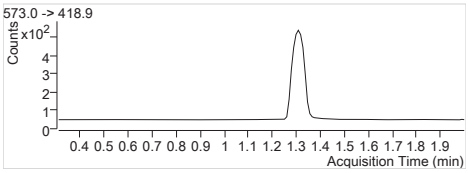
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_35.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C7
Acq. Date	2018/02/09 11:49:03 PM	**Injection Volume**	Per Method
Sample Annotation	-		

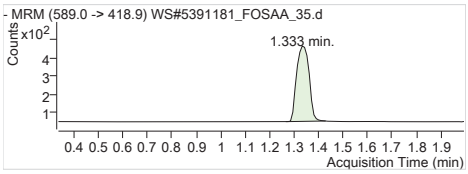
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1721	1.31	1 µg/L		
D5-EtFOSAA IS	1468	1.33	1 µg/L		
13C9-PFDA IS	22920	0.90	1 µg/L		

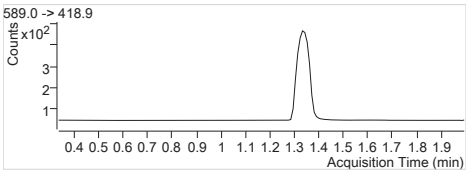
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1764	1.31	-	104.18 µg/L	-
D5-EtFOSAA	1486	1.33	-	97.68 µg/L	-
13C9-PFDA	22222	0.90	-	2.39 µg/L	-



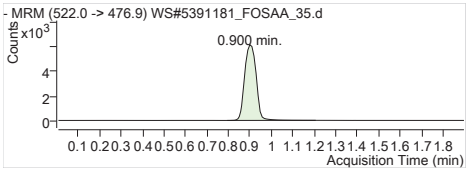


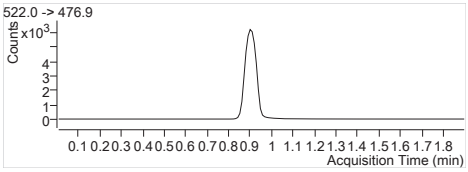
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



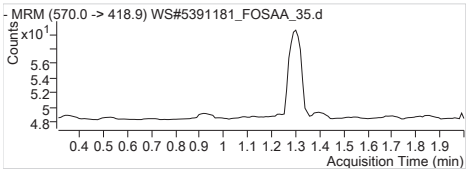


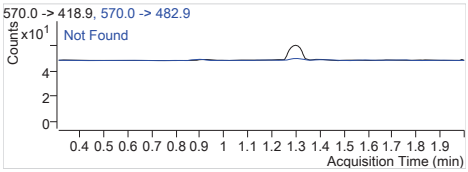
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



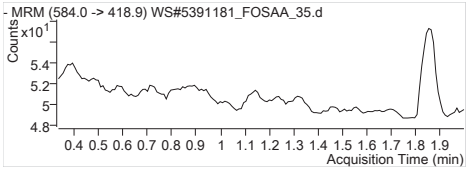


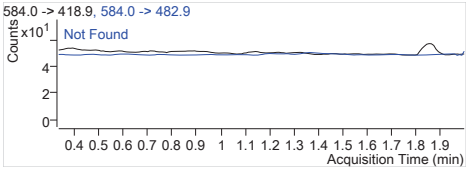
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



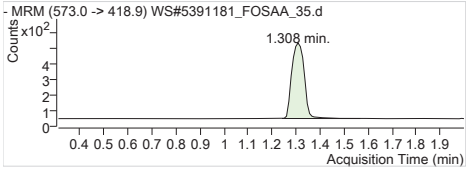


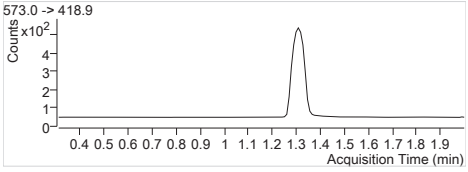
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



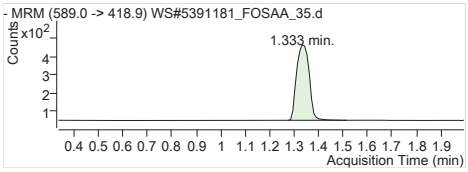


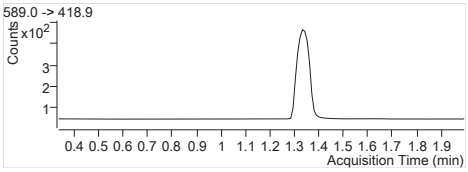
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



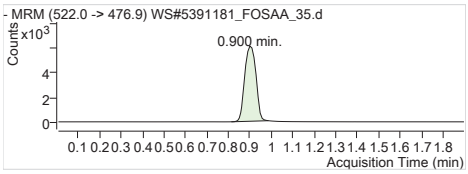


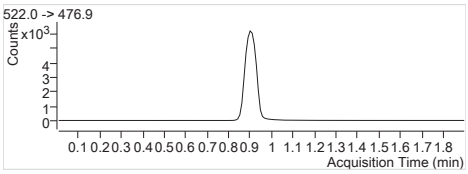
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 104.18 µg/L
Area ratio: 0.07696
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	97.68 µg/L
Area ratio:	0.06483
Sample type:	Sample





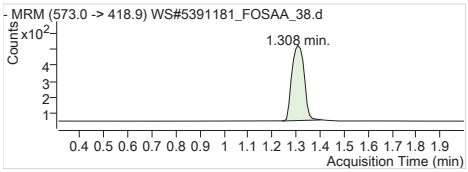
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.39 µg/L
Area ratio:	0
Sample type:	Sample

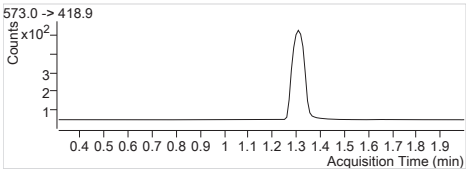
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_38.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C7
Acq. Date	2018/02/09 11:56:18 PM	**Injection Volume**	Per Method
Sample Annotation	-		

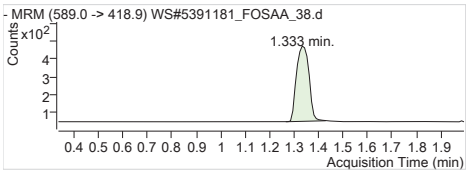
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1683	1.31	1 µg/L		
D5-EtFOSAA IS	1499	1.33	1 µg/L		
13C9-PFDA IS	22530	0.90	1 µg/L		

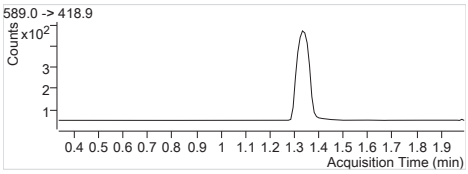
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1721	1.31	-	103.40 µg/L	-
D5-EtFOSAA	1517	1.33	-	101.45 µg/L	-
13C9-PFDA	21805	0.90	-	2.35 µg/L	-



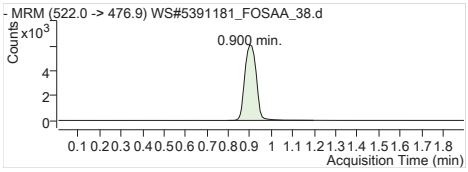


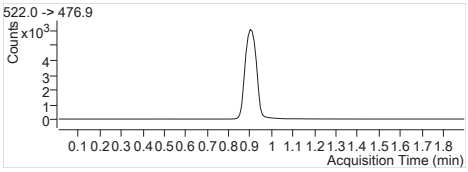
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



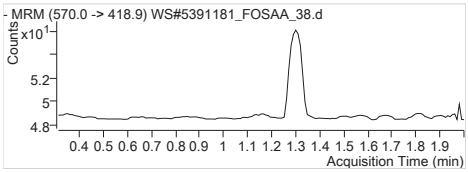


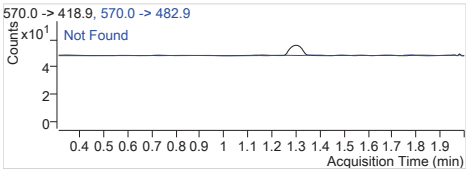
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



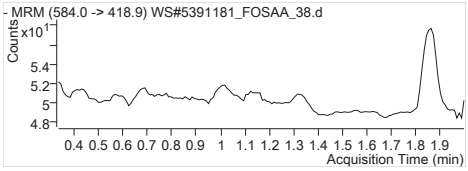


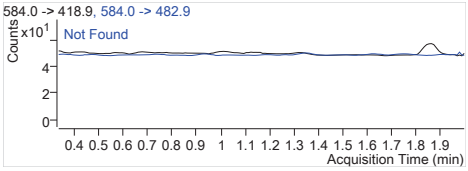
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



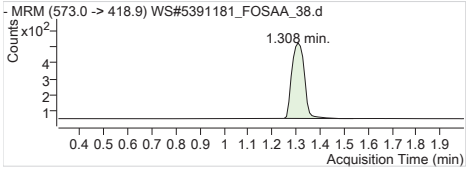


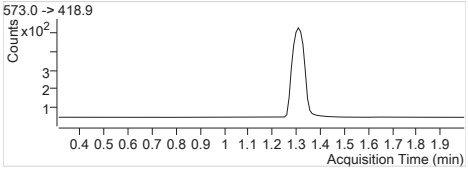
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



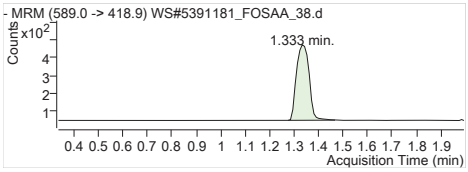


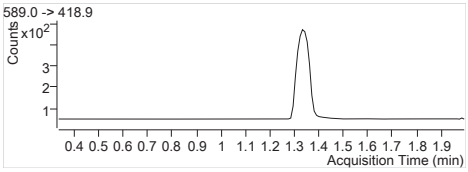
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



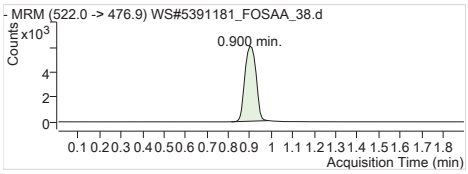


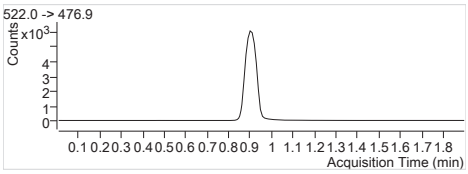
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 103.40 µg/L
Area ratio: 0.07639
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	101.45 µg/L
Area ratio:	0.06733
Sample type:	Sample





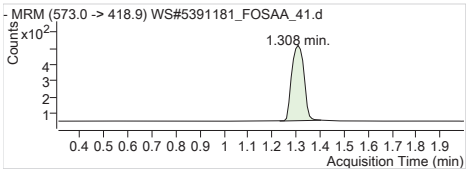
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.35 µg/L
Area ratio:	0
Sample type:	Sample

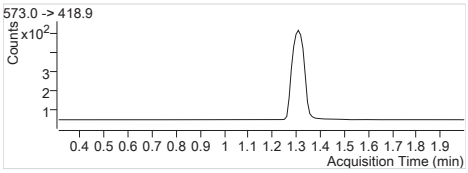
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_41.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C7
Acq. Date	2018/02/10 12:03:29 AM	**Injection Volume**	Per Method
Sample Annotation	-		

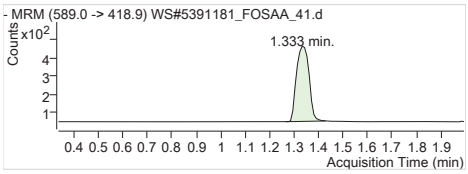
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1664	1.31	1 µg/L		
D5-EtFOSAA IS	1480	1.33	1 µg/L		
13C9-PFDA IS	22129	0.90	1 µg/L		

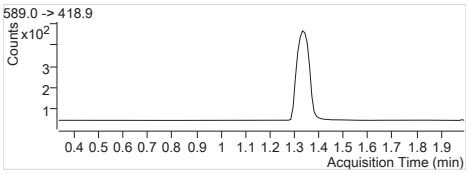
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1704	1.31	-	104.23 µg/L	-
D5-EtFOSAA	1486	1.33	-	101.18 µg/L	-
13C9-PFDA	21446	0.90	-	2.31 µg/L	-



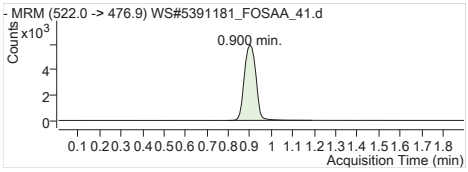


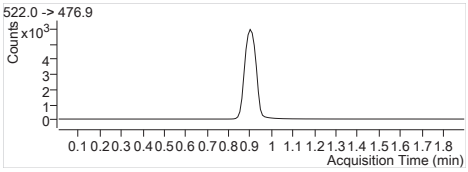
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



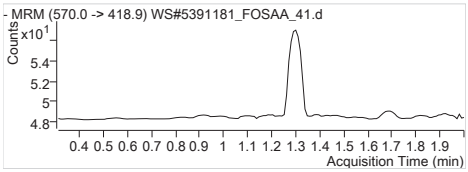


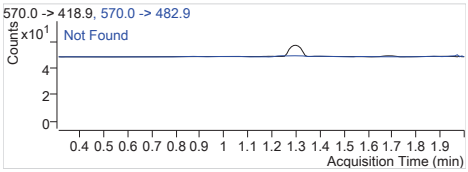
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



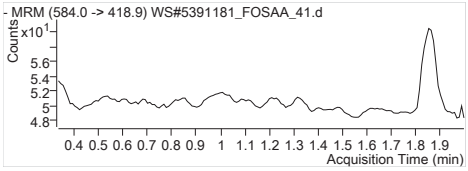


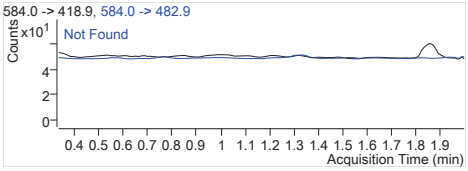
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



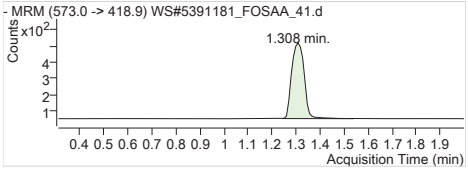


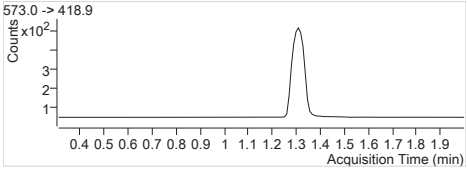
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



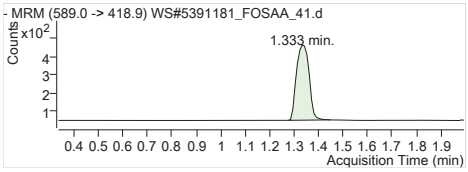


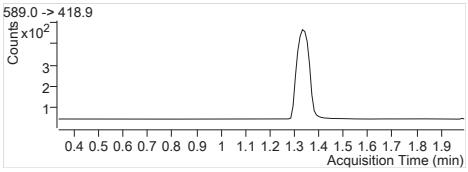
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



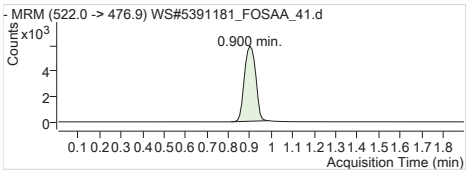


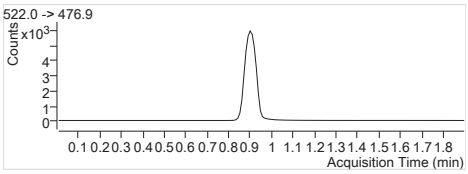
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 104.23 µg/L
Area ratio: 0.07700
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	101.18 µg/L
Area ratio:	0.06715
Sample type:	Sample





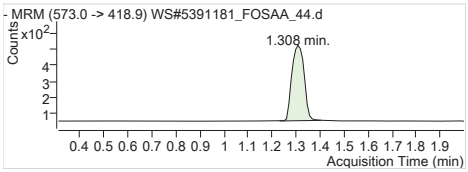
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.31 µg/L
Area ratio:	0
Sample type:	Sample

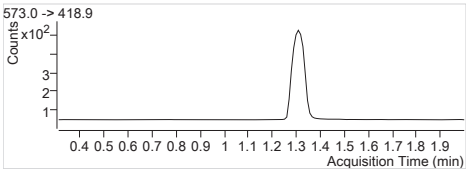
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_44.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C7
Acq. Date	2018/02/10 12:10:42 AM	**Injection Volume**	Per Method
Sample Annotation	-		

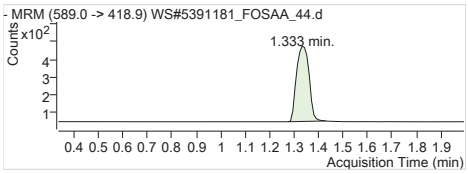
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1687	1.31	1 µg/L		
D5-EtFOSAA IS	1514	1.33	1 µg/L		
13C9-PFDA IS	22600	0.90	1 µg/L		

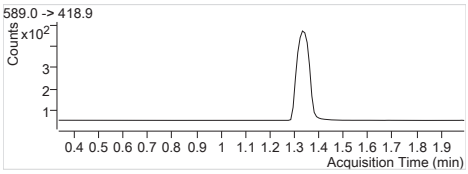
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1689	1.31	-	101.16 µg/L	-
D5-EtFOSAA	1543	1.33	-	102.87 µg/L	-
13C9-PFDA	21932	0.90	-	2.36 µg/L	-



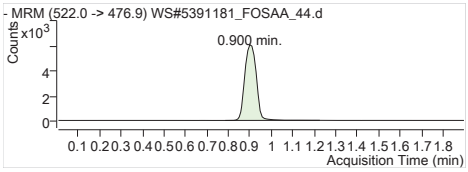


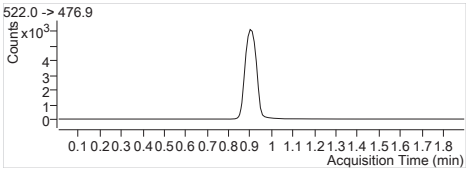
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



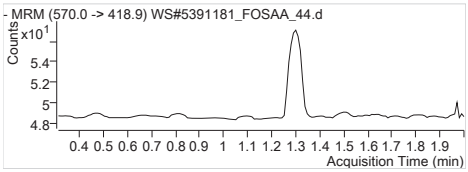


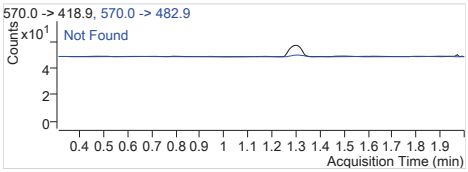
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



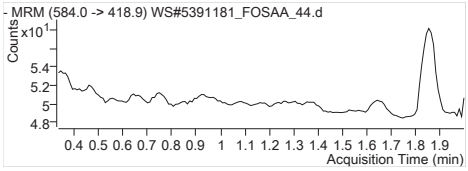


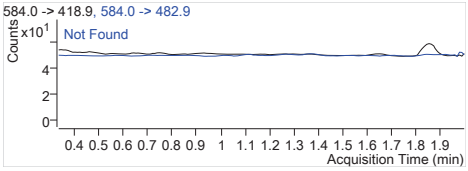
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Sample



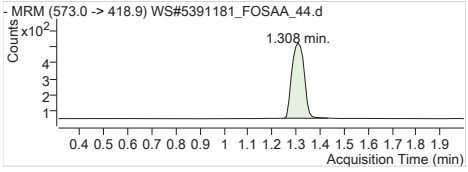


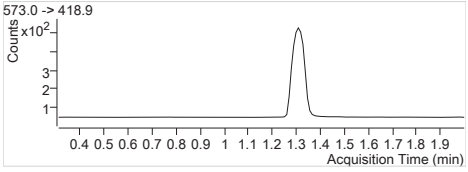
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



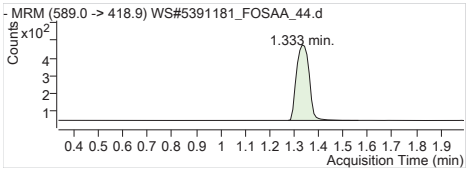


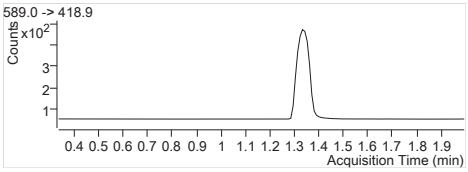
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



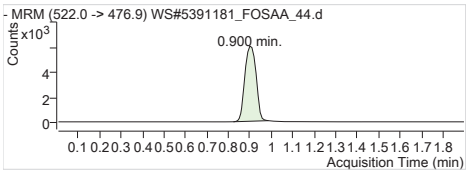


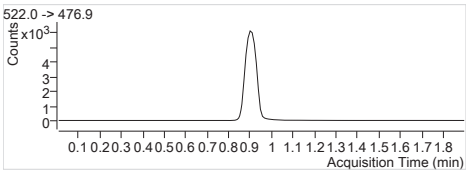
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 101.16 µg/L
Area ratio: 0.07473
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	102.87 µg/L
Area ratio:	0.06827
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.36 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

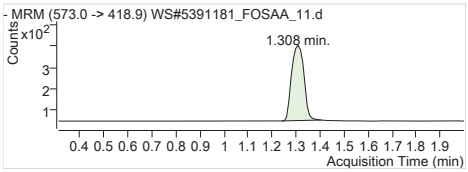
Agilent Technologies

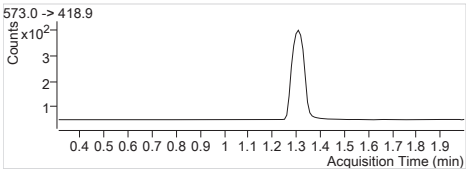
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**5391181:BLANK**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C9
Acq. Date	2018/02/09 10:51:12 PM	**Injection Volume**	Per Method
Sample Annotation	-		

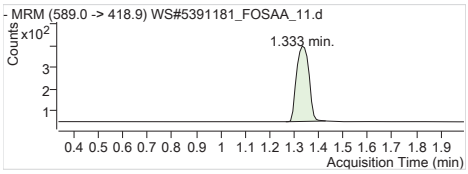
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1259	1.31	1 µg/L		
D5-EtFOSAA IS	1231	1.33	1 µg/L		
13C9-PFDA IS	21570	0.88	1 µg/L		

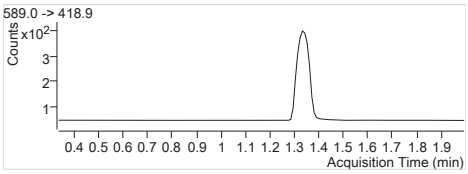
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1289	1.31	-	80.89 µg/L	-
D5-EtFOSAA	1253	1.33	-	87.52 µg/L	-
13C9-PFDA	20838	0.88	-	2.24 µg/L	-



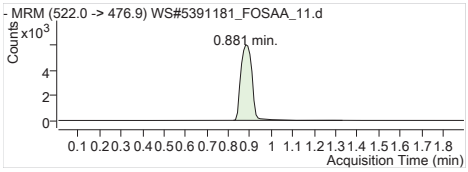


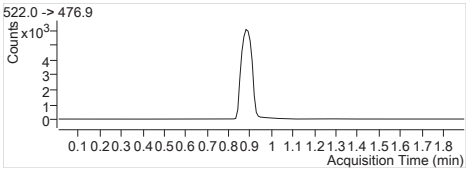
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Sample



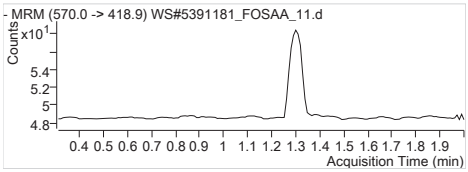


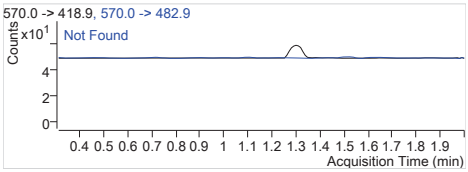
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Sample



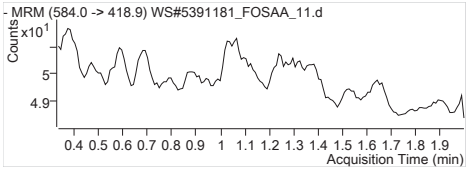


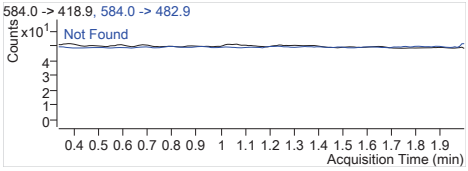
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.900)
Concentration: 1 µg/L
Sample type: Sample



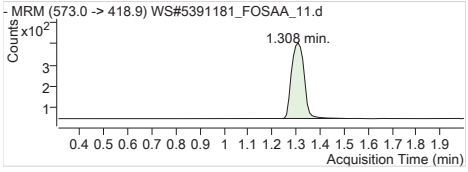


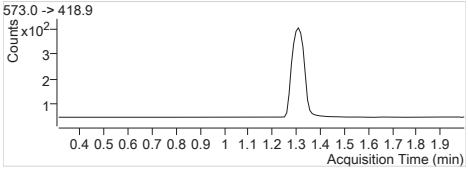
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.310)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



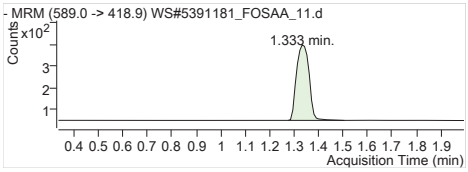


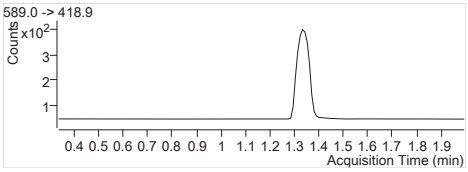
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.334)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



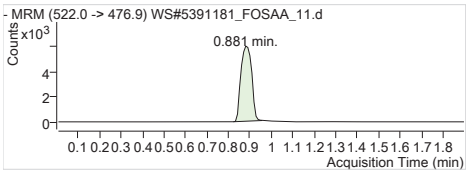


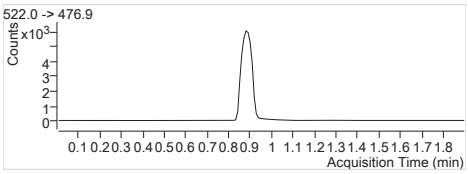
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 80.89 µg/L
Area ratio: 0.05976
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	87.52 µg/L
Area ratio:	0.05809
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.900)
Calc. conc.	2.24 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

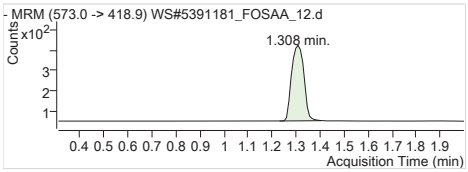
Agilent Technologies

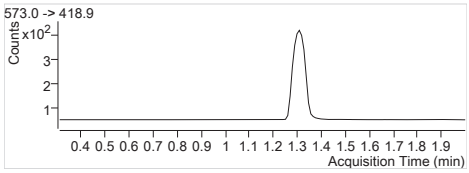
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**5391181:SPIKE**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D1
Acq. Date	2018/02/09 10:53:38 PM	**Injection Volume**	Per Method
Sample Annotation	-		

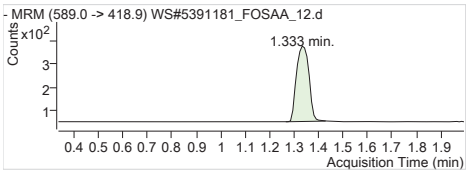
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1337	1.31	1 µg/L		
D5-EtFOSAA IS	1165	1.33	1 µg/L		
13C9-PFDA IS	22340	0.88	1 µg/L		

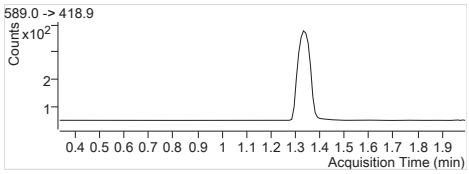
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10187	1.31	20.80	0.48 µg/L	95.47
EtFOSAA 1	11066	1.33	20.80	0.50 µg/L	99.19
D3-MeFOSAA	1339	1.31	100.00	81.13 µg/L	81.13
D5-EtFOSAA	1179	1.33	100.00	79.51 µg/L	79.51
13C9-PFDA	21771	0.88	100.00	2.34 µg/L	97.65



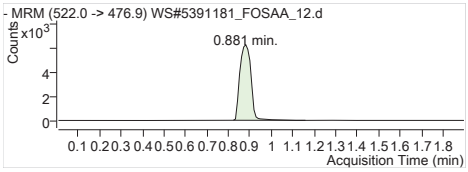


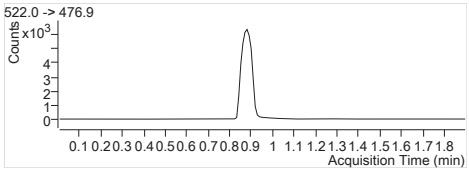
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: QC



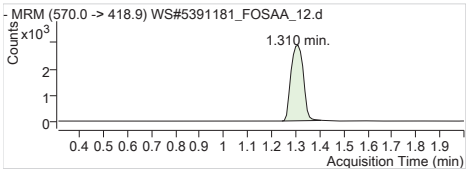


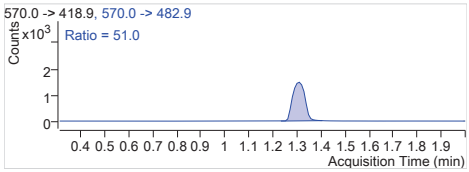
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: QC



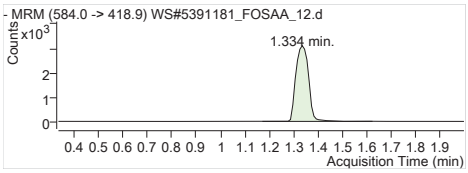


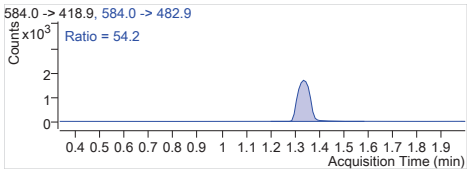
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.881 (0.900)
Concentration: 1 µg/L
Sample type: QC



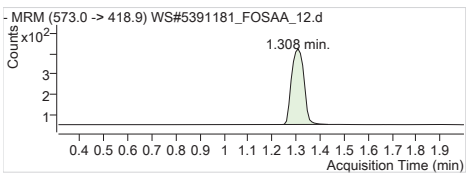


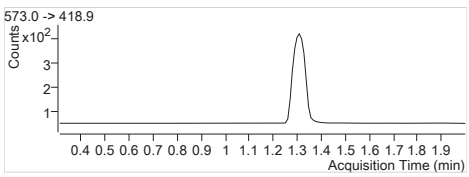
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.48 µg/L
Area ratio: 7.61930
Sample type: QC



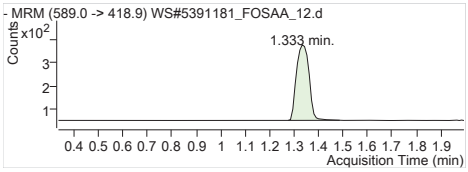


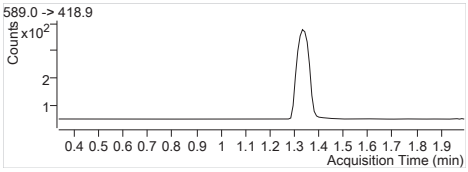
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 0.50 µg/L
Area ratio: 9.49871
Sample type: QC



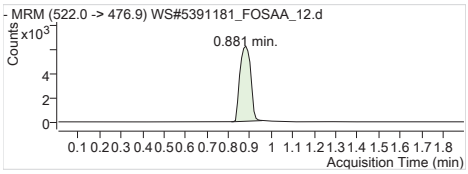


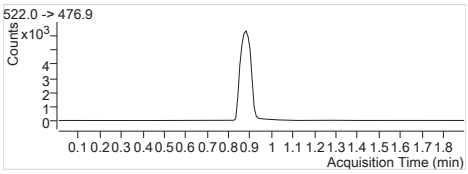
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 81.13 µg/L
Area ratio: 0.05994
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	79.51 µg/L
Area ratio:	0.05278
Sample type:	QC





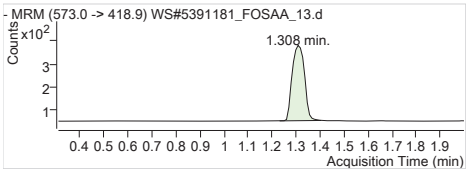
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.881 (0.900)
Calc. conc.	2.34 µg/L
Area ratio:	0
Sample type:	QC

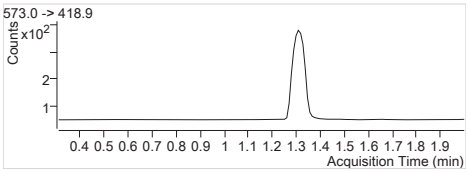
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**5391181:MTRX SPK**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_13.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D2
Acq. Date	2018/02/09 10:56:03 PM	**Injection Volume**	Per Method
Sample Annotation	FZJ955		

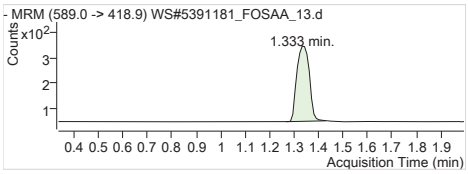
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1179	1.31	1 µg/L		
D5-EtFOSAA IS	1052	1.33	1 µg/L		
13C9-PFDA IS	22033	0.90	1 µg/L		

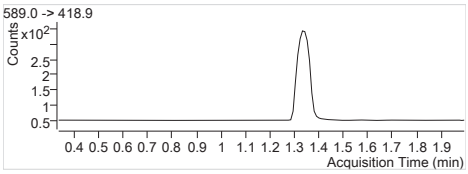
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8543	1.31	20.80	0.45 µg/L	90.80
EtFOSAA 1	9447	1.33	20.80	0.47 µg/L	93.80
D3-MeFOSAA	1194	1.31	100.00	73.35 µg/L	73.35
D5-EtFOSAA	1069	1.33	100.00	73.10 µg/L	73.10
13C9-PFDA	21742	0.90	100.00	2.34 µg/L	97.52



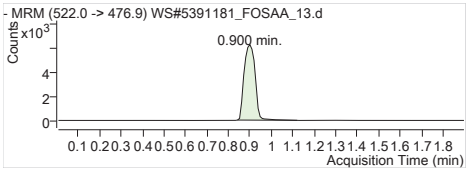


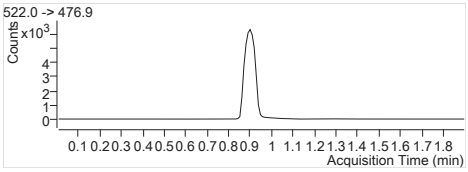
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: QC



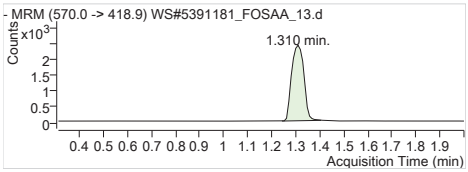


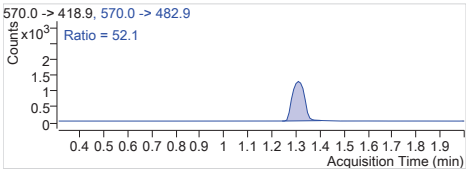
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: QC



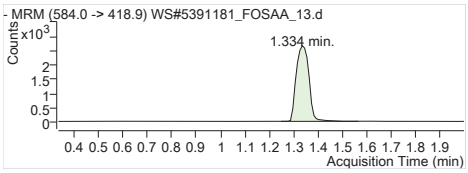


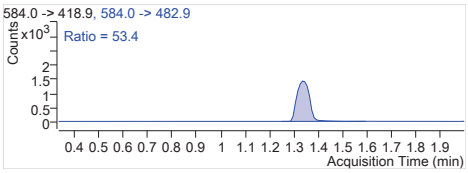
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: QC



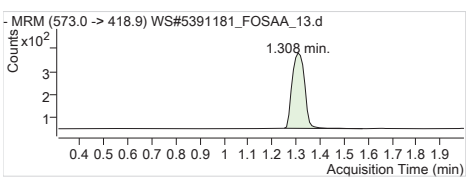


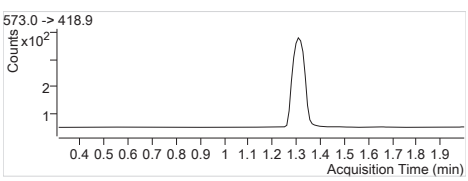
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.45 µg/L
Area ratio: 7.24597
Sample type: QC



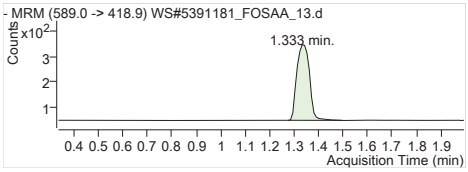


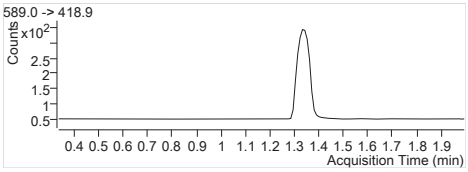
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 0.47 µg/L
Area ratio: 8.98004
Sample type: QC



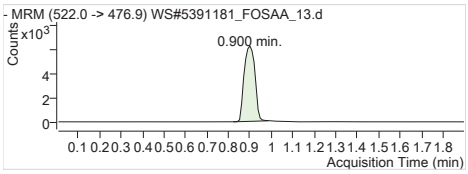


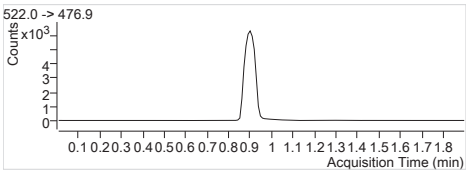
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 73.35 µg/L
Area ratio: 0.05419
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	73.10 µg/L
Area ratio:	0.04852
Sample type:	QC





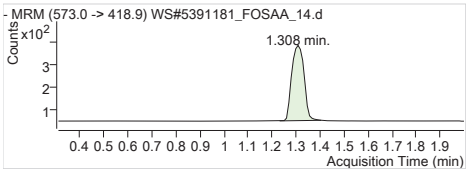
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	2.34 µg/L
Area ratio:	0
Sample type:	QC

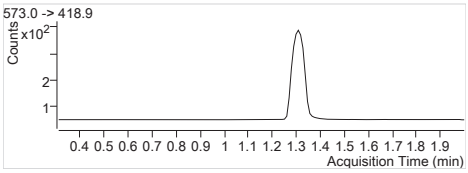
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**5391181:MTRX SPK:D1**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_14.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D3
Acq. Date	2018/02/09 10:58:27 PM	**Injection Volume**	Per Method
Sample Annotation	FZJ955		

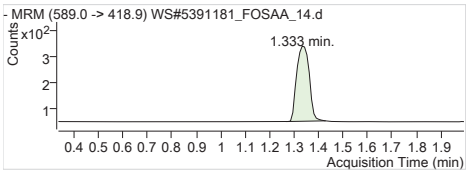
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1203	1.31	1 µg/L		
D5-EtFOSAA IS	1039	1.33	1 µg/L		
13C9-PFDA IS	22134	0.89	1 µg/L		

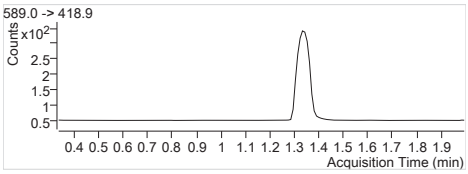
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8940	1.31	20.80	0.46 µg/L	93.12
EtFOSAA 1	9714	1.33	20.80	0.49 µg/L	97.63
D3-MeFOSAA	1219	1.31	100.00	74.55 µg/L	74.55
D5-EtFOSAA	1052	1.33	100.00	71.61 µg/L	71.61
13C9-PFDA	21611	0.89	100.00	2.33 µg/L	96.93



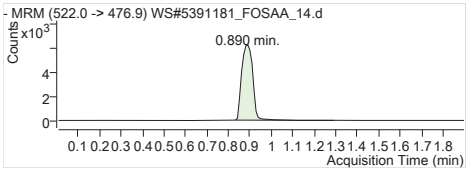


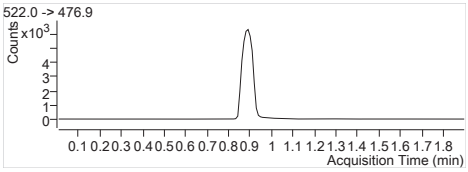
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: QC



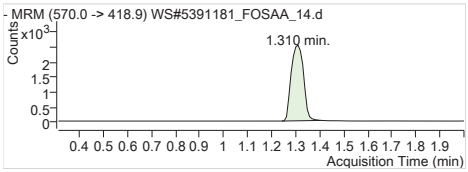


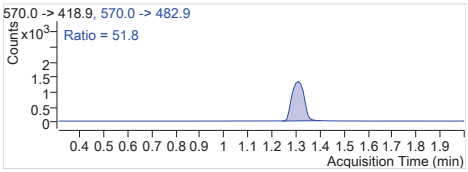
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: QC



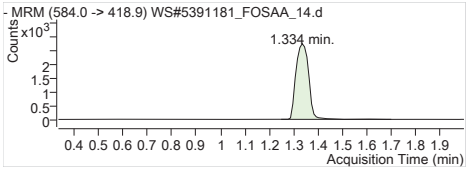


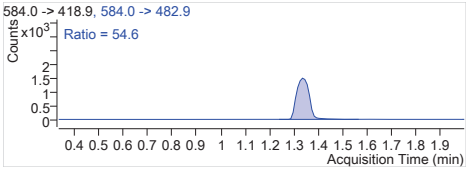
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.890 (0.900)
Concentration: 1 µg/L
Sample type: QC



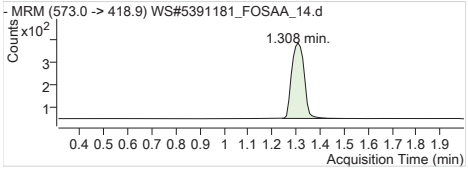


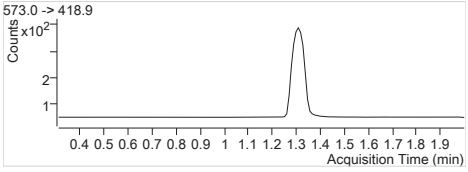
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.46 µg/L
Area ratio: 7.43142
Sample type: QC



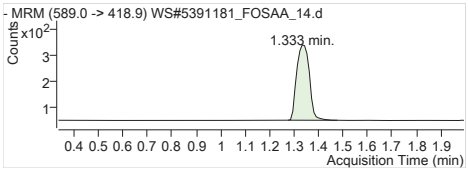


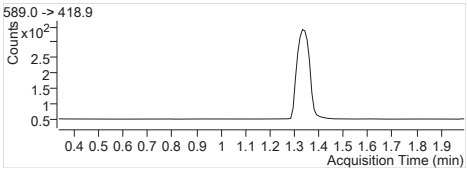
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 0.49 µg/L
Area ratio: 9.34937
Sample type: QC



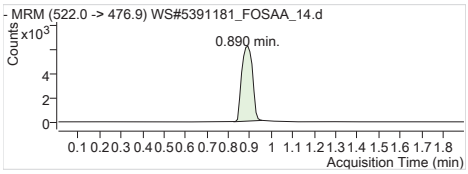


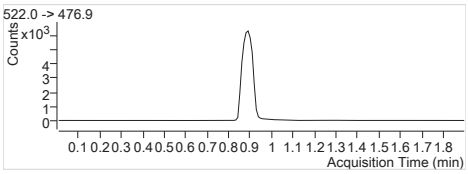
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 74.55 µg/L
Area ratio: 0.05507
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	71.61 µg/L
Area ratio:	0.04753
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.890 (0.900)
Calc. conc.	2.33 µg/L
Area ratio:	0
Sample type:	QC

Quantitation Results

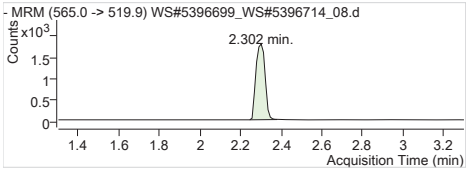
Agilent Technologies

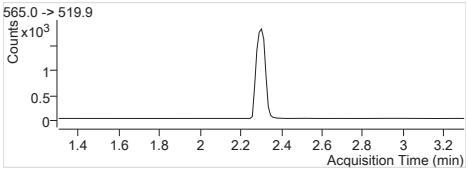
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-A8
Acq. Date	2018/02/15 4:45:27 PM	**Injection Volume**	Per Method
Sample Annotation	-		

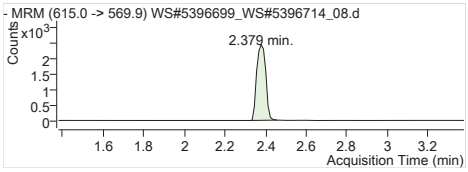
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5551	2.30	1 µg/L		
MPFDoA	7501	2.38	1 µg/L		
MPFTeDA	6966	2.51	1 µg/L		
13C9-PFDA IS	26065	2.20	1 µg/L		

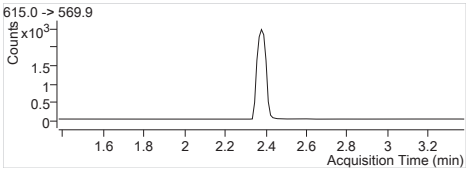
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFUnA	5551	2.30	-	90.58 µg/L	-
13C2-PFDoA	7501	2.38	-	94.04 µg/L	-
13C2-PFTeDA	6999	2.51	-	99.26 µg/L	-
13C9-PFDA	26065	2.20	-	2.57 µg/L	-



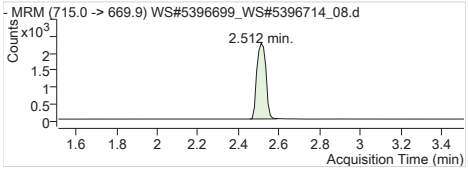


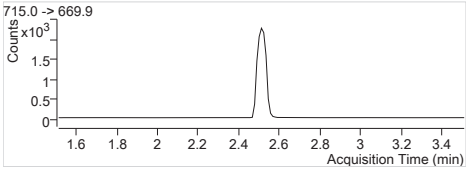
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Sample



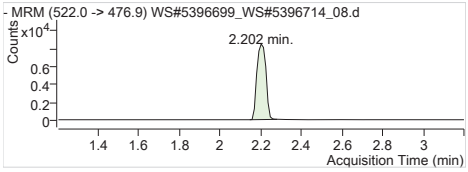


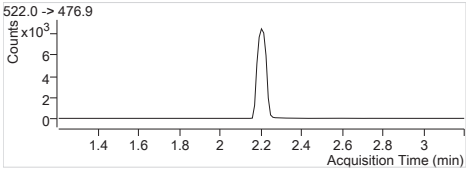
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Sample



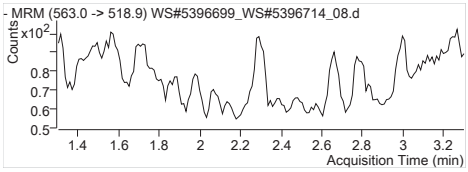


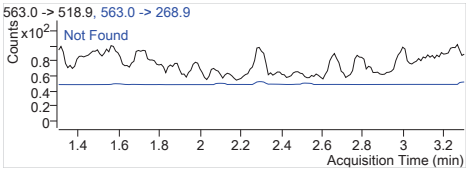
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Sample



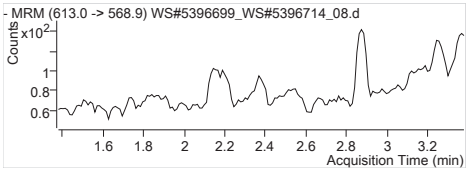


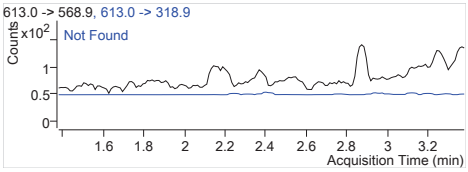
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Sample



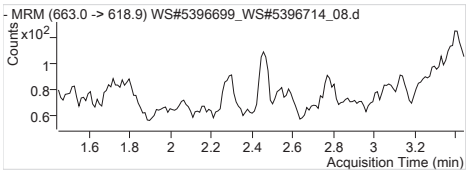


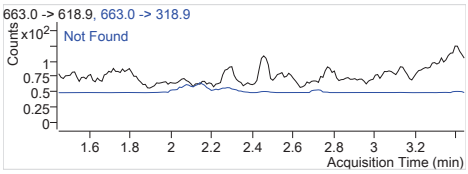
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.302)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



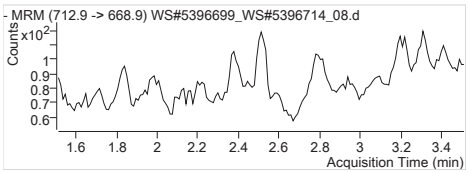


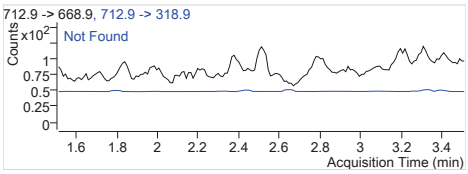
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.379)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



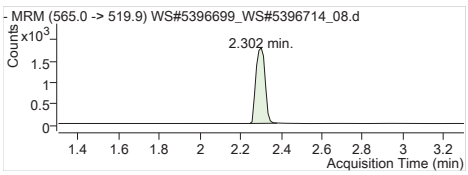


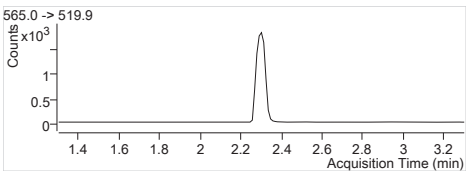
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.445)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



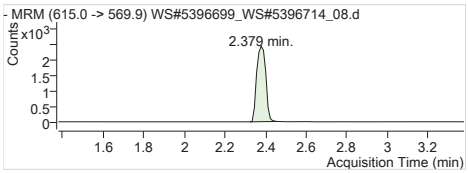


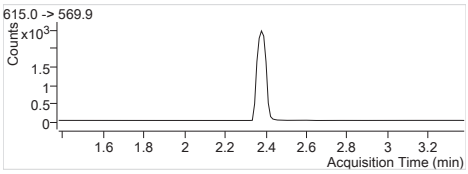
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.512)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



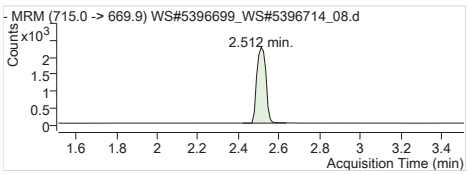


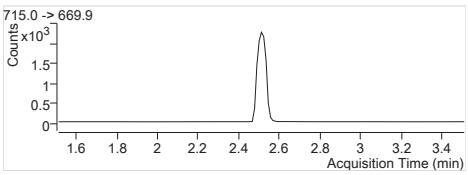
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.302 (2.302)
Calc. conc.	90.58 µg/L
Area ratio:	0.21297
Sample type:	Sample



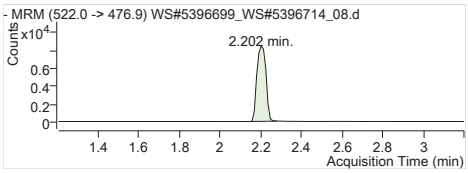


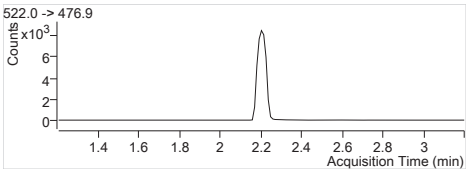
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	94.04 µg/L
Area ratio:	0.28778
Sample type:	Sample





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	99.26 µg/L
Area ratio:	0.26852
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.57 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

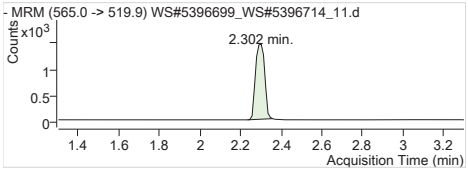
Agilent Technologies

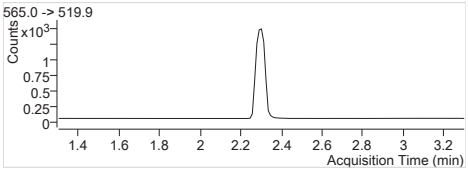
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**5396699:BLANK**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B1
Acq. Date	2018/02/15 5:00:14 PM	**Injection Volume**	Per Method
Sample Annotation	-		

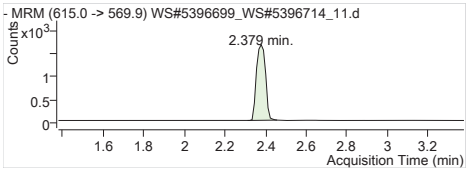
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	4484	2.30	1 µg/L		
MPFDoA	5134	2.38	1 µg/L		
MPFTeDA	4753	2.51	1 µg/L		
13C9-PFDA IS	24303	2.20	1 µg/L		

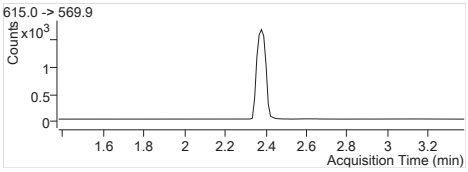
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFUnA	4484	2.30	-	78.48 µg/L	-
13C2-PFDoA	5134	2.38	-	69.03 µg/L	-
13C2-PFTeDA	4775	2.51	-	72.63 µg/L	-
13C9-PFDA	24303	2.20	-	2.40 µg/L	-



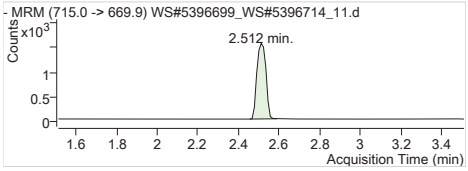


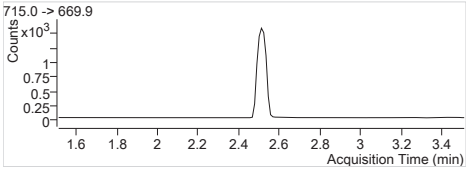
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Sample



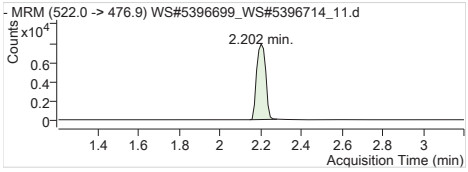


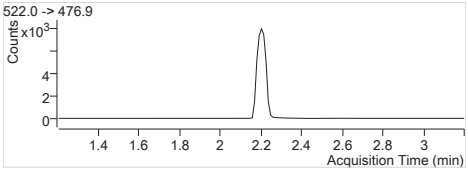
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Sample



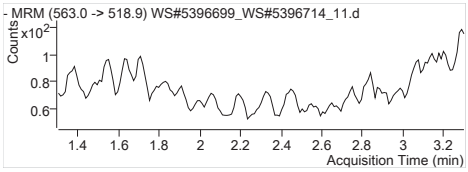


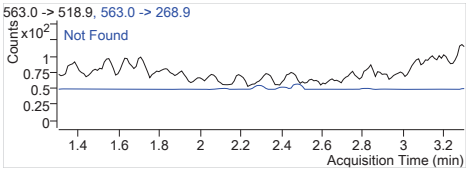
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Sample



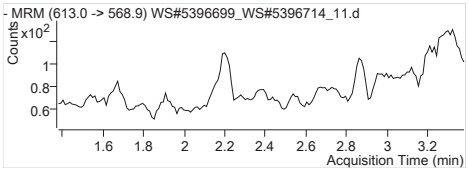


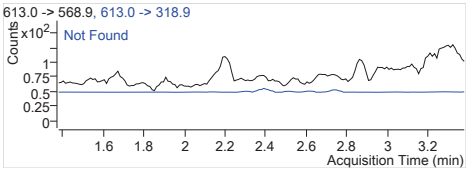
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Sample



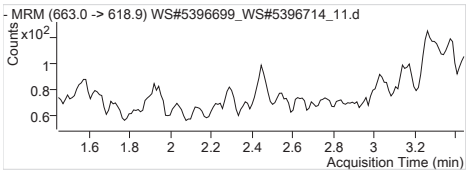


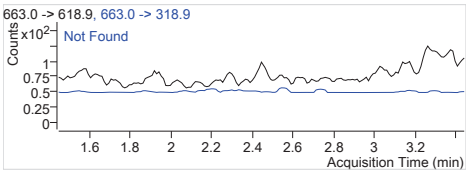
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.302)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



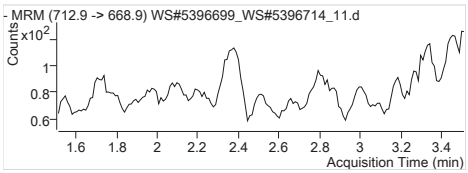


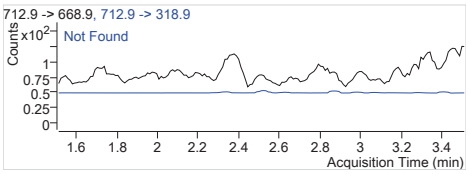
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.379)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



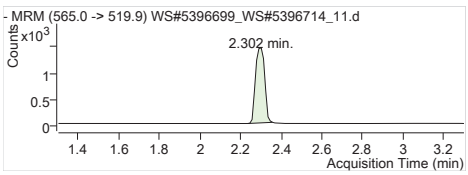


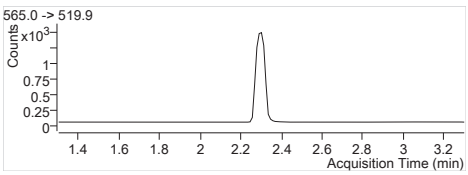
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.445)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



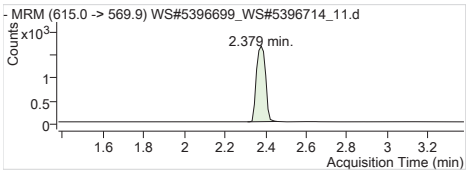


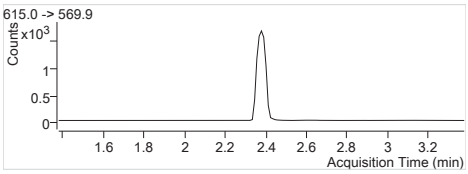
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.512)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



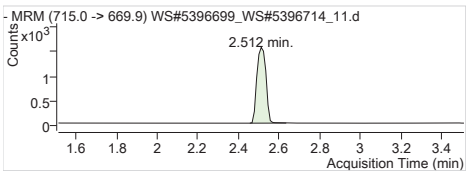


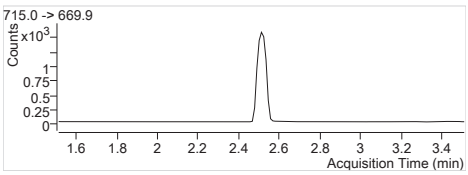
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.302 (2.302)
Calc. conc.	78.48 µg/L
Area ratio:	0.18450
Sample type:	Sample



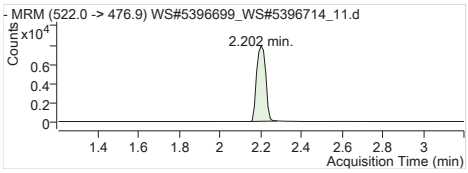


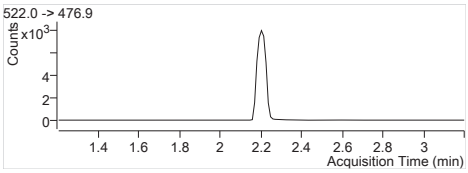
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	69.03 µg/L
Area ratio:	0.21125
Sample type:	Sample





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	72.63 µg/L
Area ratio:	0.19648
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.40 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

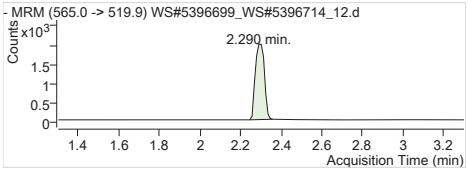
Agilent Technologies

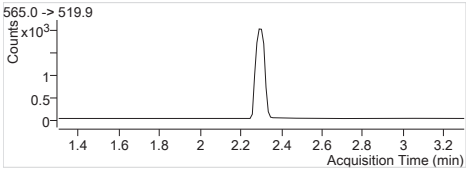
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**5396699:SPIKE**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B2
Acq. Date	2018/02/15 5:05:10 PM	**Injection Volume**	Per Method
Sample Annotation	-		

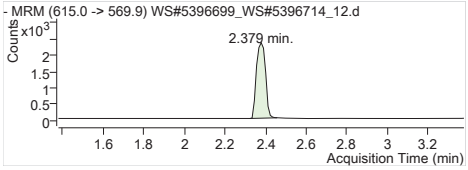
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6150	2.29	1 µg/L		
MPFDoA	7234	2.38	1 µg/L		
MPFTeDA	6642	2.51	1 µg/L		
13C9-PFDA IS	24971	2.20	1 µg/L		

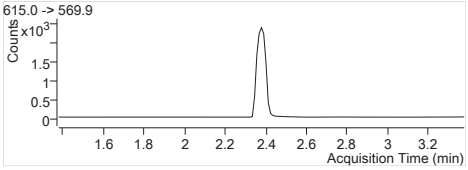
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	66925	2.30	20.80	0.44 µg/L	87.79
PFDoA 1	76989	2.38	20.80	0.44 µg/L	89.12
PFTrDA 1	79813	2.44	20.80	0.43 µg/L	86.30
PFTeDA 1	55465	2.51	20.80	0.38 µg/L	75.59
13C2-PFUnA	6150	2.29	100.00	104.76 µg/L	104.76
13C2-PFDoA	7234	2.38	100.00	94.66 µg/L	94.66
13C2-PFTeDA	6726	2.51	100.00	99.57 µg/L	99.57
13C9-PFDA	24971	2.20	100.00	2.46 µg/L	102.57



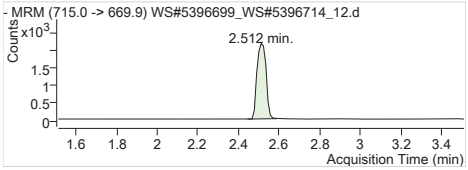


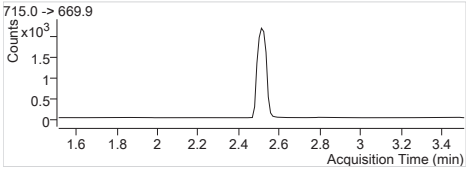
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: QC



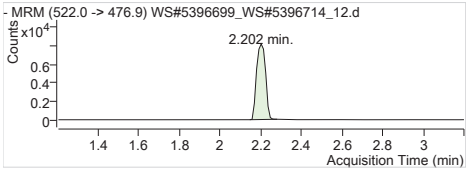


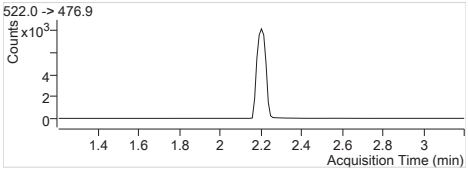
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: QC



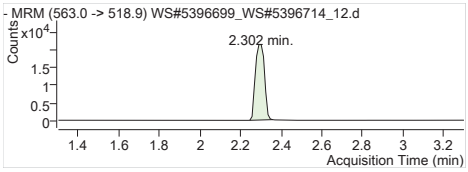


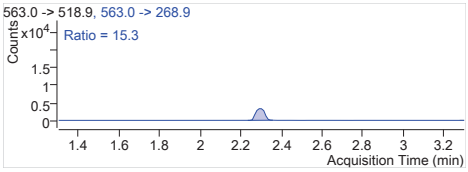
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: QC



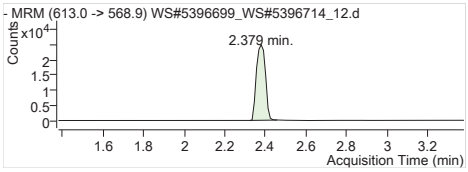


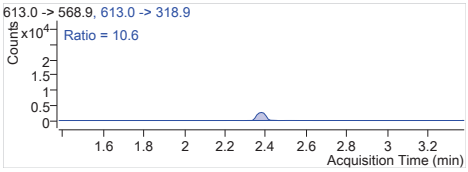
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: QC



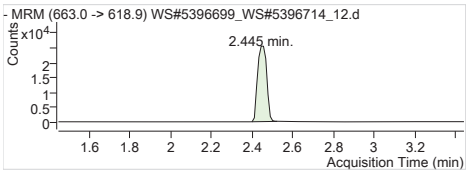


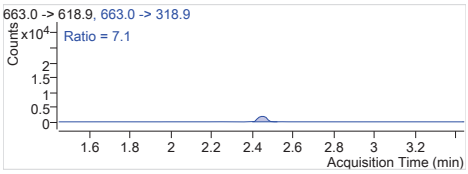
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 0.44 µg/L
Area ratio: 10.88211
Sample type: QC



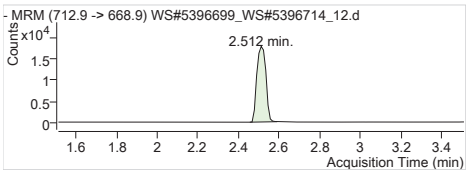


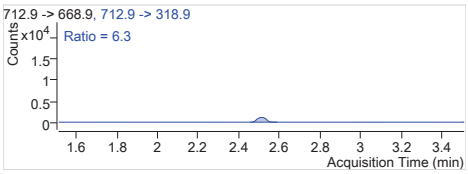
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	0.44 µg/L
Area ratio:	10.64266
Sample type:	QC



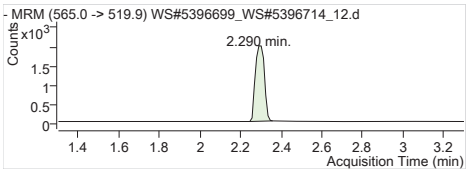


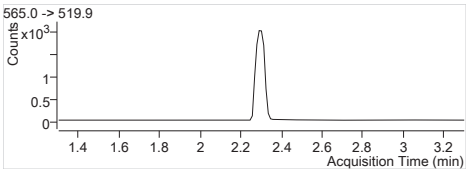
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.445 (2.445)
Calc. conc.	0.43 µg/L
Area ratio:	12.01641
Sample type:	QC



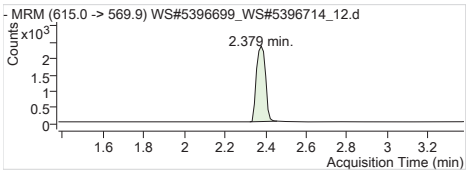


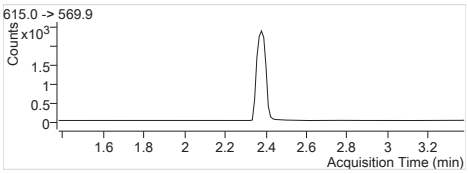
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	0.38 µg/L
Area ratio:	8.35065
Sample type:	QC



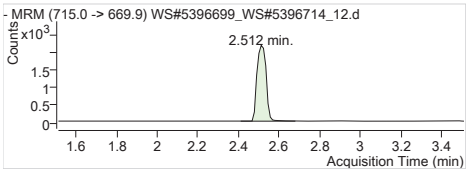


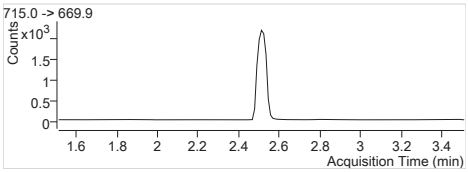
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.290 (2.302)
Calc. conc.	104.76 µg/L
Area ratio:	0.24629
Sample type:	QC



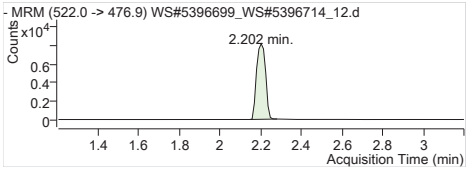


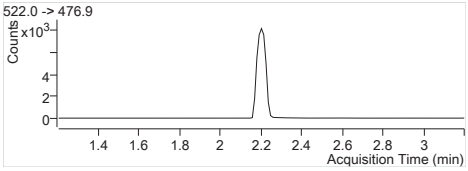
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	94.66 µg/L
Area ratio:	0.28970
Sample type:	QC





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	99.57 µg/L
Area ratio:	0.26935
Sample type:	QC





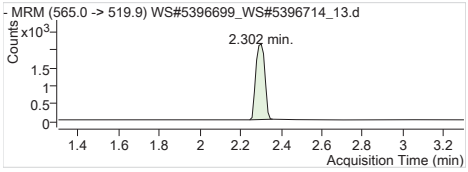
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.46 µg/L
Area ratio:	0
Sample type:	QC

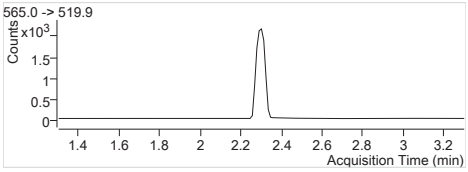
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**5396699:MTRX SPK**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_13.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B3
Acq. Date	2018/02/15 5:10:06 PM	**Injection Volume**	Per Method
Sample Annotation	FZA786		

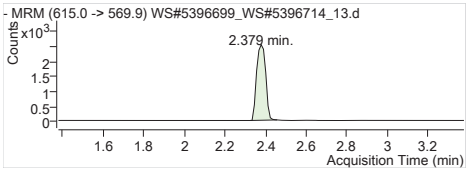
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6554	2.30	1 µg/L		
MPFDoA	7772	2.38	1 µg/L		
MPFTeDA	6442	2.51	1 µg/L		
13C9-PFDA IS	23199	2.20	1 µg/L		

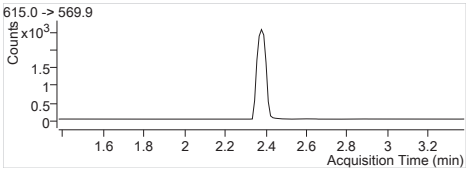
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	65750	2.30	20.80	0.40 µg/L	81.03
PFDoA 1	81702	2.38	20.80	0.44 µg/L	88.04
PFTrDA 1	83840	2.44	20.80	0.47 µg/L	93.37
PFTeDA 1	61482	2.51	20.80	0.43 µg/L	86.23
13C2-PFUnA	6554	2.30	100.00	120.17 µg/L	120.17
13C2-PFDoA	7772	2.38	100.00	109.47 µg/L	109.47
13C2-PFTeDA	6467	2.51	100.00	103.05 µg/L	103.05
13C9-PFDA	23199	2.20	100.00	2.29 µg/L	95.29



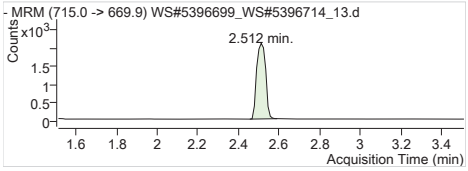


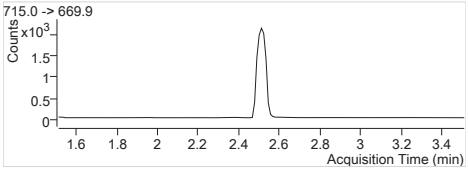
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: QC



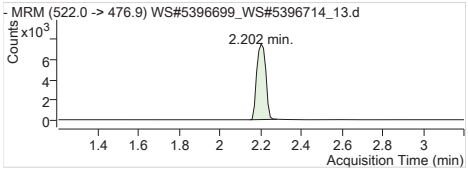


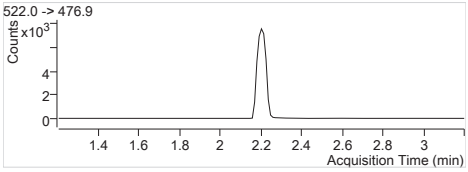
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: QC



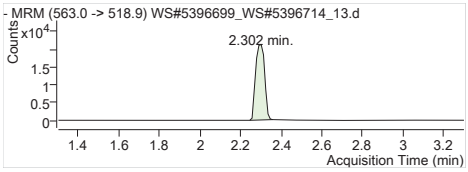


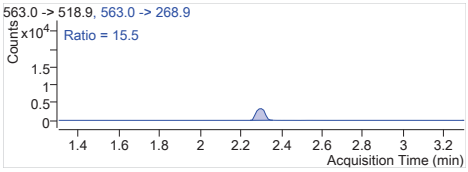
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: QC



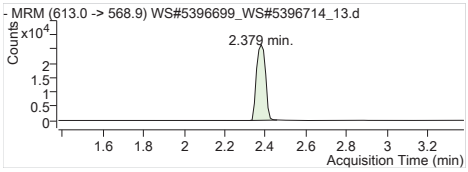


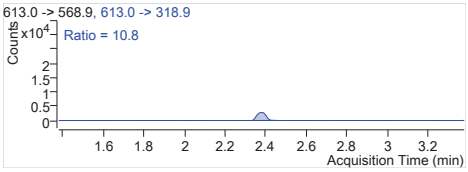
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: QC



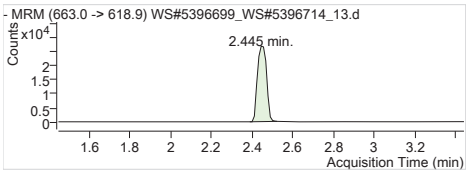


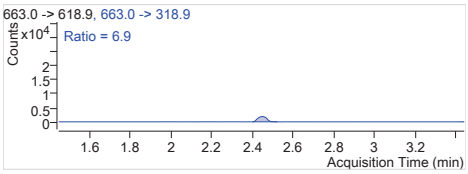
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 0.40 µg/L
Area ratio: 10.03204
Sample type: QC



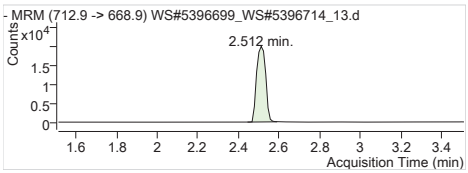


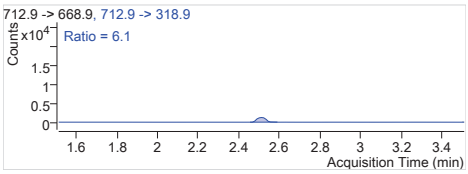
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 0.44 µg/L
Area ratio: 10.51235
Sample type: QC



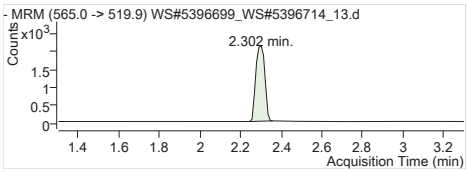


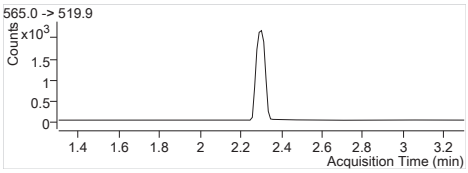
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.445 (2.445)
Calc. conc. 0.47 µg/L
Area ratio: 13.01459
Sample type: QC



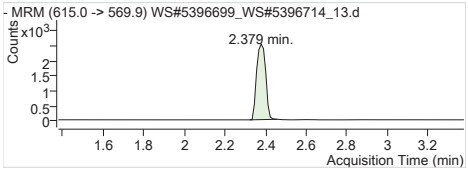


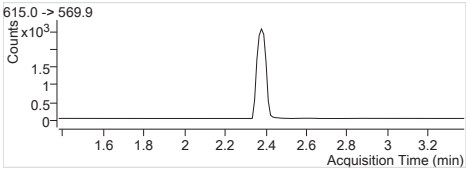
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 0.43 µg/L
Area ratio: 9.54393
Sample type: QC



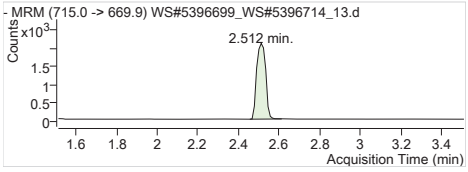


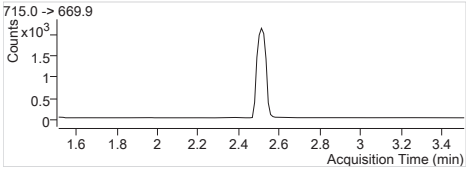
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 120.17 µg/L
Area ratio: 0.28251
Sample type: QC



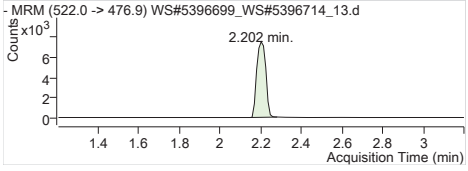


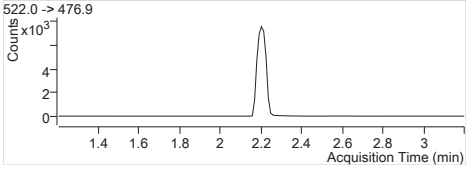
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 109.47 µg/L
Area ratio: 0.33501
Sample type: QC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 103.05 µg/L
Area ratio: 0.27876
Sample type: QC





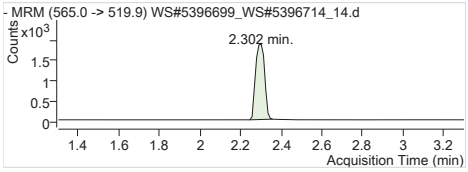
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 2.29 µg/L
Area ratio: 0
Sample type: QC

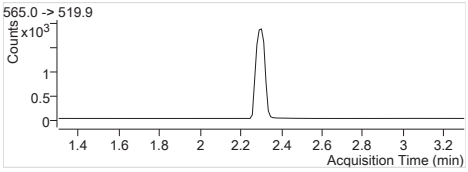
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**5396699:MTRX SPK:D1**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_14.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-B4
Acq. Date	2018/02/15 5:15:02 PM	**Injection Volume**	Per Method
Sample Annotation	FZA786		

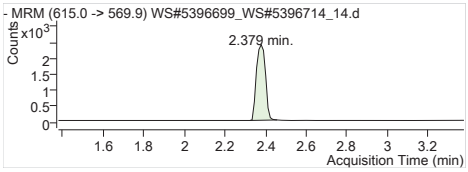
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5751	2.30	1 µg/L		
MPFDoA	7368	2.38	1 µg/L		
MPFTeDA	5714	2.51	1 µg/L		
13C9-PFDA IS	23790	2.20	1 µg/L		

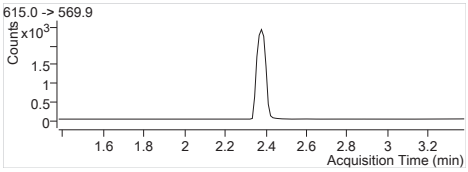
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	66460	2.30	20.80	0.47 µg/L	93.16
PFDoA 1	78446	2.38	20.80	0.45 µg/L	89.15
PFTrDA 1	80464	2.44	20.80	0.50 µg/L	100.92
PFTeDA 1	60196	2.51	20.80	0.47 µg/L	95.07
13C2-PFUnA	5751	2.30	100.00	102.82 µg/L	102.82
13C2-PFDoA	7368	2.38	100.00	101.20 µg/L	101.20
13C2-PFTeDA	5814	2.51	100.00	90.34 µg/L	90.34
13C9-PFDA	23790	2.20	100.00	2.35 µg/L	97.71



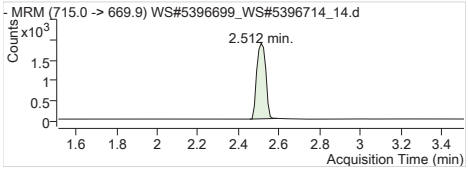


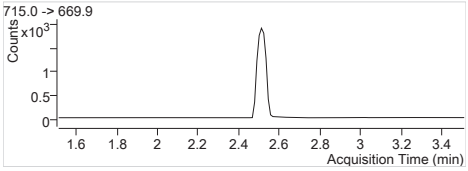
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: QC



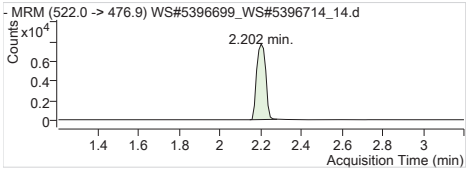


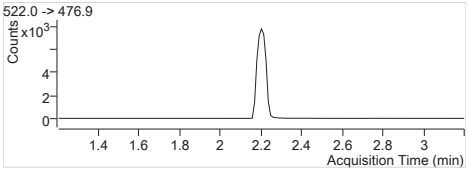
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: QC



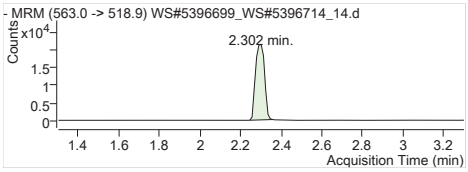


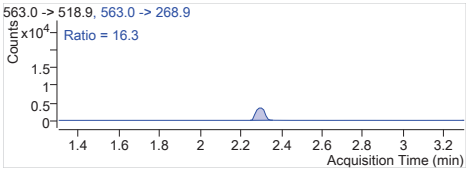
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: QC



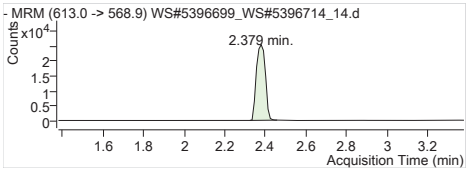


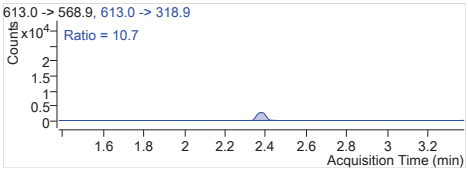
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: QC



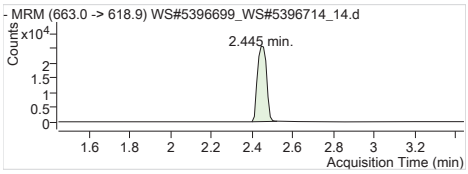


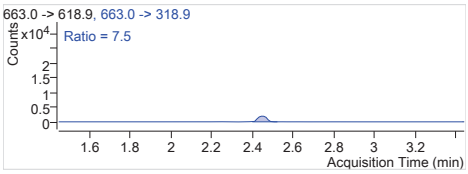
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 0.47 µg/L
Area ratio: 11.55625
Sample type: QC



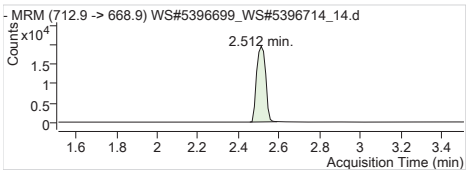


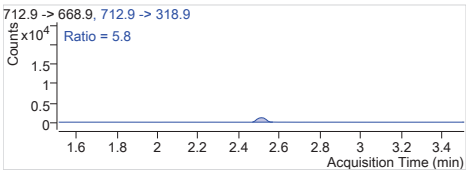
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 0.45 µg/L
Area ratio: 10.64685
Sample type: QC



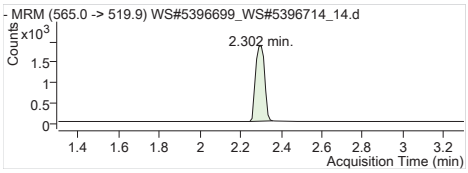


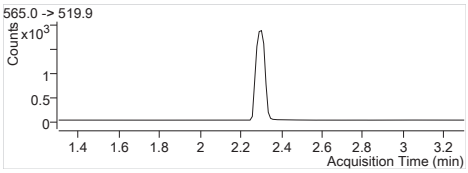
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.445 (2.445)
Calc. conc. 0.50 µg/L
Area ratio: 14.08190
Sample type: QC



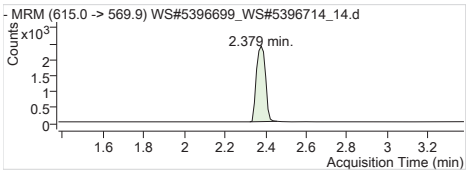


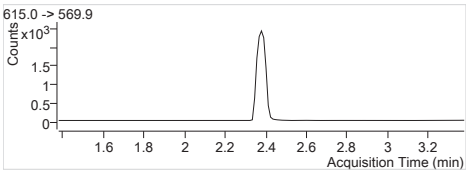
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 0.47 µg/L
Area ratio: 10.53483
Sample type: QC



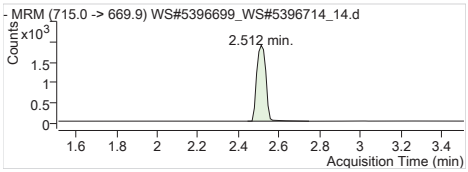


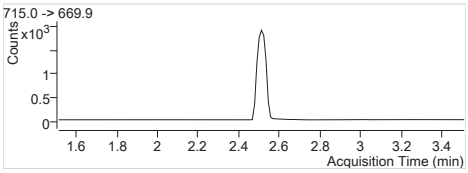
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 102.82 µg/L
Area ratio: 0.24174
Sample type: QC



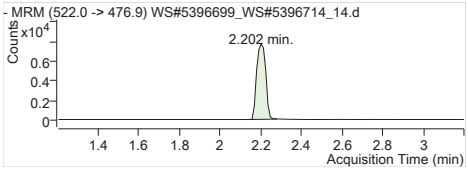


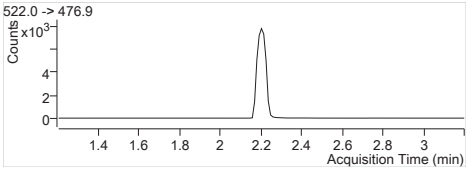
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 101.20 µg/L
Area ratio: 0.30971
Sample type: QC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 90.34 µg/L
Area ratio: 0.24439
Sample type: QC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 2.35 µg/L
Area ratio: 0
Sample type: QC

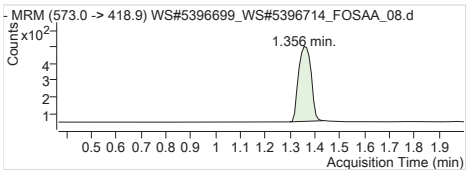
Quantitation Results

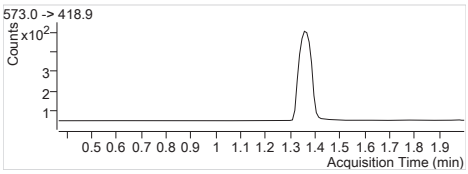
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	IB	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A8
Acq. Date	2018/02/15 10:53:40 AM	**Injection Volume**	Per Method
Sample Annotation	-		

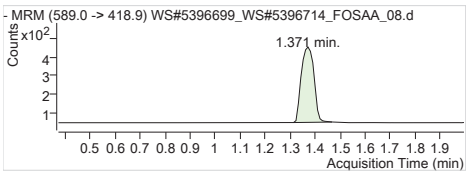
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1587	1.36	1 µg/L		
D5-EtFOSAA IS	1421	1.37	1 µg/L		
13C9-PFDA IS	27800	1.12	1 µg/L		

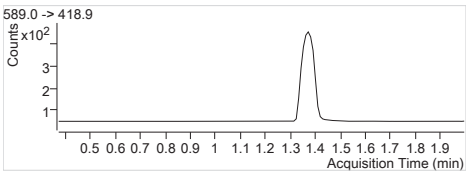
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1624	1.36	-	106.12 µg/L	-
D5-EtFOSAA	1438	1.37	-	107.90 µg/L	-
13C9-PFDA	27370	1.12	-	2.47 µg/L	-



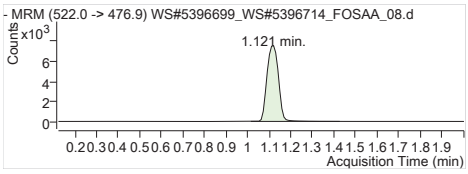


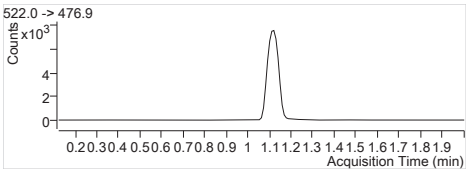
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Sample



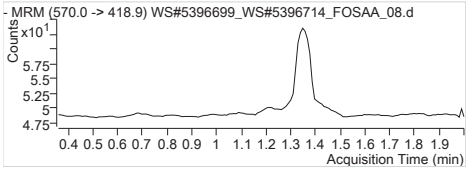


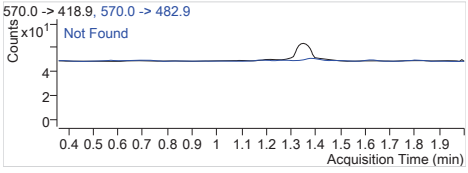
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Sample



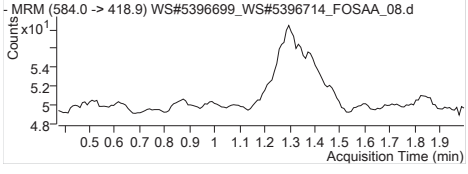


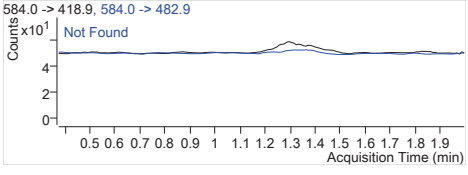
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: Sample



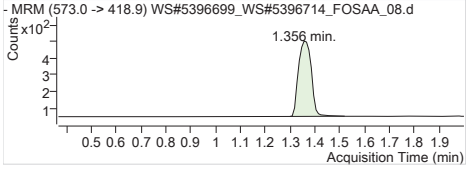


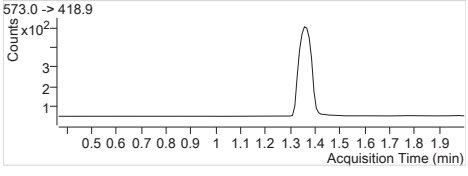
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.358)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



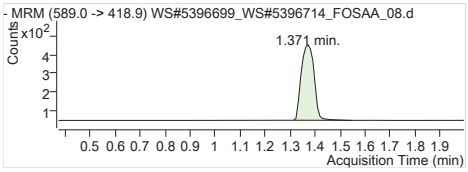


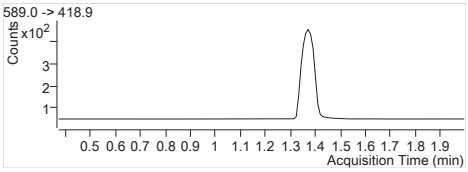
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.373)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



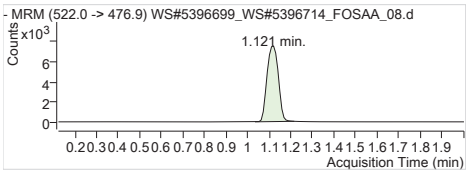


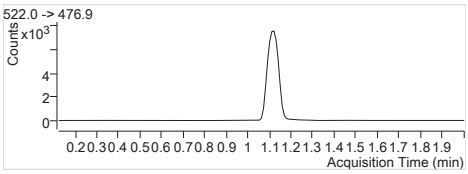
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 106.12 µg/L
Area ratio: 0.05842
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	107.90 µg/L
Area ratio:	0.05173
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	2.47 µg/L
Area ratio:	0
Sample type:	Sample

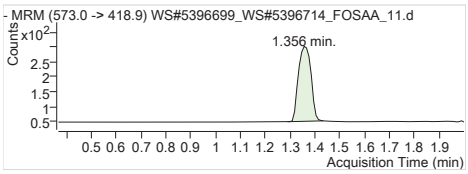
Quantitation Results

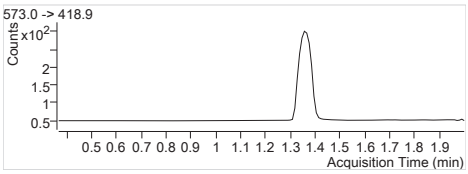
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**5396699:BLANK**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_11.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B1
Acq. Date	2018/02/15 11:00:53 AM	**Injection Volume**	Per Method
Sample Annotation	-		

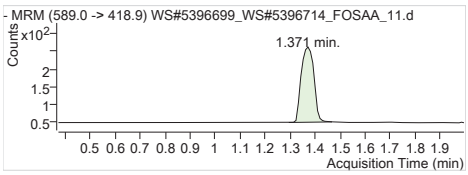
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	880	1.36	1 µg/L		
D5-EtFOSAA IS	748	1.37	1 µg/L		
13C9-PFDA IS	27095	1.12	1 µg/L		

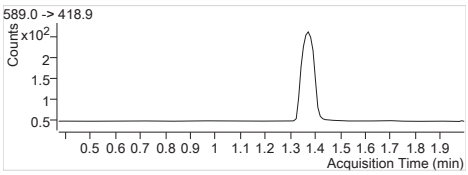
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	896	1.36	-	60.07 µg/L	-
D5-EtFOSAA	750	1.37	-	57.74 µg/L	-
13C9-PFDA	26675	1.12	-	2.41 µg/L	-



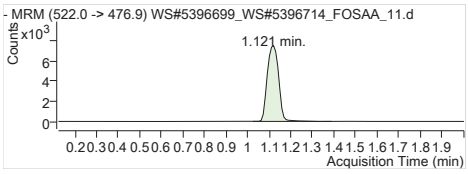


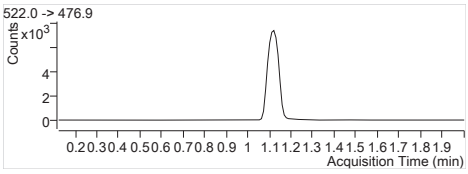
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Sample



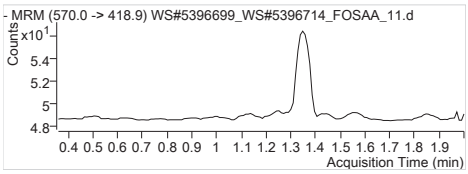


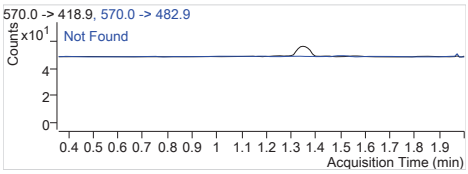
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Sample



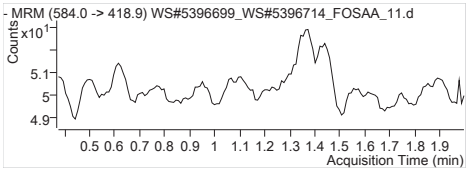


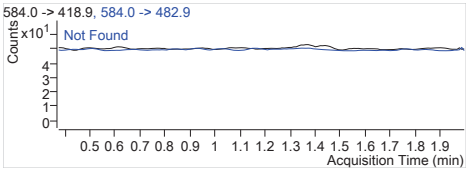
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: Sample



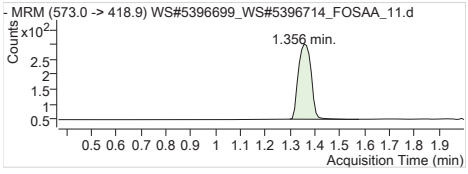


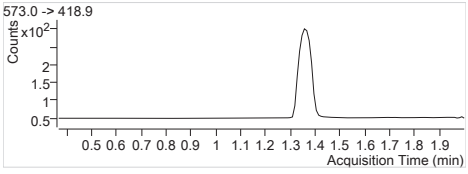
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.358)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



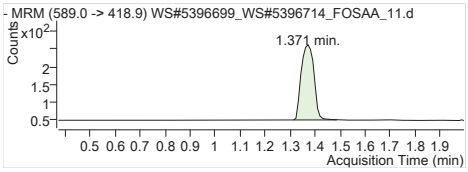


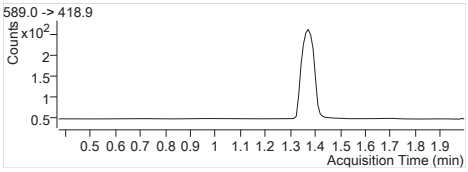
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.373)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



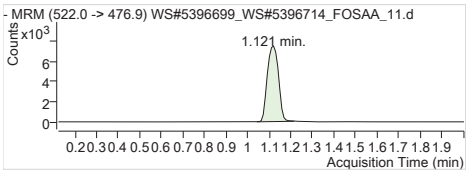


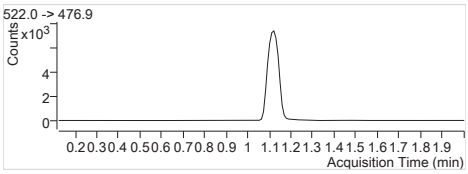
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 60.07 µg/L
Area ratio: 0.03307
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	57.74 µg/L
Area ratio:	0.02768
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	2.41 µg/L
Area ratio:	0
Sample type:	Sample

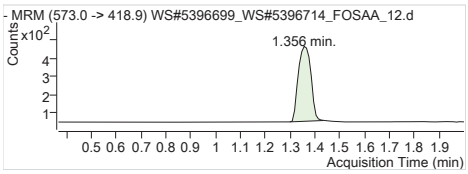
Quantitation Results

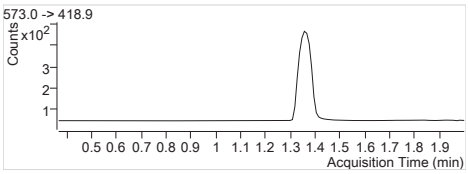
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**5396699:SPIKE**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_12.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B2
Acq. Date	2018/02/15 11:03:19 AM	**Injection Volume**	Per Method
Sample Annotation	-		

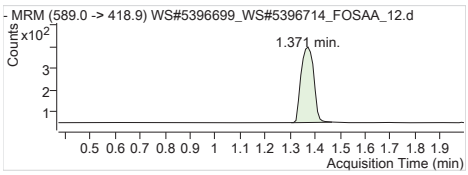
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1458	1.36	1 µg/L		
D5-EtFOSAA IS	1234	1.37	1 µg/L		
13C9-PFDA IS	28179	1.12	1 µg/L		

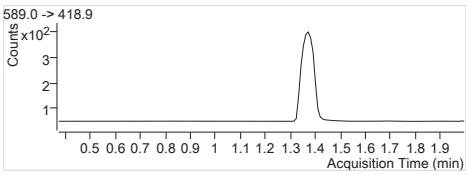
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	12436	1.36	20.80	0.41 µg/L	81.95
EtFOSAA 1	12282	1.37	20.80	0.41 µg/L	81.60
D3-MeFOSAA	1497	1.36	100.00	96.50 µg/L	96.50
D5-EtFOSAA	1246	1.37	100.00	92.24 µg/L	92.24
13C9-PFDA	27766	1.12	100.00	2.51 µg/L	104.56



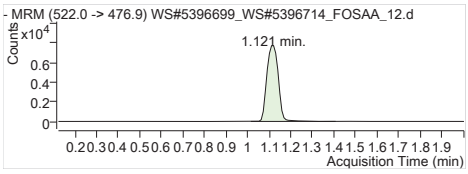


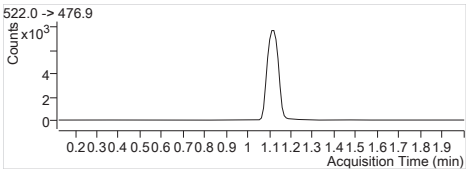
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: QC



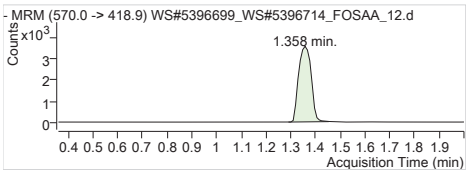


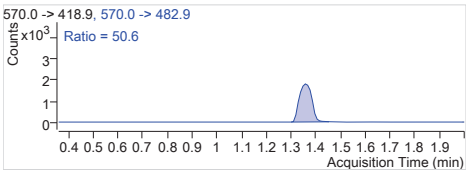
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: QC



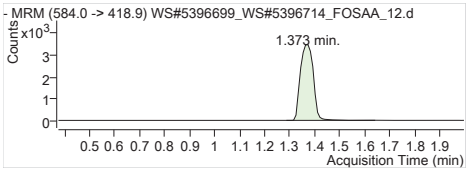


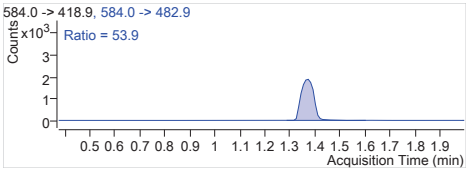
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: QC



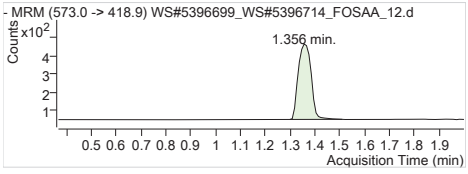


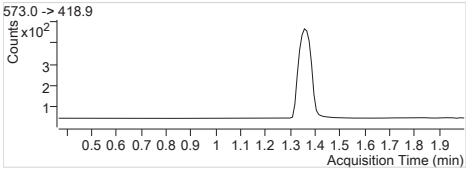
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 0.41 µg/L
Area ratio: 8.52949
Sample type: QC



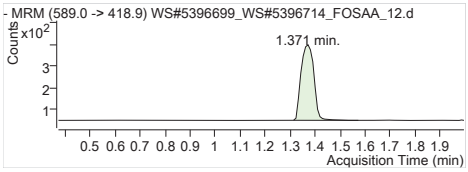


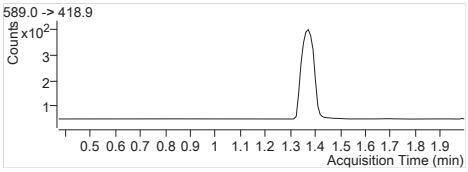
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 0.41 µg/L
Area ratio: 9.95300
Sample type: QC



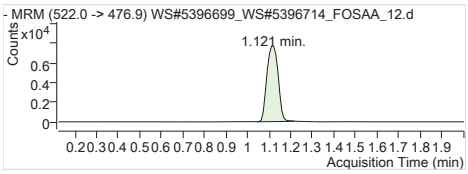


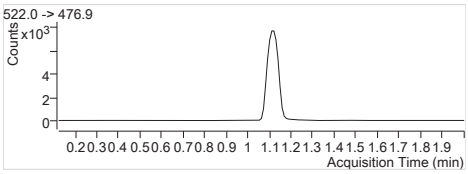
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 96.50 µg/L
Area ratio: 0.05312
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	92.24 µg/L
Area ratio:	0.04422
Sample type:	QC



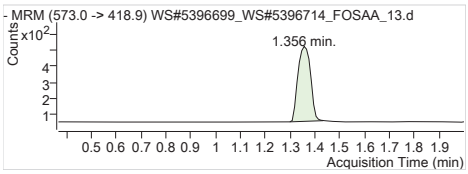


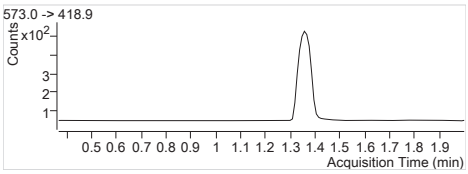
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	2.51 µg/L
Area ratio:	0
Sample type:	QC

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**5396699:MTRX SPK**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_13.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B3
Acq. Date	2018/02/15 11:05:44 AM	**Injection Volume**	Per Method
Sample Annotation	FZA786		

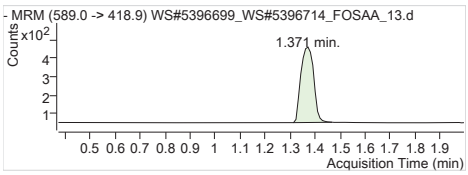
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1665	1.36	1 µg/L		
D5-EtFOSAA IS	1468	1.37	1 µg/L		
13C9-PFDA IS	26043	1.11	1 µg/L		

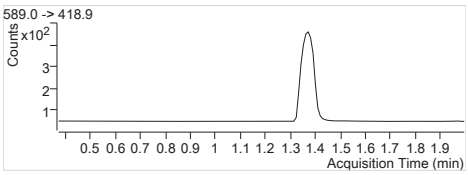
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	14546	1.36	20.80	0.42 µg/L	83.91
EtFOSAA 1	14688	1.36	20.80	0.41 µg/L	82.02
D3-MeFOSAA	1707	1.36	100.00	119.06 µg/L	119.06
D5-EtFOSAA	1474	1.37	100.00	118.06 µg/L	118.06
13C9-PFDA	25285	1.11	100.00	2.29 µg/L	95.22



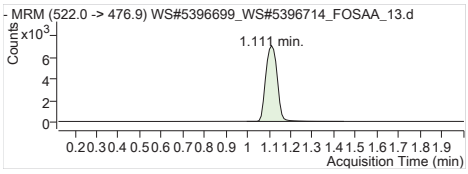


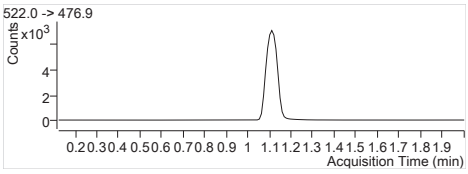
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: QC



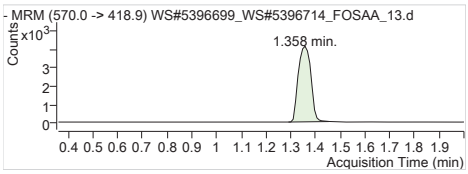


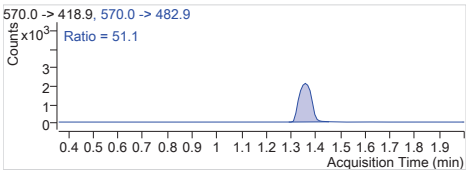
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: QC



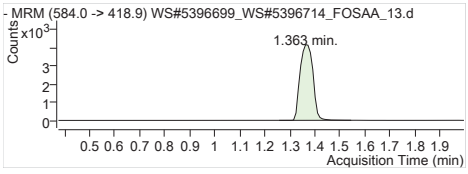


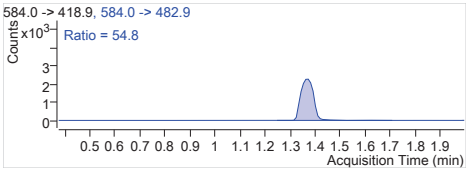
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.111 (1.121)
Concentration: 1 µg/L
Sample type: QC



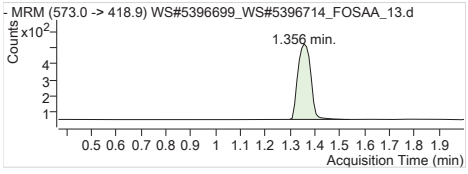


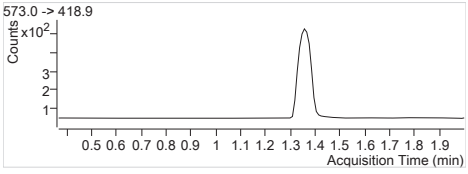
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 0.42 µg/L
Area ratio: 8.73634
Sample type: QC



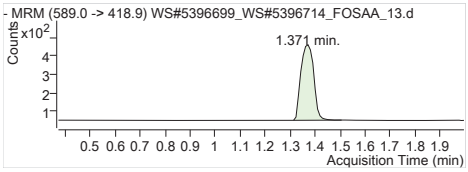


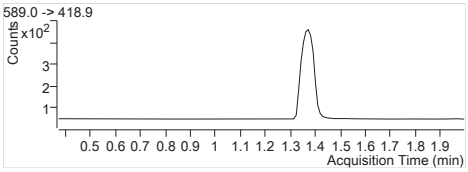
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.363 (1.373)
Calc. conc. 0.41 µg/L
Area ratio: 10.00545
Sample type: QC



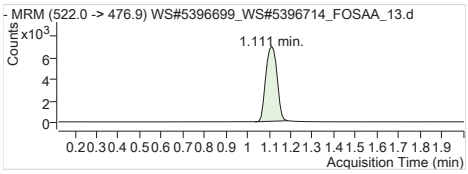


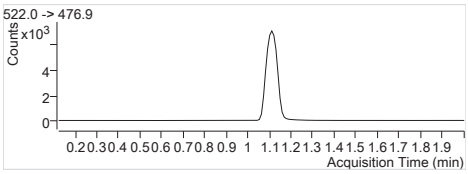
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 119.06 µg/L
Area ratio: 0.06555
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	118.06 µg/L
Area ratio:	0.05660
Sample type:	QC



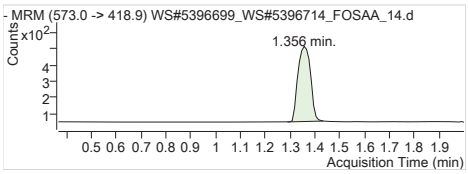


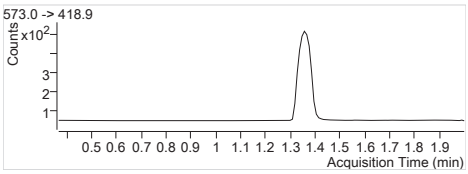
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.111 (1.121)
Calc. conc.	2.29 µg/L
Area ratio:	0
Sample type:	QC

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**5396699:MTRX SPK:D1**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_14.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-B4
Acq. Date	2018/02/15 11:08:09 AM	**Injection Volume**	Per Method
Sample Annotation	FZA786		

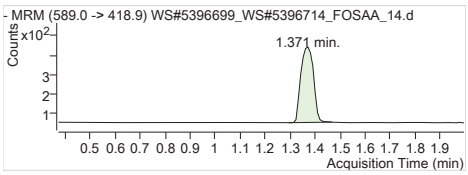
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1631	1.36	1 µg/L		
D5-EtFOSAA IS	1381	1.37	1 µg/L		
13C9-PFDA IS	26287	1.12	1 µg/L		

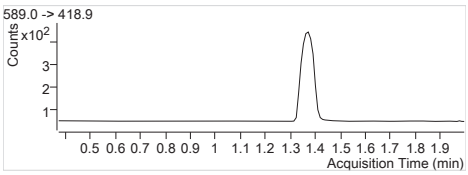
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	14718	1.36	20.80	0.43 µg/L	86.63
EtFOSAA 1	14610	1.36	20.80	0.43 µg/L	86.64
D3-MeFOSAA	1657	1.36	100.00	114.50 µg/L	114.50
D5-EtFOSAA	1398	1.37	100.00	110.94 µg/L	110.94
13C9-PFDA	25897	1.12	100.00	2.34 µg/L	97.52



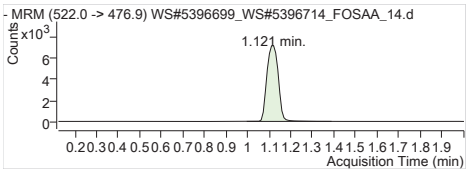


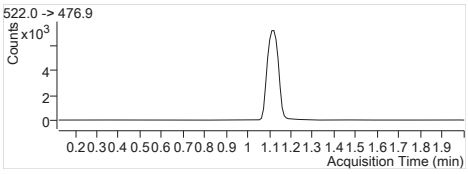
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: QC



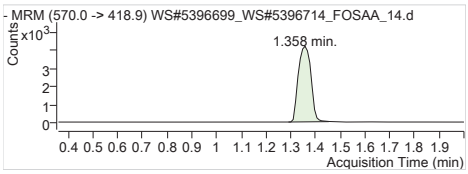


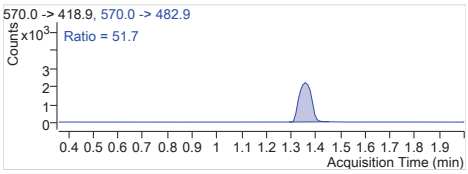
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: QC



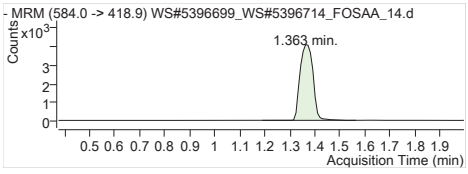


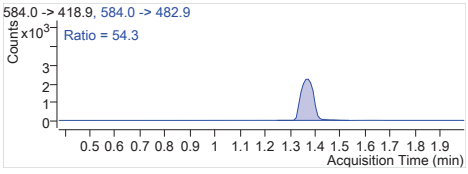
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: QC



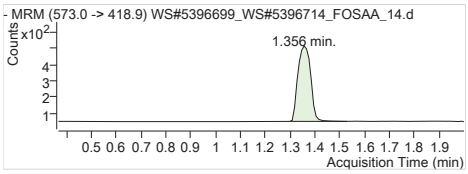


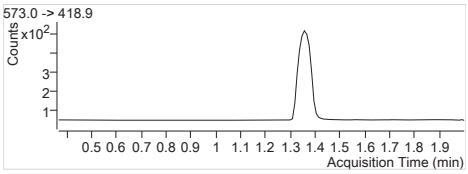
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 0.43 µg/L
Area ratio: 9.02391
Sample type: QC



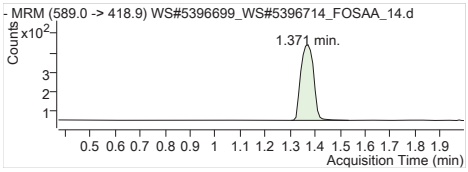


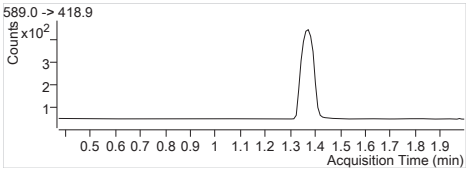
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.363 (1.373)
Calc. conc. 0.43 µg/L
Area ratio: 10.57929
Sample type: QC



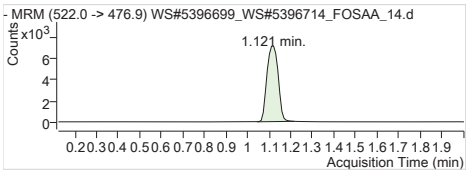


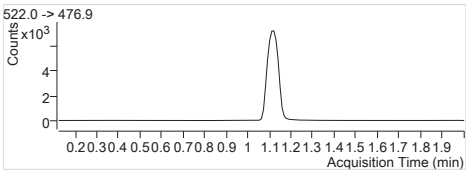
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 114.50 µg/L
Area ratio: 0.06303
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	110.94 µg/L
Area ratio:	0.05318
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	2.34 µg/L
Area ratio:	0
Sample type:	QC

Quantitation Results

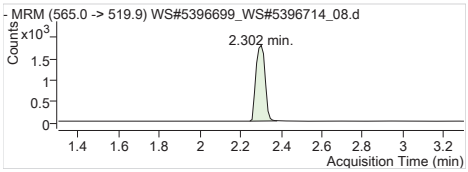
Agilent Technologies

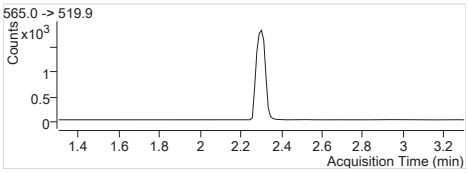
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**IB**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-A8
Acq. Date	2018/02/15 4:45:27 PM	**Injection Volume**	Per Method
Sample Annotation	-		

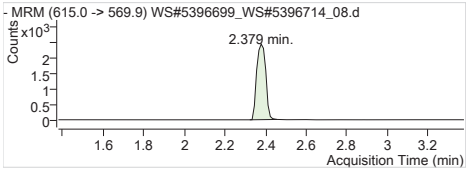
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5551	2.30	1 µg/L		
MPFDoA	7501	2.38	1 µg/L		
MPFTeDA	6966	2.51	1 µg/L		
13C9-PFDA IS	26065	2.20	1 µg/L		

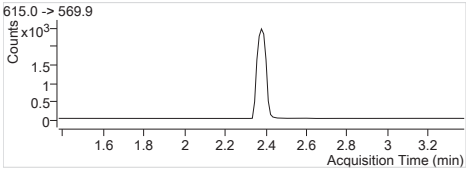
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFUnA	5551	2.30	-	90.58 µg/L	-
13C2-PFDoA	7501	2.38	-	94.04 µg/L	-
13C2-PFTeDA	6999	2.51	-	99.26 µg/L	-
13C9-PFDA	26065	2.20	-	2.57 µg/L	-



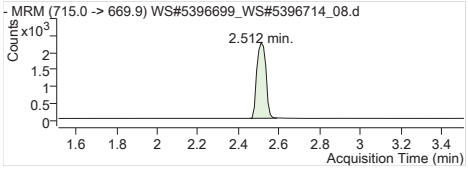


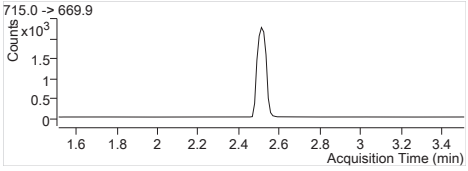
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Sample



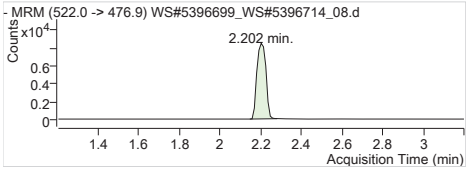


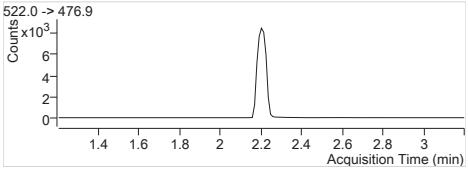
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Sample



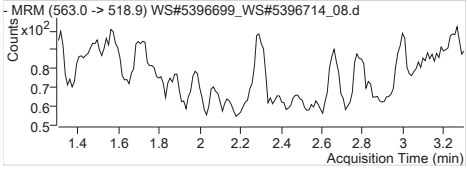


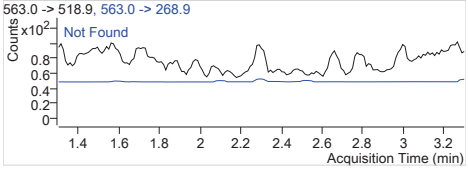
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Sample



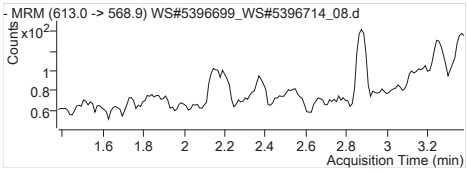


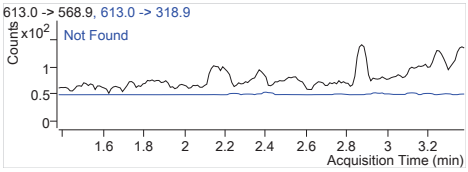
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Sample



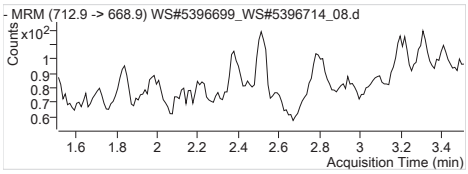


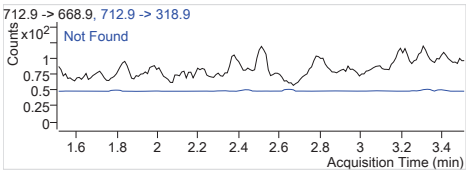
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 0.000 (2.302)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



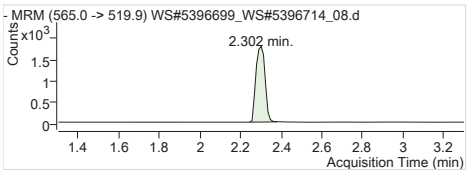


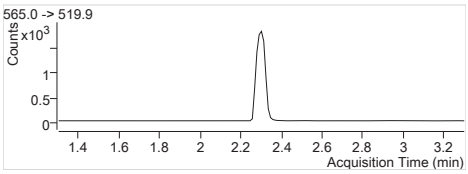
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.379)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



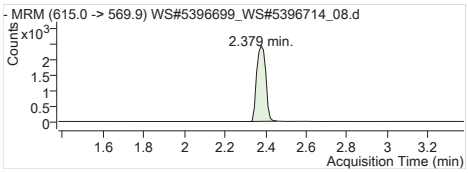


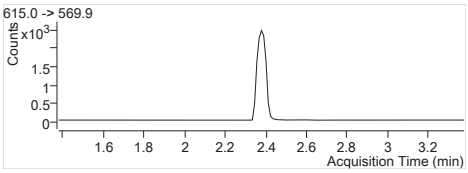
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	0.000 (2.512)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



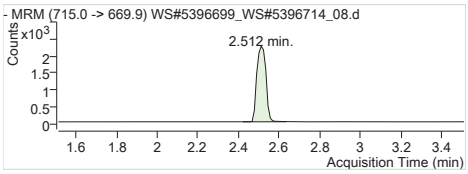


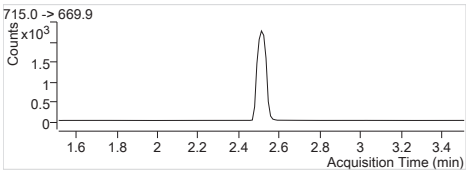
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.302 (2.302)
Calc. conc.	90.58 µg/L
Area ratio:	0.21297
Sample type:	Sample



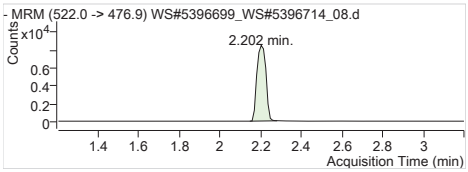


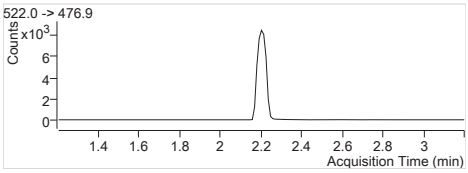
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	94.04 µg/L
Area ratio:	0.28778
Sample type:	Sample





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	99.26 µg/L
Area ratio:	0.26852
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.57 µg/L
Area ratio:	0
Sample type:	Sample

Quantitation Results

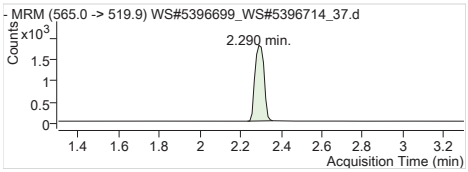
Agilent Technologies

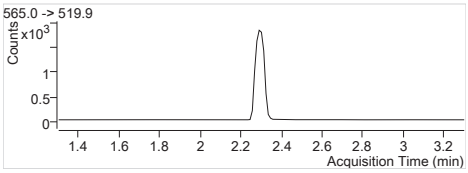
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**5396714:MTRX SPK**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_37.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D7
Acq. Date	2018/02/15 7:08:32 PM	**Injection Volume**	Per Method
Sample Annotation	FZH337		

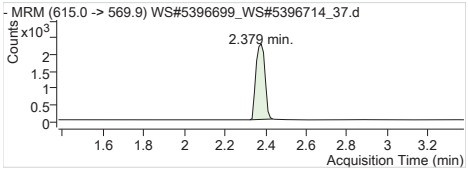
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5576	2.29	1 µg/L		
MPFDoA	6978	2.38	1 µg/L		
MPFTeDA	5714	2.51	1 µg/L		
13C9-PFDA IS	22210	2.20	1 µg/L		

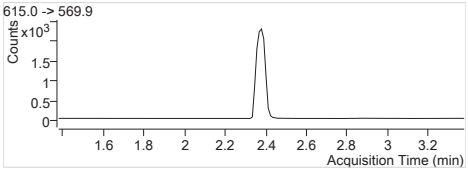
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	61953	2.29	20.80	0.45 µg/L	89.61
PFDoA 1	77000	2.38	20.80	0.46 µg/L	92.36
PFTeDA 1	56012	2.51	20.80	0.44 µg/L	88.54
13C2-PFUnA	5576	2.29	100.00	106.79 µg/L	106.79
13C2-PFDoA	6978	2.38	100.00	102.66 µg/L	102.66
13C2-PFTeDA	5749	2.51	100.00	95.68 µg/L	95.68
13C9-PFDA	22210	2.20	100.00	2.19 µg/L	91.22



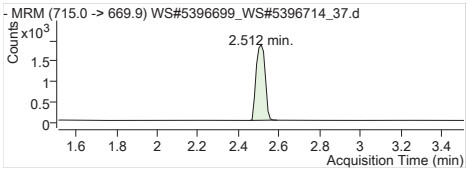


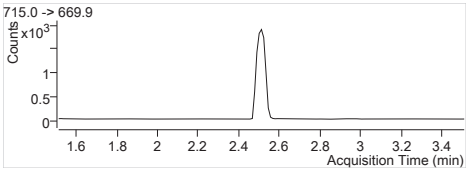
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: QC



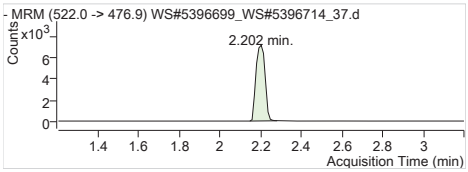


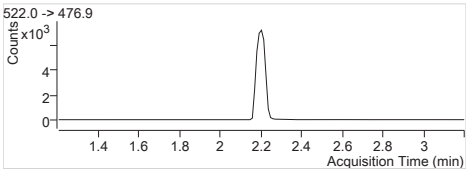
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: QC



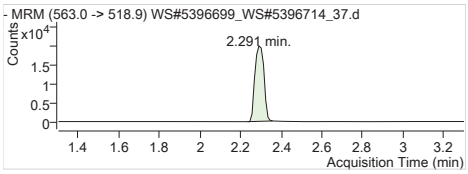


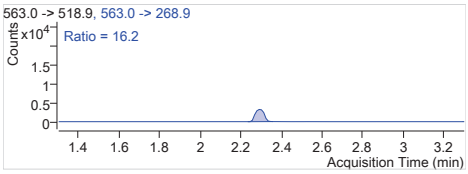
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: QC



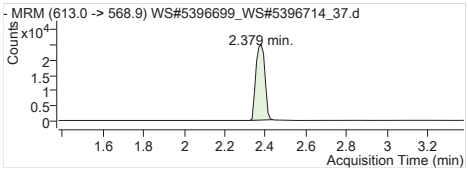


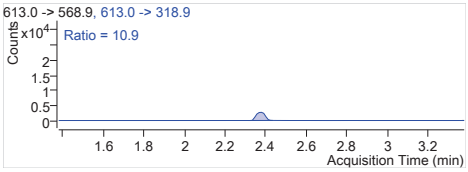
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: QC



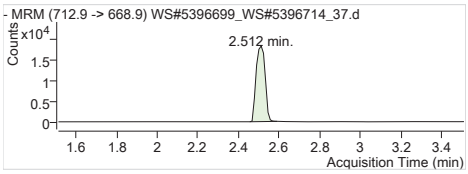


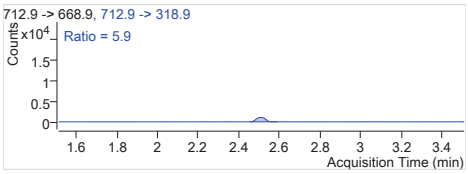
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 0.45 µg/L
Area ratio: 11.11065
Sample type: QC



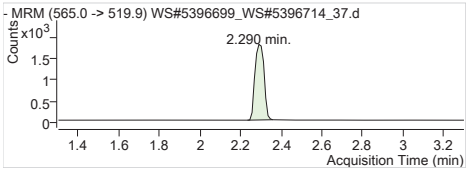


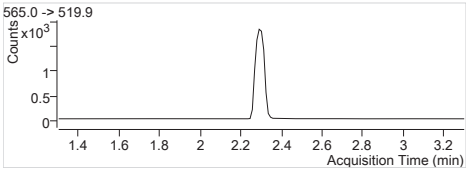
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	0.46 µg/L
Area ratio:	11.03468
Sample type:	QC



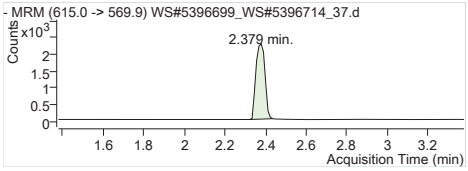


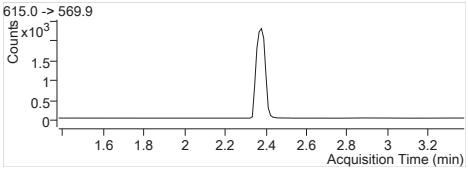
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	0.44 µg/L
Area ratio:	9.80259
Sample type:	QC



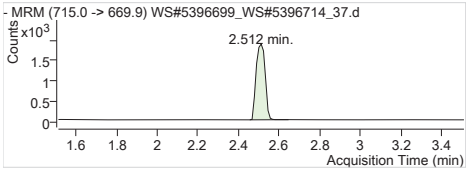


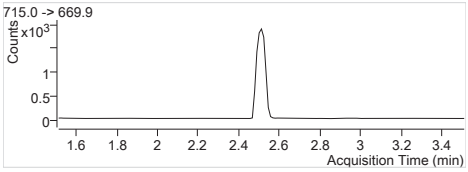
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.290 (2.302)
Calc. conc.	106.79 µg/L
Area ratio:	0.25106
Sample type:	QC



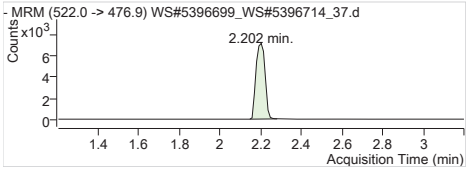


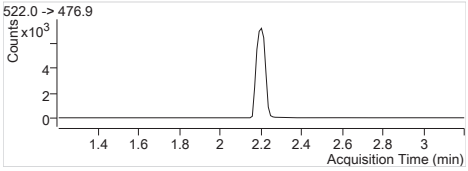
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	102.66 µg/L
Area ratio:	0.31418
Sample type:	QC





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	95.68 µg/L
Area ratio:	0.25885
Sample type:	QC





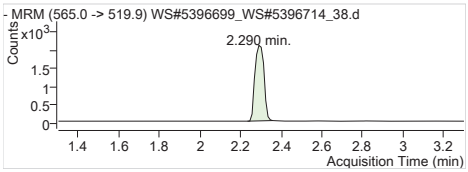
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	2.19 µg/L
Area ratio:	0
Sample type:	QC

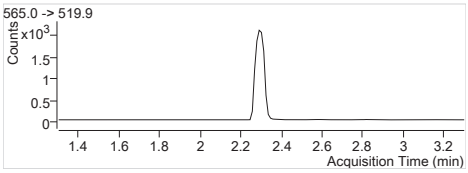
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**5396714:MTRX SPK:D1**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_38.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-D8
Acq. Date	2018/02/15 7:13:28 PM	**Injection Volume**	Per Method
Sample Annotation	FZH337		

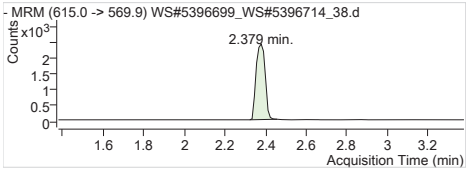
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6432	2.29	1 µg/L		
MPFDoA	7419	2.38	1 µg/L		
MPFTeDA	6628	2.51	1 µg/L		
13C9-PFDA IS	23334	2.20	1 µg/L		

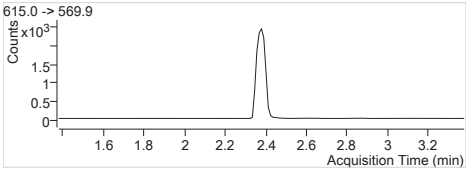
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	68431	2.29	20.80	0.43 µg/L	85.86
PFDoA 1	78508	2.38	20.80	0.44 µg/L	88.62
PFTeDA 1	59673	2.51	20.80	0.41 µg/L	81.41
13C2-PFUnA	6432	2.29	100.00	117.25 µg/L	117.25
13C2-PFDoA	7419	2.38	100.00	103.89 µg/L	103.89
13C2-PFTeDA	6733	2.51	100.00	106.66 µg/L	106.66
13C9-PFDA	23334	2.20	100.00	2.30 µg/L	95.84



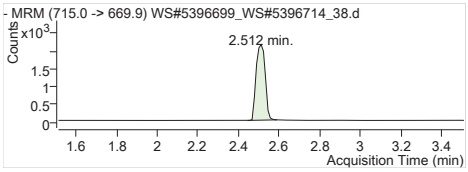


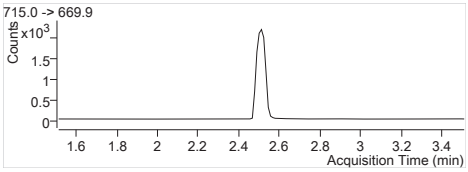
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: QC



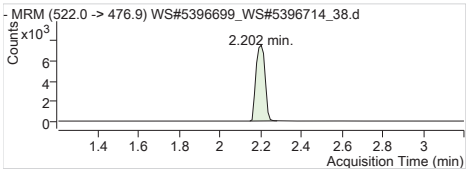


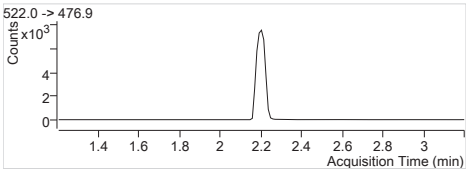
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: QC



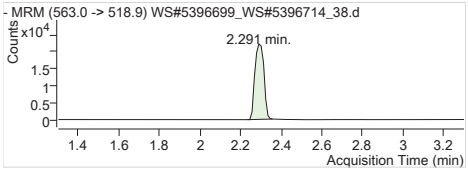


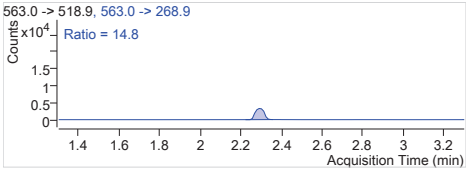
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: QC



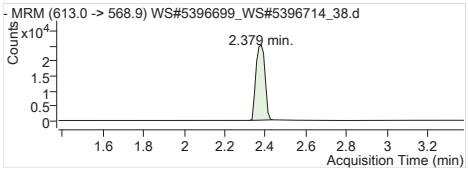


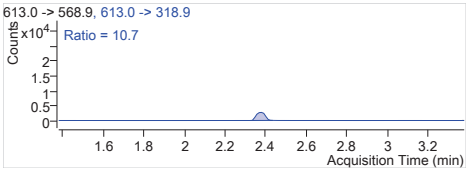
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: QC



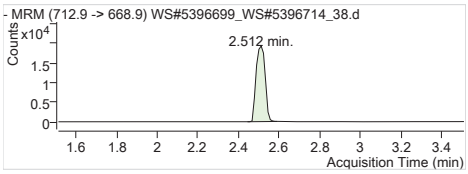


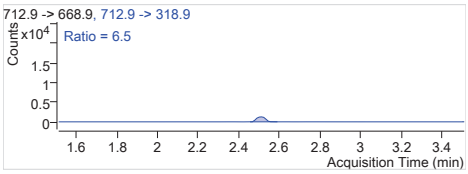
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 0.43 µg/L
Area ratio: 10.63915
Sample type: QC



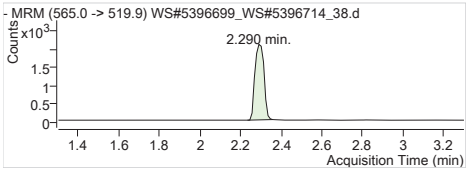


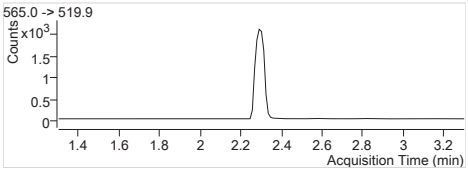
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 0.44 µg/L
Area ratio: 10.58202
Sample type: QC



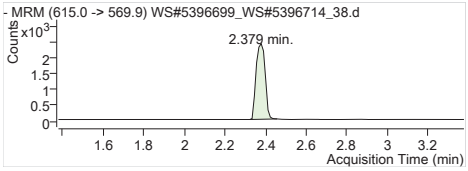


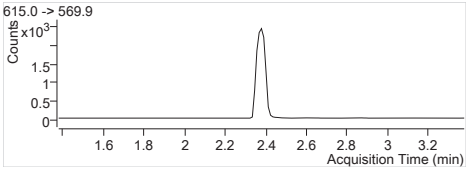
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 0.41 µg/L
Area ratio: 9.00317
Sample type: QC



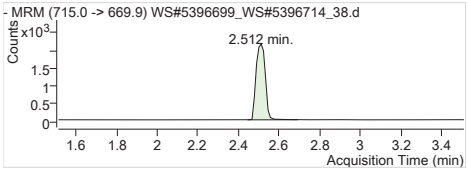


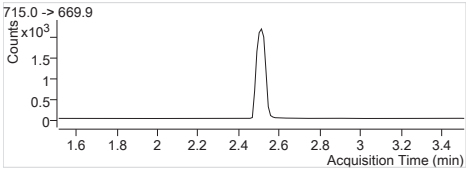
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.290 (2.302)
Calc. conc. 117.25 µg/L
Area ratio: 0.27565
Sample type: QC



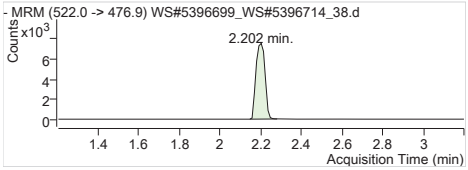


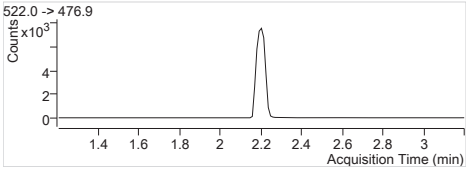
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 103.89 µg/L
Area ratio: 0.31795
Sample type: QC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 106.66 µg/L
Area ratio: 0.28855
Sample type: QC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 2.30 µg/L
Area ratio: 0
Sample type: QC

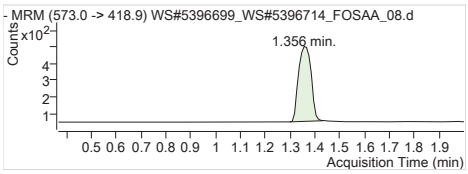
Quantitation Results

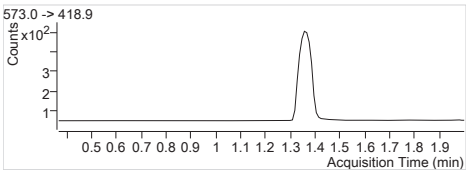
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	IB	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_08.d	**Operator**	
Sample Type	Sample	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A8
Acq. Date	2018/02/15 10:53:40 AM	**Injection Volume**	Per Method
Sample Annotation	-		

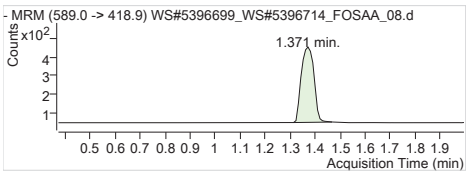
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1587	1.36	1 µg/L		
D5-EtFOSAA IS	1421	1.37	1 µg/L		
13C9-PFDA IS	27800	1.12	1 µg/L		

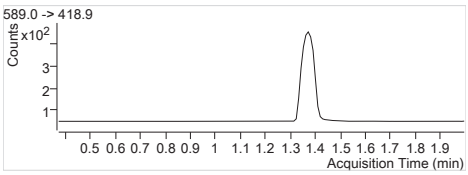
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1			-	ND	-
EtFOSAA 1			-	ND	-
D3-MeFOSAA	1624	1.36	-	106.12 µg/L	-
D5-EtFOSAA	1438	1.37	-	107.90 µg/L	-
13C9-PFDA	27370	1.12	-	2.47 µg/L	-



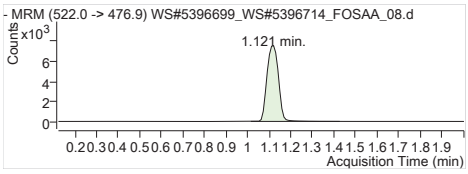


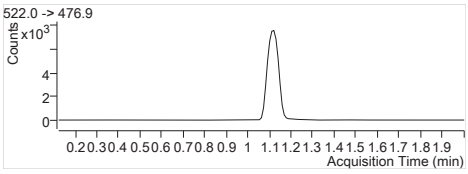
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Sample



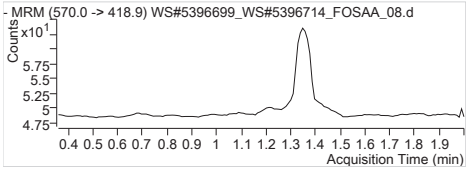


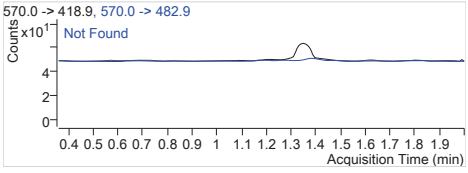
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Sample



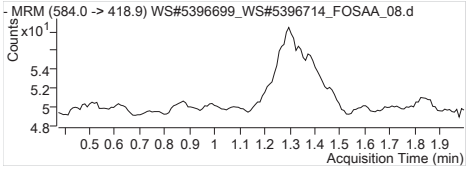


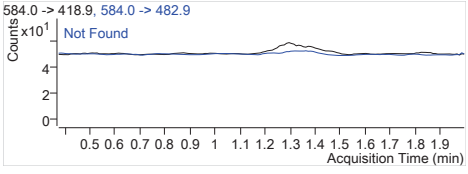
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: Sample



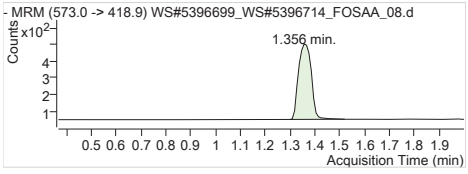


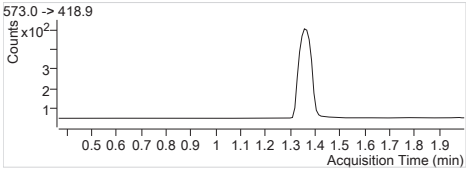
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 0.000 (1.358)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



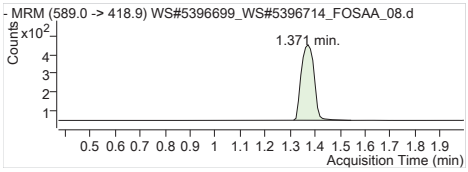


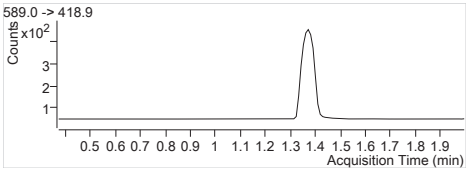
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 0.000 (1.373)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



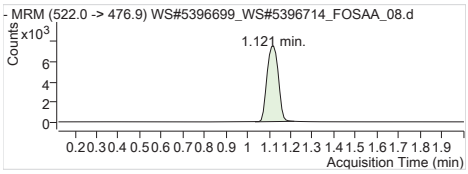


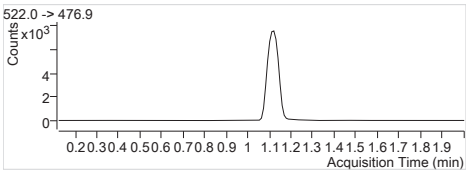
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 106.12 µg/L
Area ratio: 0.05842
Sample type: Sample





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	107.90 µg/L
Area ratio:	0.05173
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	2.47 µg/L
Area ratio:	0
Sample type:	Sample

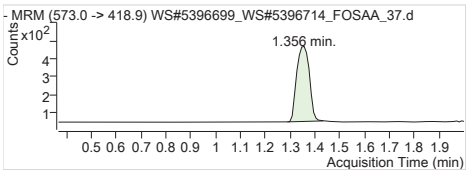
Quantitation Results

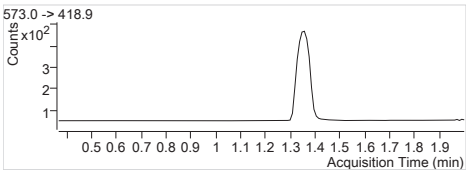
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_ETOxics		
Sample Name	**5396714:MTRX SPK**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_37.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D7
Acq. Date	2018/02/15 12:03:34 PM	**Injection Volume**	Per Method
Sample Annotation	FZH337		

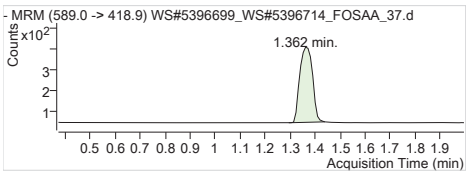
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1480	1.36	1 µg/L		
D5-EtFOSAA IS	1274	1.36	1 µg/L		
13C9-PFDA IS	24143	1.10	1 µg/L		

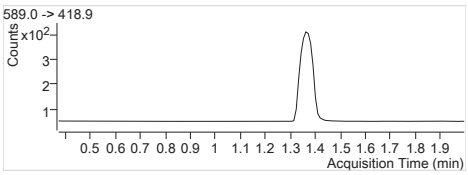
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13362	1.35	20.80	0.43 µg/L	86.67
EtFOSAA 1	13523	1.36	20.80	0.43 µg/L	86.93
D3-MeFOSAA	1515	1.36	100.00	113.99 µg/L	113.99
D5-EtFOSAA	1295	1.36	100.00	111.89 µg/L	111.89
13C9-PFDA	23608	1.10	100.00	2.13 µg/L	88.90



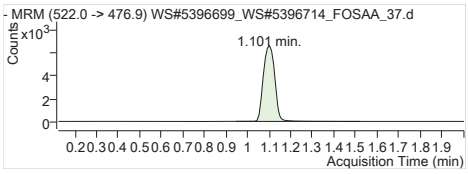


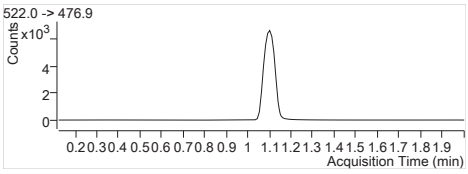
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: QC



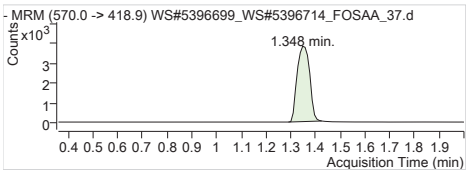


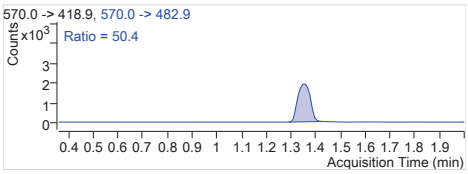
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: QC



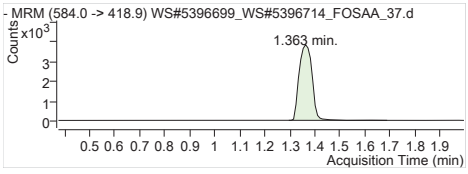


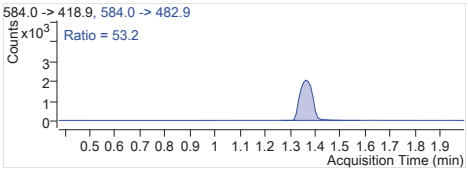
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: QC



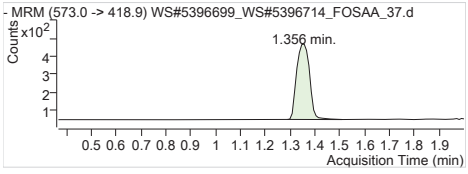


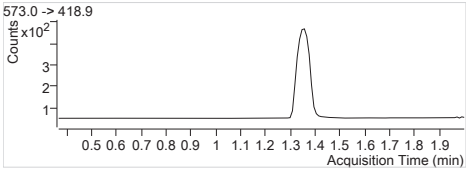
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.348 (1.358)
Calc. conc. 0.43 µg/L
Area ratio: 9.02838
Sample type: QC



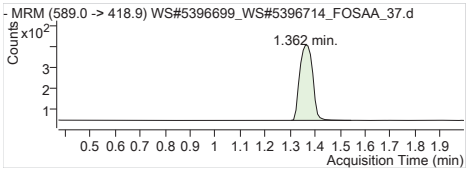


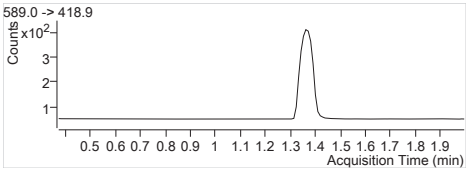
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.363 (1.373)
Calc. conc. 0.43 µg/L
Area ratio: 10.61460
Sample type: QC



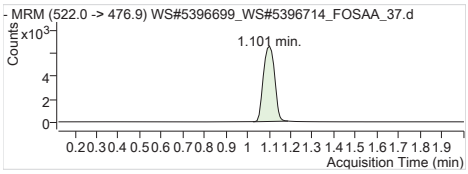


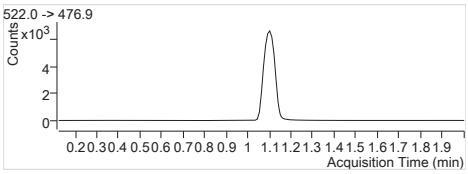
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 113.99 µg/L
Area ratio: 0.06275
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	111.89 µg/L
Area ratio:	0.05364
Sample type:	QC



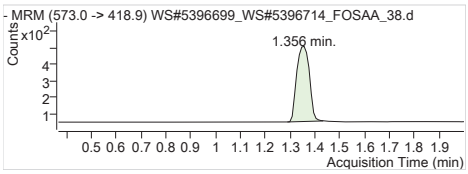


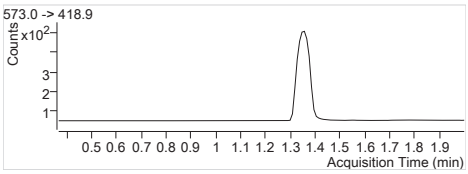
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	2.13 µg/L
Area ratio:	0
Sample type:	QC

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_ETOxics		
Sample Name	**5396714:MTRX SPK:D1**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_38.d	**Operator**	
Sample Type	QC	**Dilution**	0.024
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-D8
Acq. Date	2018/02/15 12:05:59 PM	**Injection Volume**	Per Method
Sample Annotation	FZH337		

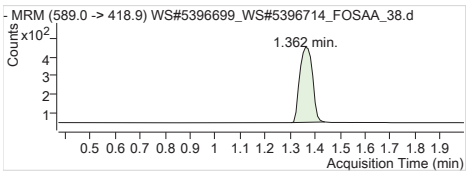
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1626	1.36	1 µg/L		
D5-EtFOSAA IS	1419	1.36	1 µg/L		
13C9-PFDA IS	24615	1.10	1 µg/L		

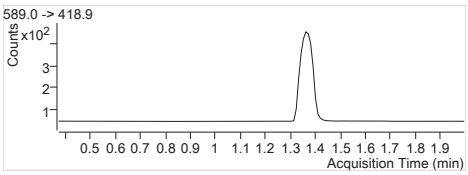
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13631	1.35	20.80	0.40 µg/L	80.57
EtFOSAA 1	13889	1.36	20.80	0.40 µg/L	80.27
D3-MeFOSAA	1657	1.36	100.00	122.28 µg/L	122.28
D5-EtFOSAA	1434	1.36	100.00	121.52 µg/L	121.52
13C9-PFDA	24070	1.10	100.00	2.18 µg/L	90.64



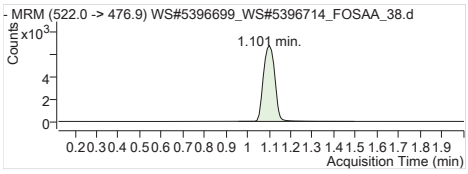


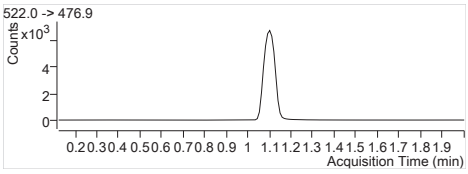
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: QC



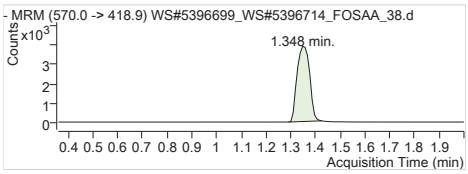


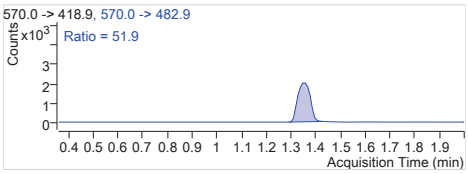
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: QC



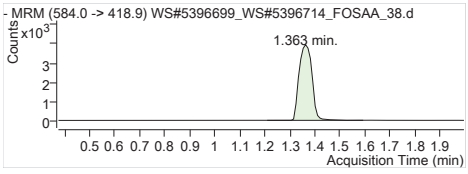


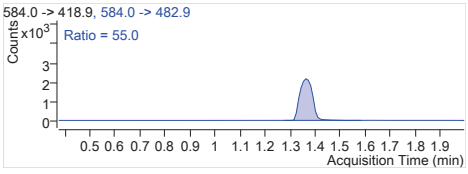
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: QC



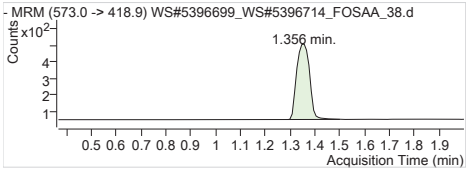


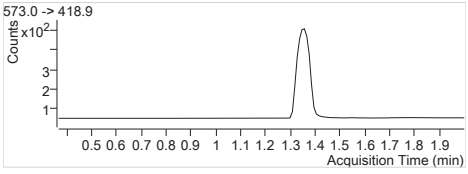
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.348 (1.358)
Calc. conc. 0.40 µg/L
Area ratio: 8.38315
Sample type: QC



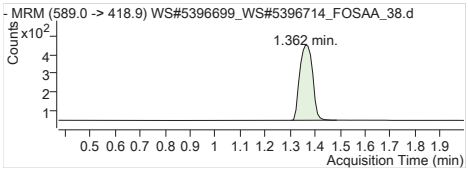


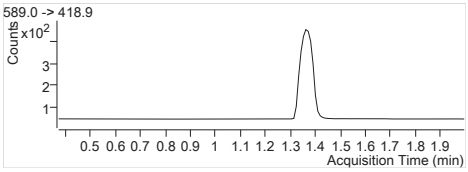
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.363 (1.373)
Calc. conc. 0.40 µg/L
Area ratio: 9.78788
Sample type: QC



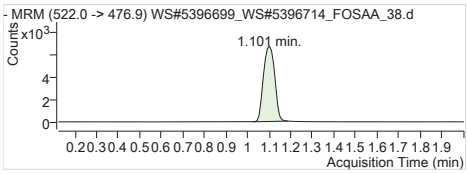


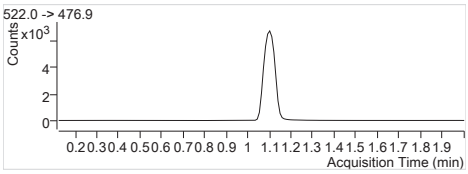
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 122.28 µg/L
Area ratio: 0.06732
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	121.52 µg/L
Area ratio:	0.05826
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	2.18 µg/L
Area ratio:	0
Sample type:	QC

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/06

Worksheet # (s): 5383466

Analysis: PFOS PLCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			
2	Analysis set-up meets method criteria	✓			
3	Tuning and correct calibration used - criteria meets method criteria	✓			
4	SQC/Control Charts updated, analysis in statistical/method control	✓			
5	Internal area counts checked (if applicable)	✓			
6	LCS, SRM are within acceptance criteria	✓			
7	Surrogate Recovery(s) is within acceptance criteria	✓	✓		
8	Method Blank meets acceptance criteria	✓			
9	Matrix Spike recovery(s) meets acceptance criteria	✓			
10	Duplicate precision meets acceptance criteria	✓			
11	QC is documented on the run logs	✓			
12	Runs checked for carryover	✓			
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			
15	Standards and reagents traceable to Certificates of Analysis	✓			
16	Samples above calibration range diluted and reanalyzed			✓	
17	Dilution factors (where justified) have been checked for correctness and entered	✓			
18	Analytical observations/anomalies documented in LIMS			✓	
19	Random calculation checked and in correct units	✓			
20	If corrective actions were applied they are documented, initialed & dated			✓	
21	Manual integration – before & after data with a reason included, initialed & dated			✓	
22	Transferred data is validated in LIMS for correctness	✓			
23	Data package assembled (where required)	✓			

Reviewed by: [illegible] Date: 2018/02/07

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: AD Date: 2018/02/08

Comments: All samples sent for rework for PFDoA, PF7rDA, PF7cDA due to spike failed to meet acceptance criteria. AD 2018/02/08

*Note: 2nd 100% verification review documented by secondary qualified data review

Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # | Testcode: PFOSALCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)			✓
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded			✓
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: [illegible] | Date: 2018/02/07

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: | Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: | Date:

Comments:

WS# : 5383466

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Saturday, February 03, 2018

Assigned to : Shahbaz Ahmad

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

sediment om ml ml SAP 2018/02/03

	Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	
5,5		MTRX SPK	0	PFOS FZA786-01		0.2	125	3	1X					2018/02/03	33.0
5,7		MTRX SPK	1	PFOS FZA786-01		0.2	125	3	1X					2018/02/03	34.1
5,3		SPIKE		PFOS		0	125	3	1X					2018/02/03	26.8
5,1		BLANK				0	125	3	1X					2018/02/03	29.8
5,9	B818419	*FZA783-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	31.0
5,11	B818419	*FZA784-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	31.9
5,13	B818419	*FZA785-01R		[redacted]		<0.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	30.3
5,15	B818419	*FZA786-01R		[redacted]		0.2	125	3	1X	6	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	26.8
5,17	B818419	*FZA788-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	30.1
5,19	B818419	*FZA789-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	31.3
6,1	B818419	*FZA790-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	25.8
6,3	B818419	*FZA791-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	25.8
6,5	B818419	*FZA792-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	27.9
6,7	B819794	*FZH336-01R		FB-CEF-NFF-0122*		0	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	34.8
6,9	B819794	*FZH338-01R		CEF-372-08-0118		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	25.3
6,11	B819794	*FZH339-01R		CEF-372-08-0118-D		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	27.5
6,13	B819794	*FZH340-01R		CEF-003-28S-0118		0	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	26.3
6,15	B819794	*FZH341-01R		FB-CEF-016-01221*		0	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	28.5
6,17	B819794	*FZH342-01R		CEF-016-07S-0118		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	35.0
6,19	B819794	*FZH343-01R		CEF-016-17S-0118		0	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	31.8

SAP 2018/02/03

Remarks:

Samples extracted by: Shahbaz Ahmad SAP 2018/02/03

Instrumentation performed by: [signature] Date: 2018/02/06

Calculations performed by: [signature] Date: 2018/02/07

Validated by: AD Date: 2018/02/08

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB818419	[redacted]			
GB819794	**SP8 Earth Toxics Inc**	**Rick Carr**	**Tier 5 (Enviro.) AECOM**	

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B818419	FZA783-01R	
B818419	FZA784-01R	
B818419	FZA785-01R	
B818419	FZA786-01R	
B818419	FZA788-01R	
B818419	FZA789-01R	
B818419	FZA790-01R	
B818419	FZA791-01R	
B818419	FZA792-01R	
B819794	FZH336-01R	
B819794	FZH338-01R	
B819794	FZH339-01R	
B819794	FZH340-01R	
B819794	FZH341-01R	
B819794	FZH342-01R	
B819794	FZH343-01R	

Standard	vol of MeOH	Amount Spiked	
S1	2825	25	SK-7390 1/2
S2	2800	50	
S3	2700	150	
S4	2813	37.5	I-5297
S5	2775	75	
S6			
ICV	2725	125	
IB	2788 2850	62.5	I-5299

Folder: 20190206

Worksheet Reagent Tracking Record Worksheet # 5383466

Surrogate/Spike solutions	√	Solution ID #	Conc.	Volume (µL) Blk-Spk Solid	Blk-Spk Liquid	MS Solid	MS Liquid	Samples Solid	Samples Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	F-5299 1/3	1ug/mL	75	21 62.5	75	21 62.5	NA	NA
PFC Internal Standard Solution	✓	SE 6765 2/4 [illegible]	50/125 ng/mL	200	100 150	200	100 150	200	100/150
PFC Injection IS	✓	SE 6716 3/4 [illegible]	400 ng/mL	20	20	20	20	20	20
ICV	✓	I5299 1/3							

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHBJ5451	2018/02/02	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol				DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRLRE	108-334	0.2% NH_4OH	✓	PRLRE	108-337
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/2/2
0.05M HCl							

*Spiked by: SAD

Spike Date: 2018/02/03

Spike Syringe/Pipette ID#: L132773F

Int. Std Syringe/Pipette ID#: K19865F

*Spiking Witnessed by: JDS

Final pH:

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor L132773F K19865F		SPE Cartridge			QC Balance ID	
		Filter			Thermometer ID &Temp	
Dispenser		Centrifuge				
		Sonicator				

Bottle Tracking ✓

Bottle# 18587

Cap# 18422

Systems plus Lot# 17-12-11

Comments:

* - SPIKING OF QC'S & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet Number: **5383466**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	B818419 FZA783	B818419 FZA784
6:2 Fluorotelomer sulfonate	ug/L	98.37626	92.01237	96.11331	0	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	ug/L	86.62930	92.03689	90.62876	0	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	ug/L	74.44754	97.35368	N/A*******	0	N/A*******	N/A*******
EtFOSAA	ug/L	87.30327	93.84580	!! 63.7510	0	0	0
N-ethylperfluorooctane sulfonamidoe	ug/L	91.90741	104.11467	N/A*******	0	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	ug/L	76.91467	100.23684	N/A*******	0	N/A*******	N/A*******
MeFOSAA	ug/L	90.03268	93.65003	!! 68.0806	0	0	0
N-methylperfluorooctanesulfonamidol	ug/L	95.67363	106.57021	N/A*******	0	N/A*******	N/A*******
Perfluorobutanoic acid	ug/L	98.21468	106.85716	N/A*******	0	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	ug/L	82.89653	95.79209	99.67851	0	0	0.00518978
Perfluorodecane Sulfonate	ug/L	92.45756	91.41692	N/A*******	0	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	ug/L	86.81164	94.10782	93.60885	0	0	0
Perfluoroheptane sulfonate	ug/L	90.98726	101.20481	N/A*******	0	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	ug/L	91.96093	92.78204	88.50372	0	0.01054153	0
Perfluorohexane Sulfonate (PFHxS)	ug/L	87.52991	95.60760	97.20073	0	0.00887340	0.00870697
Perfluorononanoic Acid (PFNA)	ug/L	93.43522	96.72312	92.66732	0	0	0
Perfluorooctane Sulfonamide (PFOSA)	ug/L	89.72318	92.62598	73.80000	0	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	ug/L	89.37200	95.20211	N/A*******	0	N/A*******	N/A*******
Perfluorotetradecanoic Acid	ug/L	95.89857	96.32574	!! 67.7402	0	0	0
Perfluorotridecanoic Acid	ug/L	96.29521	95.44624	!! 65.8448	0	0	0
Perfluoroundecanoic Acid (PFUnA)	ug/L	96.46350	102.22507	72.08254	0	0	0
Perfluorodecanoic Acid (PFDA)	ug/L	102.37893	95.12233	83.49513	0	0	0
Perfluorododecanoic Acid (PFDoA)	ug/L	90.78481	96.72123	!! 62.1820	0	0	0
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	95.93662	93.98174	97.19234	0	0	0
Perfluorooctane Sulfonate (PFOS)	ug/L	94.99755	108.74849	100.84658	0	0	0
13C2-6:2 Fluorotelomer sulfonate	ug/L	114.338062	127.448872	N/A*******	113.307957	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	ug/L	115.440507	121.518490	N/A*******	106.113909	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	ug/L	82.1416632	98.8016425	109.679857	51.9150278	76.4072488	85.4869829
13C4-Perfluorobutanoic acid	ug/L	77.5120182	83.1025398	N/A*******	105.324665	N/A*******	N/A*******
D3-MeFOSAA	ug/L	85.9779888	94.4857630	97.3966072	56.8873348	75.2789238	96.7656805
D5-EtFOSAA	ug/L	86.9803015	94.0731946	101.825486	51.6461405	76.6323194	94.6359966
N-methyl-d3-perfluorooctane sulfona	ug/L	69.3815036	80.5225348	N/A*******	49.9444954	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	ug/L	74.2509996	82.4447942	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	ug/L	84.9829149	104.124832	102.743556	84.5472739	85.8951135	107.176218
13C2-Perfluorododecanoic acid	ug/L	85.0687692	96.3858250	121.072838	!! 47.0485	80.7479578	98.6366498
13C2-Perfluorohexanoic acid	ug/L	91.9963409	97.1022640	90.1829971	106.199163	88.1415799	109.981383
13C2-Perfluoroundecanoic acid	ug/L	87.1043163	97.3023074	122.399275	55.3508344	82.7148159	91.0925685
13C4-Perfluoroheptanoic acid	ug/L	102.395216	103.278540	92.4433542	109.351244	86.9681260	114.092549
13C5-Perfluorononanoic acid	ug/L	100.042328	101.475792	97.4697765	103.507539	91.3425498	118.788865
13C4-Perfluorooctanoic acid	ug/L	96.7876585	104.962665	89.9736143	107.163039	89.9404074	111.145407
13C4-Perfluorooctanesulfonate	ug/L	100.788647	99.1059572	88.3395098	104.464942	95.2156371	122.062293
13C5-Perfluoropentanoic acid	ug/L	103.538890	100.012540	N/A*******	104.079397	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	ug/L	83.4616405	94.3043519	N/A*******	76.7569834	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	ug/L	103.719356	102.254100	89.3711957	103.625993	87.7003331	114.442701

2018/2/27

Worksheet Number: **5383466**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B818419 FZA785	B818419 FZA786	B818419 FZA788	B818419 FZA789	B818419 FZA790	B818419 FZA791	B818419 FZA792
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
EtFOSAA	0	0	0	0.00631487	0	0.00686332	0
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
MeFOSAA	0	0	0	0.00425524	0	0.00472317	0
N-methylperfluorooctanesulfonamidoi	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	0	0.01193250	0	0	0	0	0
Perfluorodecane Sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	0	0.02478493	0	0	0	0	0
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	0.01013417	0.03463848	0	0	0	0	0
Perfluorohexane Sulfonate (PFHxS)	0.01292668	0.02680901	0	0	0	0	0
Perfluorononanoic Acid (PFNA)	0	0	0	0	0	0	0
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorotetradecanoic Acid	0	0	0	0	0	0	0
Perfluorotridecanoic Acid	0	0	0	0	0	0	0
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0	0	0	0
Perfluorodecanoic Acid (PFDA)	0	0	0	0	0	0	0
Perfluorododecanoic Acid (PFDoA)	0	0	0	0	0	0	0
Perfluoro-n-Octanoic Acid (PFOA)	0.01241350	0.13900978	0	0	0	0	0
Perfluorooctane Sulfonate (PFOS)	0	0.08384642	0	0	0	0	0
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	85.4142379	88.0451122	90.3541599	82.7616701	79.7376927	91.8342583	78.6502893
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
D3-MeFOSAA	88.7512946	96.5307079	79.8667176	84.4242428	80.6499269	85.7074761	81.0173050
D5-EtFOSAA	92.2812853	94.4723015	83.1968631	86.3076807	76.2579366	85.8390887	80.1326144
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	94.7633248	92.9341622	98.2133293	93.5583158	85.5432448	105.273795	101.554717
13C2-Perfluorododecanoic acid	85.7494157	89.7584173	86.2010403	90.0551321	84.4332738	97.0746443	89.3930862
13C2-Perfluorohexanoic acid	82.2543348	96.1208807	108.781731	109.242403	99.6946472	103.727305	89.7307559
13C2-Perfluoroundecanoic acid	96.3707223	91.5754004	96.1159327	91.3052098	83.6232551	102.356730	94.9027912
13C4-Perfluoroheptanoic acid	98.9300004	101.168675	116.185939	113.024733	107.022817	107.029242	92.1590805
13C5-Perfluorononanoic acid	101.219717	103.281922	111.933531	106.056714	103.080275	109.467849	93.0812003
13C4-Perfluorooctanoic acid	98.2843273	99.7939782	109.683986	113.264299	99.6416921	108.631589	101.487366
13C4-Perfluorooctanesulfonate	99.0594609	111.521580	109.581844	114.476256	102.068445	105.769386	103.628421
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	96.7596645	102.692574	111.368531	102.706610	100.921354	94.7315136	96.1584669

Worksheet Number: **5383466**

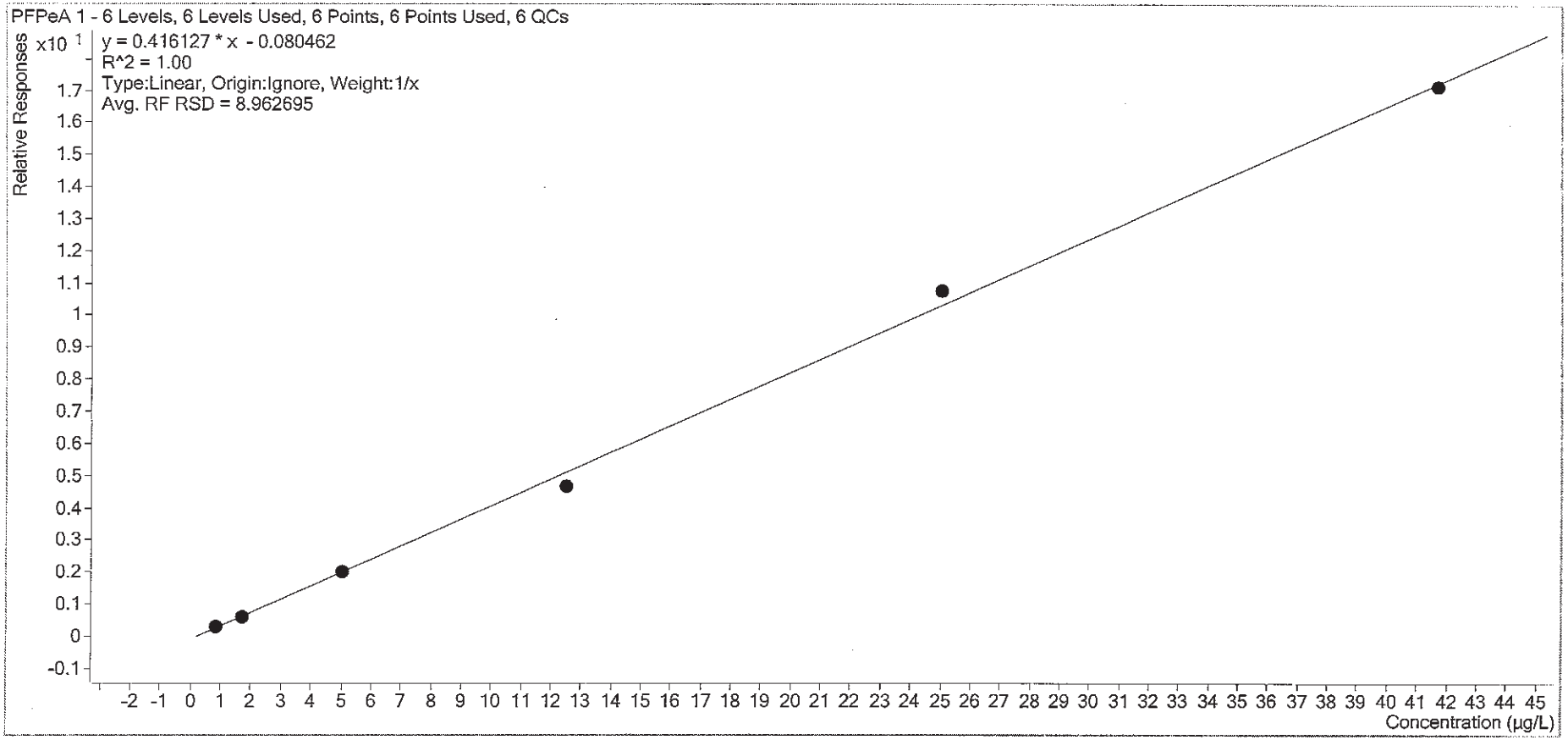
PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B819794 FZH336	B819794 FZH338	B819794 FZH339	B819794 FZH340	B819794 FZH341	B819794 FZH342	B819794 FZH343
6:2 Fluorotelomer sulfonate	0	N/A*******	N/A*******	N/A*******	0	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	0	N/A*******	N/A*******	N/A*******	0	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	0	N/A*******	N/A*******	N/A*******	0	N/A*******	N/A*******
EtFOSAA	0	0	0	0	0	0	0
N-ethylperfluorooctane sulfonamidoe	0	N/A*******	N/A*******	N/A*******	0	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	0	N/A*******	N/A*******	N/A*******	0	N/A*******	N/A*******
MeFOSAA	0	0	0	0	0	0.00369223	0
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	N/A*******	0.00578757	0.00580984	0.00830906	N/A*******	0.00546567	0
Perfluorodecane Sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	N/A*******	0	0	0.03766183	N/A*******	0.01384674	0.03785991
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	N/A*******	0.01087472	0.01061936	0.03328450	N/A*******	0.02075096	0.02922022
Perfluorohexane Sulfonate (PFHxS)	N/A*******	0.01865163	0.02011585	0.03548554	N/A*******	0.01337441	0.01063257
Perfluorononanoic Acid (PFNA)	N/A*******	0	0	0.02114793	N/A*******	0	0.01371525
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorotetradecanoic Acid	N/A*******	0	0	0	N/A*******	0	0
Perfluorotridecanoic Acid	N/A*******	0	0	0	N/A*******	0	0
Perfluoroundecanoic Acid (PFUnA)	N/A*******	0	0	0	N/A*******	0	0
Perfluorodecanoic Acid (PFDA)	N/A*******	0	0	0	N/A*******	0	0
Perfluorododecanoic Acid (PFDoA)	N/A*******	0	0	0	N/A*******	0	0
Perfluoro-n-Octanoic Acid (PFOA)	N/A*******	0	0	0.11760894	N/A*******	0.00999132	0.03320958
Perfluorooctane Sulfonate (PFOS)	N/A*******	0	0.00729654	0.16776425	N/A*******	0.01122045	0.05863242
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	N/A*******	73.9561732	79.4066955	85.3303714	N/A*******	83.0714057	92.8280190
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
D3-MeFOSAA	N/A*******	85.3319462	95.1483448	80.3632760	N/A*******	88.2167770	93.7794006
D5-EtFOSAA	N/A*******	82.0348917	90.3125828	82.1893041	N/A*******	90.4363256	93.1031969
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	N/A*******	90.0390222	112.392065	96.7434826	N/A*******	100.549863	100.976896
13C2-Perfluorododecanoic acid	N/A*******	86.1004444	102.156897	91.3866200	N/A*******	89.0216764	95.7538358
13C2-Perfluorohexanoic acid	N/A*******	97.6177087	105.148131	106.286616	N/A*******	100.102876	108.780066
13C2-Perfluoroundecanoic acid	N/A*******	86.1893416	108.104630	85.0206170	N/A*******	91.9654141	98.7652956
13C4-Perfluoroheptanoic acid	N/A*******	100.249172	113.607486	108.784192	N/A*******	106.836593	112.639666
13C5-Perfluorononanoic acid	N/A*******	103.568549	106.424781	112.255674	N/A*******	103.583624	117.561769
13C4-Perfluorooctanoic acid	N/A*******	99.8442087	112.712030	103.491143	N/A*******	100.938387	116.551762
13C4-Perfluorooctanesulfonate	N/A*******	92.1919661	113.246941	98.0248112	N/A*******	108.324230	100.908838
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	N/A*******	100.398533	115.916245	111.416464	N/A*******	94.1928131	109.218905

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	DL	RDL	MDL	IDL			
6:2 Fluorotelomer sulfonate	0.02	0.02	0.0066	0			
8:2 Fluorotelomer sulfonate	0.02	0.02	0.0066	0			
N-ethylperfluorooctane sulfonamide	0.02	0.02	0.01	0			
EtFOSAA	0.02	0.02	0.0033	0			
N-ethylperfluorooctane sulfonamidoe	0.02	0.02	0.0079	0			
N-methylperfluorooctane sulfonamide	0.02	0.02	0.013	0			
MeFOSAA	0.02	0.02	0.0029	0			
N-methylperfluorooctanesulfonamidol	0.02	0.02	0.012	0			
Perfluorobutanoic acid	0.02	0.02	0.0055	0			
Perfluorobutane Sulfonate (PFBS)	0.02	0.02	0.0054	0			
Perfluorodecane Sulfonate	0.02	0.02	0.006	0			
Perfluoroheptanoic Acid (PFHpA)	0.02	0.02	0.0074	0			
Perfluoroheptane sulfonate	0.02	0.02	0.008	0			
Perfluorohexanoic Acid (PFHxA)	0.02	0.02	0.0035	0			
Perfluorohexane Sulfonate (PFHxS)	0.02	0.02	0.0056	0			
Perfluorononanoic Acid (PFNA)	0.02	0.02	0.0087	0			
Perfluorooctane Sulfonamide (PFOSA)	0.02	0.02	0.0034	0			
Perfluoropentanoic Acid (PFPeA)	0.02	0.02	0.0075	0			
Perfluorotetradecanoic Acid	0.02	0.02	0.0027	0			
Perfluorotridecanoic Acid	0.02	0.02	0.0038	0			
Perfluoroundecanoic Acid (PFUnA)	0.02	0.02	0.0025	0			
Perfluorodecanoic Acid (PFDA)	0.02	0.02	0.0061	0			
Perfluorododecanoic Acid (PFDoA)	0.02	0.02	0.005	0			
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0.02	0.0033	0			
Perfluorooctane Sulfonate (PFOS)	0.02	0.02	0.006	0			
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



Manual calculation for SpK:

8.2275 = 0.416127 x - 0.080462

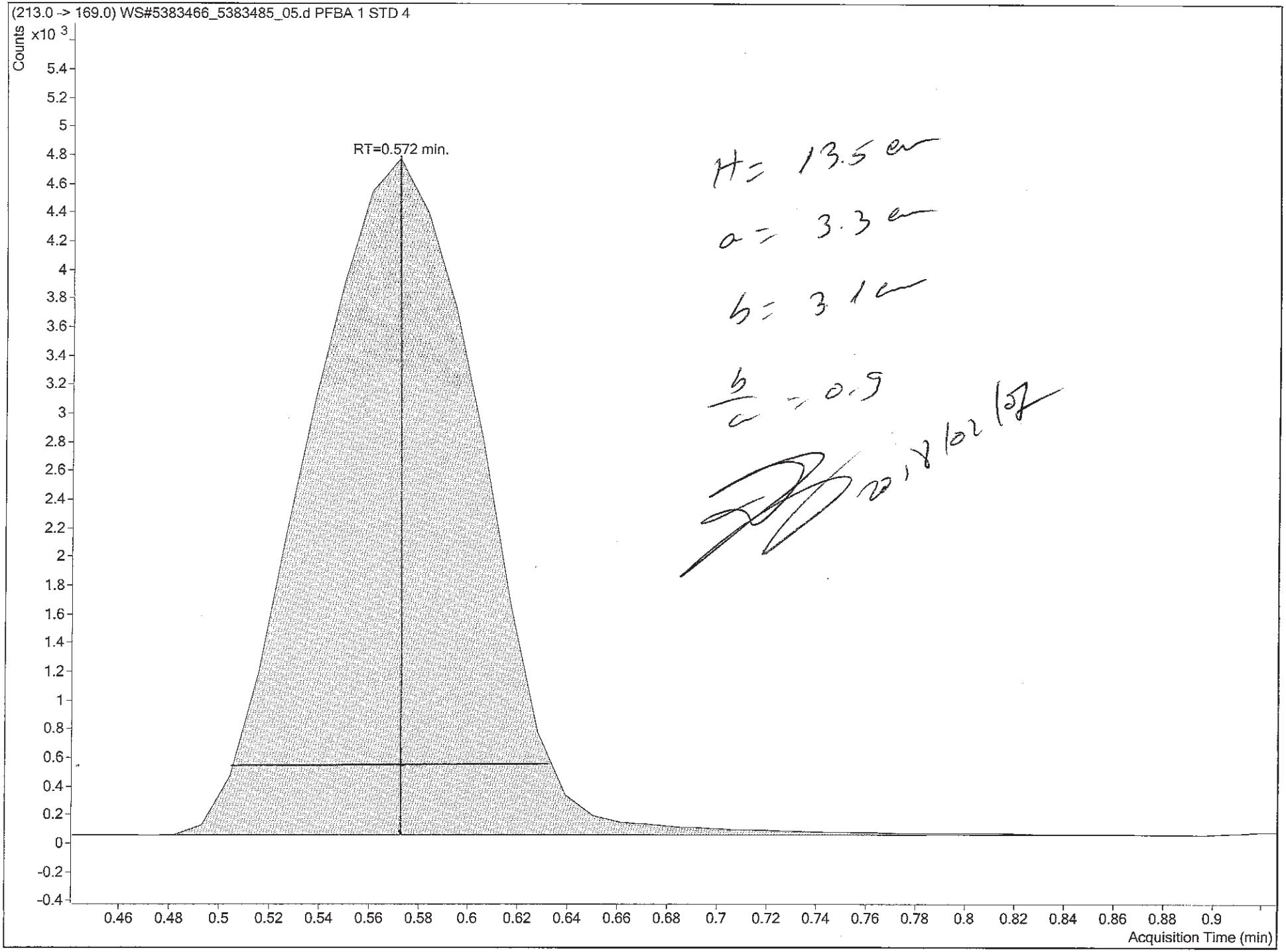
x = 19.964967 x 0.024

= 0.479159 µg/L

$\frac{0.479159}{0.5} \times 100 = 95.8\%$

AD
2018/02/08

2018/02/07



H = 13.5 cm

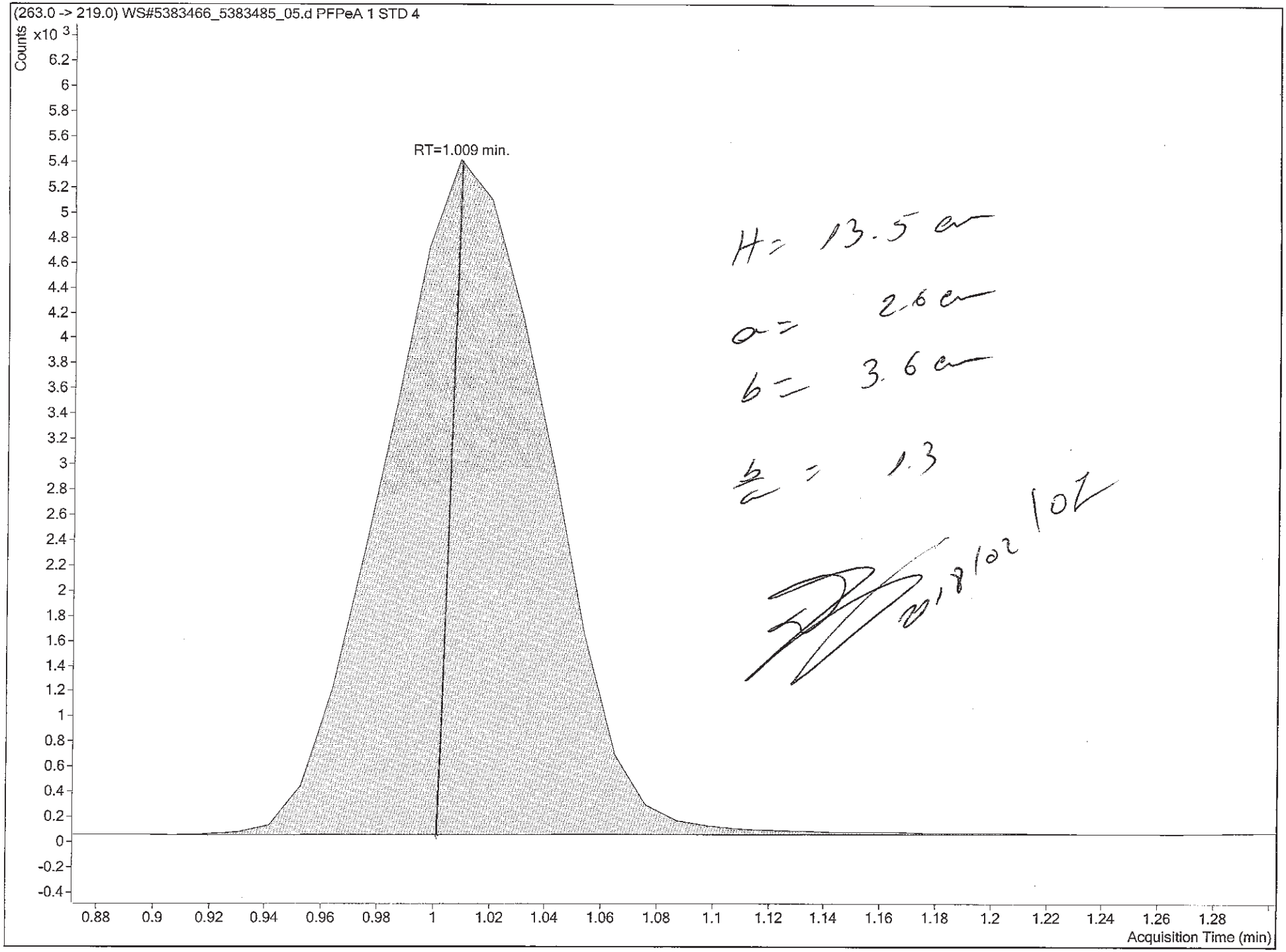
a = 3.3 cm

b = 3.1 cm

$\frac{b}{a} = 0.9$

2018/02/07

Maxxam Analytics



H = 13.5 cm

a = 2.6 cm

b = 3.6 cm

b/a = 1.3

10/8/02

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/03

Test Code: **PFOSALCM-W**

Worksheet Number: **5383466**

Sample Number	Parameter Code	Parameter	
FZA783-01	ETFOSAA	EtFOSAA	*
FZA784-01	MEFOSAA	MeFOSAA	*
FZA785-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FZA786-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
FZA788-01	PFHXA	Perfluorohexanoic Acid (PFHxA)	
FZA789-01	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
FZA790-01	PFNA	Perfluorononanoic Acid (PFNA)	
FZA791-01	PFTEDA	Perfluorotetradecanoic Acid	
FZA792-01	PFTRDA	Perfluorotridecanoic Acid	
FZH338-01	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
FZH339-01	PFDA	Perfluorodecanoic Acid (PFDA)	
FZH340-01	PFDOA	Perfluorododecanoic Acid (PFDoA)	
FZH342-01	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
FZH343-01	PFOS	Perfluorooctane Sulfonate (PFOS)	
FZH336-01	NONE	NONE	
FZH341-01			

2018/02/03

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5383466 Instrument Sequences

1.	5383466:MTRX SPK	MTRX SPK
2.	5383466:MTRX SPK:D1	MTRX SPK :D1
3.	5383466:SPIKE	SPIKE
4.	5383466:BLANK	BLANK
5.	5383466:FZA783-01	[redacted]
6.	5383466:FZA784-01	[redacted]
7.	5383466:FZA785-01	[redacted]
8.	5383466:FZA786-01	[redacted]
9.	5383466:FZA788-01	[redacted]
10.	5383466:FZA789-01	[redacted]
11.	5383466:FZA790-01	[redacted]
12.	5383466:FZA791-01	[redacted]
13.	5383466:FZA792-01	[redacted]
14.	5383466:FZH336-01	FB-CEF-NFF-012218-1
15.	5383466:FZH338-01	CEF-372-08-0118
16.	5383466:FZH339-01	CEF-372-08-0118-D
17.	5383466:FZH340-01	CEF-003-28S-0118
18.	5383466:FZH341-01	FB-CEF-016-012218-2
19.	5383466:FZH342-01	CEF-016-07S-0118
20.	5383466:FZH343-01	CEF-016-17S-0118

2018/02/03

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180206_Low.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180206\WS#5383466_5383485
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 265 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low.m	WS#5383466_5383485_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low.m	WS#5383466_5383485_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low.m	WS#5383466_5383485_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low.m	WS#5383466_5383485_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low.m	WS#5383466_5383485_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low.m	WS#5383466_5383485_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low.m	WS#5383466_5383485_07.d	Calibration	STD 6	As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P2-A8	PFC_Water_Low.m	WS#5383466_53834 85_08.d	Sample		As Method	-
9	ICV	P2-A9	PFC_Water_Low.m	WS#5383466_53834 85_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low.m	WS#5383466_53834 85_10.d	ConCal	STD 1	As Method	-
11	5383466:BLANK	P2-B1	PFC_Water_Low.m	WS#5383466_53834 85_11.d	Sample		As Method	-
12	5383466:SPIKE	P2-B2	PFC_Water_Low.m	WS#5383466_53834 85_12.d	QC	ICV	As Method	-
13	5383466:MTRX SPK	P2-B3	PFC_Water_Low.m	WS#5383466_53834 85_13.d	QC	ICV	As Method	-
14	5383466:MTRX SPK:D1	P2-B4	PFC_Water_Low.m	WS#5383466_53834 85_14.d	Sample		As Method	-
15	IB	P2-A8	PFC_Water_Low.m	WS#5383466_53834 85_15.d	Sample		As Method	-
16	5383466:FZA783-01	P2-B5	PFC_Water_Low.m	WS#5383466_53834 85_16.d	Sample		As Method	-
17	5383466:FZA784-01	P2-B6	PFC_Water_Low.m	WS#5383466_53834 85_17.d	Sample		As Method	-
18	5383466:FZA785-01	P2-B7	PFC_Water_Low.m	WS#5383466_53834 85_18.d	Sample		As Method	-
19	5383466:FZA786-01	P2-B8	PFC_Water_Low.m	WS#5383466_53834 85_19.d	Sample		As Method	-
20	5383466:FZA788-01	P2-B9	PFC_Water_Low.m	WS#5383466_53834 85_20.d	Sample		As Method	-
21	5383466:FZA789-01	P2-C1	PFC_Water_Low.m	WS#5383466_53834 85_21.d	Sample		As Method	-
22	5383466:FZA790-01	P2-C2	PFC_Water_Low.m	WS#5383466_53834 85_22.d	Sample		As Method	-
23	5383466:FZA791-01	P2-C3	PFC_Water_Low.m	WS#5383466_53834 85_23.d	Sample		As Method	-
24	5383466:FZA792-01	P2-C4	PFC_Water_Low.m	WS#5383466_53834 85_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low.m	WS#5383466_53834 85_25.d	ConCal	STD 4	As Method	-
26	5383466:FZH336-01	P2-C5	PFC_Water_Low.m	WS#5383466_53834 85_26.d	Sample		As Method	-
27	5383466:FZH338-01	P2-C6	PFC_Water_Low.m	WS#5383466_53834 85_27.d	Sample		As Method	-
28	5383466:FZH339-01	P2-C7	PFC_Water_Low.m	WS#5383466_53834 85_28.d	Sample		As Method	-
29	5383466:FZH340-01	P2-C8	PFC_Water_Low.m	WS#5383466_53834 85_29.d	Sample		As Method	-
30	5383466:FZH341-01	P2-C9	PFC_Water_Low.m	WS#5383466_53834 85_30.d	Sample		As Method	-

Maxxam Analytics

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5383466:FZH342-01	P2-D1	PFC_Water_Low.m	WS#5383466_53834 85_31.d	Sample		As Method	-
32	5383466:FZH343-01	P2-D2	PFC_Water_Low.m	WS#5383466_53834 85_32.d	Sample		As Method	-
33	CCV	P2-A5	PFC_Water_Low.m	WS#5383466_53834 85_33.d	ConCal	STD 4	As Method	-
34	5383485:FZH337-01	P2-D3	PFC_Water_Low.m	WS#5383466_53834 85_34.d	Sample		As Method	-
35	5383485:MTRX SPK	P2-D4	PFC_Water_Low.m	WS#5383466_53834 85_35.d	Sample		As Method	-
36	5383485:MTRX SPK:D1	P2-D5	PFC_Water_Low.m	WS#5383466_53834 85_36.d	Sample		As Method	-
37	IB	P2-A8	PFC_Water_Low.m	WS#5383466_53834 85_37.d	Sample		As Method	-
38	CCV	P2-A5	PFC_Water_Low.m	WS#5383466_53834 85_38.d	ConCal	STD 4	As Method	-

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180206_Low_FOSAA.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180206\WS#5383466_5383485_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 265 (FSRE18)
MP B2: Solution# 272 [FSRE18]

2018/02/07 MG

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_08.d	Sample		As Method	-

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P2-A9	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5383466:BLANK	P2-B1	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_11.d	Sample		As Method	-
12	5383466:SPIKE	P2-B2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_12.d	QC	ICV	As Method	-
13	5383466:MTRX SPK	P2-B3	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_13.d	QC	ICV	As Method	-
14	5383466:MTRX SPK:D1	P2-B4	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_14.d	Sample		As Method	-
15	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_15.d	Sample		As Method	-
16	5383466:FZA783-01	P2-B5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_16.d	Sample		As Method	-
17	5383466:FZA784-01	P2-B6	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_17.d	Sample		As Method	-
18	5383466:FZA785-01	P2-B7	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_18.d	Sample		As Method	-
19	5383466:FZA786-01	P2-B8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_19.d	Sample		As Method	-
20	5383466:FZA788-01	P2-B9	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_20.d	Sample		As Method	-
21	5383466:FZA789-01	P2-C1	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_21.d	Sample		As Method	-
22	5383466:FZA790-01	P2-C2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_22.d	Sample		As Method	-
23	5383466:FZA791-01	P2-C3	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_23.d	Sample		As Method	-
24	5383466:FZA792-01	P2-C4	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_25.d	ConCal	STD 4	As Method	-
26	5383466:FZH336-01	P2-C5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_26.d	Sample		As Method	-
27	5383466:FZH338-01	P2-C6	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_27.d	Sample		As Method	-
28	5383466:FZH339-01	P2-C7	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_28.d	Sample		As Method	-
29	5383466:FZH340-01	P2-C8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_29.d	Sample		As Method	-
30	5383466:FZH341-01	P2-C9	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_30.d	Sample		As Method	-
31	5383466:FZH342-01	P2-D1	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_31.d	Sample		As Method	-
32	5383466:FZH343-01	P2-D2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_32.d	Sample		As Method	-
33	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_33.d	ConCal	STD 4	As Method	-
34	5383485:FZH337-01	P2-D3	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_34.d	Sample		As Method	-

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
35	5383485:MTRX SPK	P2-D4	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_35.d	Sample		As Method	-
36	5383485:MTRX SPK:D1	P2-D5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_36.d	Sample		As Method	-
37	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_37.d	Sample		As Method	-
38	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_38.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/06 6:11 PM	PFC_Water_Low.m	WS#5383466_5383485_02.d	P2-A2
STD 2	-	2018/02/06 6:16 PM	PFC_Water_Low.m	WS#5383466_5383485_03.d	P2-A3
STD 3	-	2018/02/06 6:21 PM	PFC_Water_Low.m	WS#5383466_5383485_04.d	P2-A4
STD 4	-	2018/02/06 6:26 PM	PFC_Water_Low.m	WS#5383466_5383485_05.d	P2-A5
STD 5	-	2018/02/06 6:31 PM	PFC_Water_Low.m	WS#5383466_5383485_06.d	P2-A6
STD 6	-	2018/02/06 6:36 PM	PFC_Water_Low.m	WS#5383466_5383485_07.d	P2-A7
IB	-	2018/02/06 6:41 PM	PFC_Water_Low.m	WS#5383466_5383485_08.d	P2-A8
ICV	-	2018/02/06 6:46 PM	PFC_Water_Low.m	WS#5383466_5383485_09.d	P2-A9
ISC	-	2018/02/06 6:51 PM	PFC_Water_Low.m	WS#5383466_5383485_10.d	P2-A2
5383466:BLANK	-	2018/02/06 6:56 PM	PFC_Water_Low.m	WS#5383466_5383485_11.d	P2-B1
5383466:SPIKE	-	2018/02/06 7:01 PM	PFC_Water_Low.m	WS#5383466_5383485_12.d	P2-B2
5383466:MTRX SPK	FZA786	2018/02/06 7:06 PM	PFC_Water_Low.m	WS#5383466_5383485_13.d	P2-B3
5383466:MTRX SPK:D1	FZA786	2018/02/06 7:11 PM	PFC_Water_Low.m	WS#5383466_5383485_14.d	P2-B4
IB	-	2018/02/06 7:16 PM	PFC_Water_Low.m	WS#5383466_5383485_15.d	P2-A8
5383466:FZA783-01	-	2018/02/06 7:21 PM	PFC_Water_Low.m	WS#5383466_5383485_16.d	P2-B5
5383466:FZA784-01	-	2018/02/06 7:25 PM	PFC_Water_Low.m	WS#5383466_5383485_17.d	P2-B6
5383466:FZA785-01	-	2018/02/06 7:30 PM	PFC_Water_Low.m	WS#5383466_5383485_18.d	P2-B7
5383466:FZA786-01	-	2018/02/06 7:35 PM	PFC_Water_Low.m	WS#5383466_5383485_19.d	P2-B8
5383466:FZA788-01	-	2018/02/06 7:40 PM	PFC_Water_Low.m	WS#5383466_5383485_20.d	P2-B9
5383466:FZA789-01	-	2018/02/06 7:45 PM	PFC_Water_Low.m	WS#5383466_5383485_21.d	P2-C1
5383466:FZA790-01	-	2018/02/06 7:50 PM	PFC_Water_Low.m	WS#5383466_5383485_22.d	P2-C2
5383466:FZA791-01	-	2018/02/06 7:55 PM	PFC_Water_Low.m	WS#5383466_5383485_23.d	P2-C3
5383466:FZA792-01	-	2018/02/06 8:00 PM	PFC_Water_Low.m	WS#5383466_5383485_24.d	P2-C4
CCV	-	2018/02/06 8:05 PM	PFC_Water_Low.m	WS#5383466_5383485_25.d	P2-A5
5383466:FZH336-01	-	2018/02/06 8:10 PM	PFC_Water_Low.m	WS#5383466_5383485_26.d	P2-C5
5383466:FZH338-01	-	2018/02/06 8:15 PM	PFC_Water_Low.m	WS#5383466_5383485_27.d	P2-C6
5383466:FZH339-01	-	2018/02/06 8:20 PM	PFC_Water_Low.m	WS#5383466_5383485_28.d	P2-C7
5383466:FZH340-01	-	2018/02/06 8:25 PM	PFC_Water_Low.m	WS#5383466_5383485_29.d	P2-C8
5383466:FZH341-01	-	2018/02/06 8:30 PM	PFC_Water_Low.m	WS#5383466_5383485_30.d	P2-C9
5383466:FZH342-01	-	2018/02/06 8:34 PM	PFC_Water_Low.m	WS#5383466_5383485_31.d	P2-D1
5383466:FZH343-01	-	2018/02/06 8:39 PM	PFC_Water_Low.m	WS#5383466_5383485_32.d	P2-D2
CCV	-	2018/02/06 8:44 PM	PFC_Water_Low.m	WS#5383466_5383485_33.d	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/06 12:28 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_02.d	P2-A2
STD 2	-	2018/02/06 12:30 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_03.d	P2-A3
STD 3	-	2018/02/06 12:32 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_04.d	P2-A4
STD 4	-	2018/02/06 12:35 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_05.d	P2-A5
STD 5	-	2018/02/06 12:37 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_06.d	P2-A6
STD 6	-	2018/02/06 12:40 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_07.d	P2-A7
IB	-	2018/02/06 12:42 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_08.d	P2-A8
ICV	-	2018/02/06 12:44 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_09.d	P2-A9
ISC	-	2018/02/06 12:47 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_10.d	P2-A2
5383466:BLANK	-	2018/02/06 12:49 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_11.d	P2-B1
5383466:SPIKE	-	2018/02/06 12:52 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_12.d	P2-B2
5383466:MTRX SPK	FZA786	2018/02/06 12:54 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_13.d	P2-B3
5383466:MTRX SPK:D1	FZA786	2018/02/06 12:57 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_14.d	P2-B4
IB	-	2018/02/06 12:59 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_15.d	P2-A8
5383466:FZA783-01	-	2018/02/06 1:01 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_16.d	P2-B5
5383466:FZA784-01	-	2018/02/06 1:04 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_17.d	P2-B6
5383466:FZA785-01	-	2018/02/06 1:06 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_18.d	P2-B7
5383466:FZA786-01	-	2018/02/06 1:09 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_19.d	P2-B8
5383466:FZA788-01	-	2018/02/06 1:11 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_20.d	P2-B9
5383466:FZA789-01	-	2018/02/06 1:13 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_21.d	P2-C1
5383466:FZA790-01	-	2018/02/06 1:16 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_22.d	P2-C2
5383466:FZA791-01	-	2018/02/06 1:18 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_23.d	P2-C3
5383466:FZA792-01	-	2018/02/06 1:21 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_24.d	P2-C4
CCV	-	2018/02/06 1:23 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_25.d	P2-A5
5383466:FZH336-01	-	2018/02/06 1:25 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_26.d	P2-C5
5383466:FZH338-01	-	2018/02/06 1:28 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_27.d	P2-C6
5383466:FZH339-01	-	2018/02/06 1:30 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_28.d	P2-C7
5383466:FZH340-01	-	2018/02/06 1:33 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_29.d	P2-C8
5383466:FZH341-01	-	2018/02/06 1:35 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_30.d	P2-C9
5383466:FZH342-01	-	2018/02/06 1:38 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_31.d	P2-D1
5383466:FZH343-01	-	2018/02/06 1:40 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_32.d	P2-D2
CCV	-	2018/02/06 1:42 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_33.d	P2-A5
CCV	-	2018/02/06 2:52 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_39.d	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
5383466:SPIKE:R	Not used	2018/02/06 2:55 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_40.d	P2-B2
CCV	-	2018/02/06 2:57 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_41.d	P2-A5

DoD Projects - Internal Data Validation Checklist

Run date: 2017/02/06

Worksheet # (s): 538 3485

Analysis: PFOSA LCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control			✓	✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria			✓	✓
7	Surrogate Recovery(s) is within acceptance criteria	✓			✓
8	Method Blank meets acceptance criteria	✓		✓	✓
9	Matrix Spike recovery(s) meets acceptance criteria	✓	2/7/2017		✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed			✓	✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS			✓	✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)				✓

Reviewed by: [signature] Date: 2017/02/07

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: AD Date: 2018/02/08

Comments: All samples sent for rework, for PFDoA, PFTeDA, PFTrDA due to spike failed to meet acceptance criteria. AD 2018/02/08

*Note: 2nd 100% verification review documented by secondary qualified data review

Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # | Testcode: PEOSALCM_W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)			✓
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded			✓
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)	✓		
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.			✓
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: [illegible] | Date: 2018/02/07

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: | Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: | Date:

Comments:

WS# : 5383485

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Saturday, February 03, 2018

Assigned to : Shahbaz Ahmad

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

sediment on ml gel SAP 2018/02/03

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	
5,21		MTRX SPK	0	PFOS FZH337-01		(0.1	125	3	1R					2018/02/03	35.0
6,21		MTRX SPK	1	PFOS FZH337-01		(0.1	125	3	1R					2018/02/03	31.0
6,23	B819794	*FZH337-01R		CEF-076-109S-0118		(0.1	125	3	1R	6	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	30.3

SAP 2018/02/03

Remarks: This worksheet is linked with WS # 5383466. Standards, Spikes and blank are also shared. SAP 2018/02/03

Samples extracted by: Shahbaz Ahmad SAP 2018/02/03

Instrumentation performed by: [signature] Date: 2018/02/07

Calculations performed by: Date: 2018/02/07

Validated by: AD Date: 2018/02/08

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.)	AECOM

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
B819794	FZH337-01R	

SAD 2018/02/03

Folder: 20180206

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB818419	[redacted]	[redacted]	[redacted]	
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.) AECOM	

SMP 2018/02/13

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B818419	FZA783-01R	
B818419	FZA784-01R	
B818419	FZA785-01R	
B818419	FZA786-01R	
B818419	FZA788-01R	
B818419	FZA789-01R	
B818419	FZA790-01R	
B818419	FZA791-01R	
B818419	FZA792-01R	
B819794	FZH336-01R	
B819794	FZH338-01R	
B819794	FZH339-01R	
B819794	FZH340-01R	
B819794	FZH341-01R	
B819794	FZH342-01R	
B819794	FZH343-01R	

Standard	vol of MeOH	Amount Spiked	
S1	2825	25	SK7390 1/2
S2	2800	50	
S3	2700	150	
S4	2813	37.5	I-5297
S5	2775	75	
S6			
ICV	2725	125	
LCS	2788 2850	62.5	I-5299

Folder: 20180206

ICV + ICAL info only 2018/02/12

Worksheet Reagent Tracking Record

Worksheet # 5383485

Surrogate/Spike solutions	√	Solution ID #	Conc.	Volume (µL) Blk-Spk Solid	Blk-Spk Liquid	MS Solid	MS Liquid	Samples Solid	Samples Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299 1/3	1ug/mL	75	21 62.5	75	21 62.5	NA	NA
PFC Internal Standard Solution	✓	SI 6763 2/4	50/125 ng/mL	200	100 150	200	100 150	200	100/150
PFC Injection IS	✓	SI 6716 3/4	400 ng/mL	20	20	20	20	20	20
ICV	✓	I 5299 4/3							

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHBJ5451	2018/02/02	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol				DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRLRE 108-334		0.2% NH_4OH	✓	PRLRE 108-337	
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/2/2
0.05M HCl							

*Spiked by: SAD

Spike Date: 2018/02/03

Spike Syringe/Pipette ID#: I327735

Int. Std Syringe/Pipette ID#: K19865F

*Spiking Witnessed by: JDS

Final pH:

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor I327735 K19865F		SPE Cartridge			QC Balance ID	
		Filter			Thermometer ID &Temp	
Dispenser		Centrifuge				
		Sonicator				

Bottle Tracking ✓

Bottle# 18587

Cap# 18422

Systems plus Lot#: 17-12-11

Comments:

* - SPIKING OF QC'S & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet Number: **5383485**

PFOS and PFOA in water by SPE/LCMS - Water

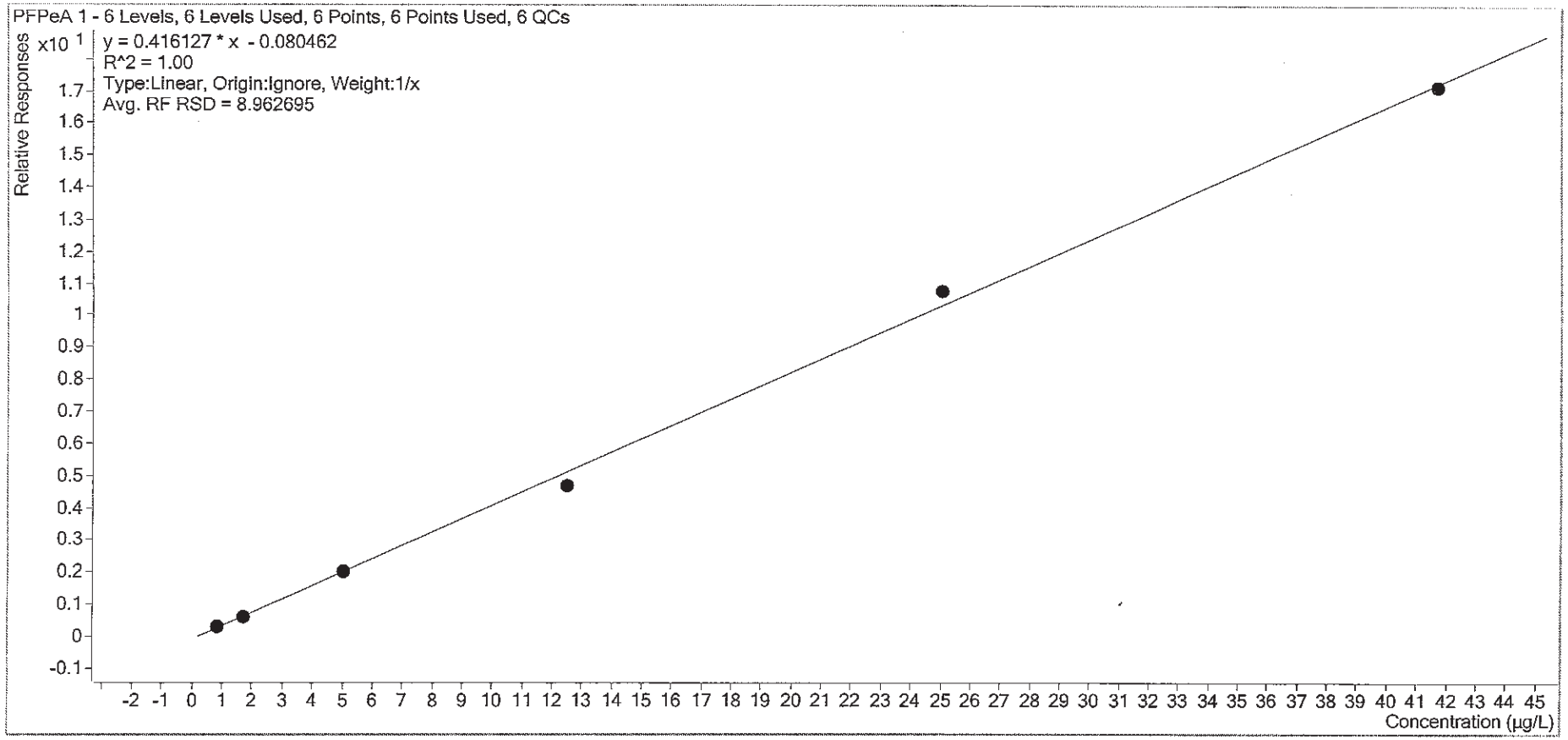
ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	B819794 FZH337	DL	RDL	MDL
6:2 Fluorotelomer sulfonate	ug/L	92.90089	106.43420	N/A*******	0.02	0.02	0.0066
8:2 Fluorotelomer sulfonate	ug/L	91.57953	94.47799	N/A*******	0.02	0.02	0.0066
N-ethylperfluorooctane sulfonamide	ug/L	88.29391	90.07433	N/A*******	0.02	0.02	0.01
EtFOSAA	ug/L	85.24152	97.29326	0	0.02	0.02	0.0033
N-ethylperfluorooctane sulfonamidoe	ug/L	93.65143	92.72259	N/A*******	0.02	0.02	0.0079
N-methylperfluorooctane sulfonamide	ug/L	74.28163	79.39408	N/A*******	0.02	0.02	0.013
MeFOSAA	ug/L	86.88217	95.67009	0	0.02	0.02	0.0029
N-methylperfluorooctanesulfonamidol	ug/L	80.93428	94.87834	N/A*******	0.02	0.02	0.012
Perfluorobutanoic acid	ug/L	85.68236	93.36853	N/A*******	0.02	0.02	0.0055
Perfluorobutane Sulfonate (PFBS)	ug/L	83.09295	99.54725	0	0.02	0.02	0.0054
Perfluorodecane Sulfonate	ug/L	88.88579	92.31065	N/A*******	0.02	0.02	0.006
Perfluoroheptanoic Acid (PFHpA)	ug/L	91.78248	93.54864	0	0.02	0.02	0.0074
Perfluoroheptane sulfonate	ug/L	90.58502	93.11365	N/A*******	0.02	0.02	0.008
Perfluorohexanoic Acid (PFHxA)	ug/L	89.87749	100.71788	0	0.02	0.02	0.0035
Perfluorohexane Sulfonate (PFHxS)	ug/L	86.12055	96.80140	0.00718881	0.02	0.02	0.0056
Perfluorononanoic Acid (PFNA)	ug/L	93.22305	106.00188	0	0.02	0.02	0.0087
Perfluorooctane Sulfonamide (PFOSA)	ug/L	91.71846	99.72041	N/A*******	0.02	0.02	0.0034
Perfluoropentanoic Acid (PFPeA)	ug/L	92.90977	93.23959	N/A*******	0.02	0.02	0.0075
Perfluorotetradecanoic Acid	ug/L	85.60207	104.52728	0	0.02	0.02	0.0027
Perfluorotridecanoic Acid	ug/L	91.85818	109.45764	0	0.02	0.02	0.0038
Perfluoroundecanoic Acid (PFUnA)	ug/L	101.83932	97.62813	0	0.02	0.02	0.0025
Perfluorodecanoic Acid (PFDA)	ug/L	100.01922	98.06476	0	0.02	0.02	0.0061
Perfluorododecanoic Acid (PFDoA)	ug/L	89.19060	101.38775	0	0.02	0.02	0.005
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	89.92872	98.95193	0	0.02	0.02	0.0033
Perfluorooctane Sulfonate (PFOS)	ug/L	94.92083	113.68364	0	0.02	0.02	0.006
13C2-6:2 Fluorotelomer sulfonate	ug/L	119.217434	96.1111072	N/A*******			
13C2-8:2 Fluorotelomer sulfonate	ug/L	123.020139	101.444090	N/A*******			
13C2-perfluorotetradecanoic acid	ug/L	94.7380399	73.6116349	79.9874680			
13C4-Perfluorobutanoic acid	ug/L	118.876984	101.753485	N/A*******			
D3-MeFOSAA	ug/L	97.7114879	82.5791140	91.5901887			
D5-EtFOSAA	ug/L	95.5531574	80.0610648	91.2669448			
N-methyl-d3-perfluorooctane sulfona	ug/L	93.8398210	69.9108887	N/A*******			
N-ethyl-d5-perfluorooctane sulfonam	ug/L	86.1868482	75.4021715	N/A*******			
13C2-Perfluorodecanoic acid	ug/L	98.8383173	87.7483894	99.3200886			
13C2-Perfluorododecanoic acid	ug/L	98.0438127	86.5051191	97.2290674			
13C2-Perfluorohexanoic acid	ug/L	109.737816	93.4159815	99.8711305			
13C2-Perfluoroundecanoic acid	ug/L	97.3444163	90.8864097	96.9361539			
13C4-Perfluoroheptanoic acid	ug/L	116.130443	99.8600920	104.318133			
13C5-Perfluorononanoic acid	ug/L	114.944990	92.7903987	107.880600			
13C4-Perfluorooctanoic acid	ug/L	119.153012	97.0155201	106.040240			
13C4-Perfluorooctanesulfonate	ug/L	116.892845	87.2744686	106.584822			
13C5-Perfluoropentanoic acid	ug/L	111.608819	102.765890	N/A*******			
13C8-Perfluorooctane Sulfonamide	ug/L	97.4945026	78.1209925	N/A*******			
18O2-Perfluorohexanesulfonate	ug/L	123.772037	97.5536127	98.9607506			

2019/02/04

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	IDL						
6:2 Fluorotelomer sulfonate	0						
8:2 Fluorotelomer sulfonate	0						
N-ethylperfluorooctane sulfonamide	0						
EtFOSAA	0						
N-ethylperfluorooctane sulfonamidoe	0						
N-methylperfluorooctane sulfonamide	0						
MeFOSAA	0						
N-methylperfluorooctanesulfonamidol	0						
Perfluorobutanoic acid	0						
Perfluorobutane Sulfonate (PFBS)	0						
Perfluorodecane Sulfonate	0						
Perfluoroheptanoic Acid (PFHpA)	0						
Perfluoroheptane sulfonate	0						
Perfluorohexanoic Acid (PFHxA)	0						
Perfluorohexane Sulfonate (PFHxS)	0						
Perfluorononanoic Acid (PFNA)	0						
Perfluorooctane Sulfonamide (PFOSA)	0						
Perfluoropentanoic Acid (PFPeA)	0						
Perfluorotetradecanoic Acid	0						
Perfluorotridecanoic Acid	0						
Perfluoroundecanoic Acid (PFUnA)	0						
Perfluorodecanoic Acid (PFDA)	0						
Perfluorododecanoic Acid (PFDoA)	0						
Perfluoro-n-Octanoic Acid (PFOA)	0						
Perfluorooctane Sulfonate (PFOS)	0						
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



Manual calculation for MSpK:

7.9742 = 0.416127X - 0.080462

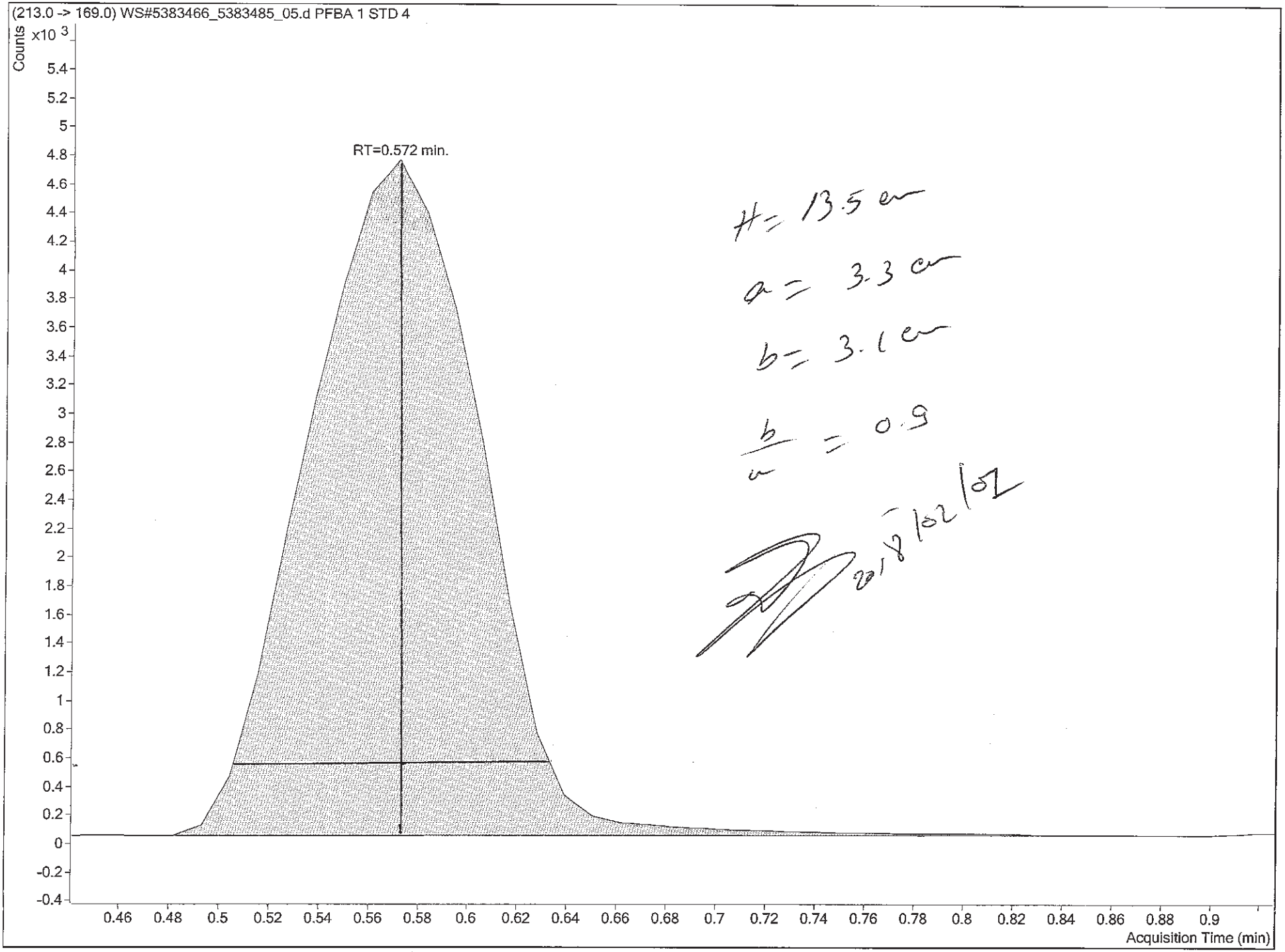
X = 19.35625 X 0.024

= 0.46455 µg/L

$\frac{0.46455}{0.5} \times 100 = 92.9\%$

AD
2018/02/08

2018/02/07



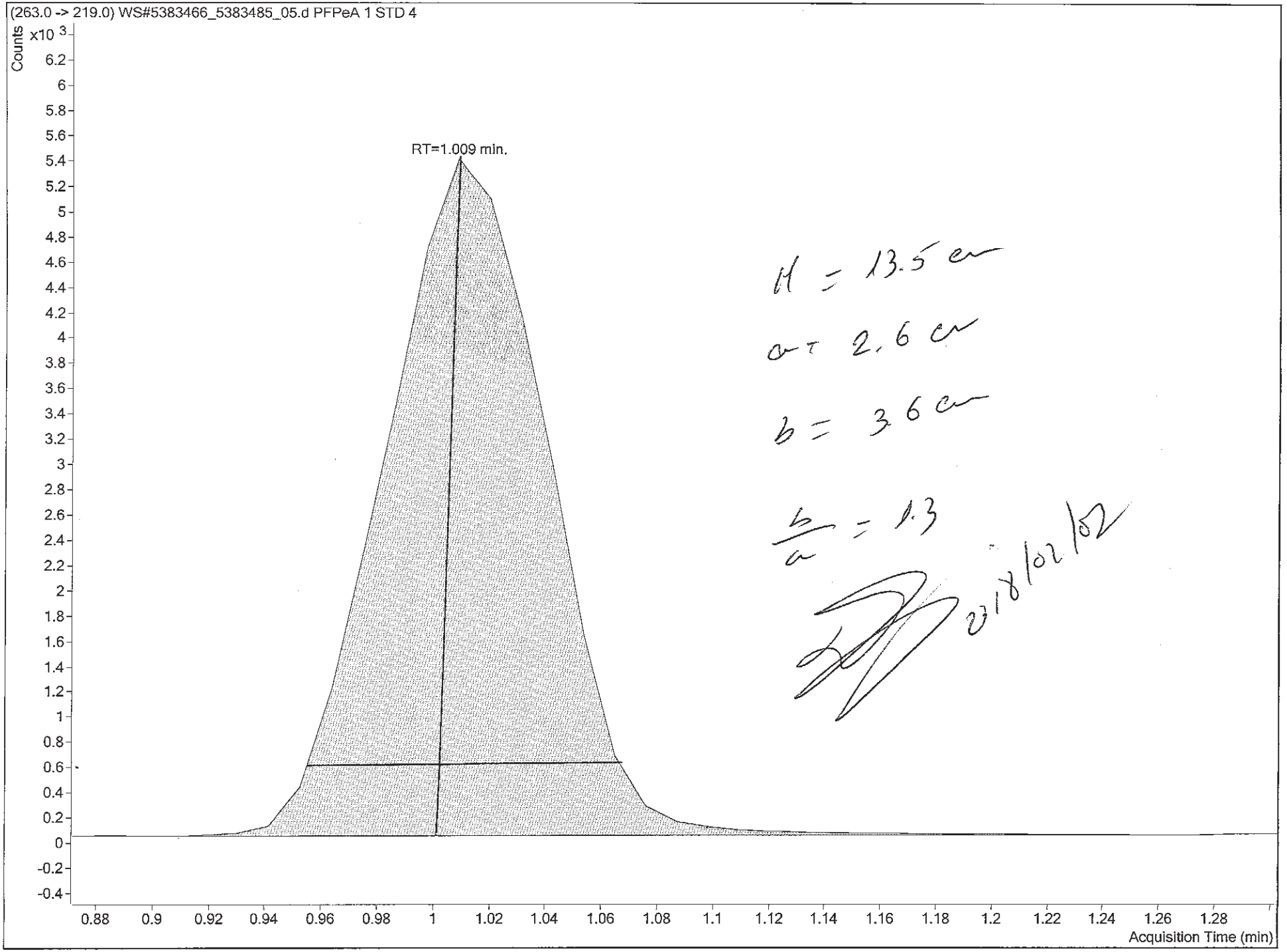
H = 13.5 cm

a = 3.3 cm

b = 3.1 cm

$\frac{b}{a} = 0.9$

20/8/02/02



Maxxam Analytics

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/03

Test Code: **PFOSALCM-W**

Worksheet Number: **5383485**

Sample Number	Parameter Code	Parameter	
FZH337-01	ETFOSAA	EtFOSAA	*
	MEFOSAA	MeFOSAA	*
	PFBS	Perfluorobutane Sulfonate (PFBS)	
	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	

SRA 2018/02/23

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5383485 Instrument Sequences

1.	5383485:MTRX SPK	MTRX SPK
2.	5383485:MTRX SPK:D1	MTRX SPK :D1
3.	5383485:FZH337-01	CEF-076-109S-0118

SRT 2/18/03

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180206_Low.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180206\WS#5383466_5383485
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 265 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

20180206 MG

2018/02/06

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low.m	WS#5383466_5383485_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low.m	WS#5383466_5383485_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low.m	WS#5383466_5383485_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low.m	WS#5383466_5383485_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low.m	WS#5383466_5383485_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low.m	WS#5383466_5383485_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low.m	WS#5383466_5383485_07.d	Calibration	STD 6	As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P2-A8	PFC_Water_Low.m	WS#5383466_53834 85_08.d	Sample		As Method	-
9	ICV	P2-A9	PFC_Water_Low.m	WS#5383466_53834 85_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low.m	WS#5383466_53834 85_10.d	ConCal	STD 1	As Method	-
11	5383466:BLANK	P2-B1	PFC_Water_Low.m	WS#5383466_53834 85_11.d	Sample		As Method	-
12	5383466:SPIKE	P2-B2	PFC_Water_Low.m	WS#5383466_53834 85_12.d	QC	ICV	As Method	-
13	5383466:MTRX SPK	P2-B3	PFC_Water_Low.m	WS#5383466_53834 85_13.d	QC	ICV	As Method	-
14	5383466:MTRX SPK:D1	P2-B4	PFC_Water_Low.m	WS#5383466_53834 85_14.d	Sample		As Method	-
15	IB	P2-A8	PFC_Water_Low.m	WS#5383466_53834 85_15.d	Sample		As Method	-
16	5383466:FZA783-01	P2-B5	PFC_Water_Low.m	WS#5383466_53834 85_16.d	Sample		As Method	-
17	5383466:FZA784-01	P2-B6	PFC_Water_Low.m	WS#5383466_53834 85_17.d	Sample		As Method	-
18	5383466:FZA785-01	P2-B7	PFC_Water_Low.m	WS#5383466_53834 85_18.d	Sample		As Method	-
19	5383466:FZA786-01	P2-B8	PFC_Water_Low.m	WS#5383466_53834 85_19.d	Sample		As Method	-
20	5383466:FZA788-01	P2-B9	PFC_Water_Low.m	WS#5383466_53834 85_20.d	Sample		As Method	-
21	5383466:FZA789-01	P2-C1	PFC_Water_Low.m	WS#5383466_53834 85_21.d	Sample		As Method	-
22	5383466:FZA790-01	P2-C2	PFC_Water_Low.m	WS#5383466_53834 85_22.d	Sample		As Method	-
23	5383466:FZA791-01	P2-C3	PFC_Water_Low.m	WS#5383466_53834 85_23.d	Sample		As Method	-
24	5383466:FZA792-01	P2-C4	PFC_Water_Low.m	WS#5383466_53834 85_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low.m	WS#5383466_53834 85_25.d	ConCal	STD 4	As Method	-
26	5383466:FZH336-01	P2-C5	PFC_Water_Low.m	WS#5383466_53834 85_26.d	Sample		As Method	-
27	5383466:FZH338-01	P2-C6	PFC_Water_Low.m	WS#5383466_53834 85_27.d	Sample		As Method	-
28	5383466:FZH339-01	P2-C7	PFC_Water_Low.m	WS#5383466_53834 85_28.d	Sample		As Method	-
29	5383466:FZH340-01	P2-C8	PFC_Water_Low.m	WS#5383466_53834 85_29.d	Sample		As Method	-
30	5383466:FZH341-01	P2-C9	PFC_Water_Low.m	WS#5383466_53834 85_30.d	Sample		As Method	-

Maxxam Analytics

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Worklist Report

Agilent Technologies

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5383466:FZH342-01	P2-D1	PFC_Water_Low.m	WS#5383466_53834 85_31.d	Sample		As Method	-
32	5383466:FZH343-01	P2-D2	PFC_Water_Low.m	WS#5383466_53834 85_32.d	Sample		As Method	-
33	CCV	P2-A5	PFC_Water_Low.m	WS#5383466_53834 85_33.d	ConCal	STD 4	As Method	-
34	5383485:FZH337-01	P2-D3	PFC_Water_Low.m	WS#5383466_53834 85_34.d	Sample		As Method	-
35	5383485:MTRX SPK	P2-D4	PFC_Water_Low.m	WS#5383466_53834 85_35.d	Sample		As Method	-
36	5383485:MTRX SPK:D1	P2-D5	PFC_Water_Low.m	WS#5383466_53834 85_36.d	Sample		As Method	-
37	IB	P2-A8	PFC_Water_Low.m	WS#5383466_53834 85_37.d	Sample		As Method	-
38	CCV	P2-A5	PFC_Water_Low.m	WS#5383466_53834 85_38.d	ConCal	STD 4	As Method	-

Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180206_Low_FOSAA.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180206\WS#5383466_5383485_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 265 (FSRE18)
MP B2: Solution# 272 [FSRE18]

2018/02/07 MG

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P2-A9	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5383466:BLANK	P2-B1	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_11.d	Sample		As Method	-
12	5383466:SPIKE	P2-B2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_12.d	QC	ICV	As Method	-
13	5383466:MTRX SPK	P2-B3	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_13.d	QC	ICV	As Method	-
14	5383466:MTRX SPK:D1	P2-B4	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_14.d	Sample		As Method	-
15	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_15.d	Sample		As Method	-
16	5383466:FZA783-01	P2-B5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_16.d	Sample		As Method	-
17	5383466:FZA784-01	P2-B6	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_17.d	Sample		As Method	-
18	5383466:FZA785-01	P2-B7	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_18.d	Sample		As Method	-
19	5383466:FZA786-01	P2-B8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_19.d	Sample		As Method	-
20	5383466:FZA788-01	P2-B9	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_20.d	Sample		As Method	-
21	5383466:FZA789-01	P2-C1	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_21.d	Sample		As Method	-
22	5383466:FZA790-01	P2-C2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_22.d	Sample		As Method	-
23	5383466:FZA791-01	P2-C3	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_23.d	Sample		As Method	-
24	5383466:FZA792-01	P2-C4	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_25.d	ConCal	STD 4	As Method	-
26	5383466:FZH336-01	P2-C5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_26.d	Sample		As Method	-
27	5383466:FZH338-01	P2-C6	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_27.d	Sample		As Method	-
28	5383466:FZH339-01	P2-C7	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_28.d	Sample		As Method	-
29	5383466:FZH340-01	P2-C8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_29.d	Sample		As Method	-
30	5383466:FZH341-01	P2-C9	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_30.d	Sample		As Method	-
31	5383466:FZH342-01	P2-D1	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_31.d	Sample		As Method	-
32	5383466:FZH343-01	P2-D2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_32.d	Sample		As Method	-
33	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_33.d	ConCal	STD 4	As Method	-
34	5383485:FZH337-01	P2-D3	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_34.d	Sample		As Method	-

Maxxam Analytics

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Worklist Report

Agilent Technologies

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
35	5383485:MTRX SPK	P2-D4	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_35.d	Sample		As Method	-
36	5383485:MTRX SPK:D1	P2-D5	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_36.d	Sample		As Method	-
37	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_37.d	Sample		As Method	-
38	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_38.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/06 6:11 PM	PFC_Water_Low.m	WS#5383466_5383485_02.d	P2-A2
STD 2	-	2018/02/06 6:16 PM	PFC_Water_Low.m	WS#5383466_5383485_03.d	P2-A3
STD 3	-	2018/02/06 6:21 PM	PFC_Water_Low.m	WS#5383466_5383485_04.d	P2-A4
STD 4	-	2018/02/06 6:26 PM	PFC_Water_Low.m	WS#5383466_5383485_05.d	P2-A5
STD 5	-	2018/02/06 6:31 PM	PFC_Water_Low.m	WS#5383466_5383485_06.d	P2-A6
STD 6	-	2018/02/06 6:36 PM	PFC_Water_Low.m	WS#5383466_5383485_07.d	P2-A7
IB	-	2018/02/06 6:41 PM	PFC_Water_Low.m	WS#5383466_5383485_08.d	P2-A8
ICV	-	2018/02/06 6:46 PM	PFC_Water_Low.m	WS#5383466_5383485_09.d	P2-A9
ISC	-	2018/02/06 6:51 PM	PFC_Water_Low.m	WS#5383466_5383485_10.d	P2-A2
CCV	-	2018/02/06 8:44 PM	PFC_Water_Low.m	WS#5383466_5383485_33.d	P2-A5
5383485:FZH337-01	-	2018/02/06 8:49 PM	PFC_Water_Low.m	WS#5383466_5383485_34.d	P2-D3
5383485:MTRX SPK	FZH337	2018/02/06 8:54 PM	PFC_Water_Low.m	WS#5383466_5383485_35.d	P2-D4
5383485:MTRX SPK:D1	FZH337	2018/02/06 8:59 PM	PFC_Water_Low.m	WS#5383466_5383485_36.d	P2-D5
IB	-	2018/02/06 9:04 PM	PFC_Water_Low.m	WS#5383466_5383485_37.d	P2-A8
CCV	-	2018/02/06 9:09 PM	PFC_Water_Low.m	WS#5383466_5383485_38.d	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/06 12:28 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_02.d	P2-A2
STD 2	-	2018/02/06 12:30 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_03.d	P2-A3
STD 3	-	2018/02/06 12:32 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_04.d	P2-A4
STD 4	-	2018/02/06 12:35 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_05.d	P2-A5
STD 5	-	2018/02/06 12:37 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_06.d	P2-A6
STD 6	-	2018/02/06 12:40 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_07.d	P2-A7
IB	-	2018/02/06 12:42 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_08.d	P2-A8
ICV	-	2018/02/06 12:44 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_09.d	P2-A9
ISC	-	2018/02/06 12:47 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_10.d	P2-A2
CCV	-	2018/02/06 1:42 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_33.d	P2-A5
5383485:FZH337-01	-	2018/02/06 1:45 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_34.d	P2-D3
5383485:MTRX SPK	FZH337	2018/02/06 1:47 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_35.d	P2-D4
5383485:MTRX SPK:D1	FZH337	2018/02/06 1:50 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_36.d	P2-D5
IB	-	2018/02/06 1:52 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_37.d	P2-A8
CCV	-	2018/02/06 1:54 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_38.d	P2-A5

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/08

Worksheet # (s): 5386102

Analysis: PFOSALEM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria		✓		✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria		✓		✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed			✓	✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS			✓	✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: AZ Date: 2018/02/09

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: SM Date: 2018/02/16

Comments: Samples FZJ934 reworked for PFOSA due to low recoveries of extracted IS. Sample FZA802 reworked for all parameters due to low recoveries of extracted IS.

*Note: 2nd 100% verification review documented by secondary qualified data review

Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5386102 Testcode: PFOSALCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded			✓
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: DM3 Date: 2018/02/06

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.	✓		
20	WS Approval performed in LIMS			

Reviewed by: Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: Date:

Comments:

WS# : 5386102

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Tuesday, February 06, 2018

Assigned to : Daniella McLean

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

	Job Number	Sample Number	D	Sample ID	~~F~~ centrifuged sediments	~~% Moisture~~	Wt or Vol	Final Vol (mL)	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	envi (ug)
5,5		MTRX SPK	0	PFOS FZH347-01	*	<0.1	125	3	1X					2018/02/06	28
5,6		MTRX SPK	1	PFOS FZH347-01	*	<0.1	125	3	1X					2018/02/06	28
5,3		SPIKE		PFOS		0	125	3	1X					2018/02/06	33
5,1		BLANK				0	125	3	1X					2018/02/06	32
5,8	B818419	*FZA801-01R		[redacted]		0	125	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/01/31	29
5,10	B818419	*FZA802-01R		[redacted]	*	<0.1	125	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/01/31	27
5,12	B818419	*FZA803-01R		[redacted]		0	125	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/01/31	32
5,14	B818419	*FZA804-01R		[redacted]		0	125	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/01/31	29
5,16	B818419	*FZA805-01R		[redacted]		0	120	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/01/31	35
5,18	B818419	*FZA806-01R		[redacted]	*	<0.1	125	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/01/31	25
5,20	B819794	*FZH328-01R		CEF-003-38S-0118	*	<0.1	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/01/31	25
5,22	B819794	*FZH329-01R		CEF-002-04S-0118	*	<0.1	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/01/31	27
5,24	B819794	*FZH330-01R		FB-CEF-002-01231*		0	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/01/31	28
6,1	B819794	*FZH335-01R		FB-CEF-342-01231*		0	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/01/31	29
6,3	B819794	*FZH344-01R		FB-CEF-003-01231*		0	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/05	33
6,5	B819794	*FZH345-01R		EB-CEF-003-01231*		0	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/05	31
6,7	B819794	*FZH346-01R		EB-CEF-17-012218*		0	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/05	27
6,9	B819794	*FZH347-01R		CEF-003-04S-0118	*	<0.1	125	3	1X	6	2018/02/06	2018/02/09 18:00	DOD	2018/02/05	29
6,11	B819794	*FZH348-01R		CEF-003-04S-0118-*	*	<0.1	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/05	27
6,14	B820260	*FZJ934-01R		[redacted]		0	125	3	1X	2	2018/02/06	2018/02/09 23:00	DOD	2018/02/06	28

2018/02/06 DM3

Remarks:

Samples extracted by: Daniella McLean DM3 2018/02/06

Instrumentation performed by: [signature] Date: 2018/02/07

Calculations performed by: [signature] Date: 2018/02/09

Validated by: [signature] Date: 2018/02/16

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB818419	[redacted]			
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.)	AECOM

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

GB820260 [redacted]

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B818419	FZA801-01R	
B818419	FZA802-01R	Sample was clogged; only 90ml of sample passed thru SPE.
B818419	FZA803-01R	
B818419	FZA804-01R	
B818419	FZA805-01R	
B818419	FZA806-01R	
B819794	FZH328-01R	
B819794	FZH329-01R	
B819794	FZH330-01R	
B819794	FZH335-01R	
B819794	FZH344-01R	
B819794	FZH345-01R	
B819794	FZH346-01R	
B819794	FZH347-01R	
B819794	FZH348-01R	
B820260	FZJ934-01R	

S1 25
S2 50
S3 150
} SK-7377

S4 37.5
S5 75
S6 125
} I-5297

ICV 62.5 - I-5299

IB 2850µL MeOH + 150µL IS NPB 2018/02/06

Folder: 20180207 2018/02/09

Worksheet Reagent Tracking Record Worksheet # 5386102

Surrogate/Spike solutions	√	Solution ID #	Conc.	Volume (µL) Blk-Spk Solid	Blk-Spk Liquid	MS Solid	MS Liquid	Samples Solid	Samples Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Sterll Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299(1/3) KPM	1ug/mL	75	21 (62.5)	75	21 (62.5)	NA	NA
PFC Internal Standard Solution	✓	SI-6763(3/4) KPM	50/125 ng/mL	200	100 (150)	200	100 (150)	200	100/(150)
PFC Injection IS	✓	SI-6716(4/4) KPM	400 ng/mL	20	20	20	20	20	20
ICV	✓	I-5299 (1/3)	1ug/mL		62.5				

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHBJ7572	2018/02/06	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRLRE-108-341		DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer	✓	PRLRE-108-340	
2% Formic Acid	✓	PRLRE-105-342		0.2% NH_4OH			
0.2% Formic Acid 2018/02/06	~~✓~~	~~PRLRE-108~~ DM3		Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/02/06
0.05M HCl							

*Spiked by: DM3
Spike Date: 2018/02/06
Spike Syringe/Pipette ID#: G243906
Int. Std Syringe/Pipette ID#: M410117
*Spiking Witnessed by: KM
Final pH:

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor M39732F	✓	SPE Cartridge	0074377247A	✓	QC Balance ID	
B	✓	Filter			Thermometer ID &Temp	
Dispenser		Centrifuge	42148683	✓		
		Sonicator				

Bottle Tracking
Bottle# 18587
Cap# 18422
Systems plus Lot#: 17-12-11

Comments: enviCARB Lot # 928061 ✓
250mL cylinder # 3026

* - SPIKING OF QC's & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet Number: **5386102**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	MTRX SPK	DL	MTRX SPK Dup1	DL	SPIKE	DL
6:2 Fluorotelomer sulfonate	ug/L	108.15371	0.02	98.76866	0.02	107.55127	0.02
8:2 Fluorotelomer sulfonate	ug/L	105.22500	0.02	87.06656	0.02	107.51525	0.02
N-ethylperfluorooctane sulfonamide	ug/L	99.03512	0.02	90.45965	0.02	98.39542	0.02
EtFOSAA	ug/L	95.33636	0.02	104.42130	0.02	98.09913	0.02
N-ethylperfluorooctane sulfonamidoe	ug/L	93.35678	0.02	87.61801	0.02	113.89912	0.02
N-methylperfluorooctane sulfonamide	ug/L	83.28742	0.02	103.22239	0.02	101.35606	0.02
MeFOSAA	ug/L	101.77684	0.02	99.96694	0.02	97.78099	0.02
N-methylperfluorooctanesulfonamidol	ug/L	100.31349	0.02	87.25771	0.02	104.99119	0.02
Perfluorobutanoic acid	ug/L	68.82NC	0.02	95.70794NC	0.02	101.84148	0.02
Perfluorobutane Sulfonate (PFBS)	ug/L	112.38543	0.02	100.61221	0.02	117.02416	0.02
Perfluorodecane Sulfonate	ug/L	99.05686	0.02	97.41994	0.02	111.92506	0.02
Perfluoroheptanoic Acid (PFHpA)	ug/L	98.26438	0.02	98.22745	0.02	98.49369	0.02
Perfluoroheptane sulfonate	ug/L	107.96692	0.02	107.59832	0.02	104.67055	0.02
Perfluorohexanoic Acid (PFHxA)	ug/L	95.72692	0.02	98.65000	0.02	97.41181	0.02
Perfluorohexane Sulfonate (PFHxS)	ug/L	104.43760	0.02	91.37334	0.02	109.54785	0.02
Perfluorononanoic Acid (PFNA)	ug/L	95.03221	0.02	104.41951	0.02	106.04654	0.02
Perfluorooctane Sulfonamide (PFOSA)	ug/L	98.86020	0.02	93.35572	0.02	103.38504	0.02
Perfluoropentanoic Acid (PFPeA)	ug/L	93.15375	0.02	94.26917	0.02	102.52511	0.02
Perfluorotetradecanoic Acid	ug/L	154.666	0.02	105.22039	0.02	101.94241	0.02
Perfluorotridecanoic Acid	ug/L	158.270	0.02	111.95131	0.02	104.27929	0.02
Perfluoroundecanoic Acid (PFUnA)	ug/L	98.09203	0.02	101.30229	0.02	96.89275	0.02
Perfluorodecanoic Acid (PFDA)	ug/L	98.00575	0.02	100.23781	0.02	110.64655	0.02
Perfluorododecanoic Acid (PFDoA)	ug/L	105.64335	0.02	92.84556	0.02	113.24662	0.02
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	92.42467	0.02	96.20753	0.02	105.00987	0.02
Perfluorooctane Sulfonate (PFOS)	ug/L	91.13972	0.02	86.94286	0.02	103.05140	0.02
13C2-6:2 Fluorotelomer sulfonate	ug/L	68.9613668		67.8108940		71.6481589	
13C2-8:2 Fluorotelomer sulfonate	ug/L	71.1750825		82.3529917		67.0587668	
13C2-perfluorotetradecanoic acid	ug/L	42.8361		66.0475217		63.4891895	
13C4-Perfluorobutanoic acid	ug/L	83.2946400		80.6195048		79.9415155	
D3-MeFOSAA	ug/L	77.9996210		76.4240017		68.4101942	
D5-EtFOSAA	ug/L	81.5928407		74.8411869		68.7955679	
N-methyl-d3-perfluorooctane sulfona	ug/L	N/A*******		N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	ug/L	N/A*******		N/A*******		N/A*******	
13C2-Perfluorodecanoic acid	ug/L	79.6210853		77.0055925		63.7128328	
13C2-Perfluorododecanoic acid	ug/L	69.8211258		75.2559436		58.6480479	
13C2-Perfluorohexanoic acid	ug/L	84.4328542		84.3499986		76.9358520	
13C2-Perfluoroundecanoic acid	ug/L	73.6835901		75.1233196		66.2959591	
13C4-Perfluoroheptanoic acid	ug/L	82.0386836		84.3916216		75.5507180	
13C5-Perfluorononanoic acid	ug/L	85.5040146		75.1054366		71.6273865	
13C4-Perfluorooctanoic acid	ug/L	84.5625375		81.2206057		70.6755999	
13C4-Perfluorooctanesulfonate	ug/L	85.5073478		90.6554285		70.6584673	
13C5-Perfluoropentanoic acid	ug/L	90.5477492		90.4640261		77.2837511	
13C8-Perfluorooctane Sulfonamide	ug/L	51.7356547		58.6377082		49.6039380	
18O2-Perfluorohexanesulfonate	ug/L	84.5611238		102.604631		73.2621991	

Worksheet Number: **5386102**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	BLANK	DL	B818419 FZA801	DL	B818419 FZA802	DL	B818419 FZA803
6:2 Fluorotelomer sulfonate	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
8:2 Fluorotelomer sulfonate	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
N-ethylperfluorooctane sulfonamide	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
EtFOSAA	0	0.02	0	0.02	0	0.02	0
N-ethylperfluorooctane sulfonamidoe	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
N-methylperfluorooctane sulfonamide	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
MeFOSAA	0	0.02	0	0.02	0	0.02	0
N-methylperfluorooctanesulfonamidol	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluorobutanoic acid	0	0.02	0	0.02	N/A*******	0.02	0
Perfluorobutane Sulfonate (PFBS)	0	0.02	0	0.02	0	0.02	0
Perfluorodecane Sulfonate	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluoroheptanoic Acid (PFHpA)	0	0.02	0	0.02	0	0.02	0
Perfluoroheptane sulfonate	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluorohexanoic Acid (PFHxA)	0	0.02	0	0.02	0	0.02	0
Perfluorohexane Sulfonate (PFHxS)	0	0.02	0	0.02	0	0.02	0
Perfluorononanoic Acid (PFNA)	0	0.02	0	0.02	0	0.02	0
Perfluorooctane Sulfonamide (PFOSA)	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluoropentanoic Acid (PFPeA)	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluorotetradecanoic Acid	0	0.02	0	0.02	0	0.02	0
Perfluorotridecanoic Acid	0	0.02	0	0.02	0	0.02	0
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.02	0	0.02	0
Perfluorodecanoic Acid (PFDA)	0	0.02	0	0.02	0	0.02	0
Perfluorododecanoic Acid (PFDoA)	0	0.02	0	0.02	0	0.02	0
Perfluoro-n-Octanoic Acid (PFOA)	0	0.02	0	0.02	0	0.02	0
Perfluorooctane Sulfonate (PFOS)	0	0.02	0	0.02	0	0.02	0
13C2-6:2 Fluorotelomer sulfonate	65.6847542		N/A*******		!! 36.5120		N/A*******
13C2-8:2 Fluorotelomer sulfonate	67.7970914		N/A*******		!! 36.4839		N/A*******
13C2-perfluorotetradecanoic acid	53.8165347		68.7721796		!! 33.1980		62.0041684
13C4-Perfluorobutanoic acid	75.1169245		N/A*******		!! 45.1864		N/A*******
D3-MeFOSAA	60.8161991		74.6832419		!! 39.8715		68.9618290
D5-EtFOSAA	58.7596527		70.3220055		!! 38.7706		64.3642347
N-methyl-d3-perfluorooctane sulfona	N/A*******		N/A*******		!! 26.9898		N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******		N/A*******		!! 25.3911		N/A*******
13C2-Perfluorodecanoic acid	58.4992490		78.2132194		!! 41.9528		73.3646314
13C2-Perfluorododecanoic acid	58.3595831		71.6939140		!! 39.2231		68.6477042
13C2-Perfluorohexanoic acid	71.2243373		89.8935351		49.6414834		75.5855252
13C2-Perfluoroundecanoic acid	61.7128372		70.4119226		!! 43.2761		76.8137756
13C4-Perfluoroheptanoic acid	67.3128091		91.1361061		!! 47.3920		70.5279209
13C5-Perfluorononanoic acid	63.4244159		84.0412188		!! 12.7327		75.3138869
13C4-Perfluorooctanoic acid	64.7447075		84.6514064		!! 25.4249		80.3492784
13C4-Perfluorooctanesulfonate	74.1314703		73.1027902		!! 30.7815		73.0334465
13C5-Perfluoropentanoic acid	77.7306686		N/A*******		!! 47.0771		N/A*******
13C8-Perfluorooctane Sulfonamide	!! 44.6478		N/A*******		!! 26.3583		N/A*******
18O2-Perfluorohexanesulfonate	72.0248675		85.2267364		50.8223270		76.2273773

Worksheet Number: **5386102**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	DL	B818419 FZA804	DL	B818419 FZA805	DL	B818419 FZA806	DL
6:2 Fluorotelomer sulfonate	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
8:2 Fluorotelomer sulfonate	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
N-ethylperfluorooctane sulfonamide	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
EtFOSAA	0.02	0	0.02	0	0.021	0	0.02
N-ethylperfluorooctane sulfonamidoe	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
N-methylperfluorooctane sulfonamide	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
MeFOSAA	0.02	0	0.02	0	0.021	0	0.02
N-methylperfluorooctanesulfonamidol	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
Perfluorobutanoic acid	0.02	0	0.02	0	0.021	0	0.02
Perfluorobutane Sulfonate (PFBS)	0.02	0	0.02	0	0.021	0	0.02
Perfluorodecane Sulfonate	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
Perfluoroheptanoic Acid (PFHpA)	0.02	0	0.02	0	0.021	0	0.02
Perfluoroheptane sulfonate	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
Perfluorohexanoic Acid (PFHxA)	0.02	0	0.02	0	0.021	0	0.02
Perfluorohexane Sulfonate (PFHxS)	0.02	0	0.02	0	0.021	0	0.02
Perfluorononanoic Acid (PFNA)	0.02	0	0.02	0	0.021	0	0.02
Perfluorooctane Sulfonamide (PFOSA)	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
Perfluoropentanoic Acid (PFPeA)	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
Perfluorotetradecanoic Acid	0.02	0	0.02	0	0.021	0	0.02
Perfluorotridecanoic Acid	0.02	0	0.02	0	0.021	0	0.02
Perfluoroundecanoic Acid (PFUnA)	0.02	0	0.02	0	0.021	0	0.02
Perfluorodecanoic Acid (PFDA)	0.02	0	0.02	0	0.021	0	0.02
Perfluorododecanoic Acid (PFDoA)	0.02	0	0.02	0	0.021	0	0.02
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0	0.02	0	0.021	0	0.02
Perfluorooctane Sulfonate (PFOS)	0.02	0	0.02	0	0.021	0	0.02
13C2-6:2 Fluorotelomer sulfonate		N/A*******		N/A*******		N/A*******	
13C2-8:2 Fluorotelomer sulfonate		N/A*******		N/A*******		N/A*******	
13C2-perfluorotetradecanoic acid		65.1107643		63.8042546		63.2599500	
13C4-Perfluorobutanoic acid		N/A*******		N/A*******		N/A*******	
D3-MeFOSAA		62.5297766		79.7525963		72.9527681	
D5-EtFOSAA		62.8210790		77.5283919		72.4039477	
N-methyl-d3-perfluorooctane sulfona		N/A*******		N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam		N/A*******		N/A*******		N/A*******	
13C2-Perfluorodecanoic acid		71.6273041		74.5336956		64.4915902	
13C2-Perfluorododecanoic acid		68.2987872		71.6636355		61.8666515	
13C2-Perfluorohexanoic acid		74.9423693		78.9856587		79.0768120	
13C2-Perfluoroundecanoic acid		67.2387275		73.6624333		68.0480823	
13C4-Perfluoroheptanoic acid		71.9233144		83.4077403		71.5851695	
13C5-Perfluorononanoic acid		71.4496653		78.9271859		78.0173095	
13C4-Perfluorooctanoic acid		70.4543610		80.9202477		69.1029365	
13C4-Perfluorooctanesulfonate		74.3789575		79.7149216		85.5302278	
13C5-Perfluoropentanoic acid		N/A*******		N/A*******		N/A*******	
13C8-Perfluorooctane Sulfonamide		N/A*******		N/A*******		N/A*******	
18O2-Perfluorohexanesulfonate		81.3970501		84.9029632		85.3024362	

Worksheet Number: **5386102**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B819794 FZH328	DL	B819794 FZH329	DL	B819794 FZH330	DL	B819794 FZH335
6:2 Fluorotelomer sulfonate	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
8:2 Fluorotelomer sulfonate	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
N-ethylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
EtFOSAA	0	0.02	0	0.02	0	0.02	0
N-ethylperfluorooctane sulfonamidoe	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
MeFOSAA	0	0.02	0	0.02	0	0.02	0
N-methylperfluorooctanesulfonamidol	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluorobutanoic acid	0.20338904	0.02	0	0.02	N/A*******	0.02	N/A*******
Perfluorobutane Sulfonate (PFBS)	0	0.02	0	0.02	0	0.02	0
Perfluorodecane Sulfonate	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluoroheptanoic Acid (PFHpA)	0.01521830	0.02	0	0.02	0	0.02	0
Perfluoroheptane sulfonate	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluorohexanoic Acid (PFHxA)	0.01675640	0.02	0	0.02	0	0.02	0
Perfluorohexane Sulfonate (PFHxS)	0.01105225	0.02	0	0.02	0	0.02	0
Perfluorononanoic Acid (PFNA)	0.01251015	0.02	0	0.02	0	0.02	0
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluorotetradecanoic Acid	0	0.02	0	0.02	0	0.02	0
Perfluorotridecanoic Acid	0	0.02	0	0.02	0	0.02	0
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.02	0	0.02	0
Perfluorodecanoic Acid (PFDA)	0	0.02	0	0.02	0	0.02	0
Perfluorododecanoic Acid (PFDoA)	0	0.02	0	0.02	0	0.02	0
Perfluoro-n-Octanoic Acid (PFOA)	0.03051730	0.02	0.02421777	0.02	0	0.02	0
Perfluorooctane Sulfonate (PFOS)	0.11228609	0.02	0.01980499	0.02	0	0.02	0
13C2-6:2 Fluorotelomer sulfonate	N/A*******		N/A*******		N/A*******		N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******		N/A*******		N/A*******		N/A*******
13C2-perfluorotetradecanoic acid	69.3238825		73.1791544		72.2186854		80.5329504
13C4-Perfluorobutanoic acid	N/A*******		N/A*******		N/A*******		N/A*******
D3-MeFOSAA	68.1789647		84.8842256		89.5181511		88.5315272
D5-EtFOSAA	68.1285820		81.9677088		86.4902034		89.6064453
N-methyl-d3-perfluorooctane sulfona	N/A*******		N/A*******		N/A*******		N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******		N/A*******		N/A*******		N/A*******
13C2-Perfluorodecanoic acid	85.2662479		81.8715336		89.1963263		97.3521106
13C2-Perfluorododecanoic acid	75.2444161		78.6059749		76.6205993		86.1558264
13C2-Perfluorohexanoic acid	86.9107761		86.0640809		96.6662949		103.074728
13C2-Perfluoroundecanoic acid	78.5645985		81.4177000		89.7516126		101.636981
13C4-Perfluoroheptanoic acid	89.0740404		86.0220603		94.1360707		97.7206945
13C5-Perfluorononanoic acid	81.6591979		89.9121539		98.6014041		95.1522073
13C4-Perfluorooctanoic acid	86.8717496		87.4723603		87.5751390		102.573025
13C4-Perfluorooctanesulfonate	89.3562435		94.9509994		93.4441346		103.195959
13C5-Perfluoropentanoic acid	N/A*******		92.9505695		97.8079154		N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******		78.9004503		64.2276292		N/A*******
18O2-Perfluorohexanesulfonate	89.0931969		101.473836		100.667364		100.286521

Worksheet Number: **5386102**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

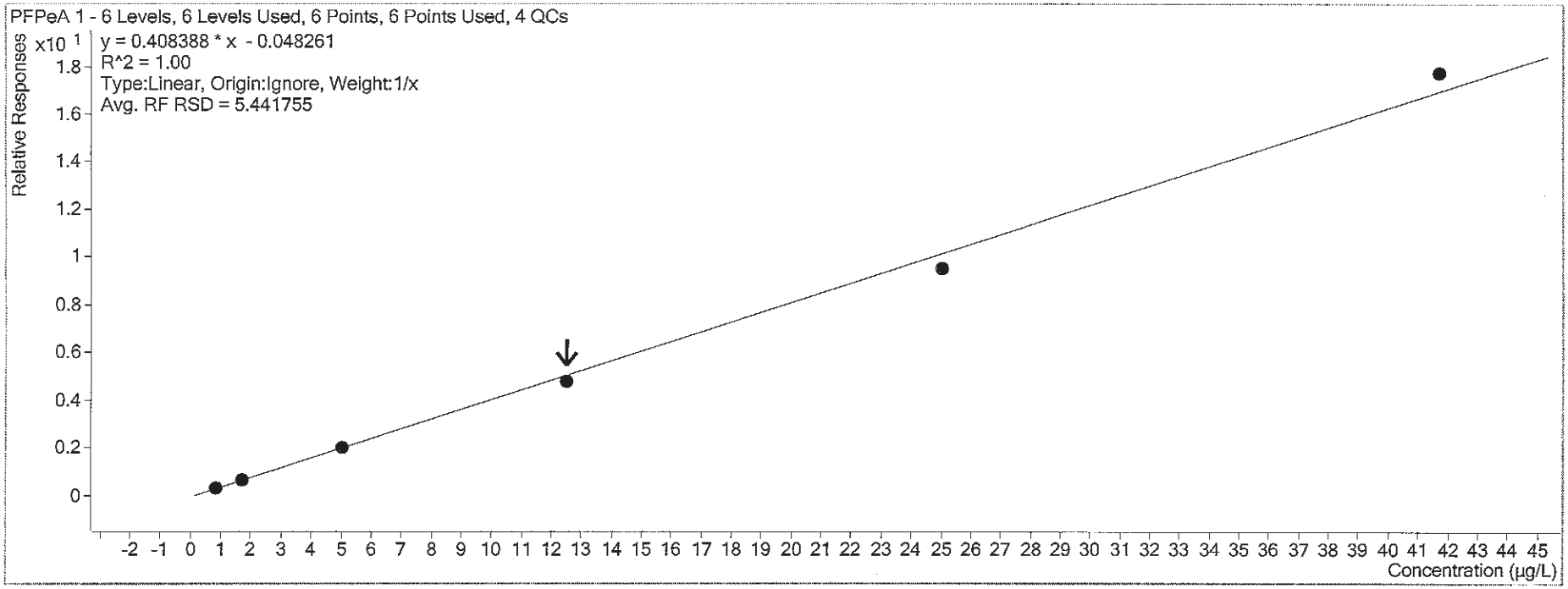
Parameter Name	DL	B819794 FZH344	DL	B819794 FZH345	DL	B819794 FZH346	DL
6:2 Fluorotelomer sulfonate	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
8:2 Fluorotelomer sulfonate	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
N-ethylperfluorooctane sulfonamide	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
EtFOSAA	0.02	0	0.02	0	0.02	0	0.02
N-ethylperfluorooctane sulfonamidoe	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
N-methylperfluorooctane sulfonamide	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
MeFOSAA	0.02	0	0.02	0	0.02	0	0.02
N-methylperfluorooctanesulfonamidol	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
Perfluorobutanoic acid	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
Perfluorobutane Sulfonate (PFBS)	0.02	0	0.02	0	0.02	0	0.02
Perfluorodecane Sulfonate	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
Perfluoroheptanoic Acid (PFHpA)	0.02	0	0.02	0	0.02	0	0.02
Perfluoroheptane sulfonate	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
Perfluorohexanoic Acid (PFHxA)	0.02	0	0.02	0	0.02	0	0.02
Perfluorohexane Sulfonate (PFHxS)	0.02	0	0.02	0	0.02	0	0.02
Perfluorononanoic Acid (PFNA)	0.02	0	0.02	0	0.02	0	0.02
Perfluorooctane Sulfonamide (PFOSA)	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
Perfluoropentanoic Acid (PFPeA)	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
Perfluorotetradecanoic Acid	0.02	0	0.02	0	0.02	0	0.02
Perfluorotridecanoic Acid	0.02	0	0.02	0	0.02	0	0.02
Perfluoroundecanoic Acid (PFUnA)	0.02	0	0.02	0	0.02	0	0.02
Perfluorodecanoic Acid (PFDA)	0.02	0	0.02	0	0.02	0	0.02
Perfluorododecanoic Acid (PFDoA)	0.02	0	0.02	0	0.02	0	0.02
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0	0.02	0	0.02	0	0.02
Perfluorooctane Sulfonate (PFOS)	0.02	0	0.02	0	0.02	0	0.02
13C2-6:2 Fluorotelomer sulfonate		N/A*******		N/A*******		N/A*******	
13C2-8:2 Fluorotelomer sulfonate		N/A*******		N/A*******		N/A*******	
13C2-perfluorotetradecanoic acid		77.1908524		71.9470181		75.3855990	
13C4-Perfluorobutanoic acid		N/A*******		N/A*******		N/A*******	
D3-MeFOSAA		84.7396178		73.5421858		81.3894851	
D5-EtFOSAA		86.1073348		75.8329929		80.2984169	
N-methyl-d3-perfluorooctane sulfona		N/A*******		N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam		N/A*******		N/A*******		N/A*******	
13C2-Perfluorodecanoic acid		99.0546764		82.1760373		94.9012927	
13C2-Perfluorododecanoic acid		84.1751686		73.8662504		76.5459481	
13C2-Perfluorohexanoic acid		103.981453		89.5273662		98.6190842	
13C2-Perfluoroundecanoic acid		90.4203887		76.5271325		94.6068299	
13C4-Perfluoroheptanoic acid		99.2321321		88.3159353		96.4711965	
13C5-Perfluorononanoic acid		96.3452767		86.2244037		96.3752530	
13C4-Perfluorooctanoic acid		98.5254289		86.2726611		102.455275	
13C4-Perfluorooctanesulfonate		100.342167		86.1902780		90.6185606	
13C5-Perfluoropentanoic acid		97.1968980		91.5038071		101.174284	
13C8-Perfluorooctane Sulfonamide		76.1132788		62.8588376		67.2981523	
18O2-Perfluorohexanesulfonate		97.7587480		91.2758797		97.1877814	

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B819794 FZH347	DL	B819794 FZH348	DL	B820260 FZJ934	DL	RDL
6:2 Fluorotelomer sulfonate	N/A*******	0.02	N/A*******	0.02	0	0.02	0.02
8:2 Fluorotelomer sulfonate	N/A*******	0.02	N/A*******	0.02	0	0.02	0.02
N-ethylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	0.02
EtFOSAA	0	0.02	0	0.02	N/A*******	0.02	0.02
N-ethylperfluorooctane sulfonamidoe	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	0.02
N-methylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	0.02
MeFOSAA	0	0.02	0	0.02	N/A*******	0.02	0.02
N-methylperfluorooctanesulfonamidol	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	0.02
Perfluorobutanoic acid	1.32435011	0.02	N/A*******	0.02	0	0.02	0.02
Perfluorobutane Sulfonate (PFBS)	0	0.02	0	0.02	0	0.02	0.02
Perfluorodecane Sulfonate	N/A*******	0.02	N/A*******	0.02	0	0.02	0.02
Perfluoroheptanoic Acid (PFHpA)	0.01259488	0.02	0.01117351	0.02	0	0.02	0.02
Perfluoroheptane sulfonate	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	0.02
Perfluorohexanoic Acid (PFHxA)	0.01407001	0.02	0.01319642	0.02	0	0.02	0.02
Perfluorohexane Sulfonate (PFHxS)	0.00977400	0.02	0.00778421	0.02	0	0.02	0.02
Perfluorononanoic Acid (PFNA)	0	0.02	0	0.02	0	0.02	0.02
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	0.02	N/A*******	0.02	0	0.02	0.02
Perfluoropentanoic Acid (PFPeA)	N/A*******	0.02	N/A*******	0.02	0	0.02	0.02
Perfluorotetradecanoic Acid	0	0.02	0	0.02	0	0.02	0.02
Perfluorotridecanoic Acid	0	0.02	0	0.02	0	0.02	0.02
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.02	0	0.02	0.02
Perfluorodecanoic Acid (PFDA)	0	0.02	0	0.02	0	0.02	0.02
Perfluorododecanoic Acid (PFDoA)	0	0.02	0	0.02	0	0.02	0.02
Perfluoro-n-Octanoic Acid (PFOA)	0.03076766	0.02	0.02327353	0.02	0	0.02	0.02
Perfluorooctane Sulfonate (PFOS)	0.02087630	0.02	0.01707903	0.02	0	0.02	0.02
13C2-6:2 Fluorotelomer sulfonate	N/A*******		N/A*******		83.7850573		
13C2-8:2 Fluorotelomer sulfonate	N/A*******		N/A*******		81.4629185		
13C2-perfluorotetradecanoic acid	65.2261649		66.6786894		64.7172540		
13C4-Perfluorobutanoic acid	N/A*******		N/A*******		89.2547297		
D3-MeFOSAA	73.7337370		83.8622985		N/A*******		
D5-EtFOSAA	71.9622175		81.6914136		N/A*******		
N-methyl-d3-perfluorooctane sulfona	N/A*******		N/A*******		N/A*******		
N-ethyl-d5-perfluorooctane sulfonam	N/A*******		N/A*******		N/A*******		
13C2-Perfluorodecanoic acid	68.0330052		79.8067445		67.9065261		
13C2-Perfluorododecanoic acid	67.6070511		71.7300881		63.2119014		
13C2-Perfluorohexanoic acid	74.8592925		76.5367429		86.4727994		
13C2-Perfluoroundecanoic acid	69.7976855		75.6814541		68.4996292		
13C4-Perfluoroheptanoic acid	69.1457833		87.0723268		81.1903390		
13C5-Perfluorononanoic acid	72.5916047		82.8828909		85.0057938		
13C4-Perfluorooctanoic acid	70.8560945		82.3483394		86.5523980		
13C4-Perfluorooctanesulfonate	77.7487498		87.3949690		82.5559714		
13C5-Perfluoropentanoic acid	N/A*******		N/A*******		88.3457088		
13C8-Perfluorooctane Sulfonamide	N/A*******		N/A*******		11.48.6323		
18O2-Perfluorohexanesulfonate	87.4774020		82.3917817		95.0887111		

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	MDL	IDL					
6:2 Fluorotelomer sulfonate	0.0066	0					
8:2 Fluorotelomer sulfonate	0.0066	0					
N-ethylperfluorooctane sulfonamide	0.01	0					
EtFOSAA	0.0033	0					
N-ethylperfluorooctane sulfonamidoe	0.0079	0					
N-methylperfluorooctane sulfonamide	0.013	0					
MeFOSAA	0.0029	0					
N-methylperfluorooctanesulfonamidol	0.012	0					
Perfluorobutanoic acid	0.0055	0					
Perfluorobutane Sulfonate (PFBS)	0.0054	0					
Perfluorodecane Sulfonate	0.006	0					
Perfluoroheptanoic Acid (PFHpA)	0.0074	0					
Perfluoroheptane sulfonate	0.008	0					
Perfluorohexanoic Acid (PFHxA)	0.0035	0					
Perfluorohexane Sulfonate (PFHxS)	0.0056	0					
Perfluorononanoic Acid (PFNA)	0.0087	0					
Perfluorooctane Sulfonamide (PFOSA)	0.0034	0					
Perfluoropentanoic Acid (PFPeA)	0.0075	0					
Perfluorotetradecanoic Acid	0.0027	0					
Perfluorotridecanoic Acid	0.0038	0					
Perfluoroundecanoic Acid (PFUnA)	0.0025	0					
Perfluorodecanoic Acid (PFDA)	0.0061	0					
Perfluorododecanoic Acid (PFDoA)	0.005	0					
Perfluoro-n-Octanoic Acid (PFOA)	0.0033	0					
Perfluorooctane Sulfonate (PFOS)	0.006	0					
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



Manual calculation for Spike:

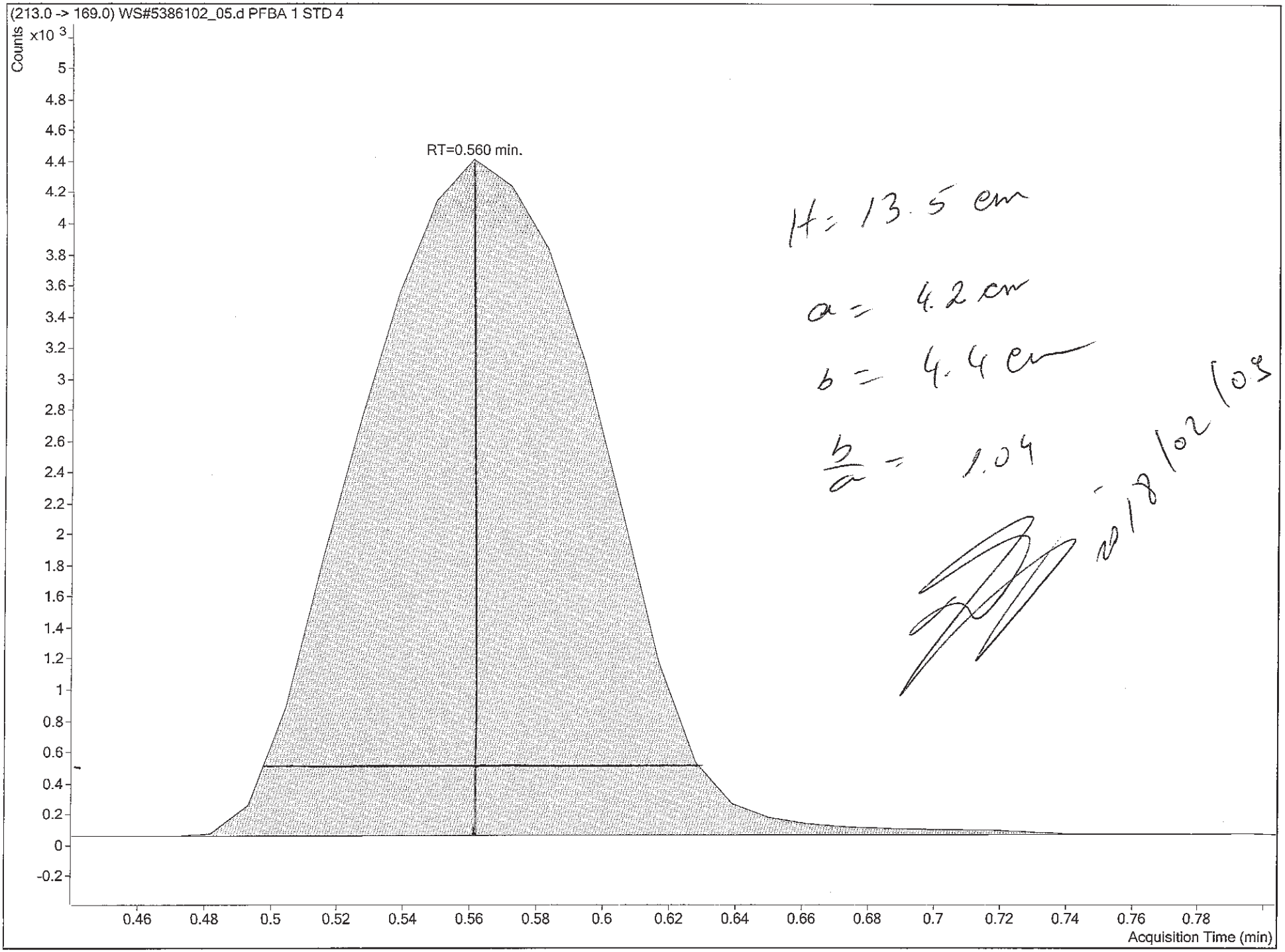
$8.6747 = 0.408388x - 0.048261$

$x = 21.35949 \times 0.024$

$= 0.5126\ \mu g/L$

$\frac{0.5126}{0.5} \times 100 = 102.5\%$

2018/02/09



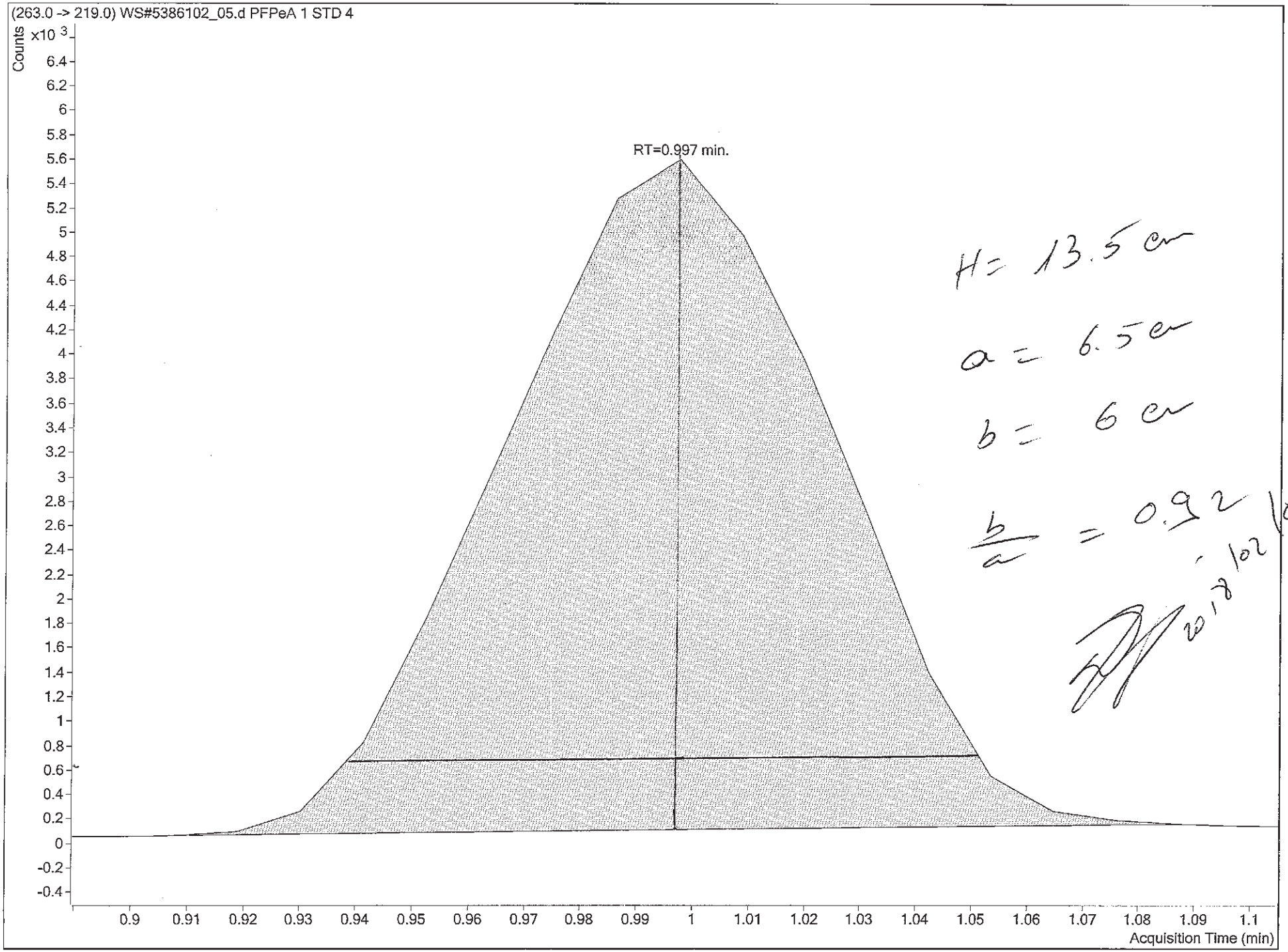
H = 13.5 cm

a = 4.2 cm

b = 4.4 cm

$\frac{b}{a}$ = 1.04

2018/02/09



H = 13.5 cm

a = 6.5 cm

b = 6 cm

$\frac{b}{a} = 0.92$

2018/02/08

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/06

Test Code: **PFOSALCM-W**

Worksheet Number: **5386102**

Sample Number	Parameter Code	Parameter	
FZA801-01	ETFOSAA	EtFOSAA	*
FZA802-01	MEFOSAA	MeFOSAA	*
FZA803-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FZA804-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
FZA805-01	PFHXA	Perfluorohexanoic Acid (PFHxA)	
FZA806-01	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
FZH328-01	PFNA	Perfluorononanoic Acid (PFNA)	
FZH329-01	PFTEDA	Perfluorotetradecanoic Acid	
FZH335-01	PFTRDA	Perfluorotridecanoic Acid	
FZH347-01	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
FZH348-01	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	
FZH330-01	NONE	NONE	
FZH344-01			
FZH345-01			
FZH346-01			
FZJ934-01	6:2FTS	6:2 Fluorotelomer sulfonate	*
	8:2FTS	8:2 Fluorotelomer sulfonate	*
	PFBA	Perfluorobutanoic acid	
	PFBS	Perfluorobutane Sulfonate (PFBS)	
	PFDS	Perfluorodecane Sulfonate	
	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	

* - This parameter is usually off, but will be reported for this group of samples!

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/06

Test Code: **PFOSALCM-W**

Worksheet Number: **5386102**

Sample Number	Parameter Code	Parameter
	PFNA	Perfluorononanoic Acid (PFNA)
	PFOSA	Perfluorooctane Sulfonamide (PFOSA)
	PFPEA	Perfluoropentanoic Acid (PFPeA)
	PFTEDA	Perfluorotetradecanoic Acid
	PFTRDA	Perfluorotridecanoic Acid
	PFUNA	Perfluoroundecanoic Acid (PFUnA)
	PFDA	Perfluorodecanoic Acid (PFDA)
	PFDOA	Perfluorododecanoic Acid (PFDoA)
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)
	PFOS	Perfluorooctane Sulfonate (PFOS)

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5386102 Instrument Sequences

1.	5386102:MTRX SPK	MTRX SPK
2.	5386102:MTRX SPK:D1	MTRX SPK :D1
3.	5386102:SPIKE	SPIKE
4.	5386102:BLANK	BLANK
5.	5386102:FZA801-01	[redacted]
6.	5386102:FZA802-01	[redacted]
7.	5386102:FZA803-01	[redacted]
8.	5386102:FZA804-01	[redacted]
9.	5386102:FZA805-01	[redacted]
10.	5386102:FZA806-01	[redacted]
11.	5386102:FZH328-01	CEF-003-38S-0118
12.	5386102:FZH329-01	CEF-002-04S-0118
13.	5386102:FZH330-01	FB-CEF-002-012318-5
14.	5386102:FZH335-01	FB-CEF-342-012318-4
15.	5386102:FZH344-01	FB-CEF-003-012318-3
16.	5386102:FZH345-01	EB-CEF-003-012318-2
17.	5386102:FZH346-01	EB-CEF-17-012218-1
18.	5386102:FZH347-01	CEF-003-04S-0118
19.	5386102:FZH348-01	CEF-003-04S-0118-D
20.	5386102:FZJ934-01	[redacted]

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180207_Low_A.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180207\WS#5386102
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

20180207

Verified by
AD
2018/02/07

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P1-A1	PFC_Water_Low.m	WS#5386102_01.d	Sample		As Method	-
2	STD 1	P1-C8	PFC_Water_Low.m	WS#5386102_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-C9	PFC_Water_Low.m	WS#5386102_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-D1	PFC_Water_Low.m	WS#5386102_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-D2	PFC_Water_Low.m	WS#5386102_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-D3	PFC_Water_Low.m	WS#5386102_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-D4	PFC_Water_Low.m	WS#5386102_07.d	Calibration	STD 6	As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P1-D5	PFC_Water_Low.m	WS#5386102_08.d	Sample		As Method	-
9	ICV	P1-D6	PFC_Water_Low.m	WS#5386102_09.d	QC	ICV	As Method	-
10	ISC	P1-C8	PFC_Water_Low.m	WS#5386102_10.d	ConCal	STD 1	As Method	-
11	5386102:BLANK	P1-D7	PFC_Water_Low.m	WS#5386102_11.d	Sample		As Method	-
12	5386102:SPIKE	P1-D8	PFC_Water_Low.m	WS#5386102_12.d	QC	ICV	As Method	-
13	5386102:MTRX SPK	P1-D9	PFC_Water_Low.m	WS#5386102_13.d	QC	ICV	As Method	-
14	5386102:MTRX SPK:D1	P1-E1	PFC_Water_Low.m	WS#5386102_14.d	Sample		As Method	-
15	IB	P1-D5	PFC_Water_Low.m	WS#5386102_15.d	Sample		As Method	-
16	5386102:FZA801-01	P1-E2	PFC_Water_Low.m	WS#5386102_16.d	Sample		As Method	-
17	5386102:FZA802-01	P1-E3	PFC_Water_Low.m	WS#5386102_17.d	Sample		As Method	-
18	5386102:FZA803-01	P1-E4	PFC_Water_Low.m	WS#5386102_18.d	Sample		As Method	-
19	5386102:FZA804-01	P1-E5	PFC_Water_Low.m	WS#5386102_19.d	Sample		As Method	-
20	5386102:FZA805-01	P1-E6	PFC_Water_Low.m	WS#5386102_20.d	Sample		As Method	-
21	5386102:FZA806-01	P1-E7	PFC_Water_Low.m	WS#5386102_21.d	Sample		As Method	-
22	5386102:FZH328-01	P1-E8	PFC_Water_Low.m	WS#5386102_22.d	Sample		As Method	-
23	5386102:FZH329-01	P1-E9	PFC_Water_Low.m	WS#5386102_23.d	Sample		As Method	-
24	5386102:FZH330-01	P1-F1	PFC_Water_Low.m	WS#5386102_24.d	Sample		As Method	-
25	5386102:FZH335-01	P1-F2	PFC_Water_Low.m	WS#5386102_25.d	Sample		As Method	-
26	CCV	P1-D2	PFC_Water_Low.m	WS#5386102_26.d	ConCal	STD 4	As Method	-
27	5386102:FZH344-01	P1-F3	PFC_Water_Low.m	WS#5386102_27.d	Sample		As Method	-
28	5386102:FZH345-01	P1-F4	PFC_Water_Low.m	WS#5386102_28.d	Sample		As Method	-
29	5386102:FZH346-01	P1-F5	PFC_Water_Low.m	WS#5386102_29.d	Sample		As Method	-
30	5386102:FZH347-01	P1-F6	PFC_Water_Low.m	WS#5386102_30.d	Sample		As Method	-

Maxxam Analytics

D:\MassHunter\Worklists\PFCs\PFC_180207_Low_A.wkl

Report generation date: 07-Feb-2018 04:29:42 PM

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5386102:FZH348-01	P1-F7	PFC_Water_Low.m	WS#5386102_31.d	Sample		As Method	-
32	5386102:FZJ934-01	P1-F8	PFC_Water_Low.m	WS#5386102_32.d	Sample		As Method	-
33	CCV	P1-D2	PFC_Water_Low.m	WS#5386102_33.d	ConCal	STD 4	As Method	-

Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180207_Low_A_FOSAA.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180207\WS#5386102_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B2:Solution# 272 (FSRE18)

20180207 107uG

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P1-A1	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_01.d	Sample		As Method	-
2	STD 1	P1-C8	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-C9	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-D1	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-D2	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-D3	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-D4	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P1-D5	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P1-D6	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P1-C8	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5386102:BLANK	P1-D7	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_11.d	Sample		As Method	-
12	5386102:SPIKE	P1-D8	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_12.d	QC	ICV	As Method	-
13	5386102:MTRX SPK	P1-D9	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_13.d	QC	ICV	As Method	-
14	5386102:MTRX SPK:D1	P1-E1	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_14.d	Sample		As Method	-
15	IB	P1-D5	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_15.d	Sample		As Method	-
16	5386102:FZA801-01	P1-E2	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_16.d	Sample		As Method	-
17	5386102:FZA802-01	P1-E3	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_17.d	Sample		As Method	-
18	5386102:FZA803-01	P1-E4	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_18.d	Sample		As Method	-
19	5386102:FZA804-01	P1-E5	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_19.d	Sample		As Method	-
20	5386102:FZA805-01	P1-E6	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_20.d	Sample		As Method	-
21	5386102:FZA806-01	P1-E7	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_21.d	Sample		As Method	-
22	5386102:FZH328-01	P1-E8	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_22.d	Sample		As Method	-
23	5386102:FZH329-01	P1-E9	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_23.d	Sample		As Method	-
24	5386102:FZH330-01	P1-F1	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_24.d	Sample		As Method	-
25	5386102:FZH335-01	P1-F2	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_25.d	Sample		As Method	-
26	CCV	P1-D2	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_26.d	ConCal	STD 4	As Method	-
27	5386102:FZH344-01	P1-F3	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_27.d	Sample		As Method	-
28	5386102:FZH345-01	P1-F4	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_28.d	Sample		As Method	-
29	5386102:FZH346-01	P1-F5	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_29.d	Sample		As Method	-
30	5386102:FZH347-01	P1-F6	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_30.d	Sample		As Method	-
31	5386102:FZH348-01	P1-F7	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_31.d	Sample		As Method	-
32	5386102:FZJ934-01	P1-F8	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_32.d	Sample		As Method	-
33	CCV	P1-D2	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_33.d	ConCal	STD 4	As Method	-

Maxxam Analytics
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FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/08 3:11 AM	PFC_Water_Low.m	WS#5386102_02.d	P1-C8
STD 2	-	2018/02/08 3:16 AM	PFC_Water_Low.m	WS#5386102_03.d	P1-C9
STD 3	-	2018/02/08 3:21 AM	PFC_Water_Low.m	WS#5386102_04.d	P1-D1
STD 4	-	2018/02/08 3:26 AM	PFC_Water_Low.m	WS#5386102_05.d	P1-D2
STD 5	-	2018/02/08 3:31 AM	PFC_Water_Low.m	WS#5386102_06.d	P1-D3
STD 6	-	2018/02/08 3:36 AM	PFC_Water_Low.m	WS#5386102_07.d	P1-D4
IB	-	2018/02/08 3:41 AM	PFC_Water_Low.m	WS#5386102_08.d	P1-D5
ICV	-	2018/02/08 3:46 AM	PFC_Water_Low.m	WS#5386102_09.d	P1-D6
ISC	-	2018/02/08 3:51 AM	PFC_Water_Low.m	WS#5386102_10.d	P1-C8
5386102:BLANK	-	2018/02/08 3:56 AM	PFC_Water_Low.m	WS#5386102_11.d	P1-D7
5386102:SPIKE	-	2018/02/08 4:01 AM	PFC_Water_Low.m	WS#5386102_12.d	P1-D8
5386102:MTRX SPK	FZH347	2018/02/08 4:06 AM	PFC_Water_Low.m	WS#5386102_13.d	P1-D9
5386102:MTRX SPK:D1	FZH347	2018/02/08 4:11 AM	PFC_Water_Low.m	WS#5386102_14.d	P1-E1
IB	-	2018/02/08 4:15 AM	PFC_Water_Low.m	WS#5386102_15.d	P1-D5
5386102:FZA801-01	-	2018/02/08 4:20 AM	PFC_Water_Low.m	WS#5386102_16.d	P1-E2
5386102:FZA802-01	Reanalyzed due to low ext IS recovery	2018/02/08 4:25 AM	PFC_Water_Low.m	WS#5386102_17.d	P1-E3
5386102:FZA803-01	-	2018/02/08 4:30 AM	PFC_Water_Low.m	WS#5386102_18.d	P1-E4
5386102:FZA804-01	-	2018/02/08 4:35 AM	PFC_Water_Low.m	WS#5386102_19.d	P1-E5
5386102:FZA805-01	-	2018/02/08 4:40 AM	PFC_Water_Low.m	WS#5386102_20.d	P1-E6
5386102:FZA806-01	-	2018/02/08 4:45 AM	PFC_Water_Low.m	WS#5386102_21.d	P1-E7
5386102:FZH328-01	-	2018/02/08 4:50 AM	PFC_Water_Low.m	WS#5386102_22.d	P1-E8
5386102:FZH329-01	-	2018/02/08 4:55 AM	PFC_Water_Low.m	WS#5386102_23.d	P1-E9
5386102:FZH330-01	-	2018/02/08 5:00 AM	PFC_Water_Low.m	WS#5386102_24.d	P1-F1
5386102:FZH335-01	-	2018/02/08 5:05 AM	PFC_Water_Low.m	WS#5386102_25.d	P1-F2
CCV	-	2018/02/08 5:10 AM	PFC_Water_Low.m	WS#5386102_26.d	P1-D2
5386102:FZH344-01	-	2018/02/08 5:15 AM	PFC_Water_Low.m	WS#5386102_27.d	P1-F3
5386102:FZH345-01	-	2018/02/08 5:20 AM	PFC_Water_Low.m	WS#5386102_28.d	P1-F4
5386102:FZH346-01	-	2018/02/08 5:25 AM	PFC_Water_Low.m	WS#5386102_29.d	P1-F5
5386102:FZH347-01	-	2018/02/08 5:29 AM	PFC_Water_Low.m	WS#5386102_30.d	P1-F6
5386102:FZH348-01	-	2018/02/08 5:34 AM	PFC_Water_Low.m	WS#5386102_31.d	P1-F7
5386102:FZJ934-01	Reinjected to check recovery	2018/02/08 5:39 AM	PFC_Water_Low.m	WS#5386102_32.d	P1-F8
CCV	-	2018/02/08 5:44 AM	PFC_Water_Low.m	WS#5386102_33.d	P1-D2
ISC	-	2018/02/08 3:47 PM	PFC_Water_Low.m	WS#5386102_34.d	P1-C8

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
IB	-	2018/02/08 3:52 PM	PFC_Water_Low.m	WS#5386102_35.d	P1-D5
5386102:FZJ934-01	Reinjection, reported	2018/02/08 3:57 PM	PFC_Water_Low.m	WS#5386102_36.d	P1-F8
CCV	-	2018/02/08 4:01 PM	PFC_Water_Low.m	WS#5386102_37.d	P1-D2

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/08 9:36 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_02.d	P1-C8
STD 2	-	2018/02/08 9:38 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_03.d	P1-C9
STD 3	-	2018/02/08 9:41 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_04.d	P1-D1
STD 4	-	2018/02/08 9:43 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_05.d	P1-D2
STD 5	-	2018/02/08 9:46 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_06.d	P1-D3
STD 6	-	2018/02/08 9:48 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_07.d	P1-D4
IB	-	2018/02/08 9:50 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_08.d	P1-D5
ICV	-	2018/02/08 9:53 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_09.d	P1-D6
ISC	-	2018/02/08 9:55 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_10.d	P1-C8
5386102:BLANK	-	2018/02/08 9:58 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_11.d	P1-D7
5386102:SPIKE	-	2018/02/08 10:00 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_12.d	P1-D8
5386102:MTRX SPK	FZH347	2018/02/08 10:02 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_13.d	P1-D9
5386102:MTRX SPK:D1	FZH347	2018/02/08 10:05 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_14.d	P1-E1
IB	-	2018/02/08 10:07 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_15.d	P1-D5
5386102:FZA801-01	-	2018/02/08 10:10 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_16.d	P1-E2
5386102:FZA802-01	-	2018/02/08 10:12 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_17.d	P1-E3
5386102:FZA803-01	-	2018/02/08 10:14 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_18.d	P1-E4
5386102:FZA804-01	-	2018/02/08 10:17 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_19.d	P1-E5
5386102:FZA805-01	-	2018/02/08 10:19 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_20.d	P1-E6
5386102:FZA806-01	-	2018/02/08 10:22 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_21.d	P1-E7
5386102:FZH328-01	-	2018/02/08 10:24 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_22.d	P1-E8
5386102:FZH329-01	-	2018/02/08 10:27 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_23.d	P1-E9
5386102:FZH330-01	-	2018/02/08 10:29 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_24.d	P1-F1
5386102:FZH335-01	-	2018/02/08 10:31 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_25.d	P1-F2
CCV	-	2018/02/08 10:34 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_26.d	P1-D2
5386102:FZH344-01	-	2018/02/08 10:36 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_27.d	P1-F3
5386102:FZH345-01	-	2018/02/08 10:39 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_28.d	P1-F4
5386102:FZH346-01	-	2018/02/08 10:41 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_29.d	P1-F5
5386102:FZH347-01	-	2018/02/08 10:43 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_30.d	P1-F6
5386102:FZH348-01	-	2018/02/08 10:46 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_31.d	P1-F7
5386102:FZJ934-01	-	2018/02/08 10:48 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_32.d	P1-F8
CCV	-	2018/02/08 10:51 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_33.d	P1-D2

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/08

Worksheet # (s): 537452

Analysis: PFOSA_EM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria	✓			✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria			✓	✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed	✓			✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS			✓	✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: AZ Date: 2018/02/12

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: AD Date: 2018/02/12

Comments: Sample ID FZH332 and FZH334 sent for re-work for PFTeDA, PFTrDA due to low extracted IS recovery. AD 2018/02/12

*Note: 2nd 100% verification review documented by secondary qualified data review

Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5387452 Testcode: PFOSACM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: SSV Date: 2018/02/06

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: Date:

Comments:

WS# : 5387452

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Tuesday, February 06, 2018

Assigned to : Shivani Shivani

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

Job Number	Sample Number	D	Sample ID	F	Moisture (sediment %)	Wt or Vol (mL)	Final Vol (mL)	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	
5-3		SPIKE	PFOS		0	125	3	1X					2018/02/06	27
5-1		BLANK			0	125	3	1X					2018/02/06	28
5-5	B819794	*FZH318-01R	FB-CEF-008-01241*		0	125	3	1X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/06	26
5-7	B819794	*FZH319-01R	EB-CEF-PUBLIX D*		0	125	3	1X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/06	25
5-9	B819794	*FZH320-01R	EB-CEF-LABCHE*		0	125	3	1X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/06	29
5-11	B819794	*FZH321-01R	EB-CEF-008-01241*		0	125	3	1X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/06	32
5-13	B819794	*FZH322-01R	EB-CEF-008-01241*		0	125	3	1X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/06	30
5-15	B819794	*FZH323-01R	EB-CEF-008-01241*		0	125	3	1X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/06	28
5-16,17	B819794	*FZH331-01R	CEF-342-06S-0118		<0.1	62.5/6.25	3	2X/10X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/06	27
5-18,19	B819794	*FZH332-01R	CEF-342-06S-0118-*		<0.1	125/12.5	3	1X/10X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/06	31
5-20,21	B819794	*FZH333-01R	CEF-342-12S-0118		<0.1	12.5/1.25	3	10X/100X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/06	30
5-23	B819794	*FZH334-01R	0 CEF-343-03S-0118		<0.1	12.5	3	10X	6	2018/02/06	2018/02/09 18:00	DOD	2018/02/06	26
5-24	B819794	*FZH334-01R	1 CEF-343-03S-0118		<0.1	12.5	3	10X	6	2018/02/06	2018/02/09 18:00	DOD	2018/02/06	25

do 18/02/06 SSV

Remarks:
- Carbon clean up done
- All standards cross reference to 5387446.
- Sample/sample Dup repeated because requested sample for MS/MSD is foamy, dark brown in colour.

Samples extracted by: Shivani Shivani

Instrumentation performed by: Date: 2018/02/07

Calculations performed by: Date: 2018/02/12

Validated by: Date: 2018/02/12

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.)	AECOM

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required
Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

Job	Sample	Lab Comments
	SPIKE	
	BLANK	
B819794	FZH318-01R	
B819794	FZH319-01R	
B819794	FZH320-01R	
B819794	FZH321-01R	
B819794	FZH322-01R	
B819794	FZH323-01R	
B819794	FZH331-01R	9centrifuged sample at 4000 rpm.
B819794	FZH332-01R	"
B819794	FZH333-01R	"
B819794	FZH334-01R	"
B819794	FZH334-01R:DUP	"

Folder : 20180202

2018/02/12

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB819554	[redacted]			

Job	Sample	Lab Comments
	SPIKE	
	SPIKE	
	BLANK	
B819554	FZG260-01R	
B819554	FZG261-01R	
B819554	FZG262-01R	
B819554	FZG263-01R	
B819554	FZG264-01R	
B819554	FZG266-01R	
B819554	FZG268-01R	

	Calibration mean (ul)	Standard Preparation # Spk (ul)	IS
S_1	2825	25	SK-7377
S_2	2800	50	
S_3	2700	150	
S_4	2813	37.5	I-5297
S_5	2775	75	
S_6	2725	125	
ICV	2788	62.5 — I-5299	
ICB	2850		

JPB 2018/02/06

50 (ul)

ICAL and ICV info only.

ME 2018/02/13

Worksheet Reagent Tracking Record Worksheet # 5387452

Surrogate/Spike solutions	√	Solution ID #	Conc.	Volume (µL) Blk-Spk Solid	Blk-Spk Liquid	MS Solid	MS Liquid	Samples Solid	Samples Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299(1/3)	1ug/mL	75	21 (62.5)	75	21 62.5	NA	NA
PFC Internal Standard Solution	✓	SI-6763(3/4) HB	50/125 ng/mL	200	100 (150)	200	100 150	200	100 (150)
PFC Injection IS	✓	SI-6716(4/4) HB	~~400~~ 100 ng/mL	20	(20)	20	20	20	(20)
ICV	✓	I-5299(1/3)	ug/mL		62.5				

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHBJ7527	2018/02/06	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRURE-108-341		DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRURE 108-342		0.2% NH_4OH	✓	PRURE-108-340	
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/02/06
0.05M HCl							

*Spiked by: SSV

Spike Date: 2018/02/06

Spike Syringe/Pipette ID#: G243906

Int. Std Syringe/Pipette ID#: Internal Std # K19865F
Injection IS # G243906

*Spiking Witnessed by: JHB

Final pH:

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor K55191G K39732F/K19865F	✓	SPE Cartridge	0034372404A	✓	QC Balance ID	FC-1
	✓	Filter			Thermometer ID &Temp	
Dispenser		Centrifuge	42148683	10:05-10:10		
		Sonicator				

Bottle Tracking
Bottle# 18381
Cap# 18352
Systems plus Lot#: 17/10/30

Comments: Enviro Calb # 928061
250mL volumetric Cylinder # 3026

Worksheet: 5387452

Dilution and Column Cleanup Worksheet

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added uL	New Effective Final Volume	INITIAL SSU DATE	Column Clean Up
B819794	F2N331	—	2X	62.5	—	150	62.5	2018/02/06	—
	F2N331	—	20X	6.25	—	150	6.25	2018/02/06	—
	F2N332	—	10X	12.5	—	150	12.5	2018/02/06	—
	F2N333	—	10X	12.5	—	150	12.5	2018/02/06	—
	F2N333	—	100X	1.25	123.75	150	125	2018/02/06	—
	F2N334	—	10X	12.5	—	150	12.5	2018/02/06	—
	F2N334 Dup	—	10X	12.5	—	150	12.5	2018/02/06	—
				2018/02/06 SSU					

10ml # K551916
250 ml volumetric cylinder # 3026

Worksheet Number: **5387452**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	SPIKE	BLANK	B819794 FZH318	B819794 FZH319	B819794 FZH320	B819794 FZH321
6:2 Fluorotelomer sulfonate	ug/L	84.69828	0	N/A*******	N/A*******	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	ug/L	99.77153	0	N/A*******	N/A*******	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	ug/L	106.18315	0	N/A*******	N/A*******	N/A*******	N/A*******
EtFOSAA	ug/L	87.96041	0	N/A*******	N/A*******	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamidoe	ug/L	87.15807	0	N/A*******	N/A*******	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	ug/L	82.35551	0	N/A*******	N/A*******	N/A*******	N/A*******
MeFOSAA	ug/L	87.93901	0	N/A*******	N/A*******	N/A*******	N/A*******
N-methylperfluorooctanesulfonamidol	ug/L	78.36499	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutanoic acid	ug/L	92.61835	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	ug/L	78.15168	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorodecane Sulfonate	ug/L	78.48687	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	ug/L	85.74965	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptane sulfonate	ug/L	79.68148	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	ug/L	91.50441	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexane Sulfonate (PFHxS)	ug/L	79.33989	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorononanoic Acid (PFNA)	ug/L	95.54106	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	ug/L	95.87527	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	ug/L	94.67622	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorotetradecanoic Acid	ug/L	93.39079	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorotridecanoic Acid	ug/L	88.45611	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroundecanoic Acid (PFUnA)	ug/L	94.57789	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorodecanoic Acid (PFDA)	ug/L	93.77766	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorododecanoic Acid (PFDoA)	ug/L	88.51589	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	86.41654	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorooctane Sulfonate (PFOS)	ug/L	82.04147	0	N/A*******	N/A*******	N/A*******	N/A*******
13C2-6:2 Fluorotelomer sulfonate	ug/L	90.2417140	100.897726	N/A*******	N/A*******	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	ug/L	83.0931759	87.4766186	N/A*******	N/A*******	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	ug/L	77.9124064	72.2350146	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorobutanoic acid	ug/L	88.2687666	91.7521747	N/A*******	N/A*******	N/A*******	N/A*******
D3-MeFOSAA	ug/L	86.2597634	75.0926670	N/A*******	N/A*******	N/A*******	N/A*******
D5-EtFOSAA	ug/L	85.4187946	77.6235022	N/A*******	N/A*******	N/A*******	N/A*******
N-methyl-d3-perfluorooctane sulfona	ug/L	81.9643851	79.9067669	N/A*******	N/A*******	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	ug/L	74.2264838	60.2250506	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	ug/L	89.3040609	80.2042129	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorododecanoic acid	ug/L	85.9423037	74.6255891	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorohexanoic acid	ug/L	88.3902599	90.2055496	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluoroundecanoic acid	ug/L	88.4322525	76.9809685	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluoroheptanoic acid	ug/L	100.241620	91.4946176	N/A*******	N/A*******	N/A*******	N/A*******
13C5-Perfluorononanoic acid	ug/L	87.7332017	85.9959748	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorooctanoic acid	ug/L	96.5687039	95.3247993	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorooctanesulfonate	ug/L	91.0956806	81.8727785	N/A*******	N/A*******	N/A*******	N/A*******
13C5-Perfluoropentanoic acid	ug/L	87.3338858	83.4456584	N/A*******	N/A*******	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	ug/L	80.1558510	75.8621538	N/A*******	N/A*******	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	ug/L	88.6556527	84.4011453	N/A*******	N/A*******	N/A*******	N/A*******

2018/12/12

Worksheet Number: **5387452**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

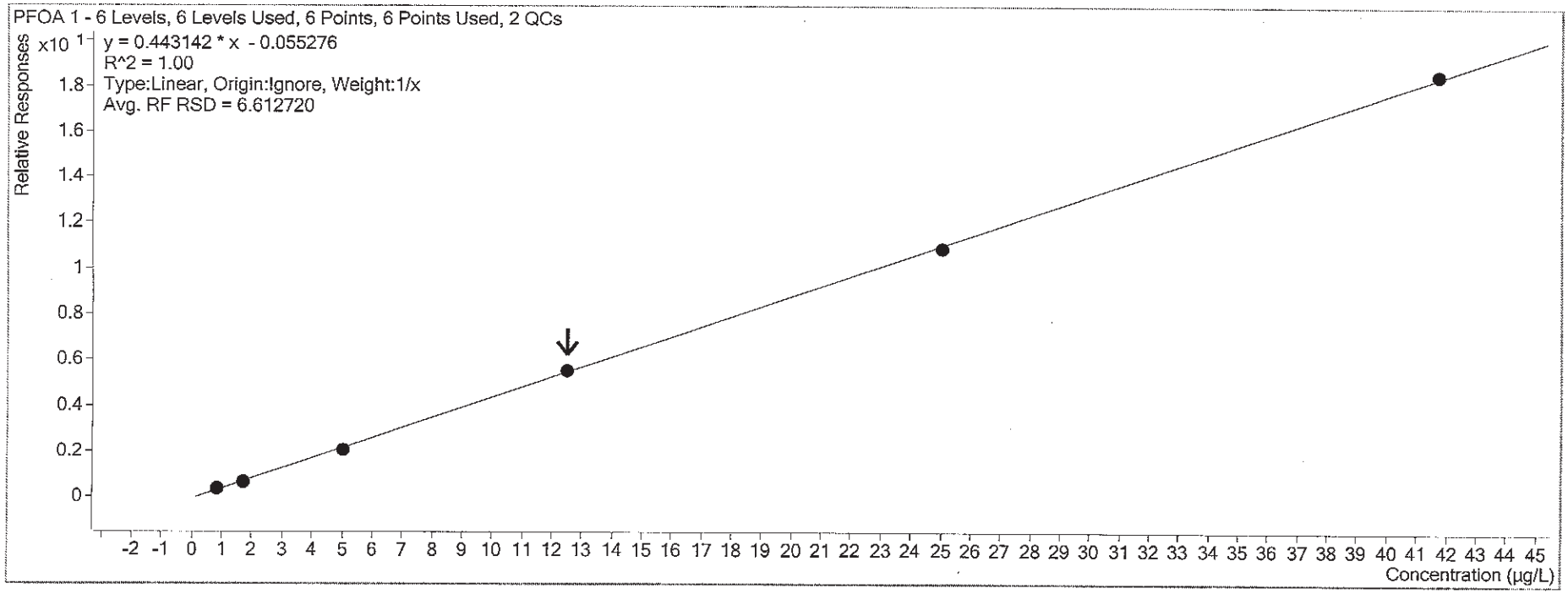
Parameter Name	B819794 FZH322	B819794 FZH323	DL	B819794 FZH331	DL	B819794 FZH332	DL
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
EtFOSAA	N/A*******	N/A*******	0.02	0	0.04	0	0.02
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
MeFOSAA	N/A*******	N/A*******	0.02	0	0.04	0	0.02
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
Perfluorobutanoic acid	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
Perfluorobutane Sulfonate (PFBS)	N/A*******	N/A*******	0.02	0.05287864	0.04	0.05011357	0.02
Perfluorodecane Sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
Perfluoroheptanoic Acid (PFHpA)	N/A*******	N/A*******	0.02	0.57538027	0.04	0.35117999	0.02
Perfluoroheptane sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
Perfluorohexanoic Acid (PFHxA)	N/A*******	N/A*******	0.02	0.61612286	0.04	0.40596374	0.02
Perfluorohexane Sulfonate (PFHxS)	N/A*******	N/A*******	0.02	0.85950655	0.04	0.68468232	0.02
Perfluorononanoic Acid (PFNA)	N/A*******	N/A*******	0.02	0.09607193	0.04	0.06274421	0.02
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
Perfluorotetradecanoic Acid	N/A*******	N/A*******	0.02	0	0.04	0	0.02
Perfluorotridecanoic Acid	N/A*******	N/A*******	0.02	0	0.04	0	0.02
Perfluoroundecanoic Acid (PFUnA)	N/A*******	N/A*******	0.02	0	0.04	0.00955661	0.02
Perfluorodecanoic Acid (PFDA)	N/A*******	N/A*******	0.02	0.02519121	0.04	0.01509757	0.02
Perfluorododecanoic Acid (PFDoA)	N/A*******	N/A*******	0.02	0	0.04	0	0.02
Perfluoro-n-Octanoic Acid (PFOA)	N/A*******	N/A*******	0.02	0.45218216	0.04	0.32867231	0.02
Perfluorooctane Sulfonate (PFOS)	N/A*******	N/A*******	0.02	5.39165929	0.4	3.67401778	0.2
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******		N/A*******		N/A*******	
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******		N/A*******		N/A*******	
13C2-perfluorotetradecanoic acid	N/A*******	N/A*******		71.0519663		!! 43.9854	
13C4-Perfluorobutanoic acid	N/A*******	N/A*******		N/A*******		N/A*******	
D3-MeFOSAA	N/A*******	N/A*******		88.2945440		76.7214922	
D5-EtFOSAA	N/A*******	N/A*******		83.3826383		74.5642656	
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******		N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******		N/A*******		N/A*******	
13C2-Perfluorodecanoic acid	N/A*******	N/A*******		94.2777769		84.8857559	
13C2-Perfluorododecanoic acid	N/A*******	N/A*******		88.2999124		70.5522410	
13C2-Perfluorohexanoic acid	N/A*******	N/A*******		97.5431956		87.9215792	
13C2-Perfluoroundecanoic acid	N/A*******	N/A*******		81.9725819		78.7328608	
13C4-Perfluoroheptanoic acid	N/A*******	N/A*******		101.967859		94.4461849	
13C5-Perfluorononanoic acid	N/A*******	N/A*******		98.4945861		91.1722433	
13C4-Perfluorooctanoic acid	N/A*******	N/A*******		101.057203		95.1708404	
13C4-Perfluorooctanesulfonate	N/A*******	N/A*******		76.8831039		88.0041872	
13C5-Perfluoropentanoic acid	N/A*******	N/A*******		N/A*******		N/A*******	
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******		N/A*******		N/A*******	
18O2-Perfluorohexanesulfonate	N/A*******	N/A*******		94.6505778		82.4807682	

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B819794 FZH333	DL	B819794 FZH334	B819794 FZH334 Dup1	DL	RDL	MDL
6:2 Fluorotelomer sulfonate	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.0066
8:2 Fluorotelomer sulfonate	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.0066
N-ethylperfluorooctane sulfonamide	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.01
EtFOSAA	0	0.2	0	0	0.2	0.02	0.0033
N-ethylperfluorooctane sulfonamidoe	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.0079
N-methylperfluorooctane sulfonamide	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.013
MeFOSAA	0	0.2	0	0	0.2	0.02	0.0029
N-methylperfluorooctanesulfonamidol	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.012
Perfluorobutanoic acid	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.0055
Perfluorobutane Sulfonate (PFBS)	0.07238154	0.2	0	0	0.2	0.02	0.0054
Perfluorodecane Sulfonate	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.006
Perfluoroheptanoic Acid (PFHpA)	6.97405083	0.2	0	0	0.2	0.02	0.0074
Perfluoroheptane sulfonate	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.008
Perfluorohexanoic Acid (PFHxA)	4.36144216	0.2	0	0	0.2	0.02	0.0035
Perfluorohexane Sulfonate (PFHxS)	3.48578063	0.2	0	0	0.2	0.02	0.0056
Perfluorononanoic Acid (PFNA)	1.17502848	0.2	0	0	0.2	0.02	0.0087
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.0034
Perfluoropentanoic Acid (PFPeA)	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.0075
Perfluorotetradecanoic Acid	0	0.2	0	0	0.2	0.02	0.0027
Perfluorotridecanoic Acid	0	0.2	0	0	0.2	0.02	0.0038
Perfluoroundecanoic Acid (PFUnA)	0	0.2	0	0	0.2	0.02	0.0025
Perfluorodecanoic Acid (PFDA)	0	0.2	0	0	0.2	0.02	0.0061
Perfluorododecanoic Acid (PFDoA)	0	0.2	0	0	0.2	0.02	0.005
Perfluoro-n-Octanoic Acid (PFOA)	5.65906794	0.2	0.10633224	0.13389526	0.2	0.02	0.0033
Perfluorooctane Sulfonate (PFOS)	59.5605918	2.0	0	0	0.2	0.02	0.006
13C2-6:2 Fluorotelomer sulfonate	N/A*******		N/A*******	N/A*******			
13C2-8:2 Fluorotelomer sulfonate	N/A*******		N/A*******	N/A*******			
13C2-perfluorotetradecanoic acid	86.2974522		!! 32.5613	!! 31.7930			
13C4-Perfluorobutanoic acid	N/A*******		N/A*******	N/A*******			
D3-MeFOSAA	98.2189534		74.3572655	71.6940988			
D5-EtFOSAA	99.3684049		72.5409881	71.8213264			
N-methyl-d3-perfluorooctane sulfona	N/A*******		N/A*******	N/A*******			
N-ethyl-d5-perfluorooctane sulfonam	N/A*******		N/A*******	N/A*******			
13C2-Perfluorodecanoic acid	99.0013254		79.8811586	80.7716421			
13C2-Perfluorododecanoic acid	95.4663645		61.8110433	59.5212838			
13C2-Perfluorohexanoic acid	92.8508340		86.2108141	85.2464988			
13C2-Perfluoroundecanoic acid	96.0998058		75.6381885	71.1825272			
13C4-Perfluoroheptanoic acid	101.198436		88.7967672	91.5827862			
13C5-Perfluorononanoic acid	94.9109518		79.0802179	80.9907893			
13C4-Perfluorooctanoic acid	97.2016564		93.6990137	86.8141628			
13C4-Perfluorooctanesulfonate	94.2908070		73.1887535	81.4499144			
13C5-Perfluoropentanoic acid	N/A*******		N/A*******	N/A*******			
13C8-Perfluorooctane Sulfonamide	N/A*******		N/A*******	N/A*******			
18O2-Perfluorohexanesulfonate	98.5292750		85.2911449	83.2791260			

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	IDL						
6:2 Fluorotelomer sulfonate	0						
8:2 Fluorotelomer sulfonate	0						
N-ethylperfluorooctane sulfonamide	0						
EtFOSAA	0						
N-ethylperfluorooctane sulfonamidoe	0						
N-methylperfluorooctane sulfonamide	0						
MeFOSAA	0						
N-methylperfluorooctanesulfonamidol	0						
Perfluorobutanoic acid	0						
Perfluorobutane Sulfonate (PFBS)	0						
Perfluorodecane Sulfonate	0						
Perfluoroheptanoic Acid (PFHpA)	0						
Perfluoroheptane sulfonate	0						
Perfluorohexanoic Acid (PFHxA)	0						
Perfluorohexane Sulfonate (PFHxS)	0						
Perfluorononanoic Acid (PFNA)	0						
Perfluorooctane Sulfonamide (PFOSA)	0						
Perfluoropentanoic Acid (PFPeA)	0						
Perfluorotetradecanoic Acid	0						
Perfluorotridecanoic Acid	0						
Perfluoroundecanoic Acid (PFUnA)	0						
Perfluorodecanoic Acid (PFDA)	0						
Perfluorododecanoic Acid (PFDoA)	0						
Perfluoro-n-Octanoic Acid (PFOA)	0						
Perfluorooctane Sulfonate (PFOS)	0						
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



manual calculation for Spk:

7.9224 = 0.443142 x - 0.055276

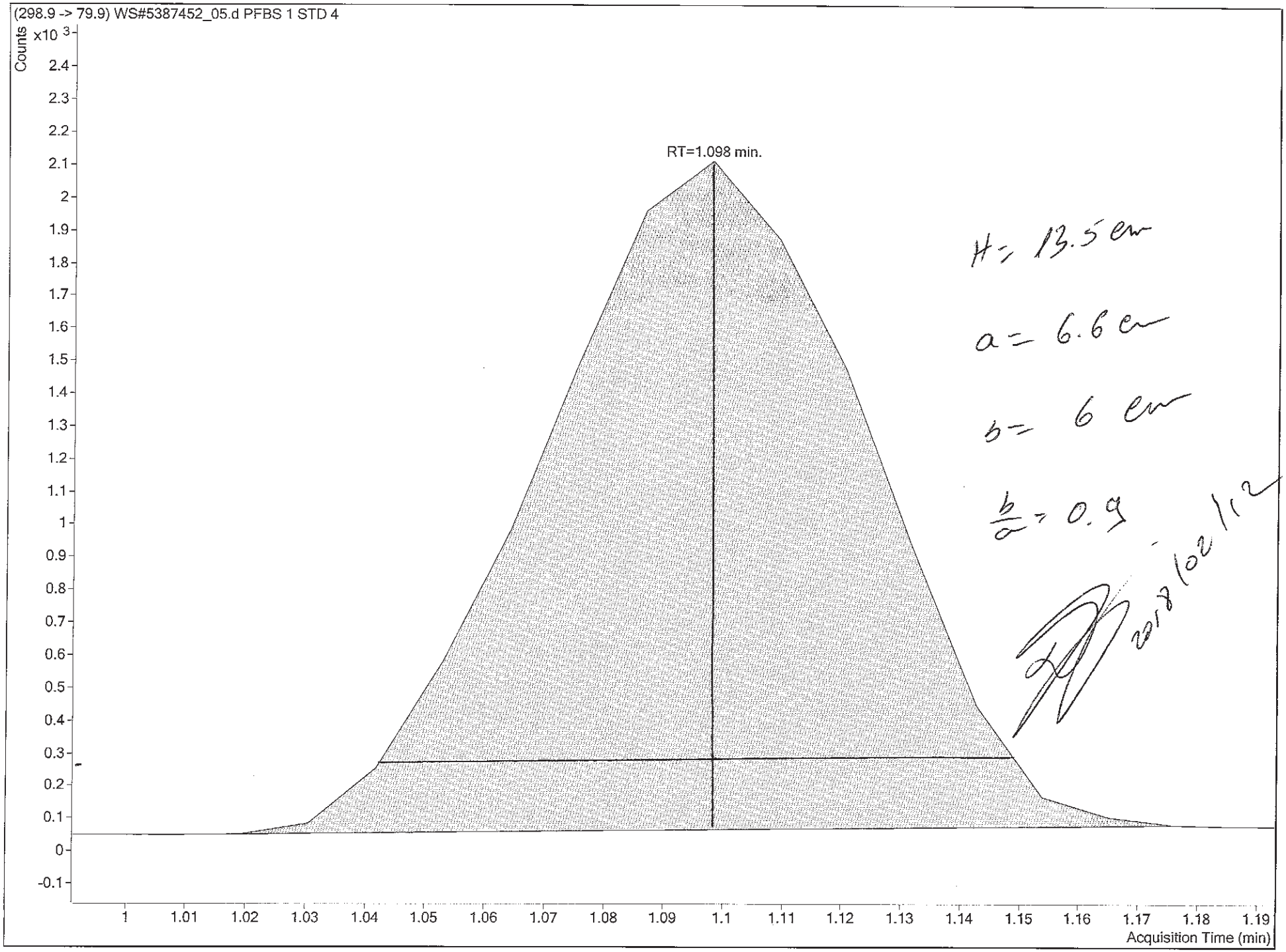
x = 18.0034 x 0.024

= 0.4320 µg/L

$\frac{0.4320}{0.5} \times 100 = 86.4\%$

2018/02/12

AD
2018/02/12



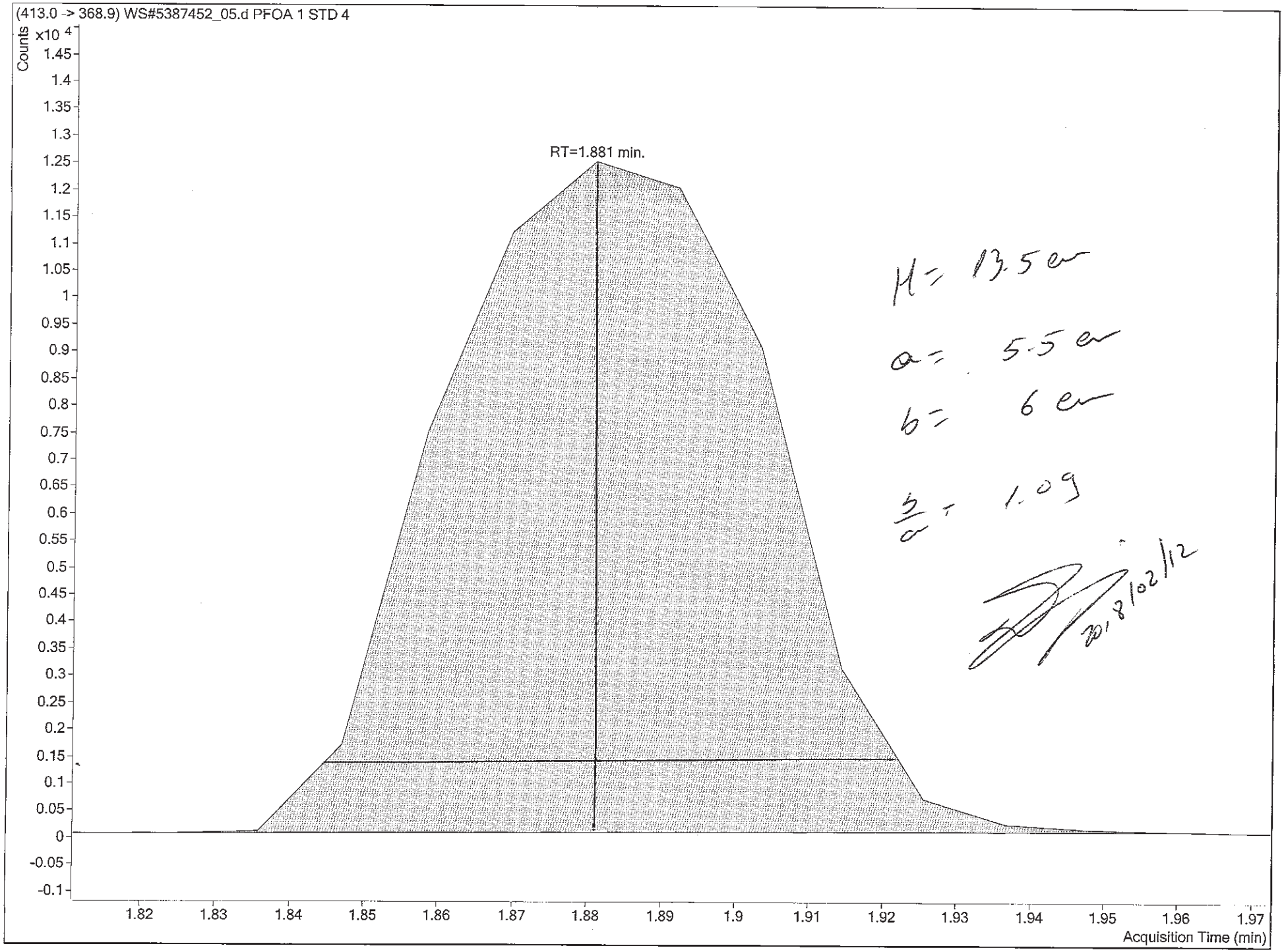
H = 13.5 cm

a = 6.6 cm

b = 6 cm

$\frac{b}{a}$ = 0.9

20/8/02/12



H = 13.5 cm

a = 5.5 cm

b = 6 cm

$\frac{b}{a}$ = 1.09

2018/02/12

Report Name: Worksheet - Parameter Lists
Report Date: 2018/02/06

Test Code: **PFOSALCM-W**
Worksheet Number: **5387452**

Sample Number	Parameter Code	Parameter	
FZH318-01	NONE	NONE	
FZH319-01			
FZH320-01			
FZH321-01			
FZH322-01			
FZH323-01			
FZH331-01	ETFOSAA	EtFOSAA	*
FZH332-01	MEFOSAA	MeFOSAA	*
FZH333-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FZH334-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5387452 Instrument Sequences

1.	 5387452:SPIKE	SPIKE
2.	 5387452:BLANK	BLANK
3.	 5387452:FZH318-01	FB-CEF-008-012418-6
4.	 5387452:FZH319-01	EB-CEF-PUBLIX DI-012418-3
5.	 5387452:FZH320-01	EB-CEF-LABCHEM DI-012418-
6.	 5387452:FZH321-01	EB-CEF-008-012418-5
7.	 5387452:FZH322-01	EB-CEF-008-012418-6
8.	 5387452:FZH323-01	EB-CEF-008-012418-7
9.	 5387452:FZH331-01	CEF-342-06S-0118
10.	 5387452:FZH332-01	CEF-342-06S-0118-D
11.	 5387452:FZH333-01	CEF-342-12S-0118
12.	 5387452:FZH334-01	CEF-343-03S-0118
13.	 5387452:FZH334-01:D1	CEF-343-03S-0118 :D1

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180207_Low.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180207\WS#5387452
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

20180211 WE 1807

verified by AD 2018/02/07

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P1-A1	PFC_Water_Low.m	WS#5387452_01.d	Sample		As Method	-
2	STD 1	P1-A2	PFC_Water_Low.m	WS#5387452_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-A3	PFC_Water_Low.m	WS#5387452_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-A4	PFC_Water_Low.m	WS#5387452_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-A5	PFC_Water_Low.m	WS#5387452_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-A6	PFC_Water_Low.m	WS#5387452_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-A7	PFC_Water_Low.m	WS#5387452_07.d	Calibration	STD 6	As Method	-

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Worklist Report

Agilent Technologies

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P1-A8	PFC_Water_Low.m	WS#5387452_08.d	Sample		As Method	-
9	ICV	P1-A9	PFC_Water_Low.m	WS#5387452_09.d	QC	ICV	As Method	-
10	ISC	P1-A2	PFC_Water_Low.m	WS#5387452_10.d	ConCal	STD 1	As Method	-
11	5387452:BLANK	P1-B1	PFC_Water_Low.m	WS#5387452_11.d	Sample		As Method	-
12	5387452:SPIKE	P1-B2	PFC_Water_Low.m	WS#5387452_12.d	QC	ICV	As Method	-
13	5387452:FZH318-01	P1-B3	PFC_Water_Low.m	WS#5387452_13.d	QC	ICV	As Method	-
14	5387452:FZH319-01	P1-B4	PFC_Water_Low.m	WS#5387452_14.d	Sample		As Method	-
15	5387452:FZH320-01	P1-B5	PFC_Water_Low.m	WS#5387452_15.d	Sample		As Method	-
16	5387452:FZH321-01	P1-B6	PFC_Water_Low.m	WS#5387452_16.d	Sample		As Method	-
17	5387452:FZH322-01	P1-B7	PFC_Water_Low.m	WS#5387452_17.d	Sample		As Method	-
18	5387452:FZH323-01	P1-B8	PFC_Water_Low.m	WS#5387452_18.d	Sample		As Method	-
19	5387452:FZH331-01:20x	P1-B9	PFC_Water_Low.m	WS#5387452_19.d	Sample		As Method	-
20	5387452:FZH331-01:2x	P1-C1	PFC_Water_Low.m	WS#5387452_20.d	Sample		As Method	-
21	IB	P1-A8	PFC_Water_Low.m	WS#5387452_21.d	Sample		As Method	-
22	5387452:FZH332-01:10x	P1-C2	PFC_Water_Low.m	WS#5387452_22.d	Sample		As Method	-
23	5387452:FZH332-01	P1-C3	PFC_Water_Low.m	WS#5387452_23.d	Sample		As Method	-
24	IB	P1-A8	PFC_Water_Low.m	WS#5387452_24.d	Sample		As Method	-
25	CCV	P1-A5	PFC_Water_Low.m	WS#5387452_25.d	ConCal	STD 4	As Method	-
26	5387452:FZH333-01:100x	P1-C4	PFC_Water_Low.m	WS#5387452_26.d	Sample		As Method	-
27	5387452:FZH333-01:10x	P1-C5	PFC_Water_Low.m	WS#5387452_27.d	Sample		As Method	-
28	IB	P1-A8	PFC_Water_Low.m	WS#5387452_28.d	Sample		As Method	-
29	5387452:FZH334-01:10x	P1-C6	PFC_Water_Low.m	WS#5387452_29.d	Sample		As Method	-
30	5387452:FZH334-01:D1:10x	P1-C7	PFC_Water_Low.m	WS#5387452_30.d	Sample		As Method	-

D:\MassHunter\Worklists\PFCs\PFC_180207_Low.wkl

Report generation date: 07-Feb-2018 04:20:36 PM

Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	IB	P1-A8	PFC_Water_Low.m	WS#5387452_31.d	Sample		As Method	-
32	CCV	P1-A5	PFC_Water_Low.m	WS#5387452_32.d	ConCal	STD 4	As Method	-

Maxxam Analytics

Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180207_Low_FOSAA.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180207\WS#5387452_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B2: Solution# 272 (FSRE18)

20180207

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P1-A1	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_01.d	Sample		As Method	-
2	STD 1	P1-A2	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-A3	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-A4	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-A5	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-A6	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-A7	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P1-A8	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P1-A9	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P1-A2	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5387452:BLANK	P1-B1	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_11.d	Sample		As Method	-
12	5387452:SPIKE	P1-B2	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_12.d	QC	ICV	As Method	-
13	5387452:FZH318-01	P1-B3	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_13.d	QC	ICV	As Method	-
14	5387452:FZH319-01	P1-B4	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_14.d	Sample		As Method	-
15	5387452:FZH320-01	P1-B5	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_15.d	Sample		As Method	-
16	5387452:FZH321-01	P1-B6	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_16.d	Sample		As Method	-
17	5387452:FZH322-01	P1-B7	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_17.d	Sample		As Method	-
18	5387452:FZH323-01	P1-B8	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_18.d	Sample		As Method	-
19	5387452:FZH331-01:20x	P1-B9	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_19.d	Sample		As Method	-
20	5387452:FZH331-01:2x	P1-C1	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_20.d	Sample		As Method	-
21	IB	P1-A8	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_21.d	Sample		As Method	-
22	5387452:FZH332-01:10x	P1-C2	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_22.d	Sample		As Method	-
23	5387452:FZH332-01	P1-C3	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_23.d	Sample		As Method	-
24	IB	P1-A8	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_24.d	Sample		As Method	-
25	CCV	P1-A5	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_25.d	ConCal	STD 4	As Method	-
26	5387452:FZH333-01:100x	P1-C4	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_26.d	Sample		As Method	-
27	5387452:FZH333-01:10x	P1-C5	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_27.d	Sample		As Method	-
28	IB	P1-A8	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_28.d	Sample		As Method	-
29	5387452:FZH334-01:10x	P1-C6	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_29.d	Sample		As Method	-
30	5387452:FZH334-01:D1:10x	P1-C7	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_30.d	Sample		As Method	-
31	IB	P1-A8	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_31.d	Sample		As Method	-
32	CCV	P1-A5	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_32.d	ConCal	STD 4	As Method	-

Maxxam Analytics

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/08 12:33 AM	PFC_Water_Low.m	WS#5387452_02.d	P1-A2
STD 2	-	2018/02/08 12:38 AM	PFC_Water_Low.m	WS#5387452_03.d	P1-A3
STD 3	-	2018/02/08 12:43 AM	PFC_Water_Low.m	WS#5387452_04.d	P1-A4
STD 4	-	2018/02/08 12:48 AM	PFC_Water_Low.m	WS#5387452_05.d	P1-A5
STD 5	-	2018/02/08 12:53 AM	PFC_Water_Low.m	WS#5387452_06.d	P1-A6
STD 6	-	2018/02/08 12:58 AM	PFC_Water_Low.m	WS#5387452_07.d	P1-A7
IB	-	2018/02/08 1:03 AM	PFC_Water_Low.m	WS#5387452_08.d	P1-A8
ICV	-	2018/02/08 1:08 AM	PFC_Water_Low.m	WS#5387452_09.d	P1-A9
ISC	-	2018/02/08 1:13 AM	PFC_Water_Low.m	WS#5387452_10.d	P1-A2
5387452:BLANK	-	2018/02/08 1:18 AM	PFC_Water_Low.m	WS#5387452_11.d	P1-B1
5387452:SPIKE	-	2018/02/08 1:23 AM	PFC_Water_Low.m	WS#5387452_12.d	P1-B2
5387452:FZH318-01	Not reported	2018/02/08 1:28 AM	PFC_Water_Low.m	WS#5387452_13.d	P1-B3
5387452:FZH319-01	Not reported	2018/02/08 1:33 AM	PFC_Water_Low.m	WS#5387452_14.d	P1-B4
5387452:FZH320-01	Not reported	2018/02/08 1:38 AM	PFC_Water_Low.m	WS#5387452_15.d	P1-B5
5387452:FZH321-01	Not reported	2018/02/08 1:43 AM	PFC_Water_Low.m	WS#5387452_16.d	P1-B6
5387452:FZH322-01	Not reported	2018/02/08 1:47 AM	PFC_Water_Low.m	WS#5387452_17.d	P1-B7
5387452:FZH323-01	Not reported	2018/02/08 1:52 AM	PFC_Water_Low.m	WS#5387452_18.d	P1-B8
5387452:FZH331-01:20x	Reported for PFOS only	2018/02/08 1:57 AM	PFC_Water_Low.m	WS#5387452_19.d	P1-B9
5387452:FZH331-01:2x	Reported for all, except PFOS	2018/02/08 2:02 AM	PFC_Water_Low.m	WS#5387452_20.d	P1-C1
IB	-	2018/02/08 2:07 AM	PFC_Water_Low.m	WS#5387452_21.d	P1-A8
5387452:FZH332-01:10x	Reported for PFOS only	2018/02/08 2:12 AM	PFC_Water_Low.m	WS#5387452_22.d	P1-C2
5387452:FZH332-01	Reported for all, except PFOS	2018/02/08 2:17 AM	PFC_Water_Low.m	WS#5387452_23.d	P1-C3
IB	-	2018/02/08 2:22 AM	PFC_Water_Low.m	WS#5387452_24.d	P1-A8
CCV	-	2018/02/08 2:27 AM	PFC_Water_Low.m	WS#5387452_25.d	P1-A5
5387452:FZH333-01:100x	Reported for PFOS only	2018/02/08 2:32 AM	PFC_Water_Low.m	WS#5387452_26.d	P1-C4
5387452:FZH333-01:10x	Reported for all, except PFOS	2018/02/08 2:37 AM	PFC_Water_Low.m	WS#5387452_27.d	P1-C5
IB	-	2018/02/08 2:42 AM	PFC_Water_Low.m	WS#5387452_28.d	P1-A8
5387452:FZH334-01:10x	-	2018/02/08 2:47 AM	PFC_Water_Low.m	WS#5387452_29.d	P1-C6
5387452:FZH334-01:D1:10x	-	2018/02/08 2:52 AM	PFC_Water_Low.m	WS#5387452_30.d	P1-C7
IB	-	2018/02/08 2:57 AM	PFC_Water_Low.m	WS#5387452_31.d	P1-A8
CCV	-	2018/02/08 3:01 AM	PFC_Water_Low.m	WS#5387452_32.d	P1-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/08 8:19 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_02.d	P1-A2
STD 2	-	2018/02/08 8:21 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_03.d	P1-A3
STD 3	-	2018/02/08 8:24 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_04.d	P1-A4
STD 4	-	2018/02/08 8:26 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_05.d	P1-A5
STD 5	-	2018/02/08 8:28 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_06.d	P1-A6
STD 6	-	2018/02/08 8:31 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_07.d	P1-A7
IB	-	2018/02/08 8:33 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_08.d	P1-A8
ICV	-	2018/02/08 8:36 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_09.d	P1-A9
ISC	-	2018/02/08 8:38 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_10.d	P1-A2
5387452:BLANK	-	2018/02/08 8:40 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_11.d	P1-B1
5387452:SPIKE	-	2018/02/08 8:43 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_12.d	P1-B2
5387452:FZH318-01	Not reported	2018/02/08 8:45 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_13.d	P1-B3
5387452:FZH319-01	Not reported	2018/02/08 8:48 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_14.d	P1-B4
5387452:FZH320-01	Not reported	2018/02/08 8:50 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_15.d	P1-B5
5387452:FZH321-01	Not reported	2018/02/08 8:52 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_16.d	P1-B6
5387452:FZH322-01	Not reported	2018/02/08 8:55 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_17.d	P1-B7
5387452:FZH323-01	Not reported	2018/02/08 8:57 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_18.d	P1-B8
5387452:FZH331-01:20x	Not used	2018/02/08 9:00 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_19.d	P1-B9
5387452:FZH331-01:2x	-	2018/02/08 9:02 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_20.d	P1-C1
IB	-	2018/02/08 9:05 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_21.d	P1-A8
5387452:FZH332-01:10x	Not used	2018/02/08 9:07 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_22.d	P1-C2
5387452:FZH332-01	-	2018/02/08 9:09 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_23.d	P1-C3
IB	-	2018/02/08 9:12 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_24.d	P1-A8
CCV	-	2018/02/08 9:14 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_25.d	P1-A5
5387452:FZH333-01:100x	Not used	2018/02/08 9:17 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_26.d	P1-C4
5387452:FZH333-01:10x	-	2018/02/08 9:19 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_27.d	P1-C5
IB	-	2018/02/08 9:21 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_28.d	P1-A8
5387452:FZH334-01:10x	-	2018/02/08 9:24 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_29.d	P1-C6
5387452:FZH334-01:D1:10x	-	2018/02/08 9:26 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_30.d	P1-C7
IB	-	2018/02/08 9:29 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_31.d	P1-A8
CCV	-	2018/02/08 9:31 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_32.d	P1-A5

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/09

Worksheet # (s): 5389177

Analysis: PFDSALCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria	✓			✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria			✓	✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed	✓			✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS	✓			✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: MG Date: 2018/02/09

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a	
1	Repeats documented and referenced			✓	
2	Method and sample deviations noted, anomalies described (if applicable)			✓	
3	Data and QC validated in LIMS	✓			
4	Random calculation checked	✓			
5	Benchsheet (s) signed and dated	✓			
6	Data Package (if required) checked for completeness	✓			

Reviewed by: [illegible] Date: 2018/02/16

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5389177 Testcode: PFOSACCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: SSV Date: 2018/02/07

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: Date:

Comments:

Refer to BZL-FCD-00000 20180210 2144

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: Date:

Comments:

WS# : 5389177

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Wednesday, February 07, 2018

Assigned to : Shivani Shivani

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

Job Number	Sample Number	D	Sample ID	F	Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	SPIKE	0	PFOS		0	125	3	1X					2018/02/07
	SPIKE	1	PFOS		0	125	3	1X					2018/02/07
	BLANK				0	125	3	1X					2018/02/07
B818419	*FZA807-01R		[redacted]		0	115	3	1X	2	2018/02/07	2018/02/07 23:00	DOD	2018/02/07
B818419	*FZA808-01R		[redacted]		0	115	3	1X	2	2018/02/07	2018/02/07 23:00	DOD	2018/02/07
B818419	*FZA809-01R		[redacted]		0	125	3	1X	2	2018/02/07	2018/02/07 23:00	DOD	2018/02/07
B819794	*FZH324-01R		CEF-008-TW02-01*		<0.1	12.5/1.25	3	10X/100X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/07
B819794	*FZH325-01R		CEF-008-TW01-01*		<0.1	12.5/1.25	3	10X/100X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/07
B820260	*FZJ938-01R		[redacted]		0	125	3	1X	2	2018/02/07	2018/02/09 23:00	DOD	2018/02/07
B820260	*FZJ941-01R		[redacted]		0	12.5/12.5	3	1X/10X	2	2018/02/07	2018/02/09 23:00	DOD	2018/02/07
B820260	*FZJ953-01R		[redacted]		<0.1	12.5/25	3	10X/5X	2	2018/02/07	2018/02/09 23:00	DOD	2018/02/07
B820260	*FZJ954-01R		[redacted]		<0.1	25/5	3	5X/25X	2	2018/02/07	2018/02/09 23:00	DOD	2018/02/07

Remarks: • Carbon clean up done. Shivani 2018/02/07

Samples extracted by: Shivani Shivani

Instrumentation performed by:

Calculations performed by:

Validated by:

Date: 2018/02/08

Date: 2018/02/09

Date: 2018/02/16

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB818419	[redacted]			
GB819794	SP8 Earth Toxics Inc NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL	Rick Carr	Tier 5 (Enviro.) AECOM	
GB820260	[redacted]			

Job	Sample	Lab Comments
	SPIKE	
	SPIKE	
	BLANK	
B818419	FZA807-01R	
B818419	FZA808-01R	
B818419	FZA809-01R	
B819794	FZH324-01R	
B819794	FZH325-01R	
B820260	FZJ938-01R	
B820260	FZJ941-01R	
B820260	FZJ953-01R	
B820260	FZJ954-01R	

Calibration Standard Preparation #

	Mean (ue)	Spk (ue)		IS
S1	2825	25	SK-7377	
S2	2800	50		
S3	2700	150		
S4	2813	37.5	I-5297	
S5	2775	75		
S6	2725	125		
ICV	2788	62.5	I-5299	150 (ue)
ICB	2850			

JPS 2018/02/07

Folder: 2018/02/08

Worksheet Reagent Tracking Record Worksheet # 5389177

Surrogate/Spike solutions	√	Solution ID #	Conc.	Volume (µL) Blk-Spk Solid	Blk-Spk Liquid	MS Solid	MS Liquid	Samples Solid	Samples Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299(1/3)	1ug/mL	75	21 62.5	75	21 62.5	NA	NA
PFC Internal Standard Solution	✓	SI-6763(3/4) JPB	50/125 ng/mL	200	100 150	200	100 150	200	100/150
PFC Injection IS	✓	SI-6770(1/2) JPB	~~400~~ 100 ng/mL	20	20	20	20	20	20
ICV	✓	I-5299(1/3)	1ug/mL		62.5				

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	B135451	2018/02/07	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRUPE	108-341	DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRUPE	108-342	0.2% NH_4OH	✓	PRUPE	108-343
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	S7297	2018/02/07
0.05M HCl							

*Spiked by: SSV

Spike Date SSV 2018/02/07

Spike Syringe/Pipette ID# G243906

Int. Std Syringe/Pipette ID# Internal Std# K1986SF Injection IS# G243906

*Spiking Witnessed by: JPB

Final pH

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor K551916 I479876 K1986SF	✓	SPE Cartridge	0034372477A		QC Balance ID	FC-1
	✓	Filter			Thermometer ID &Temp	
Dispenser		Centrifuge	42148683	10:00-10:05		
		Sonicator				

Bottle Tracking	
Bottle#	18587
Cap#	18422
Systems plus Lot#	17/12/11

Comments: Encor Carb# 92806V
250ml volumetric Cylinder # 3026

* - SPIKING OF QC SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet: 5389177

Dilution and Column Cleanup Worksheet

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added uL	New Effective Final Volume	INITIAL SSU DATE	Column Clean Up
B819794	F2H324	–	X10	12.5	–	150	12.5	2 18/02/07	–
	"	–	X100	1.25	123.75	150	125	2 18/02/07	–
	F2H325	–	X10	12.5	–	150	12.5	2 18/02/07	–
	"	–	X100	1.25	123.75	150	125	2 18/02/07	–
B820260	F2J941	–	X10	12.5	–	150	12.5	2 18/02/07	–
	F2J953	–	10X	12.5	–	150	12.5	2 18/02/07	–
	"	–	50X	2.5	122.5	150	125	2 18/02/07	–
	F2J954	✓	5X	25	–	150	25	2 18/02/07	–
	"	–	25X	5	–	150	5	2 18/02/07	–
				2 18/02/07	SSU				

CCMS H_2O # 57297
10ml # K55191G
250ml volumetric cylinder # 3026

Worksheet Number: **5389177**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	SPIKE	SPIKE Dup1	BLANK	B818419 FZA807	B818419 FZA808	DL
6:2 Fluorotelomer sulfonate	ug/L	101.80715	97.25684	0	N/A*******	N/A*******	0.022
8:2 Fluorotelomer sulfonate	ug/L	105.09873	105.75934	0	N/A*******	N/A*******	0.022
N-ethylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.022
EtFOSAA	ug/L	99.82537	101.40709	0	0	0	0.022
N-ethylperfluorooctane sulfonamidoe	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.022
N-methylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.022
MeFOSAA	ug/L	92.00553	90.56484	0	0	0	0.022
N-methylperfluorooctanesulfonamidol	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.022
Perfluorobutanoic acid	ug/L	98.98256	101.59396	0	N/A*******	N/A*******	0.022
Perfluorobutane Sulfonate (PFBS)	ug/L	101.35585	102.21542	0	0	0	0.022
Perfluorodecane Sulfonate	ug/L	97.26271	91.72273	0	N/A*******	N/A*******	0.022
Perfluoroheptanoic Acid (PFHpA)	ug/L	94.38391	95.01436	0	0	0	0.022
Perfluoroheptane sulfonate	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.022
Perfluorohexanoic Acid (PFHxA)	ug/L	95.27639	93.55771	0	0	0	0.022
Perfluorohexane Sulfonate (PFHxS)	ug/L	97.53899	95.54233	0	0	0	0.022
Perfluorononanoic Acid (PFNA)	ug/L	96.71681	102.44410	0	0	0	0.022
Perfluorooctane Sulfonamide (PFOSA)	ug/L	94.32576	94.92057	0	N/A*******	N/A*******	0.022
Perfluoropentanoic Acid (PFPeA)	ug/L	104.84296	97.89165	0	N/A*******	N/A*******	0.022
Perfluorotetradecanoic Acid	ug/L	99.95152	102.63101	0	0	0	0.022
Perfluorotridecanoic Acid	ug/L	103.21430	102.45102	0	0	0	0.022
Perfluoroundecanoic Acid (PFUnA)	ug/L	97.83899	98.45232	0	0	0	0.022
Perfluorodecanoic Acid (PFDA)	ug/L	100.27056	97.32217	0	0	0	0.022
Perfluorododecanoic Acid (PFDoA)	ug/L	98.21714	96.31629	0	0	0	0.022
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	101.05693	98.38524	0	0	0	0.022
Perfluorooctane Sulfonate (PFOS)	ug/L	96.02830	93.40478	0	0	0	0.022
13C2-6:2 Fluorotelomer sulfonate	ug/L	84.2579093	91.1834076	88.5914478	N/A*******	N/A*******	
13C2-8:2 Fluorotelomer sulfonate	ug/L	77.6822957	80.3026024	83.2478597	N/A*******	N/A*******	
13C2-perfluorotetradecanoic acid	ug/L	77.8619602	76.4229416	79.6388689	79.1938918	71.1684513	
13C4-Perfluorobutanoic acid	ug/L	85.6166200	95.4945019	93.8318766	N/A*******	N/A*******	
D3-MeFOSAA	ug/L	80.9965791	82.3685635	75.9548576	78.5883706	75.5661875	
D5-EtFOSAA	ug/L	76.3541647	77.1910162	71.5946155	77.8870648	74.7353765	
N-methyl-d3-perfluorooctane sulfona	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	
13C2-Perfluorodecanoic acid	ug/L	86.0572668	90.6666485	79.3079824	86.9790659	90.3520047	
13C2-Perfluorododecanoic acid	ug/L	79.7079549	80.4222814	75.5121447	87.7607614	78.4026526	
13C2-Perfluorohexanoic acid	ug/L	86.5951556	98.1675626	92.1894303	93.1344289	95.7329591	
13C2-Perfluoroundecanoic acid	ug/L	91.9196802	90.9093368	77.7263782	92.5200201	80.6273673	
13C4-Perfluoroheptanoic acid	ug/L	87.2189564	93.7752732	92.6745393	99.3597899	95.7721484	
13C5-Perfluorononanoic acid	ug/L	86.1114262	89.9042797	87.2363757	91.5948469	94.4461451	
13C4-Perfluorooctanoic acid	ug/L	83.7392679	94.0137907	95.6961759	92.1639745	90.0889514	
13C4-Perfluorooctanesulfonate	ug/L	82.1054936	89.1690305	86.2777091	92.2570241	89.9473927	
13C5-Perfluoropentanoic acid	ug/L	82.2489947	98.9429635	94.9732240	N/A*******	N/A*******	
13C8-Perfluorooctane Sulfonamide	ug/L	81.6151025	87.7555783	90.6434078	N/A*******	N/A*******	
18O2-Perfluorohexanesulfonate	ug/L	83.8086429	91.0614714	92.8910351	90.3874231	93.3468109	

2018/02/09

Worksheet Number: **5389177**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B818419 FZA809	DL	B819794 FZH324	DL	B819794 FZH325	DL	B820260 FZJ938
6:2 Fluorotelomer sulfonate	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	0
8:2 Fluorotelomer sulfonate	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	0
N-ethylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	N/A*******
EtFOSAA	0	0.02	0	0.2	0	0.2	N/A*******
N-ethylperfluorooctane sulfonamidoe	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	N/A*******
MeFOSAA	0	0.02	0	0.2	0	0.2	N/A*******
N-methylperfluorooctanesulfonamidol	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	N/A*******
Perfluorobutanoic acid	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	0
Perfluorobutane Sulfonate (PFBS)	0	0.02	0.12710653	0.2	0.19178362	0.2	0
Perfluorodecane Sulfonate	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	0
Perfluoroheptanoic Acid (PFHpA)	0	0.02	1.00024440	0.2	2.02929068	0.2	0
Perfluoroheptane sulfonate	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	N/A*******
Perfluorohexanoic Acid (PFHxA)	0	0.02	1.33343420	0.2	2.55547512	0.2	0
Perfluorohexane Sulfonate (PFHxS)	0	0.02	2.17941727	0.2	11.7352984	2.0	0
Perfluorononanoic Acid (PFNA)	0	0.02	0.18465743	0.2	0.89610086	0.2	0
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	0
Perfluoropentanoic Acid (PFPeA)	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	0
Perfluorotetradecanoic Acid	0	0.02	0	0.2	0	0.2	0
Perfluorotridecanoic Acid	0	0.02	0	0.2	0	0.2	0
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.2	0	0.2	0
Perfluorodecanoic Acid (PFDA)	0	0.02	0	0.2	0.12329213	0.2	0
Perfluorododecanoic Acid (PFDoA)	0	0.02	0	0.2	0	0.2	0
Perfluoro-n-Octanoic Acid (PFOA)	0	0.02	0.99128265	0.2	1.57523688	0.2	0
Perfluorooctane Sulfonate (PFOS)	0	0.02	21.3862748	2.0	36.6776718	2.0	0
13C2-6:2 Fluorotelomer sulfonate	N/A*******		N/A*******		N/A*******		98.4288899
13C2-8:2 Fluorotelomer sulfonate	N/A*******		N/A*******		N/A*******		95.9028421
13C2-perfluorotetradecanoic acid	83.1097274		78.1644631		79.7725519		79.8119339
13C4-Perfluorobutanoic acid	N/A*******		N/A*******		N/A*******		105.366702
D3-MeFOSAA	86.7620362		88.5879800		87.1735670		N/A*******
D5-EtFOSAA	82.9776497		85.1779772		84.2579715		N/A*******
N-methyl-d3-perfluorooctane sulfona	N/A*******		N/A*******		N/A*******		N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******		N/A*******		N/A*******		N/A*******
13C2-Perfluorodecanoic acid	101.488771		87.2581674		83.9740926		86.9311187
13C2-Perfluorododecanoic acid	91.1675816		87.5341590		82.4763545		85.6046715
13C2-Perfluorohexanoic acid	100.556952		104.282774		91.5480588		100.797580
13C2-Perfluoroundecanoic acid	93.7296466		90.7920819		81.6997659		84.4639171
13C4-Perfluoroheptanoic acid	99.8684596		106.412944		88.9735314		99.2293432
13C5-Perfluorononanoic acid	96.5654260		97.6929904		85.1224857		96.0227830
13C4-Perfluorooctanoic acid	96.0506627		93.5394505		91.6404110		98.0682319
13C4-Perfluorooctanesulfonate	105.133320		109.347422		86.0014663		92.4389783
13C5-Perfluoropentanoic acid	N/A*******		N/A*******		N/A*******		105.574959
13C8-Perfluorooctane Sulfonamide	N/A*******		N/A*******		N/A*******		89.8830369
18O2-Perfluorohexanesulfonate	96.9587190		89.6638138		104.125730		102.256757

Worksheet Number: **5389177**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

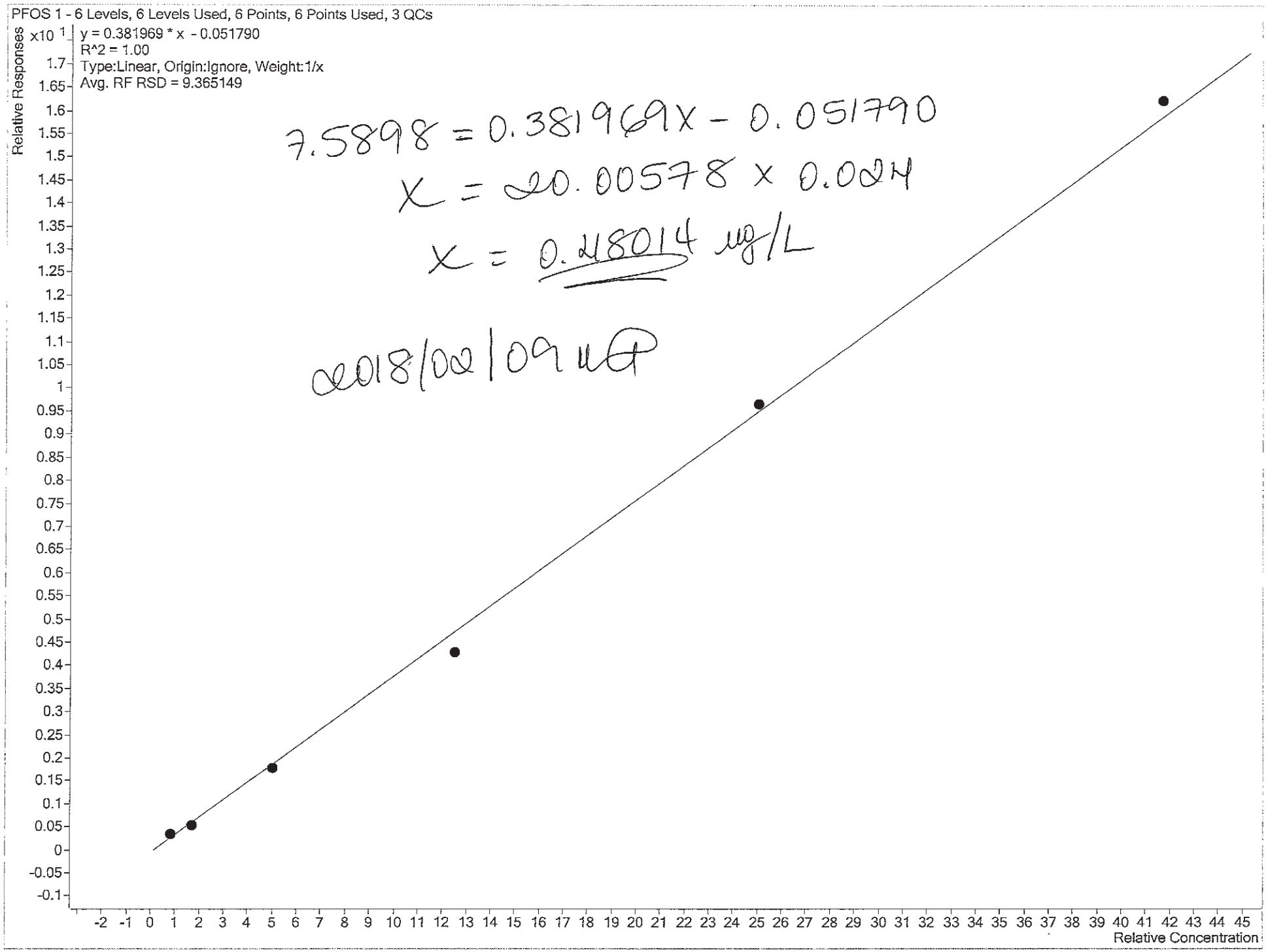
Parameter Name	DL	B820260 FZJ941	DL	B820260 FZJ953	DL	B820260 FZJ954	DL
6:2 Fluorotelomer sulfonate	0.02	0.64277813	0.2	0	0.2	0	0.1
8:2 Fluorotelomer sulfonate	0.02	0	0.02	0	0.2	0	0.1
N-ethylperfluorooctane sulfonamide	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
EtFOSAA	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
N-ethylperfluorooctane sulfonamidoe	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
N-methylperfluorooctane sulfonamide	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
MeFOSAA	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
N-methylperfluorooctanesulfonamidol	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
Perfluorobutanoic acid	0.02	0.01789437	0.02	0	0.2	0.41201254	0.1
Perfluorobutane Sulfonate (PFBS)	0.02	0	0.02	0.08503510	0.2	0.06335875	0.1
Perfluorodecane Sulfonate	0.02	0	0.02	0	0.2	0	0.1
Perfluoroheptanoic Acid (PFHpA)	0.02	0.00943613	0.02	0.20751695	0.2	0.33398366	0.1
Perfluoroheptane sulfonate	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
Perfluorohexanoic Acid (PFHxA)	0.02	0.26703462	0.02	1.59456642	0.2	3.92541783	0.1
Perfluorohexane Sulfonate (PFHxS)	0.02	0.01131403	0.02	8.50537070	0.2	11.5441861	0.5
Perfluorononanoic Acid (PFNA)	0.02	0	0.02	0	0.2	0.05250739	0.1
Perfluorooctane Sulfonamide (PFOSA)	0.02	0.01617505	0.02	0	0.2	0	0.1
Perfluoropentanoic Acid (PFPeA)	0.02	0.01648651	0.02	0.31172276	0.2	0.78441645	0.1
Perfluorotetradecanoic Acid	0.02	0	0.02	0	0.2	0	0.1
Perfluorotridecanoic Acid	0.02	0	0.02	0	0.2	0	0.1
Perfluoroundecanoic Acid (PFUnA)	0.02	0	0.02	0	0.2	0	0.1
Perfluorodecanoic Acid (PFDA)	0.02	0	0.02	0	0.2	0	0.1
Perfluorododecanoic Acid (PFDoA)	0.02	0	0.02	0	0.2	0	0.1
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0.00563552	0.02	0.88021969	0.2	2.92577126	0.1
Perfluorooctane Sulfonate (PFOS)	0.02	0.83905751	0.2	26.0520123	1.0	5.40598684	0.5
13C2-6:2 Fluorotelomer sulfonate		79.5795584		93.3136458		85.7303165	
13C2-8:2 Fluorotelomer sulfonate		87.9408829		85.8833507		87.4445116	
13C2-perfluorotetradecanoic acid		78.8231745		55.2433613		54.2082950	
13C4-Perfluorobutanoic acid		98.6046999		97.2302986		96.6611460	
D3-MeFOSAA		N/A*******		N/A*******		N/A*******	
D5-EtFOSAA		N/A*******		N/A*******		N/A*******	
N-methyl-d3-perfluorooctane sulfona		71.7444527		N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam		66.4657803		N/A*******		N/A*******	
13C2-Perfluorodecanoic acid		97.7208315		92.5450972		85.9661640	
13C2-Perfluorododecanoic acid		81.3619855		78.5172803		81.5215968	
13C2-Perfluorohexanoic acid		96.8865302		102.467661		104.236432	
13C2-Perfluoroundecanoic acid		82.4094788		85.4727361		86.4738408	
13C4-Perfluoroheptanoic acid		95.6543955		87.7616279		92.3044413	
13C5-Perfluorononanoic acid		91.4111481		83.9166446		90.5446618	
13C4-Perfluorooctanoic acid		92.8314937		94.7030951		95.2159699	
13C4-Perfluorooctanesulfonate		82.4158378		93.0837522		92.4213338	
13C5-Perfluoropentanoic acid		96.3795463		93.6920871		93.5649676	
13C8-Perfluorooctane Sulfonamide		94.1222883		85.5425855		87.0887821	
18O2-Perfluorohexanesulfonate		91.0623557		90.5654177		93.1582697	

Worksheet Number: **5389177**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	RDL	MDL	IDL				
6:2 Fluorotelomer sulfonate	0.02	0.0066	0				
8:2 Fluorotelomer sulfonate	0.02	0.0066	0				
N-ethylperfluorooctane sulfonamide	0.02	0.01	0				
EtFOSAA	0.02	0.0033	0				
N-ethylperfluorooctane sulfonamidoe	0.02	0.0079	0				
N-methylperfluorooctane sulfonamide	0.02	0.013	0				
MeFOSAA	0.02	0.0029	0				
N-methylperfluorooctanesulfonamidol	0.02	0.012	0				
Perfluorobutanoic acid	0.02	0.0055	0				
Perfluorobutane Sulfonate (PFBS)	0.02	0.0054	0				
Perfluorodecane Sulfonate	0.02	0.006	0				
Perfluoroheptanoic Acid (PFHpA)	0.02	0.0074	0				
Perfluoroheptane sulfonate	0.02	0.008	0				
Perfluorohexanoic Acid (PFHxA)	0.02	0.0035	0				
Perfluorohexane Sulfonate (PFHxS)	0.02	0.0056	0				
Perfluorononanoic Acid (PFNA)	0.02	0.0087	0				
Perfluorooctane Sulfonamide (PFOSA)	0.02	0.0034	0				
Perfluoropentanoic Acid (PFPeA)	0.02	0.0075	0				
Perfluorotetradecanoic Acid	0.02	0.0027	0				
Perfluorotridecanoic Acid	0.02	0.0038	0				
Perfluoroundecanoic Acid (PFUnA)	0.02	0.0025	0				
Perfluorodecanoic Acid (PFDA)	0.02	0.0061	0				
Perfluorododecanoic Acid (PFDoA)	0.02	0.005	0				
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0.0033	0				
Perfluorooctane Sulfonate (PFOS)	0.02	0.006	0				
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							

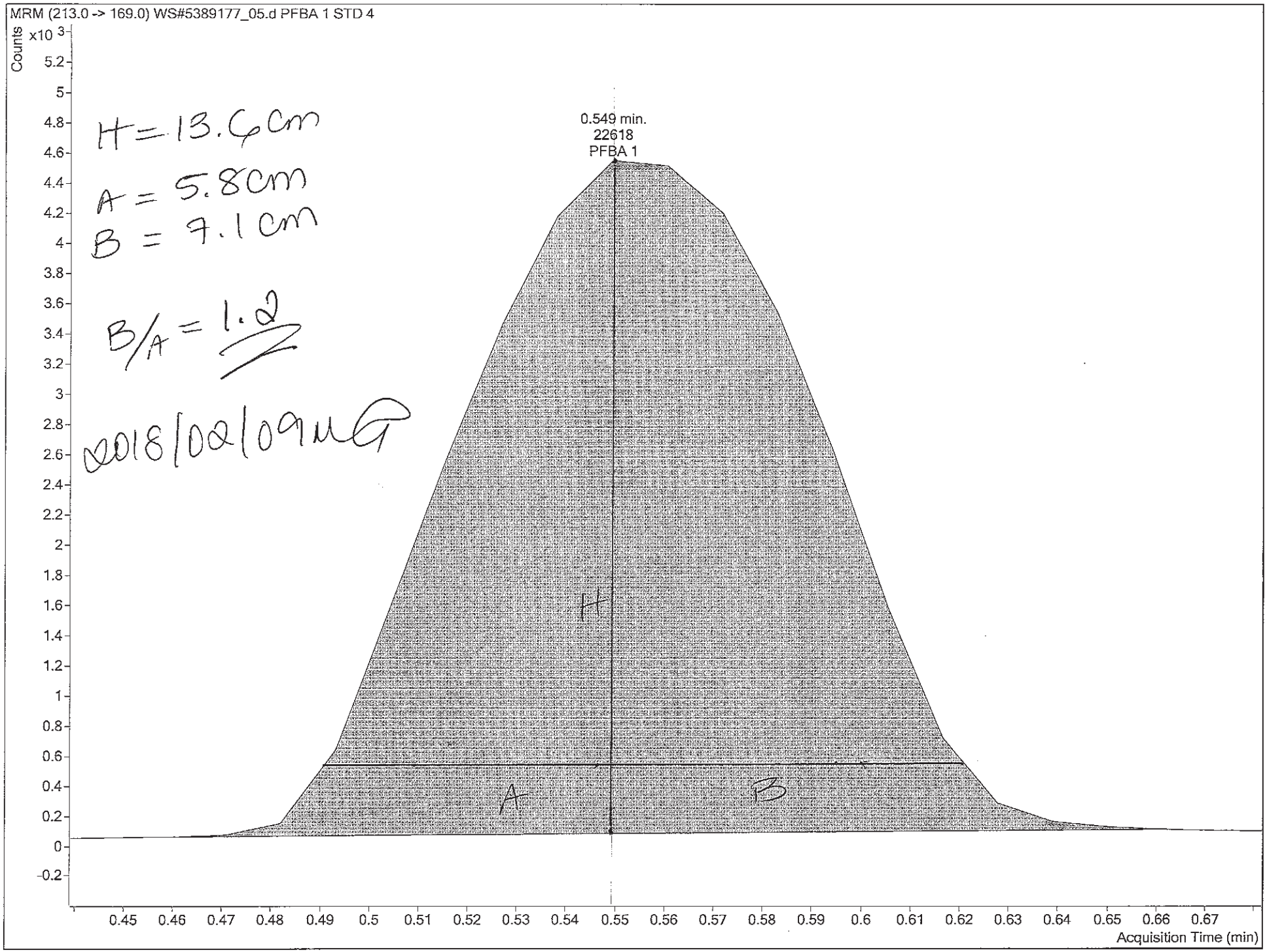


$7.5898 = 0.381969X - 0.051790$

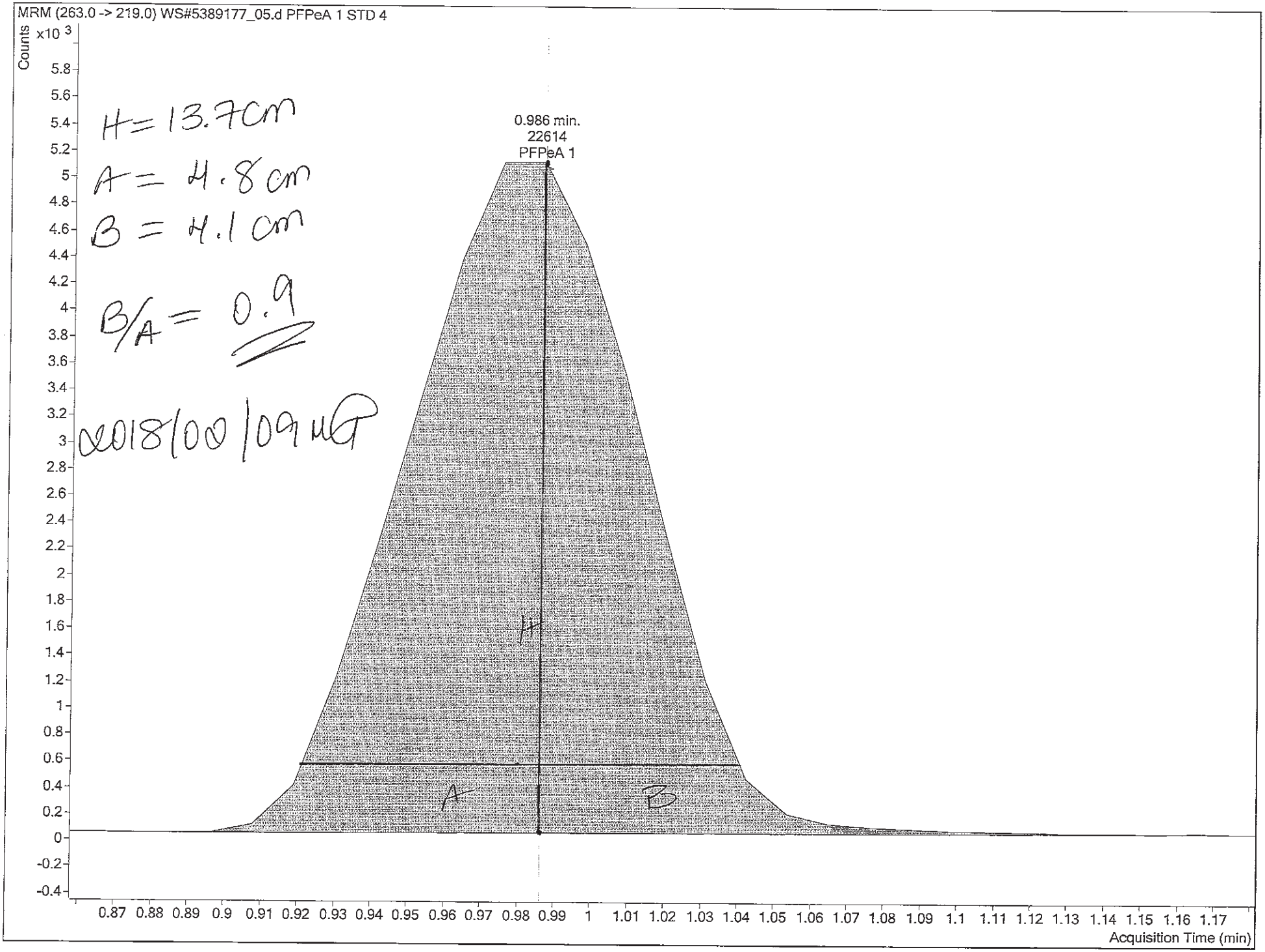
$X = 20.00578 \times 0.024$

$X = \underline{0.48014}$ ug/L

2018/02/09 ut



Maxxam Analytics


MRM (263.0 -> 219.0) WS#5389177_05.d PFPeA 1 STD 4
Counts x10 3
0.986 min.
22614
PFPeA 1
H= 13.7cm
A= 4.8 cm
B = 4.1 cm
B/A = 0.9
0.018/0.09 ug
H
A
B
Acquisition Time (min)

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/07

Test Code: **PFOSALCM-W**

Worksheet Number: **5389177**

Sample Number	Parameter Code	Parameter	
FZA807-01	ETFOSAA	EtFOSAA	*
FZA808-01	MEFOSAA	MeFOSAA	*
FZA809-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FZH324-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
FZH325-01	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	
FZJ938-01	6:2FTS	6:2 Fluorotelomer sulfonate	*
FZJ941-01	8:2FTS	8:2 Fluorotelomer sulfonate	*
FZJ953-01	PFBA	Perfluorobutanoic acid	
FZJ954-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
	PFDS	Perfluorodecane Sulfonate	
	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFOSA	Perfluorooctane Sulfonamide (PFOSA)	
	PFPEA	Perfluoropentanoic Acid	

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5389177 Instrument Sequences

1.	 5389177:SPIKE	SPIKE
2.	 5389177:SPIKE:D1	SPIKE :D1
3.	 5389177:BLANK	BLANK
4.	 5389177:FZA807-01	[redacted]
5.	 5389177:FZA808-01	[redacted]
6.	 5389177:FZA809-01	[redacted]
7.	 5389177:FZH324-01	CEF-008-TW02-0118
8.	 5389177:FZH325-01	CEF-008-TW01-0118
9.	 5389177:FZJ938-01	[redacted]
10.	 5389177:FZJ941-01	[redacted]
11.	 5389177:FZJ953-01	[redacted]
12.	 5389177:FZJ954-01	[redacted]

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180208_Low.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180208\WS#5389177
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

20180208

Plate Barcode:

Plate	Barcode
P3	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P3-A1	PFC_Water_Low.m	WS#5389177_01.d	Sample		As Method	-
2	STD 1	P3-A2	PFC_Water_Low.m	WS#5389177_02.d	Calibration	STD 1	As Method	-
3	STD 2	P3-A3	PFC_Water_Low.m	WS#5389177_03.d	Calibration	STD 2	As Method	-
4	STD 3	P3-A4	PFC_Water_Low.m	WS#5389177_04.d	Calibration	STD 3	As Method	-
5	STD 4	P3-A5	PFC_Water_Low.m	WS#5389177_05.d	Calibration	STD 4	As Method	-
6	STD 5	P3-A6	PFC_Water_Low.m	WS#5389177_06.d	Calibration	STD 5	As Method	-
7	STD 6	P3-A7	PFC_Water_Low.m	WS#5389177_07.d	Calibration	STD 6	As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P3-A8	PFC_Water_Low.m	WS#5389177_08.d	Sample		As Method	-
9	ICV	P3-A9	PFC_Water_Low.m	WS#5389177_09.d	QC	ICV	As Method	-
10	ISC	P3-A2	PFC_Water_Low.m	WS#5389177_10.d	ConCal	STD 1	As Method	-
11	5389177:BLANK	P3-B1	PFC_Water_Low.m	WS#5389177_11.d	Sample		As Method	-
12	5389177:SPIKE	P3-B2	PFC_Water_Low.m	WS#5389177_12.d	QC	ICV	As Method	-
13	5389177:SPIKE:D1	P3-B3	PFC_Water_Low.m	WS#5389177_13.d	QC	ICV	As Method	-
14	5389177:FZA807-01	P3-B4	PFC_Water_Low.m	WS#5389177_14.d	Sample		As Method	-
15	5389177:FZA808-01	P3-B5	PFC_Water_Low.m	WS#5389177_15.d	Sample		As Method	-
16	5389177:FZA809-01	P3-B6	PFC_Water_Low.m	WS#5389177_16.d	Sample		As Method	-
17	5389177:FZH324-01:100x	P3-B7	PFC_Water_Low.m	WS#5389177_17.d	Sample		As Method	-
18	5389177:FZH324-01:10x	P3-B8	PFC_Water_Low.m	WS#5389177_18.d	Sample		As Method	-
19	IB	P3-A8	PFC_Water_Low.m	WS#5389177_19.d	Sample		As Method	-
20	5389177:FZH325-01:100x	P3-B9	PFC_Water_Low.m	WS#5389177_20.d	Sample		As Method	-
21	5389177:FZH325-01:10x	P3-C1	PFC_Water_Low.m	WS#5389177_21.d	Sample		As Method	-
22	IB	P3-A8	PFC_Water_Low.m	WS#5389177_22.d	Sample		As Method	-
23	5389177:FZJ938-01	P3-C2	PFC_Water_Low.m	WS#5389177_23.d	Sample		As Method	-
24	5389177:FZJ941-01:10x	P3-C3	PFC_Water_Low.m	WS#5389177_24.d	Sample		As Method	-
25	5389177:FZJ941-01	P3-C4	PFC_Water_Low.m	WS#5389177_25.d	Sample		As Method	-
26	IB	P3-A8	PFC_Water_Low.m	WS#5389177_26.d	Sample		As Method	-
27	CCV	P3-A5	PFC_Water_Low.m	WS#5389177_27.d	ConCal	STD 4	As Method	-
28	5389177:FZJ953-01:50x	P3-C5	PFC_Water_Low.m	WS#5389177_28.d	Sample		As Method	-
29	5389177:FZJ953-01:10x	P3-C6	PFC_Water_Low.m	WS#5389177_29.d	Sample		As Method	-
30	IB	P3-A8	PFC_Water_Low.m	WS#5389177_30.d	Sample		As Method	-

Maxxam Analytics

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Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5389177:FZJ954-01:25x	P3-C7	PFC_Water_Low.m	WS#5389177_31.d	Sample		As Method	-
32	5389177:FZJ954-01:5x	P3-C8	PFC_Water_Low.m	WS#5389177_32.d	Sample		As Method	-
33	IB	P3-A8	PFC_Water_Low.m	WS#5389177_33.d	Sample		As Method	-
34	CCV	P3-A5	PFC_Water_Low.m	WS#5389177_34.d	ConCal	STD 4	As Method	-

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180208_Low_FOSAA.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180208\WS#5389177_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B2: Solution# 272 (FSRE18)

2018/02/08

Plate Barcode:

Plate	Barcode
P3	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P3-A1	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_01.d	Sample		As Method	-
2	STD 1	P3-A2	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P3-A3	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P3-A4	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P3-A5	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P3-A6	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P3-A7	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P3-A8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P3-A9	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P3-A2	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5389177:BLANK	P3-B1	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_11.d	Sample		As Method	-
12	5389177:SPIKE	P3-B2	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_12.d	QC	ICV	As Method	-
13	5389177:SPIKE:D1	P3-B3	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_13.d	QC	ICV	As Method	-
14	5389177:FZA807-01	P3-B4	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_14.d	Sample		As Method	-
15	5389177:FZA808-01	P3-B5	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_15.d	Sample		As Method	-
16	5389177:FZA809-01	P3-B6	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_16.d	Sample		As Method	-
17	5389177:FZH324-01:100x	P3-B7	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_17.d	Sample		As Method	-
18	5389177:FZH324-01:10x	P3-B8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_18.d	Sample		As Method	-
19	IB	P3-A8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_19.d	Sample		As Method	-
20	5389177:FZH325-01:100x	P3-B9	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_20.d	Sample		As Method	-
21	5389177:FZH325-01:10x	P3-C1	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_21.d	Sample		As Method	-
22	IB	P3-A8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_22.d	Sample		As Method	-
23	5389177:FZJ938-01	P3-C2	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_23.d	Sample		As Method	-
24	5389177:FZJ941-01:10x	P3-C3	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_24.d	Sample		As Method	-
25	5389177:FZJ941-01	P3-C4	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_25.d	Sample		As Method	-
26	IB	P3-A8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_26.d	Sample		As Method	-
27	CCV	P3-A5	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_27.d	ConCal	STD 4	As Method	-
28	5389177:FZJ953-01:50x	P3-C5	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_28.d	Sample		As Method	-
29	5389177:FZJ953-01:10x	P3-C6	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_29.d	Sample		As Method	-
30	IB	P3-A8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_30.d	Sample		As Method	-
31	5389177:FZJ954-01:25x	P3-C7	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_31.d	Sample		As Method	-
32	5389177:FZJ954-01:5x	P3-C8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_32.d	Sample		As Method	-
33	IB	P3-A8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_33.d	Sample		As Method	-
34	CCV	P3-A5	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_34.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/09 12:02 AM	PFC_Water_Low.m	WS#5389177_02.d	P3-A2
STD 2	-	2018/02/09 12:07 AM	PFC_Water_Low.m	WS#5389177_03.d	P3-A3
STD 3	-	2018/02/09 12:12 AM	PFC_Water_Low.m	WS#5389177_04.d	P3-A4
STD 4	-	2018/02/09 12:17 AM	PFC_Water_Low.m	WS#5389177_05.d	P3-A5
STD 5	-	2018/02/09 12:22 AM	PFC_Water_Low.m	WS#5389177_06.d	P3-A6
STD 6	-	2018/02/09 12:27 AM	PFC_Water_Low.m	WS#5389177_07.d	P3-A7
IB	-	2018/02/09 12:31 AM	PFC_Water_Low.m	WS#5389177_08.d	P3-A8
ICV	-	2018/02/09 12:36 AM	PFC_Water_Low.m	WS#5389177_09.d	P3-A9
ISC	-	2018/02/09 12:41 AM	PFC_Water_Low.m	WS#5389177_10.d	P3-A2
5389177:BLANK	-	2018/02/09 12:46 AM	PFC_Water_Low.m	WS#5389177_11.d	P3-B1
5389177:SPIKE	-	2018/02/09 12:51 AM	PFC_Water_Low.m	WS#5389177_12.d	P3-B2
5389177:SPIKE:D1	-	2018/02/09 12:56 AM	PFC_Water_Low.m	WS#5389177_13.d	P3-B3
5389177:FZA807-01	-	2018/02/09 1:01 AM	PFC_Water_Low.m	WS#5389177_14.d	P3-B4
5389177:FZA808-01	-	2018/02/09 1:06 AM	PFC_Water_Low.m	WS#5389177_15.d	P3-B5
5389177:FZA809-01	-	2018/02/09 1:11 AM	PFC_Water_Low.m	WS#5389177_16.d	P3-B6
5389177:FZH324-01:100x	Reported for PFOS only.	2018/02/09 1:16 AM	PFC_Water_Low.m	WS#5389177_17.d	P3-B7
5389177:FZH324-01:10x	Reported for all except PFOS.	2018/02/09 1:21 AM	PFC_Water_Low.m	WS#5389177_18.d	P3-B8
IB	-	2018/02/09 1:26 AM	PFC_Water_Low.m	WS#5389177_19.d	P3-A8
5389177:FZH325-01:100x	Reported for PFOS, PFHxS only.	2018/02/09 1:31 AM	PFC_Water_Low.m	WS#5389177_20.d	P3-B9
5389177:FZH325-01:10x	Reported for all except PFOS, PFHxS.	2018/02/09 1:36 AM	PFC_Water_Low.m	WS#5389177_21.d	P3-C1
IB	-	2018/02/09 1:41 AM	PFC_Water_Low.m	WS#5389177_22.d	P3-A8
5389177:FZJ938-01	-	2018/02/09 1:45 AM	PFC_Water_Low.m	WS#5389177_23.d	P3-C2
5389177:FZJ941-01:10x	Reported for 6:2-FTS, PFOS only.	2018/02/09 1:50 AM	PFC_Water_Low.m	WS#5389177_24.d	P3-C3
5389177:FZJ941-01	Reported for all except 6:2-FTS, PFOS.	2018/02/09 1:55 AM	PFC_Water_Low.m	WS#5389177_25.d	P3-C4
IB	-	2018/02/09 2:00 AM	PFC_Water_Low.m	WS#5389177_26.d	P3-A8
CCV	-	2018/02/09 2:05 AM	PFC_Water_Low.m	WS#5389177_27.d	P3-A5
5389177:FZJ953-01:50x	Reported for PFOS only.	2018/02/09 2:10 AM	PFC_Water_Low.m	WS#5389177_28.d	P3-C5
5389177:FZJ953-01:10x	Reported for all except PFOS.	2018/02/09 2:15 AM	PFC_Water_Low.m	WS#5389177_29.d	P3-C6
IB	-	2018/02/09 2:20 AM	PFC_Water_Low.m	WS#5389177_30.d	P3-A8
5389177:FZJ954-01:25x	Reported for PFOS, PFHxS only.	2018/02/09 2:25 AM	PFC_Water_Low.m	WS#5389177_31.d	P3-C7
5389177:FZJ954-01:5x	Reported for all except PFOS, PFHxS.	2018/02/09 2:30 AM	PFC_Water_Low.m	WS#5389177_32.d	P3-C8
IB	-	2018/02/09 2:35 AM	PFC_Water_Low.m	WS#5389177_33.d	P3-A8
CCV	-	2018/02/09 2:40 AM	PFC_Water_Low.m	WS#5389177_34.d	P3-A5

Maxxam Analytics

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/08 6:03 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_02.d	P3-A2
STD 2	-	2018/02/08 6:06 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_03.d	P3-A3
STD 3	-	2018/02/08 6:08 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_04.d	P3-A4
STD 4	-	2018/02/08 6:11 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_05.d	P3-A5
STD 5	-	2018/02/08 6:13 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_06.d	P3-A6
STD 6	-	2018/02/08 6:16 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_07.d	P3-A7
IB	-	2018/02/08 6:18 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_08.d	P3-A8
ICV	-	2018/02/08 6:20 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_09.d	P3-A9
ISC	-	2018/02/08 6:23 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_10.d	P3-A2
5389177:BLANK	-	2018/02/08 6:25 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_11.d	P3-B1
5389177:SPIKE	-	2018/02/08 6:28 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_12.d	P3-B2
5389177:SPIKE:D1	-	2018/02/08 6:30 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_13.d	P3-B3
5389177:FZA807-01	-	2018/02/08 6:32 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_14.d	P3-B4
5389177:FZA808-01	-	2018/02/08 6:35 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_15.d	P3-B5
5389177:FZA809-01	-	2018/02/08 6:37 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_16.d	P3-B6
5389177:FZH324-01:100x	Not Used	2018/02/08 6:40 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_17.d	P3-B7
5389177:FZH324-01:10x	-	2018/02/08 6:42 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_18.d	P3-B8
IB	-	2018/02/08 6:44 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_19.d	P3-A8
5389177:FZH325-01:100x	Not Used	2018/02/08 6:47 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_20.d	P3-B9
5389177:FZH325-01:10x	-	2018/02/08 6:49 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_21.d	P3-C1
IB	-	2018/02/08 6:52 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_22.d	P3-A8
5389177:FZJ938-01	-	2018/02/08 6:54 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_23.d	P3-C2
5389177:FZJ941-01:10x	-	2018/02/08 6:56 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_24.d	P3-C3
5389177:FZJ941-01	-	2018/02/08 6:59 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_25.d	P3-C4
IB	-	2018/02/08 7:01 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_26.d	P3-A8
CCV	-	2018/02/08 7:04 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_27.d	P3-A5
5389177:FZJ953-01:50x	-	2018/02/08 7:06 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_28.d	P3-C5
5389177:FZJ953-01:10x	-	2018/02/08 7:08 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_29.d	P3-C6
IB	-	2018/02/08 7:11 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_30.d	P3-A8
5389177:FZJ954-01:25x	-	2018/02/08 7:13 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_31.d	P3-C7
5389177:FZJ954-01:5x	-	2018/02/08 7:16 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_32.d	P3-C8
IB	-	2018/02/08 7:18 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_33.d	P3-A8
CCV	-	2018/02/08 7:21 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_34.d	P3-A5

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/09

Worksheet # (s): 5390075

Analysis: PFOSALCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria	✓			✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria			✓	✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed	✓			✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS	✓			✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration -- before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: [illegible] Date: 2018/02/10

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced			✓
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: AD Date: 2018/02/13

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5390275 Testcode: PFOS 4LCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: DM3 Date: 2018/02/08

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: Date:

Comments:

WS# : 5390275

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Thursday, February 08, 2018

Assigned to : Daniella McLean

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

	Job Number	Sample Number	D	Sample ID	F	% Moisture (centrifuged sediment)	Wt or Vol	Final Vol (mL)	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	conc (ng/mL)
5,3		SPIKE	0	PFOS		0	125	3	1X					2018/02/08	26
5,4		SPIKE	1	PFOS		0	125	3	1X					2018/02/08	35
5,1		BLANK				0	125	3	1X					2018/02/08	25
5,6	B819794	*FZH306-01R		CEF-002-06S-0118	*	<0.1	115/12.5	3	1X/10X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	29/26
5,8	B819794	*FZH307-01R		EB-CEF-007-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	31
5,10	B819794	*FZH308-01R		EB-CEF-007-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	28
5,12	B819794	*FZH309-01R		EB-CEF-007-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	29
5,14	B819794	*FZH310-01R		FB-CEF-007-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	24
5,16	B819794	*FZH311-01R		CEF-013-12S-0118-*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	29
5,18	B819794	*FZH312-01R		CEF-013-12S-0118		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	25
5,20	B819794	*FZH313-01R		FB-CEF-013-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	28
5,22	B819794	*FZH314-01R		FB-CEF-860-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	28
5,24	B819794	*FZH315-01R		EB-CEF-860-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	32
6,1	B819794	*FZH316-01R		EB-CEF-860-01125*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	30
6,3	B819794	*FZH317-01R		EB-CEF-860-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	29
6,5	B821961	*FZT419-01R		[redacted]		0	120/12.5	3	1X/10X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	27/27
6,7	B821961	*FZT420-01R		[redacted]	*	<0.1	115	3	1X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	25
6,9	B821961	*FZT421-01R		[redacted]	*	<0.1	125	3	1X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	35
6,11	B821961	*FZT422-01R		[redacted]	*	<0.1	125	3	1X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	28
6,14	B821961	*FZT423-01R		[redacted]	*	<0.1	110	3	1X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	29
6,16	B821961	*FZT424-01R		[redacted]		0	125	3	1X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	29
6,18	B821961	*FZT425-01R		[redacted]		0	110	3	1X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	30

2018/02/08 DM3

Remarks: Spike + spike dup were analyzed due to lack of bottles available per sample.

Samples extracted by: Daniella McLean DM3 2018/02/08

Instrumentation performed by: Date: 2018/02/09

Calculations performed by: Date: 2018/02/12

Validated by: AD Date: 2018/02/13

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.)	AECOM

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

GB821961 [redacted] 2018/02/08 DM3

Job	Sample	Lab Comments
	SPIKE	
	SPIKE	
	BLANK	
B819794	FZH306-01R	
B819794	FZH307-01R	
B819794	FZH308-01R	
B819794	FZH309-01R	
B819794	FZH310-01R	
B819794	FZH311-01R	
B819794	FZH312-01R	
B819794	FZH313-01R	
B819794	FZH314-01R	
B819794	FZH315-01R	
B819794	FZH316-01R	
B819794	FZH317-01R	
B821961	FZT419-01R	
B821961	FZT420-01R	
B821961	FZT421-01R	
B821961	FZT422-01R	
B821961	FZT423-01R	
B821961	FZT424-01R	
B821961	FZT425-01R	

S1 25
S2 50 } SK-7377
S3 150
S4 37.5
S5 75 } I-5297
S6 125
ICV 62.5 - I-5299
IB 2850µL MeOH + 150µL IS

LV 2018/02/08

Folder: 2018/02/09

Worksheet Reagent Tracking Record Worksheet # 5390275

Volume (µL)

Surrogate/Spike solutions	√	Solution ID #	Conc.	Blk-Spk Solid	Blk-Spk Liquid	MS Solid	MS Liquid	Samples Solid	Samples Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299 (1/3) SAD	1ug/mL	75	21 62.5	75	21 62.5	NA	NA
PFC Internal Standard Solution	✓	SI-6763 (3/4) SAD	50/125 ng/mL	200	100 150	200	100 150	200	100 150
PFC Injection IS	✓	SI-6770 (1/2) LS	400 ng/mL	20	20	20	20	20	20
ICV	✓	I-5299 (1/3)	1ug/mL		62.5				

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHB37527	2018/02/08	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRLRE-108-341		DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRLRE-108-342		0.2% NH_4OH	✓	PRLRE-108-346	
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/02/08
0.05M HCl							

*Spiked by: DM3
Spike Date: 2018/02/08
Spike Syringe/Pipette ID#: G24390G
Int. Std Syringe/Pipette ID#: M41011F
*Spiking Witnessed by: SAD
Final pH

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor K55191G	✓	SPE Cartridge	00347247A	✓	QC Balance ID	
K39732F	✓	Filter			Thermometer ID &Temp	
Dispenser		Centrifuge	42148683	✓		
		Sonicator				

Bottle Tracking
Bottle# 18801
Cap# 18778
Systems plus Lot# 18-01-31

Comments: envi CARB lot # 92806V
250 mL cylinder # 3026

* - SPIKING OF QC's & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet Number: **5390275**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	SPIKE	SPIKE Dup1	BLANK	DL	B819794 FZH306	DL
6:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
8:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
N-ethylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
EtFOSAA	ug/L	98.73704	99.31378	0	0.02	0	0.022
N-ethylperfluorooctane sulfonamidoe	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
N-methylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
MeFOSAA	ug/L	99.94997	95.35731	0	0.02	0	0.022
N-methylperfluorooctanesulfonamidol	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
Perfluorobutanoic acid	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
Perfluorobutane Sulfonate (PFBS)	ug/L	98.71117	99.84753	0	0.02	0.01357358	0.022
Perfluorodecane Sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
Perfluoroheptanoic Acid (PFHpA)	ug/L	95.13685	89.95128	0	0.02	0.02015355	0.022
Perfluoroheptane sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
Perfluorohexanoic Acid (PFHxA)	ug/L	96.82719	91.38624	0	0.02	0.16301726	0.022
Perfluorohexane Sulfonate (PFHxS)	ug/L	91.36893	92.42372	0	0.02	0.64080552	0.022
Perfluorononanoic Acid (PFNA)	ug/L	99.07054	93.45820	0	0.02	0	0.022
Perfluorooctane Sulfonamide (PFOSA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
Perfluoropentanoic Acid (PFPeA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
Perfluorotetradecanoic Acid	ug/L	96.67494	102.15326	0	0.02	0	0.022
Perfluorotridecanoic Acid	ug/L	100.06429	99.81234	0	0.02	0	0.022
Perfluoroundecanoic Acid (PFUnA)	ug/L	107.58542	110.34205	0	0.02	0	0.022
Perfluorodecanoic Acid (PFDA)	ug/L	93.73946	88.53687	0	0.02	0	0.022
Perfluorododecanoic Acid (PFDoA)	ug/L	91.67334	94.14593	0	0.02	0	0.022
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	96.91656	100.37079	0	0.02	1.09614430	0.2
Perfluorooctane Sulfonate (PFOS)	ug/L	92.78330	98.89724	0	0.02	0.11318006	0.022
13C2-6:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-8:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-perfluorotetradecanoic acid	ug/L	100.961424	86.1290054	82.6856916		80.6911563	
13C4-Perfluorobutanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
D3-MeFOSAA	ug/L	90.5262279	86.5754492	80.7450641		89.6046952	
D5-EtFOSAA	ug/L	97.7875566	85.7484354	78.5457727		88.3538321	
N-methyl-d3-perfluorooctane sulfona	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-Perfluorodecanoic acid	ug/L	112.120079	101.665566	94.7114312		98.8181289	
13C2-Perfluorododecanoic acid	ug/L	109.599957	93.4889055	87.3455978		87.4807351	
13C2-Perfluorohexanoic acid	ug/L	114.602431	104.803279	95.6065762		100.937394	
13C2-Perfluoroundecanoic acid	ug/L	104.550078	90.3995058	84.6522273		93.0658351	
13C4-Perfluoroheptanoic acid	ug/L	115.926395	104.449446	96.0316232		106.865082	
13C5-Perfluorononanoic acid	ug/L	113.395072	103.848013	99.6858785		105.506174	
13C4-Perfluorooctanoic acid	ug/L	114.477035	97.5740708	91.1349364		97.6113475	
13C4-Perfluorooctanesulfonate	ug/L	110.603717	90.3930272	90.5278272		95.8385808	
13C5-Perfluoropentanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C8-Perfluorooctane Sulfonamide	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
18O2-Perfluorohexanesulfonate	ug/L	114.418335	98.8027438	94.3743446		98.8281409	

Worksheet Number: **5390275**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B819794 FZH307	B819794 FZH308	B819794 FZH309	B819794 FZH310	B819794 FZH311	B819794 FZH312	B819794 FZH313
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
EtFOSAA	0	0	0	0	0	0	0
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
MeFOSAA	0	0	0	0	0	0	0
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	0	0	0	0	0.03091633	0.02861117	0
Perfluorodecane Sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	0	0	0	0	0.01428181	0.01411075	0
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	0	0	0	0	0.06534061	0.05476750	0
Perfluorohexane Sulfonate (PFHxS)	0	0	0	0	0.29583622	0.24908969	0
Perfluorononanoic Acid (PFNA)	0	0	0	0	0	0	0
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorotetradecanoic Acid	0	0	0	0	0	0	0
Perfluorotridecanoic Acid	0	0	0	0	0	0	0
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0	0	0	0
Perfluorodecanoic Acid (PFDA)	0	0	0	0	0	0	0
Perfluorododecanoic Acid (PFDoA)	0	0	0	0	0	0	0
Perfluoro-n-Octanoic Acid (PFOA)	0	0	0	0	0.07670963	0.07203558	0
Perfluorooctane Sulfonate (PFOS)	0	0	0	0	0	0	0
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	88.0680000	86.8608573	87.8905475	80.2040040	59.0255218	60.1080556	89.1723513
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
D3-MeFOSAA	77.8589063	85.2540841	89.9948050	75.3728576	81.8120912	81.3136404	85.5567451
D5-EtFOSAA	82.7199877	82.8709282	90.2189944	74.7361183	77.0654875	80.0720739	84.1656061
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	97.1254937	98.0335657	96.7975758	86.3813110	94.0630577	88.4513128	97.8507278
13C2-Perfluorododecanoic acid	83.4585883	88.2851841	87.0291522	81.1838849	82.9666300	78.3342783	91.8266736
13C2-Perfluorohexanoic acid	98.9676811	100.677600	101.236272	95.1771456	84.7393485	100.179614	108.419969
13C2-Perfluoroundecanoic acid	90.9778388	89.3646980	91.9394437	86.9135767	86.3275143	82.7734182	93.1827909
13C4-Perfluoroheptanoic acid	95.3241259	102.536042	101.389379	93.7037731	94.4569724	100.878913	106.932048
13C5-Perfluorononanoic acid	99.3476708	102.154490	99.9785099	92.4394284	95.2594350	99.6626902	99.8473345
13C4-Perfluorooctanoic acid	97.6243949	98.2225352	100.741919	92.5064257	91.5326895	95.2639531	99.5033583
13C4-Perfluorooctanesulfonate	87.5900801	88.3640832	93.5916978	92.4205221	93.2316865	97.2111351	97.3939925
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	91.1006299	94.1380657	102.925923	90.9678119	88.7183475	109.153130	104.470782

Worksheet Number: **5390275**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B819794 FZH314	B819794 FZH315	B819794 FZH316	B819794 FZH317	DL	B821961 FZT419	DL
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
EtFOSAA	0	0	0	0	0.02	0	0.021
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
MeFOSAA	0	0	0	0	0.02	0	0.021
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
Perfluorobutane Sulfonate (PFBS)	0	0	0	0	0.02	0.01637505	0.021
Perfluorodecane Sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
Perfluoroheptanoic Acid (PFHpA)	0	0	0	0	0.02	0.01515964	0.021
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
Perfluorohexanoic Acid (PFHxA)	0	0	0	0	0.02	0.03886198	0.021
Perfluorohexane Sulfonate (PFHxS)	0	0	0	0	0.02	0.46502754	0.021
Perfluorononanoic Acid (PFNA)	0	0	0	0	0.02	0	0.021
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
Perfluorotetradecanoic Acid	0	0	0	0	0.02	0	0.021
Perfluorotridecanoic Acid	0	0	0	0	0.02	0	0.021
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0	0.02	0	0.021
Perfluorodecanoic Acid (PFDA)	0	0	0	0	0.02	0	0.021
Perfluorododecanoic Acid (PFDoA)	0	0	0	0	0.02	0	0.021
Perfluoro-n-Octanoic Acid (PFOA)	0	0	0	0	0.02	0.06906087	0.021
Perfluorooctane Sulfonate (PFOS)	0	0	0	0	0.02	0.14107697	0.021
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-perfluorotetradecanoic acid	78.7571411	72.3625690	87.8858723	77.6140902		79.3502833	
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
D3-MeFOSAA	80.0333858	79.6860818	83.2091605	82.7687800		87.3329729	
D5-EtFOSAA	77.8998452	79.1490116	81.4519800	79.4368201		87.4078359	
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-Perfluorodecanoic acid	95.3056650	95.1759882	93.5115361	88.9018089		102.919802	
13C2-Perfluorododecanoic acid	85.0529923	79.9925542	84.5824690	84.1392722		74.2118853	
13C2-Perfluorohexanoic acid	91.5104518	91.0355458	96.9239060	92.4985039		93.8165650	
13C2-Perfluoroundecanoic acid	80.0332319	75.1899144	86.1605817	88.6140805		82.3182802	
13C4-Perfluoroheptanoic acid	96.5572929	90.8104079	98.1240645	91.0772973		95.7105483	
13C5-Perfluorononanoic acid	95.4886893	88.0432392	96.5384998	88.5559449		94.8219681	
13C4-Perfluorooctanoic acid	92.1239120	88.8106051	98.1530635	90.5342635		100.511857	
13C4-Perfluorooctanesulfonate	88.4346366	84.6019347	90.6930047	77.4138830		82.4259096	
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
18O2-Perfluorohexanesulfonate	93.9384731	99.3572278	94.9838535	100.835294		100.234394	

Worksheet Number: **5390275**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

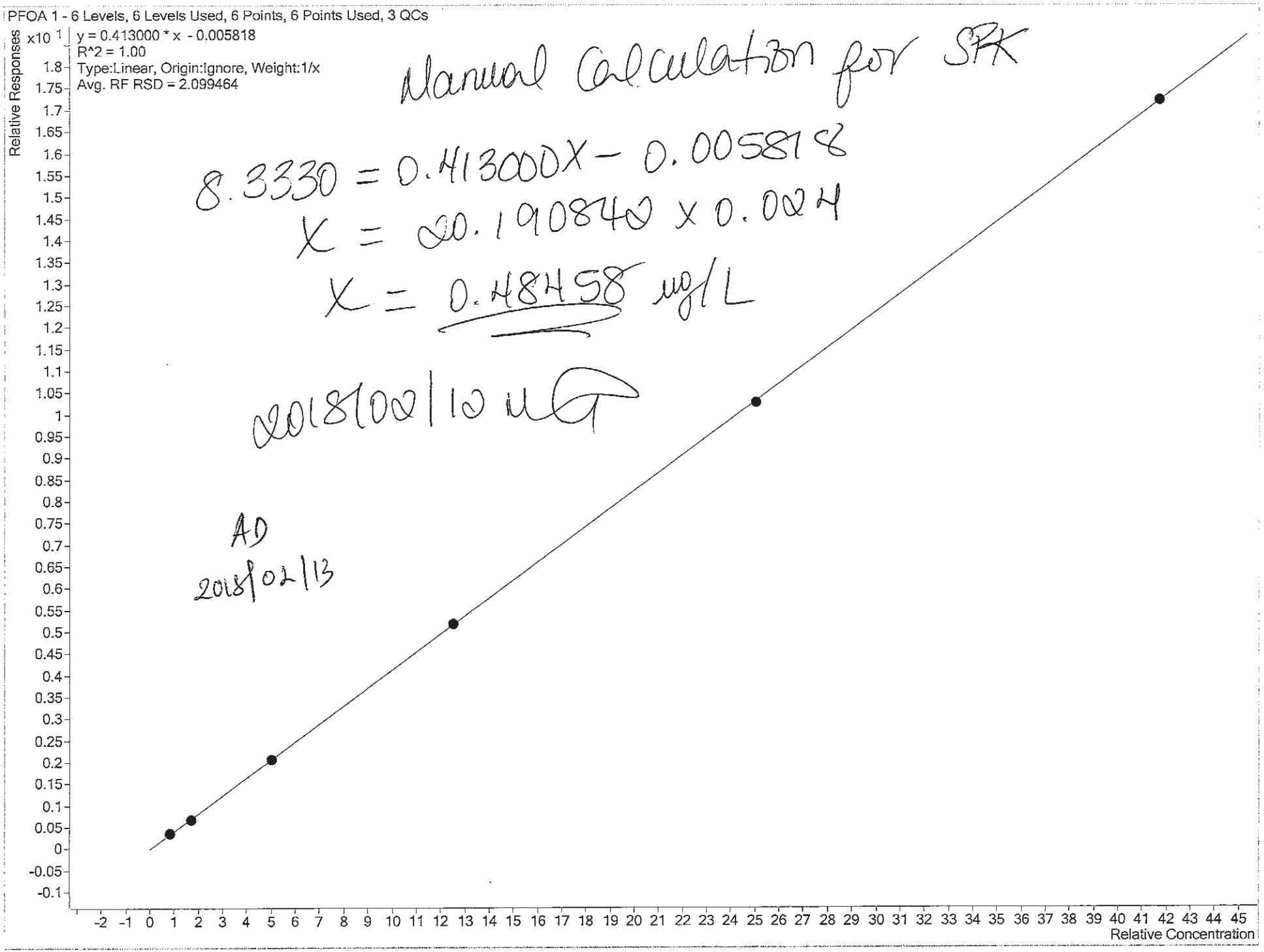
Parameter Name	B821961 FZT420	B821961 FZT421	B821961 FZT422	DL	B821961 FZT423	DL	B821961 FZT424
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
EtFOSAA	0	0	0	0.02	0	0.023	0
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
MeFOSAA	0	0	0	0.02	0	0.023	0
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
Perfluorobutane Sulfonate (PFBS)	0	0.01838361	0.01171140	0.02	0	0.023	0
Perfluorodecane Sulfonate	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
Perfluoroheptanoic Acid (PFHpA)	0	0	0	0.02	0	0.023	0
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
Perfluorohexanoic Acid (PFHxA)	0	0.00744255	0	0.02	0.02421384	0.023	0
Perfluorohexane Sulfonate (PFHxS)	0.04631918	0.03075768	0	0.02	0.31160970	0.023	0
Perfluorononanoic Acid (PFNA)	0	0	0	0.02	0	0.023	0
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
Perfluorotetradecanoic Acid	0	0	0	0.02	0	0.023	0
Perfluorotridecanoic Acid	0	0	0	0.02	0	0.023	0
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0.02	0	0.023	0
Perfluorodecanoic Acid (PFDA)	0	0	0	0.02	0	0.023	0
Perfluorododecanoic Acid (PFDoA)	0	0	0	0.02	0	0.023	0
Perfluoro-n-Octanoic Acid (PFOA)	0.00852015	0.00573303	0.00983033	0.02	0.01080789	0.023	0
Perfluorooctane Sulfonate (PFOS)	0.01088635	0.10852173	0.01926183	0.02	0.31025114	0.023	0
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
13C2-perfluorotetradecanoic acid	87.1318776	70.2788267	76.7996558		71.6972452		83.2556952
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
D3-MeFOSAA	89.9449742	100.656693	94.8155504		91.4706144		85.1678129
D5-EtFOSAA	89.9125032	95.6879850	92.9903949		88.1445306		83.2725982
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
13C2-Perfluorodecanoic acid	94.4935643	107.508859	93.9890425		96.4099639		103.632135
13C2-Perfluorododecanoic acid	87.8506711	86.3701723	87.7841053		86.6857719		87.2522678
13C2-Perfluorohexanoic acid	92.0600584	109.388101	94.0495412		97.0669334		98.5813930
13C2-Perfluoroundecanoic acid	86.2512627	100.084052	85.5319788		84.6068275		98.5789910
13C4-Perfluoroheptanoic acid	93.4975655	106.745638	93.6602120		95.9393122		97.6345691
13C5-Perfluorononanoic acid	89.3677775	105.131647	96.4810608		98.5513872		107.064702
13C4-Perfluorooctanoic acid	88.3623509	106.426906	91.5293614		89.8237945		96.9993103
13C4-Perfluorooctanesulfonate	90.8681164	101.342869	83.8587624		84.6100157		91.1974207
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
18O2-Perfluorohexanesulfonate	99.0525028	110.638603	89.6618555		99.3867513		98.9286610

Worksheet Number: **5390275**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	DL	B821961 FZT425	DL	RDL	MDL	IDL	
6:2 Fluorotelomer sulfonate	0.02	N/A*******	0.023	0.02	0.0066	0	
8:2 Fluorotelomer sulfonate	0.02	N/A*******	0.023	0.02	0.0066	0	
N-ethylperfluorooctane sulfonamide	0.02	N/A*******	0.023	0.02	0.01	0	
EtFOSAA	0.02	0	0.023	0.02	0.0033	0	
N-ethylperfluorooctane sulfonamidoe	0.02	N/A*******	0.023	0.02	0.0079	0	
N-methylperfluorooctane sulfonamide	0.02	N/A*******	0.023	0.02	0.013	0	
MeFOSAA	0.02	0	0.023	0.02	0.0029	0	
N-methylperfluorooctanesulfonamidol	0.02	N/A*******	0.023	0.02	0.012	0	
Perfluorobutanoic acid	0.02	N/A*******	0.023	0.02	0.0055	0	
Perfluorobutane Sulfonate (PFBS)	0.02	0	0.023	0.02	0.0054	0	
Perfluorodecane Sulfonate	0.02	N/A*******	0.023	0.02	0.006	0	
Perfluoroheptanoic Acid (PFHpA)	0.02	0	0.023	0.02	0.0074	0	
Perfluoroheptane sulfonate	0.02	N/A*******	0.023	0.02	0.008	0	
Perfluorohexanoic Acid (PFHxA)	0.02	0	0.023	0.02	0.0035	0	
Perfluorohexane Sulfonate (PFHxS)	0.02	0	0.023	0.02	0.0056	0	
Perfluorononanoic Acid (PFNA)	0.02	0	0.023	0.02	0.0087	0	
Perfluorooctane Sulfonamide (PFOSA)	0.02	N/A*******	0.023	0.02	0.0034	0	
Perfluoropentanoic Acid (PFPeA)	0.02	N/A*******	0.023	0.02	0.0075	0	
Perfluorotetradecanoic Acid	0.02	0	0.023	0.02	0.0027	0	
Perfluorotridecanoic Acid	0.02	0	0.023	0.02	0.0038	0	
Perfluoroundecanoic Acid (PFUnA)	0.02	0	0.023	0.02	0.0025	0	
Perfluorodecanoic Acid (PFDA)	0.02	0	0.023	0.02	0.0061	0	
Perfluorododecanoic Acid (PFDoA)	0.02	0	0.023	0.02	0.005	0	
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0	0.023	0.02	0.0033	0	
Perfluorooctane Sulfonate (PFOS)	0.02	0	0.023	0.02	0.006	0	
13C2-6:2 Fluorotelomer sulfonate		N/A*******					
13C2-8:2 Fluorotelomer sulfonate		N/A*******					
13C2-perfluorotetradecanoic acid		74.5209169					
13C4-Perfluorobutanoic acid		N/A*******					
D3-MeFOSAA		76.9862401					
D5-EtFOSAA		79.2626771					
N-methyl-d3-perfluorooctane sulfona		N/A*******					
N-ethyl-d5-perfluorooctane sulfonam		N/A*******					
13C2-Perfluorodecanoic acid		95.2873130					
13C2-Perfluorododecanoic acid		85.5610968					
13C2-Perfluorohexanoic acid		95.6475003					
13C2-Perfluoroundecanoic acid		82.7670369					
13C4-Perfluoroheptanoic acid		96.0336964					
13C5-Perfluorononanoic acid		90.8217031					
13C4-Perfluorooctanoic acid		92.1028542					
13C4-Perfluorooctanesulfonate		83.4431857					
13C5-Perfluoropentanoic acid		N/A*******					
13C8-Perfluorooctane Sulfonamide		N/A*******					
18O2-Perfluorohexanesulfonate		103.207324					



Manual Calculation for SPK

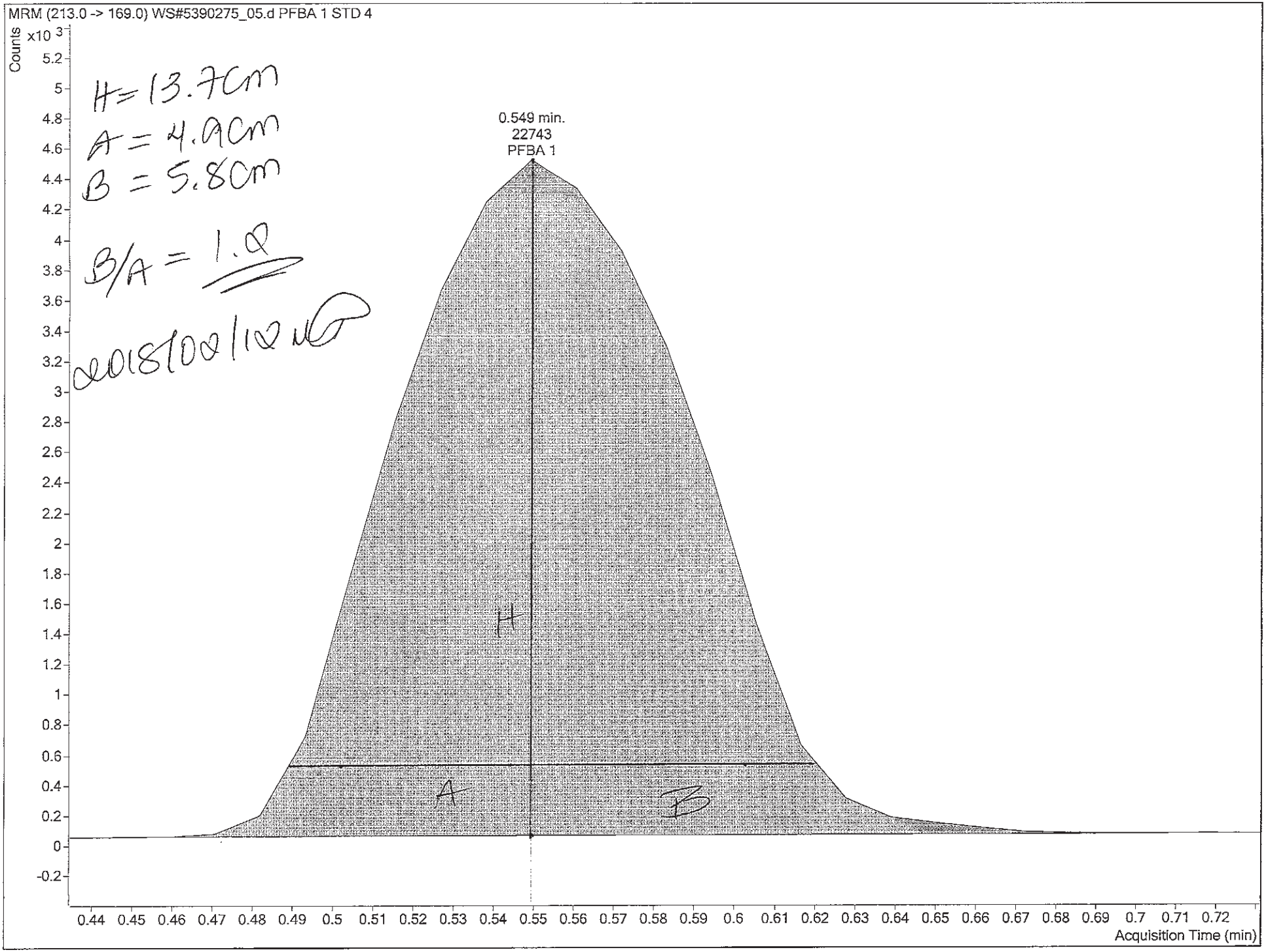
$8.3330 = 0.413000X - 0.005818$

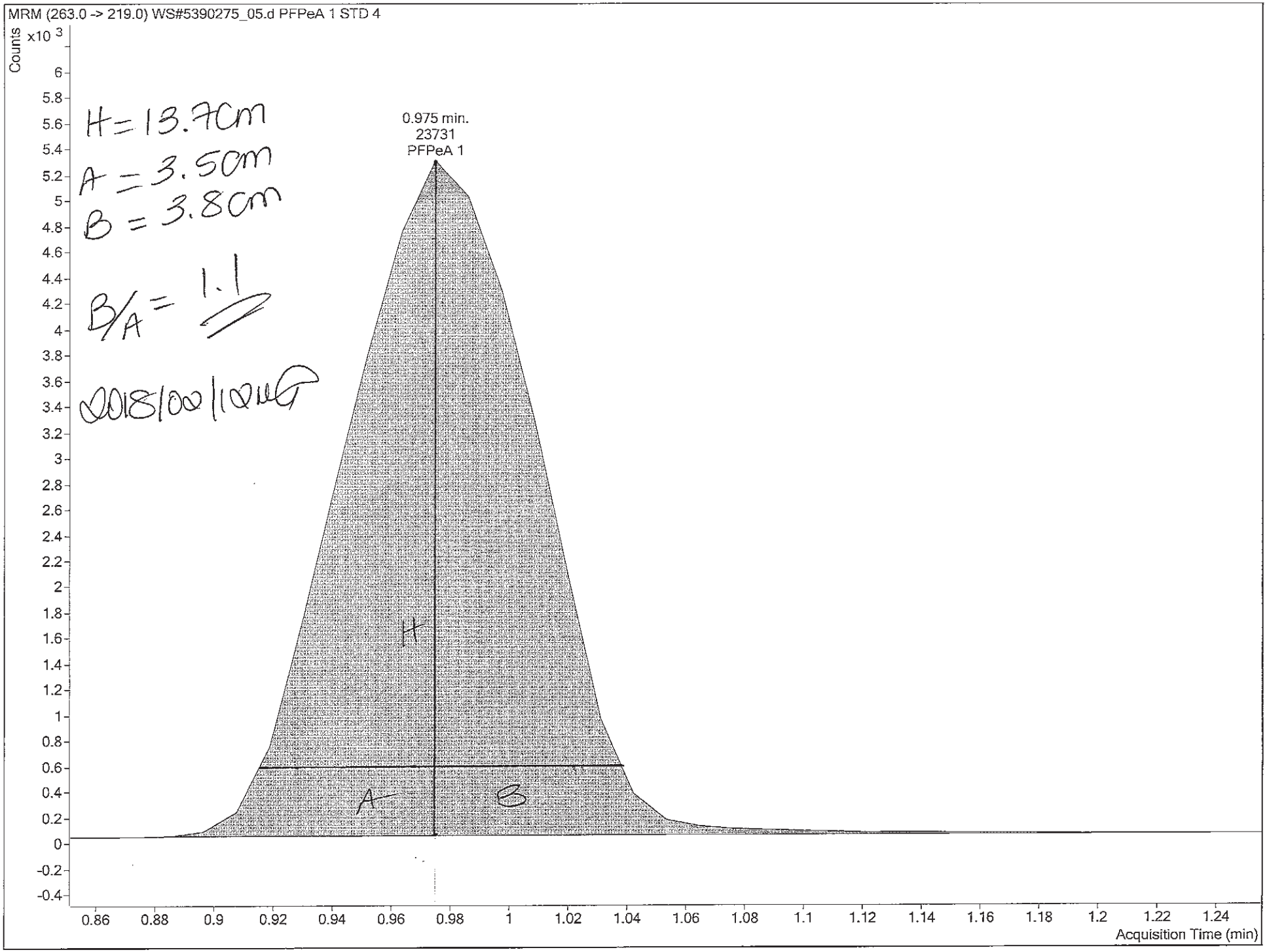
$X = 20.190840 \times 0.024$

$X = \underline{0.48458}$ ug/L

2018/02/10 MG

AD
2018/02/13


MRM (213.0 -> 169.0) WS#5390275_05.d PFBA 1 STD 4
Counts
x10 3
0.549 min.
22743
PFBA 1
H= 13.7cm
A = 4.9cm
B = 5.8cm
B/A = 1.2
20181002/12 MC
H
A
B
Acquisition Time (min)



Maxxam Analytics

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/08

Test Code: **PFOSALCM-W**

Worksheet Number: **5390275**

Sample Number	Parameter Code	Parameter	
FZH306-01	ETFOSAA	EtFOSAA	*
FZH311-01	MEFOSAA	MeFOSAA	*
FZH312-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FZT419-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
FZT420-01	PFHXA	Perfluorohexanoic Acid (PFHxA)	
FZT421-01	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
FZT422-01	PFNA	Perfluorononanoic Acid (PFNA)	
FZT423-01	PFTEDA	Perfluorotetradecanoic Acid	
FZT424-01	PFTRDA	Perfluorotridecanoic Acid	
FZT425-01	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	
FZH307-01	NONE	NONE	
FZH308-01			
FZH309-01			
FZH310-01			
FZH313-01			
FZH314-01			
FZH315-01			
FZH316-01			
FZH317-01			

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5390275 Instrument Sequences

1.	5390275:SPIKE	SPIKE
2.	5390275:SPIKE:D1	SPIKE :D1
3.	5390275:BLANK	BLANK
4.	5390275:FZH306-01	CEF-002-06S-0118
5.	5390275:FZH307-01	EB-CEF-007-012518-8
6.	5390275:FZH308-01	EB-CEF-007-012518-9
7.	5390275:FZH309-01	EB-CEF-007-012518-10
8.	5390275:FZH310-01	FB-CEF-007-012518-8
9.	5390275:FZH311-01	CEF-013-12S-0118-D
10.	5390275:FZH312-01	CEF-013-12S-0118
11.	5390275:FZH313-01	FB-CEF-013-012518-7
12.	5390275:FZH314-01	FB-CEF-860-012518-9
13.	5390275:FZH315-01	EB-CEF-860-012518-11
14.	5390275:FZH316-01	EB-CEF-860-0112518-12
15.	5390275:FZH317-01	EB-CEF-860-012518-13
16.	5390275:FZT419-01	[redacted]
17.	5390275:FZT420-01	[redacted]
18.	5390275:FZT421-01	[redacted]
19.	5390275:FZT422-01	[redacted]
20.	5390275:FZT423-01	[redacted]
21.	5390275:FZT424-01	[redacted]
22.	5390275:FZT425-01	[redacted]

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180209_Low_B.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180209\WS#5390275
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

2018/02/09

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low.m	WS#5390275_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low.m	WS#5390275_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low.m	WS#5390275_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low.m	WS#5390275_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low.m	WS#5390275_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low.m	WS#5390275_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low.m	WS#5390275_07.d	Calibration	STD 6	As Method	-

2018/02/09

951 of 2177

Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P2-A8	PFC_Water_Low.m	WS#5390275_08.d	Sample		As Method	-
9	ICV	P2-A9	PFC_Water_Low.m	WS#5390275_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low.m	WS#5390275_10.d	ConCal	STD 1	As Method	-
11	5390275:BLANK	P2-B1	PFC_Water_Low.m	WS#5390275_11.d	Sample		As Method	-
12	5390275:SPIKE	P2-B2	PFC_Water_Low.m	WS#5390275_12.d	QC	ICV	As Method	-
13	5390275:SPIKE:D1	P2-B3	PFC_Water_Low.m	WS#5390275_13.d	QC	ICV	As Method	-
14	5390275:FZH306-01:10x	P2-B4	PFC_Water_Low.m	WS#5390275_14.d	QC	ICV	As Method	-
15	5390275:FZH306-01	P2-B5	PFC_Water_Low.m	WS#5390275_15.d	Sample		As Method	-
16	IB	P2-A8	PFC_Water_Low.m	WS#5390275_16.d	Sample		As Method	-
17	5390275:FZH307-01	P2-B6	PFC_Water_Low.m	WS#5390275_17.d	Sample		As Method	-
18	5390275:FZH308-01	P2-B7	PFC_Water_Low.m	WS#5390275_18.d	Sample		As Method	-
19	5390275:FZH309-01	P2-B8	PFC_Water_Low.m	WS#5390275_19.d	Sample		As Method	-
20	5390275:FZH310-01	P2-B9	PFC_Water_Low.m	WS#5390275_20.d	Sample		As Method	-
21	5390275:FZH311-01	P2-C1	PFC_Water_Low.m	WS#5390275_21.d	Sample		As Method	-
22	5390275:FZH312-01	P2-C2	PFC_Water_Low.m	WS#5390275_22.d	Sample		As Method	-
23	5390275:FZH313-01	P2-C3	PFC_Water_Low.m	WS#5390275_23.d	Sample		As Method	-
24	5390275:FZH314-01	P2-C4	PFC_Water_Low.m	WS#5390275_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low.m	WS#5390275_25.d	ConCal	STD 4	As Method	-
26	5390275:FZH315-01	P2-C5	PFC_Water_Low.m	WS#5390275_26.d	Sample		As Method	-
27	5390275:FZH316-01	P2-C6	PFC_Water_Low.m	WS#5390275_27.d	Sample		As Method	-
28	5390275:FZH317-01	P2-C7	PFC_Water_Low.m	WS#5390275_28.d	Sample		As Method	-
29	5390275:FZT419-01:10x	P2-C8	PFC_Water_Low.m	WS#5390275_29.d	Sample		As Method	-
30	5390275:FZT419-01	P2-C9	PFC_Water_Low.m	WS#5390275_30.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	IB	P2-A8	PFC_Water_Low.m	WS#5390275_31.d	Sample		As Method	-
32	5390275:FZT420-01	P2-D1	PFC_Water_Low.m	WS#5390275_32.d	Sample		As Method	-
33	5390275:FZT421-01	P2-D2	PFC_Water_Low.m	WS#5390275_33.d	Sample		As Method	-
34	5390275:FZT422-01	P2-D3	PFC_Water_Low.m	WS#5390275_34.d	Sample		As Method	-
35	5390275:FZT423-01	P2-D4	PFC_Water_Low.m	WS#5390275_35.d	Sample		As Method	-
36	5390275:FZT424-01	P2-D5	PFC_Water_Low.m	WS#5390275_36.d	Sample		As Method	-
37	CCV	P2-A5	PFC_Water_Low.m	WS#5390275_37.d	ConCal	STD 4	As Method	-
38	5390275:FZT425-01	P2-D6	PFC_Water_Low.m	WS#5390275_38.d	Sample		As Method	-
39	CCV	P2-A5	PFC_Water_Low.m	WS#5390275_39.d	ConCal	STD 4	As Method	-

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180209_Low_B_FOSAA.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180209\WS#5390275_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B2:Solution# 272 (FSRE18)

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Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_08.d	Sample		As Method	-

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Worklist Report

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P2-A9	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5390275:BLANK	P2-B1	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_11.d	Sample		As Method	-
12	5390275:SPIKE	P2-B2	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_12.d	QC	ICV	As Method	-
13	5390275:SPIKE:D1	P2-B3	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_13.d	QC	ICV	As Method	-
14	5390275:FZH306-01:10x	P2-B4	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_14.d	QC	ICV	As Method	-
15	5390275:FZH306-01	P2-B5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_15.d	Sample		As Method	-
16	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_16.d	Sample		As Method	-
17	5390275:FZH307-01	P2-B6	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_17.d	Sample		As Method	-
18	5390275:FZH308-01	P2-B7	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_18.d	Sample		As Method	-
19	5390275:FZH309-01	P2-B8	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_19.d	Sample		As Method	-
20	5390275:FZH310-01	P2-B9	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_20.d	Sample		As Method	-
21	5390275:FZH311-01	P2-C1	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_21.d	Sample		As Method	-
22	5390275:FZH312-01	P2-C2	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_22.d	Sample		As Method	-
23	5390275:FZH313-01	P2-C3	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_23.d	Sample		As Method	-
24	5390275:FZH314-01	P2-C4	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_25.d	ConCal	STD 4	As Method	-
26	5390275:FZH315-01	P2-C5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_26.d	Sample		As Method	-
27	5390275:FZH316-01	P2-C6	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_27.d	Sample		As Method	-
28	5390275:FZH317-01	P2-C7	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_28.d	Sample		As Method	-
29	5390275:FZT419-01:10x	P2-C8	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_29.d	Sample		As Method	-
30	5390275:FZT419-01	P2-C9	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_30.d	Sample		As Method	-
31	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_31.d	Sample		As Method	-
32	5390275:FZT420-01	P2-D1	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_32.d	Sample		As Method	-
33	5390275:FZT421-01	P2-D2	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_33.d	Sample		As Method	-
34	5390275:FZT422-01	P2-D3	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_34.d	Sample		As Method	-

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D:\MassHunter\Worklists\PFCs\PFC_180209_Low_B_FOSAA.wkl

Report generation date: 09-Feb-2018 10:31:26 AM

Worklist Report

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
35	5390275:FZT423-01	P2-D4	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_35.d	Sample		As Method	-
36	5390275:FZT424-01	P2-D5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_36.d	Sample		As Method	-
37	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_37.d	ConCal	STD 4	As Method	-
38	5390275:FZT425-01	P2-D6	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_38.d	Sample		As Method	-
39	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_39.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/09 4:39 PM	PFC_Water_Low.m	WS#5390275_02.d	P2-A2
STD 2	-	2018/02/09 4:44 PM	PFC_Water_Low.m	WS#5390275_03.d	P2-A3
STD 3	-	2018/02/09 4:49 PM	PFC_Water_Low.m	WS#5390275_04.d	P2-A4
STD 4	-	2018/02/09 4:53 PM	PFC_Water_Low.m	WS#5390275_05.d	P2-A5
STD 5	-	2018/02/09 4:58 PM	PFC_Water_Low.m	WS#5390275_06.d	P2-A6
STD 6	-	2018/02/09 5:03 PM	PFC_Water_Low.m	WS#5390275_07.d	P2-A7
IB	-	2018/02/09 5:08 PM	PFC_Water_Low.m	WS#5390275_08.d	P2-A8
ICV	-	2018/02/09 5:13 PM	PFC_Water_Low.m	WS#5390275_09.d	P2-A9
ISC	-	2018/02/09 5:18 PM	PFC_Water_Low.m	WS#5390275_10.d	P2-A2
5390275:BLANK	-	2018/02/09 5:23 PM	PFC_Water_Low.m	WS#5390275_11.d	P2-B1
5390275:SPIKE	-	2018/02/09 5:28 PM	PFC_Water_Low.m	WS#5390275_12.d	P2-B2
5390275:SPIKE:D1	-	2018/02/09 5:33 PM	PFC_Water_Low.m	WS#5390275_13.d	P2-B3
5390275:FZH306-01:10x	Reported for PFOA only.	2018/02/09 5:38 PM	PFC_Water_Low.m	WS#5390275_14.d	P2-B4
5390275:FZH306-01	Reported for all except PFOA.	2018/02/09 5:43 PM	PFC_Water_Low.m	WS#5390275_15.d	P2-B5
IB	-	2018/02/09 5:48 PM	PFC_Water_Low.m	WS#5390275_16.d	P2-A8
5390275:FZH307-01	-	2018/02/09 5:53 PM	PFC_Water_Low.m	WS#5390275_17.d	P2-B6
5390275:FZH308-01	-	2018/02/09 5:58 PM	PFC_Water_Low.m	WS#5390275_18.d	P2-B7
5390275:FZH309-01	-	2018/02/09 6:03 PM	PFC_Water_Low.m	WS#5390275_19.d	P2-B8
5390275:FZH310-01	-	2018/02/09 6:07 PM	PFC_Water_Low.m	WS#5390275_20.d	P2-B9
5390275:FZH311-01	-	2018/02/09 6:12 PM	PFC_Water_Low.m	WS#5390275_21.d	P2-C1
5390275:FZH312-01	-	2018/02/09 6:17 PM	PFC_Water_Low.m	WS#5390275_22.d	P2-C2
5390275:FZH313-01	-	2018/02/09 6:22 PM	PFC_Water_Low.m	WS#5390275_23.d	P2-C3
5390275:FZH314-01	-	2018/02/09 6:27 PM	PFC_Water_Low.m	WS#5390275_24.d	P2-C4
CCV	-	2018/02/09 6:32 PM	PFC_Water_Low.m	WS#5390275_25.d	P2-A5
5390275:FZH315-01	-	2018/02/09 6:37 PM	PFC_Water_Low.m	WS#5390275_26.d	P2-C5
5390275:FZH316-01	-	2018/02/09 6:42 PM	PFC_Water_Low.m	WS#5390275_27.d	P2-C6
5390275:FZH317-01	-	2018/02/09 6:47 PM	PFC_Water_Low.m	WS#5390275_28.d	P2-C7
5390275:FZT419-01:10x	not used.	2018/02/09 6:52 PM	PFC_Water_Low.m	WS#5390275_29.d	P2-C8
5390275:FZT419-01	Reported for all.	2018/02/09 6:57 PM	PFC_Water_Low.m	WS#5390275_30.d	P2-C9
IB	-	2018/02/09 7:02 PM	PFC_Water_Low.m	WS#5390275_31.d	P2-A8
5390275:FZT420-01	-	2018/02/09 7:07 PM	PFC_Water_Low.m	WS#5390275_32.d	P2-D1
5390275:FZT421-01	-	2018/02/09 7:12 PM	PFC_Water_Low.m	WS#5390275_33.d	P2-D2
5390275:FZT422-01	-	2018/02/09 7:17 PM	PFC_Water_Low.m	WS#5390275_34.d	P2-D3

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
5390275:FZT423-01	-	2018/02/09 7:21 PM	PFC_Water_Low.m	WS#5390275_35.d	P2-D4
5390275:FZT424-01	-	2018/02/09 7:26 PM	PFC_Water_Low.m	WS#5390275_36.d	P2-D5
CCV	-	2018/02/09 7:31 PM	PFC_Water_Low.m	WS#5390275_37.d	P2-A5
5390275:FZT425-01	-	2018/02/09 7:36 PM	PFC_Water_Low.m	WS#5390275_38.d	P2-D6
CCV	-	2018/02/09 7:41 PM	PFC_Water_Low.m	WS#5390275_39.d	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/10 12:30 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_02.d	P2-A2
STD 2	-	2018/02/10 12:32 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_03.d	P2-A3
STD 3	-	2018/02/10 12:35 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_04.d	P2-A4
STD 4	-	2018/02/10 12:37 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_05.d	P2-A5
STD 5	-	2018/02/10 12:39 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_06.d	P2-A6
STD 6	-	2018/02/10 12:42 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_07.d	P2-A7
IB	-	2018/02/10 12:44 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_08.d	P2-A8
ICV	-	2018/02/10 12:47 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_09.d	P2-A9
ISC	-	2018/02/10 12:49 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_10.d	P2-A2
5390275:BLANK	-	2018/02/10 12:52 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_11.d	P2-B1
5390275:SPIKE	-	2018/02/10 12:54 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_12.d	P2-B2
5390275:SPIKE:D1	-	2018/02/10 12:56 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_13.d	P2-B3
5390275:FZH306-01:10x	not used.	2018/02/10 12:59 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_14.d	P2-B4
5390275:FZH306-01	Reported for all.	2018/02/10 1:01 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_15.d	P2-B5
IB	-	2018/02/10 1:04 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_16.d	P2-A8
5390275:FZH307-01	-	2018/02/10 1:06 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_17.d	P2-B6
5390275:FZH308-01	-	2018/02/10 1:08 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_18.d	P2-B7
5390275:FZH309-01	-	2018/02/10 1:11 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_19.d	P2-B8
5390275:FZH310-01	-	2018/02/10 1:13 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_20.d	P2-B9
5390275:FZH311-01	-	2018/02/10 1:16 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_21.d	P2-C1
5390275:FZH312-01	-	2018/02/10 1:18 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_22.d	P2-C2
5390275:FZH313-01	-	2018/02/10 1:20 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_23.d	P2-C3
5390275:FZH314-01	-	2018/02/10 1:23 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_24.d	P2-C4
CCV	-	2018/02/10 1:25 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_25.d	P2-A5
5390275:FZH315-01	-	2018/02/10 1:28 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_26.d	P2-C5
5390275:FZH316-01	-	2018/02/10 1:30 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_27.d	P2-C6
5390275:FZH317-01	-	2018/02/10 1:33 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_28.d	P2-C7
5390275:FZT419-01:10x	not used.	2018/02/10 1:35 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_29.d	P2-C8
5390275:FZT419-01	Reported for all.	2018/02/10 1:37 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_30.d	P2-C9
IB	-	2018/02/10 1:40 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_31.d	P2-A8
5390275:FZT420-01	-	2018/02/10 1:42 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_32.d	P2-D1
5390275:FZT421-01	-	2018/02/10 1:45 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_33.d	P2-D2
5390275:FZT422-01	-	2018/02/10 1:47 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_34.d	P2-D3

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
5390275:FZT423-01	-	2018/02/10 1:49 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_35.d	P2-D4
5390275:FZT424-01	-	2018/02/10 1:52 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_36.d	P2-D5
CCV	-	2018/02/10 1:54 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_37.d	P2-A5
5390275:FZT425-01	-	2018/02/10 1:57 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_38.d	P2-D6
CCV	-	2018/02/10 1:59 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_39.d	P2-A5

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/09

Worksheet # (s): 5891181

Analysis: PFOSALCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria		✓		✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria		✓		✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed	✓			✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS			✓	✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: KC Date: 2018/02/12

Comments: FZJ957 GAC702, and GAC704 were reworked due to low extracted I.S. recoveries for PFTeDA, PFNA, and PFBA respectively. KC 2018/02/12.

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a	
1	Repeats documented and referenced	✓			
2	Method and sample deviations noted, anomalies described (if applicable)			✓	
3	Data and QC validated in LIMS	✓			
4	Random calculation checked	✓			
5	Benchsheet (s) signed and dated	✓			
6	Data Package (if required) checked for completeness	✓			

Reviewed by: Date: 2/12/18

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5391181 Testcode: PFOSACCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: SSV Date: 2018/02/08

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

See attached BRL FCD-0000269

Reviewed by: JCC 2018/02/12 Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: Date:

Comments:

WS# : 5391181

Page #: 1/2

RUSH

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Thursday, February 08, 2018

Assigned to : Shivani Shivani

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

Job Number	Sample Number	D	Sample ID	F	Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	MTRX SPK	0	PFOS FZJ955-01		<0.1	125	3	1X					2018/02/08
	MTRX SPK	1	PFOS FZJ955-01		<0.1	125	3	1X					2018/02/08
	SPIKE		PFOS		0	125	3	1X					2018/02/08
	BLANK				0	125	3	1X					2018/02/08
B819794	*FZH326-01R		CEF-007-TW01-01*		0	125/12.5	3	1X/10X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08
B819794	*FZH327-01R		CEF-007-TW02-01*		0	125/12.5	3	1X/10X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08
B820260	*FZJ942-01R		[redacted]		0	125	3	1X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08
B820260	*FZJ955-01R		[redacted]		<0.1	125/12.5	3	1X/10X	6	2018/02/08	2018/02/09 23:00	DOD	2018/02/08
B820260	*FZJ956-01R		[redacted]		<0.1	125/12.5	3	1X/10X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08
B820260	*FZJ957-01R		[redacted]		<0.1	125/12.5	3	1X/10X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08
B820260	*FZJ958-01R		[redacted]		<0.1	125/12.5	3	1X/10X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08
B820260	*FZJ959-01R		[redacted]		<0.1	125/12.5	3	1X/10X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08
B820260	*FZJ960-01R		[redacted]		<0.1	12.5/2.5	3	10X/50X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08
B820260	*FZJ961-01R		[redacted]		<0.1	25/5	3	5X/25X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08
B823896*	*GAC701-01R		[redacted]		0	125	3	1X	2	2018/02/12	2018/02/08 17:00	DOD	2018/02/08
B823896*	*GAC702-01R		[redacted]		0	125	3	1X	2	2018/02/12	2018/02/08 17:00	DOD	2018/02/08
B823896*	*GAC703-01R		[redacted]		<0.1	125	3	1X	2	2018/02/12	2018/02/08 17:00	DOD	2018/02/08
B823896*	*GAC704-01R		[redacted]		<0.1	125	3	1X	2	2018/02/12	2018/02/08 17:00	DOD	2018/02/08

2018/2/08 SSV

Remarks: • Carbon clean up done
• ADD standards Cross Refrence to 5391173.

Samples extracted by: Shivani Shivani

Instrumentation performed by: [signature] Date: 2018/02/09

Calculations performed by: KC Date: 2018/02/12

Validated by: [signature] Date: 2018/02/14

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.)	AECOM

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

GB820260

GB823896

[redacted]

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B819794	FZH326-01R	
B819794	FZH327-01R	
B820260	FZJ942-01R	
B820260	FZJ955-01R	Ocentrifuge Sample at 4000 rpm.
B820260	FZJ956-01R	"
B820260	FZJ957-01R	"
B820260	FZJ958-01R	"
B820260	FZJ959-01R	
B820260	FZJ960-01R	
B820260	FZJ961-01R	
B823896	GAC701-01R	
B823896	GAC702-01R	
B823896	GAC703-01R	"
B823896	GAC704-01R	"

Job No.	Rep	Client Name	Contact	Client Tier	National
GB824253	Remarks	[redacted]			

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B824253	GAE028-01R	
B824253	GAE029-01R	
B824253	GAE030-01R	
B824253	GAE031-01R	
B824253	GAE032-01R	

Callibration standard Prepration#

	meon(ul)	spk(ul)		IS
S_1	2825	25	SK-7377	
S_2	2800	50		
S_3	2700	150		
S_4	2813	37.5	I-5297	8153 2018/02/08
S_5	2775	75		
S_6	2725	125		
ICV	2788	62.5	I-5299	
IB	2850			

150(ul)

Folder: 20180209

AD

2018/02/12

ICAL and ICV info only.

ME 2018/02/22

Worksheet Reagent Tracking Record Worksheet # 5391181

Surrogate/Spike solutions	√	Solution ID #	Conc.	Blk-Spk Volume (µL)		MS Volume (µL)		Samples Volume (µL)	
				Solid	Liquid	Solid	Liquid	Solid	Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299(1/3)	1ug/mL	75	21 (62.5)	75	21 (62.5)	NA	NA
PFC Internal Standard Solution	✓	SI-6763(4/4)	50/125 ng/mL	200	100 (150)	200	100 (150)	200	100 (150)
PFC Injection IS	✓	SI-6770(1/2)	400 ng/mL	20	(20)	20	(20)	20	(20)
ICV	✓	I-5299(1/3)	1ug/mL						

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHBJ5451	2018/02/08	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRRF-108-348		DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRRF-108-342		0.2% NH_4OH	✓	PRRF-108-347	
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/02/08
0.05M HCl							

*Spiked by: SSV

Spike Date 2018/02/08

Spike Syringe/Pipette ID# G243906

Int. Std Syringe/Pipette ID# Internal Std - K14865F
Injection IS - G243906

*Spiking Witnessed by: JBS

Final pH

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor K551916 K39732F K14865F	✓	SPE Cartridge	0634372478	✓	QC Balance ID	FC-1
	✓	Filter			Thermometer ID &Temp	
Dispenser		Centrifuge	42148683	10:00-10:05		
		Sonicator				

Bottle Tracking
Bottle# 18801
Cap# 18778
Systems plus Lot# 18/01/31

Comments: 250mL Volumetric cylinder # 3026
Enviro Carb # 92806

* - SPIKING OF QC's & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet: 5391181

Dilution and Column Cleanup Worksheet

Maxxam Analytics

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added uL	New Effective Final Volume	INITIAL SSV DATE	Column Clean Up
B819794	FZN326	—	X10	12.5	—	150	12.5	2018/02/08	—
	FZN327	—	X10	12.5	—	150	12.5	2018/02/08	—
B820260	FZ0955	—	X10	12.5	—	150	12.5	2018/02/08	—
	FZ0956	—	X10	12.5	—	150	12.5	2018/02/08	—
	FZ0957	—	X10	12.5	—	150	12.5	2018/02/08	—
	FZ0958	—	X10	12.5	—	150	12.5	2018/02/08	—
	FZ0959	—	X10	12.5	—	150	12.5	2018/02/08	—
	FZ0960	—	10X	12.5	—	150	12.5	2018/02/08	—
	FZ0960	—	50X	2.5	122.5	150	12.5	2018/02/08	—
	FZ0961	—	5X	25	—	150	12.5	2018/02/08	—
	FZ0961	—	25X	5	—	150	12.5	2018/02/08	—

2018/02/08 SSV

10ml # K551916

LCMS no # 57291

250ml volumetric cylinder # 3026

Worksheet Number: **5391181**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	DL	B819794 FZH326
6:2 Fluorotelomer sulfonate	ug/L	96.70827	92.36588	100.03199	0	0.02	N/A*******
8:2 Fluorotelomer sulfonate	ug/L	91.81408	106.23205	109.24921	0	0.02	N/A*******
N-ethylperfluorooctane sulfonamide	ug/L	101.08976	94.83690	105.51872	0	0.02	N/A*******
EtFOSAA	ug/L	93.64505	97.47732	99.02687	0	0.02	0
N-ethylperfluorooctane sulfonamidoe	ug/L	98.35661	97.49657	91.43365	0	0.02	N/A*******
N-methylperfluorooctane sulfonamide	ug/L	106.69019	96.96394	102.40896	0	0.02	N/A*******
MeFOSAA	ug/L	90.65398	92.97013	95.31657	0	0.02	0
N-methylperfluorooctanesulfonamidol	ug/L	91.58780	112.05045	107.69873	0	0.02	N/A*******
Perfluorobutanoic acid	ug/L	92.06953	96.62390	102.06880	0	0.02	N/A*******
Perfluorobutane Sulfonate (PFBS)	ug/L	94.91128	93.64115	104.50455	0	0.02	0.03848996
Perfluorodecane Sulfonate	ug/L	81.68994	84.84862	89.18551	0	0.02	N/A*******
Perfluoroheptanoic Acid (PFHpA)	ug/L	98.69240	101.67661	102.51565	0	0.02	0.03554279
Perfluoroheptane sulfonate	ug/L	96.89477	102.91284	98.61699	0	0.02	N/A*******
Perfluorohexanoic Acid (PFHxA)	ug/L	92.30878	94.04653	88.63519	0	0.02	0.22131574
Perfluorohexane Sulfonate (PFHxS)	ug/L	II 51.04NC	II 41.00NC	104.82054	0	0.02	1.61480876
Perfluorononanoic Acid (PFNA)	ug/L	98.89480	101.52023	100.56431	0	0.02	0.01559371
Perfluorooctane Sulfonamide (PFOSA)	ug/L	97.46556	94.50992	97.72600	0	0.02	N/A*******
Perfluoropentanoic Acid (PFPeA)	ug/L	101.51794	103.82380	99.02010	0	0.02	N/A*******
Perfluorotetradecanoic Acid	ug/L	92.72039	103.59593	102.62527	0	0.02	0
Perfluorotridecanoic Acid	ug/L	II 130.795	II 146.389	106.51679	0	0.02	0
Perfluoroundecanoic Acid (PFUnA)	ug/L	93.33003	103.35569	96.89016	0	0.02	0
Perfluorodecanoic Acid (PFDA)	ug/L	90.78671	94.38074	96.47627	0	0.02	0
Perfluorododecanoic Acid (PFDoA)	ug/L	92.37735	99.91787	96.82999	0	0.02	0
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	103.14438	100.27876	104.47459	0	0.02	2.25362529
Perfluorooctane Sulfonate (PFOS)	ug/L	111.1925NC	86.19388NC	79.90421	0	0.02	1.01681571
13C2-6:2 Fluorotelomer sulfonate	ug/L	85.0480720	88.2084508	86.4085462	103.453426		N/A*******
13C2-8:2 Fluorotelomer sulfonate	ug/L	93.1810461	82.2200494	82.6905964	101.609466		N/A*******
13C2-perfluorotetradecanoic acid	ug/L	II 46.0679	II 37.7201	80.4923179	85.8609051		63.7697710
13C4-Perfluorobutanoic acid	ug/L	94.7250634	94.4080255	91.7212088	101.839418		N/A*******
D3-MeFOSAA	ug/L	73.3530179	74.5471585	81.1306027	80.8891117		79.5975231
D5-EtFOSAA	ug/L	73.1005586	71.6097998	79.5146701	87.5220640		80.0692946
N-methyl-d3-perfluorooctane sulfona	ug/L	75.6828062	64.8267390	73.8134754	79.1614097		N/A*******
N-ethyl-d5-perfluorooctane sulfonam	ug/L	71.6539715	68.8165829	82.3964367	80.5380601		N/A*******
13C2-Perfluorodecanoic acid	ug/L	87.6974607	81.0604847	93.5168532	101.264812		85.5343253
13C2-Perfluorododecanoic acid	ug/L	72.2617296	64.7291135	84.3697923	86.4840932		82.7976684
13C2-Perfluorohexanoic acid	ug/L	96.4541377	95.9570835	95.7946435	99.8270641		91.9088142
13C2-Perfluoroundecanoic acid	ug/L	81.5651302	71.3247235	93.1363422	92.5037708		72.3986343
13C4-Perfluoroheptanoic acid	ug/L	94.8473929	91.0563152	89.8112486	99.7798574		96.1649267
13C5-Perfluorononanoic acid	ug/L	94.3791643	89.7594803	92.5982101	91.4306818		85.6828138
13C4-Perfluorooctanoic acid	ug/L	92.4165405	95.1387521	91.5274074	107.396601		89.9870287
13C4-Perfluorooctanesulfonate	ug/L	81.4365188	88.8111060	104.619902	98.9704921		93.6087981
13C5-Perfluoropentanoic acid	ug/L	97.1409548	93.2163155	96.2358731	102.367435		N/A*******
13C8-Perfluorooctane Sulfonamide	ug/L	86.3221696	81.4515629	84.8275905	94.7335062		N/A*******
18O2-Perfluorohexanesulfonate	ug/L	95.8396247	100.607821	87.9595396	95.1800248		105.138889

KC 2018/01/12

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B819794 FZH327	DL	B820260 FZJ942	DL	B820260 FZJ955	B820260 FZJ956	DL
6:2 Fluorotelomer sulfonate	N/A*******	0.02	0	0.02	0	0	0.02
8:2 Fluorotelomer sulfonate	N/A*******	0.02	0	0.02	0	0	0.02
N-ethylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
EtFOSAA	0	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
N-ethylperfluorooctane sulfonamidoe	N/A*******	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
N-methylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
MeFOSAA	0	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
N-methylperfluorooctanesulfonamidol	N/A*******	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
Perfluorobutanoic acid	N/A*******	0.02	0	0.02	0.07405148	0.07589147	0.02
Perfluorobutane Sulfonate (PFBS)	0.09242612	0.02	0	0.02	0.03965226	0.03395567	0.02
Perfluorodecane Sulfonate	N/A*******	0.02	0	0.02	0	0	0.02
Perfluoroheptanoic Acid (PFHpA)	0.14832400	0.02	0	0.02	0.02687489	0.02413416	0.02
Perfluoroheptane sulfonate	N/A*******	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
Perfluorohexanoic Acid (PFHxA)	0.75304074	0.02	0	0.02	0.25466174	0.26927519	0.02
Perfluorohexane Sulfonate (PFHxS)	3.43159562	0.20	0	0.02	1.09267380	1.06946328	0.20
Perfluorononanoic Acid (PFNA)	0.03654888	0.02	0	0.02	0	0	0.02
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	0.02	0	0.02	0	0	0.02
Perfluoropentanoic Acid (PFPeA)	N/A*******	0.02	0	0.02	0.04725727	0.05184042	0.02
Perfluorotetradecanoic Acid	0	0.02	0	0.02	0	0	0.02
Perfluorotridecanoic Acid	0	0.02	0	0.02	0	0	0.02
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.02	0	0	0.02
Perfluorodecanoic Acid (PFDA)	0.07369929	0.02	0	0.02	0	0	0.02
Perfluorododecanoic Acid (PFDoA)	0	0.02	0	0.02	0	0	0.02
Perfluoro-n-Octanoic Acid (PFOA)	4.17047764	0.20	0	0.02	0.09569128	0.09231902	0.02
Perfluorooctane Sulfonate (PFOS)	2.29367635	0.20	0	0.02	1.37745645	1.37429382	0.20
13C2-6:2 Fluorotelomer sulfonate	N/A*******		99.4709478		92.4936534	85.5439064	
13C2-8:2 Fluorotelomer sulfonate	N/A*******		102.576744		93.1796170	85.7932369	
13C2-perfluorotetradecanoic acid	62.7186675		72.6396163		60.6251410	68.8480560	
13C4-Perfluorobutanoic acid	N/A*******		107.780951		91.2863461	98.0999406	
D3-MeFOSAA	85.5570757		N/A*******		N/A*******	N/A*******	
D5-EtFOSAA	81.3792489		N/A*******		N/A*******	N/A*******	
N-methyl-d3-perfluorooctane sulfona	N/A*******		N/A*******		N/A*******	N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	N/A*******		N/A*******		N/A*******	N/A*******	
13C2-Perfluorodecanoic acid	95.9757377		95.2979581		82.8743148	86.7551184	
13C2-Perfluorododecanoic acid	85.1680878		83.5742092		72.9909892	75.2745084	
13C2-Perfluorohexanoic acid	100.767884		98.2117080		95.8949265	92.2252939	
13C2-Perfluoroundecanoic acid	91.5362503		86.5241247		79.7359465	81.9713568	
13C4-Perfluoroheptanoic acid	99.2148895		108.753535		98.8526066	97.8554264	
13C5-Perfluorononanoic acid	101.337094		91.7606696		90.1261119	98.2804173	
13C4-Perfluorooctanoic acid	98.4394235		101.066499		98.8863914	101.197237	
13C4-Perfluorooctanesulfonate	94.9509918		101.891887		101.249235	93.1206903	
13C5-Perfluoropentanoic acid	N/A*******		102.672027		94.0142993	94.8458552	
13C8-Perfluorooctane Sulfonamide	N/A*******		91.0994201		89.6013484	90.7999066	
18O2-Perfluorohexanesulfonate	91.9627718		100.813561		113.084787	103.570221	

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B820260 FZJ957	B820260 FZJ958	B820260 FZJ959	DL	B820260 FZJ960	DL	B820260 FZJ961
6:2 Fluorotelomer sulfonate	0.04974504	0.05424333	0.06449380	0.02	31.9163707	1.0	32.2962597
8:2 Fluorotelomer sulfonate	0	0	0	0.02	4.89933013	0.20	4.17456447
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
EtFOSAA	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
MeFOSAA	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
Perfluorobutanoic acid	0.06535158	0.03607045	0.07836658	0.02	1.60742324	0.20	1.56195759
Perfluorobutane Sulfonate (PFBS)	0.06402683	0.02742408	0.03798547	0.02	0.16301560	0.20	0.12110193
Perfluorodecane Sulfonate	0	0	0	0.02	0	0.20	0
Perfluoroheptanoic Acid (PFHpA)	0.09685969	0.07097721	0.15858021	0.02	3.84589075	0.20	3.99085407
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
Perfluorohexanoic Acid (PFHxA)	0.14853802	0.13641467	0.19852972	0.02	4.29306109	0.20	4.00191008
Perfluorohexane Sulfonate (PFHxS)	0.41241037	0.56075599	0.42570356	0.02	3.80476171	0.20	3.30938765
Perfluorononanoic Acid (PFNA)	0.06606714	0.05398288	0.11336051	0.02	1.22610206	0.20	1.30779193
Perfluorooctane Sulfonamide (PFOSA)	0	0	0	0.02	0	0.20	0
Perfluoropentanoic Acid (PFPeA)	0.14683171	0.10585420	0.22387809	0.02	5.24047567	0.20	4.94102874
Perfluorotetradecanoic Acid	0.00000	0	0	0.02	0	0.20	0
Perfluorotridecanoic Acid	0.00000	0	0.00921832	0.02	0	0.20	0
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0.02	0	0.20	0
Perfluorodecanoic Acid (PFDA)	0	0	0	0.02	0	0.20	0
Perfluorododecanoic Acid (PFDoA)	0	0	0	0.02	0	0.20	0
Perfluoro-n-Octanoic Acid (PFOA)	0.18397826	0.19136755	0.30109728	0.02	3.30353717	0.20	3.20533942
Perfluorooctane Sulfonate (PFOS)	0.29636302	0.20838325	0.50253337	0.02	21.0871686	1.0	20.3954952
13C2-6:2 Fluorotelomer sulfonate	95.4919409	95.7488174	85.2691482		91.1277076		84.6510311
13C2-8:2 Fluorotelomer sulfonate	92.4278522	97.0409503	81.6397968		93.2161445		85.4770857
13C2-perfluorotetradecanoic acid	44.2847	85.6193640	49.5000598		63.8301031		56.8302436
13C4-Perfluorobutanoic acid	91.2382613	99.3868675	89.4229453		102.601412		96.3830424
D3-MeFOSAA	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
D5-EtFOSAA	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
13C2-Perfluorodecanoic acid	100.529356	100.383410	86.3606850		84.2559871		90.0775911
13C2-Perfluorododecanoic acid	86.7943988	87.9373410	77.4393887		90.8093646		79.2916994
13C2-Perfluorohexanoic acid	101.346270	102.976334	91.8255590		97.8806249		100.725167
13C2-Perfluoroundecanoic acid	97.0179663	92.3000597	76.9075727		88.2244894		88.7095695
13C4-Perfluoroheptanoic acid	104.475926	103.249972	99.1260222		101.493204		88.8939540
13C5-Perfluorononanoic acid	103.635887	99.2852701	93.9098544		97.7051624		88.5054507
13C4-Perfluorooctanoic acid	99.9606542	99.8193732	99.1224498		100.462841		94.3578664
13C4-Perfluorooctanesulfonate	107.076173	111.953124	88.8434402		112.631192		93.7596653
13C5-Perfluoropentanoic acid	104.312817	98.8376544	93.7462923		98.0937078		96.3191221
13C8-Perfluorooctane Sulfonamide	98.5798571	94.0508767	83.7052351		79.5766400		82.0666807
18O2-Perfluorohexanesulfonate	109.097251	99.3936113	96.4821495		91.7106747		99.6168656

Worksheet Number: **5391181**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

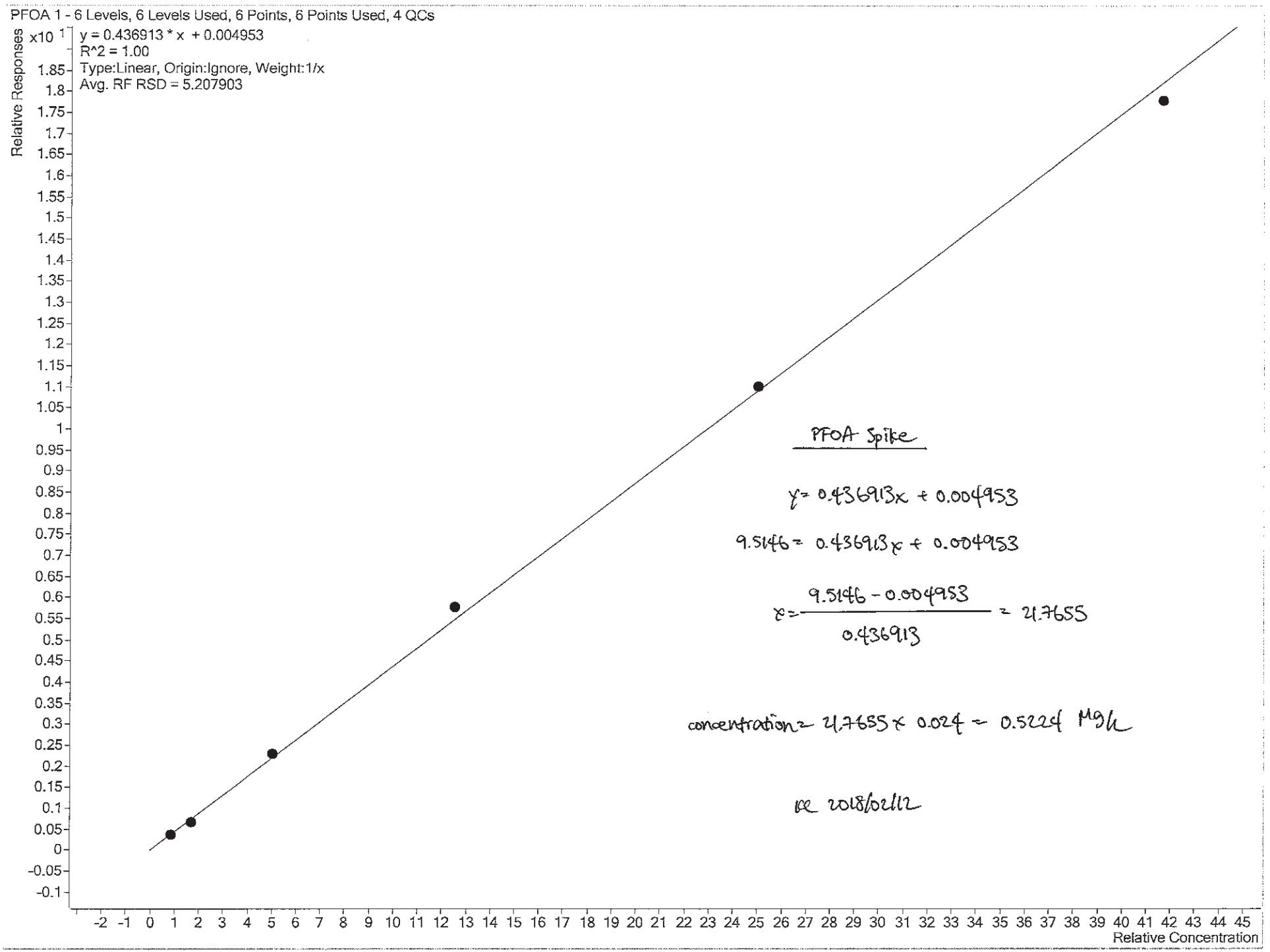
Parameter Name	DL	B823896 GAC701	B823896 GAC702	B823896 GAC703	B823896 GAC704	DL	RDL
6:2 Fluorotelomer sulfonate	1.0	0	0	0	0.00533983	0.02	0.02
8:2 Fluorotelomer sulfonate	0.10	0	0	0	0	0.02	0.02
N-ethylperfluorooctane sulfonamide	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
EtFOSAA	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
N-ethylperfluorooctane sulfonamidoe	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
N-methylperfluorooctane sulfonamide	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
MeFOSAA	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
N-methylperfluorooctanesulfonamidol	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
Perfluorobutanoic acid	0.10	0	0	0	0	0.02	0.02
Perfluorobutane Sulfonate (PFBS)	0.10	0	0	0	0	0.02	0.02
Perfluorodecane Sulfonate	0.10	0	0	0	0	0.02	0.02
Perfluoroheptanoic Acid (PFHpA)	0.10	0	0	0	0	0.02	0.02
Perfluoroheptane sulfonate	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
Perfluorohexanoic Acid (PFHxA)	0.10	0	0	0	0	0.02	0.02
Perfluorohexane Sulfonate (PFHxS)	0.10	0	0	0	0	0.02	0.02
Perfluorononanoic Acid (PFNA)	0.10	0	0	0	0	0.02	0.02
Perfluorooctane Sulfonamide (PFOSA)	0.10	0	0	0	0.01975801	0.02	0.02
Perfluoropentanoic Acid (PFPeA)	0.50	0	0	0	0.02161782	0.02	0.02
Perfluorotetradecanoic Acid	0.10	0	0	0	0	0.02	0.02
Perfluorotridecanoic Acid	0.10	0	0	0	0	0.02	0.02
Perfluoroundecanoic Acid (PFUnA)	0.10	0	0	0	0	0.02	0.02
Perfluorodecanoic Acid (PFDA)	0.10	0	0	0	0	0.02	0.02
Perfluorododecanoic Acid (PFDoA)	0.10	0	0	0	0	0.02	0.02
Perfluoro-n-Octanoic Acid (PFOA)	0.10	0	0	0	0	0.02	0.02
Perfluorooctane Sulfonate (PFOS)	1.0	0	0	0	0	0.02	0.02
13C2-6:2 Fluorotelomer sulfonate		97.8102296	69.1507251	86.6695700	84.6246618		
13C2-8:2 Fluorotelomer sulfonate		104.246905	99.9689768	86.7895649	93.9761362		
13C2-perfluorotetradecanoic acid		83.7687089	74.9093051	72.0503597	55.1062911		
13C4-Perfluorobutanoic acid		97.2961709	93.7239087	61.2124320	!! 44.2962		
D3-MeFOSAA		N/A*******	N/A*******	N/A*******	N/A*******		
D5-EtFOSAA		N/A*******	N/A*******	N/A*******	N/A*******		
N-methyl-d3-perfluorooctane sulfona		N/A*******	N/A*******	N/A*******	N/A*******		
N-ethyl-d5-perfluorooctane sulfonam		N/A*******	N/A*******	N/A*******	N/A*******		
13C2-Perfluorodecanoic acid		94.5293874	97.2619905	100.004643	99.2075459		
13C2-Perfluorododecanoic acid		85.0062081	113.615132	88.1467309	80.9769992		
13C2-Perfluorohexanoic acid		95.0527718	101.390681	102.428175	83.0127347		
13C2-Perfluoroundecanoic acid		86.1519819	118.017543	93.7841008	95.5079443		
13C4-Perfluoroheptanoic acid		96.4226955	102.700745	96.2290443	94.7953905		
13C5-Perfluorononanoic acid		97.7893662	!! 26.4300	99.4082956	83.7546603		
13C4-Perfluorooctanoic acid		96.9773259	65.5087477	101.579765	88.4210084		
13C4-Perfluorooctanesulfonate		97.5409840	84.3147161	98.5243325	89.3998315		
13C5-Perfluoropentanoic acid		93.0204094	93.7041878	106.787873	89.4170762		
13C8-Perfluorooctane Sulfonamide		86.4836877	108.378743	85.3341079	88.4336828		
18O2-Perfluorohexanesulfonate		94.8958372	105.951862	102.019143	88.8595791		

Worksheet Number: **5391181**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	MDL	IDL					
6:2 Fluorotelomer sulfonate	0.0066	0					
8:2 Fluorotelomer sulfonate	0.0066	0					
N-ethylperfluorooctane sulfonamide	0.01	0					
EtFOSAA	0.0033	0					
N-ethylperfluorooctane sulfonamidoe	0.0079	0					
N-methylperfluorooctane sulfonamide	0.013	0					
MeFOSAA	0.0029	0					
N-methylperfluorooctanesulfonamidol	0.012	0					
Perfluorobutanoic acid	0.0055	0					
Perfluorobutane Sulfonate (PFBS)	0.0054	0					
Perfluorodecane Sulfonate	0.006	0					
Perfluoroheptanoic Acid (PFHpA)	0.0074	0					
Perfluoroheptane sulfonate	0.008	0					
Perfluorohexanoic Acid (PFHxA)	0.0035	0					
Perfluorohexane Sulfonate (PFHxS)	0.0056	0					
Perfluorononanoic Acid (PFNA)	0.0087	0					
Perfluorooctane Sulfonamide (PFOSA)	0.0034	0					
Perfluoropentanoic Acid (PFPeA)	0.0075	0					
Perfluorotetradecanoic Acid	0.0027	0					
Perfluorotridecanoic Acid	0.0038	0					
Perfluoroundecanoic Acid (PFUnA)	0.0025	0					
Perfluorodecanoic Acid (PFDA)	0.0061	0					
Perfluorododecanoic Acid (PFDoA)	0.005	0					
Perfluoro-n-Octanoic Acid (PFOA)	0.0033	0					
Perfluorooctane Sulfonate (PFOS)	0.006	0					
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



PFOA Spike

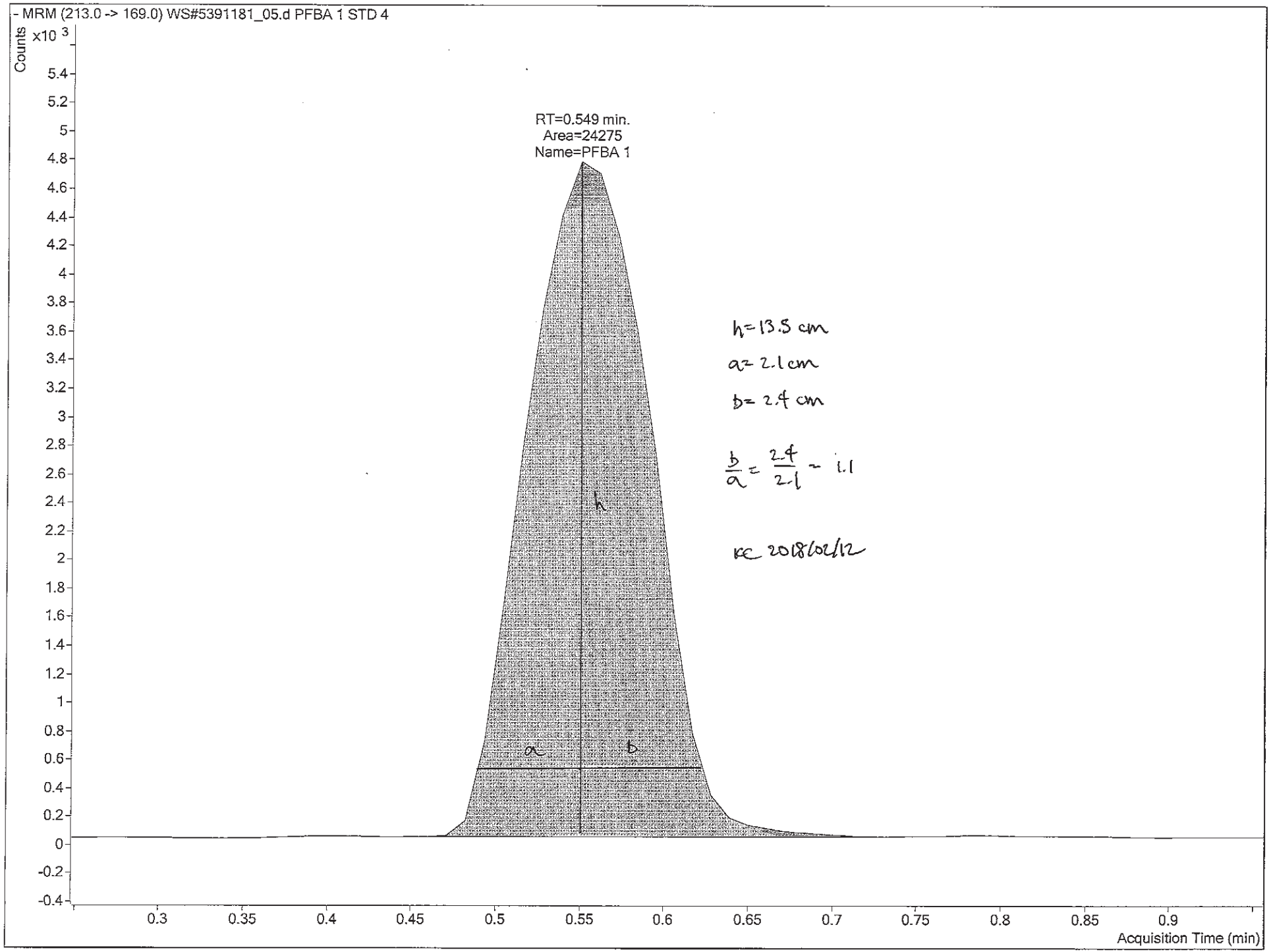
$y = 0.436913x + 0.004953$

$9.5146 = 0.436913x + 0.004953$

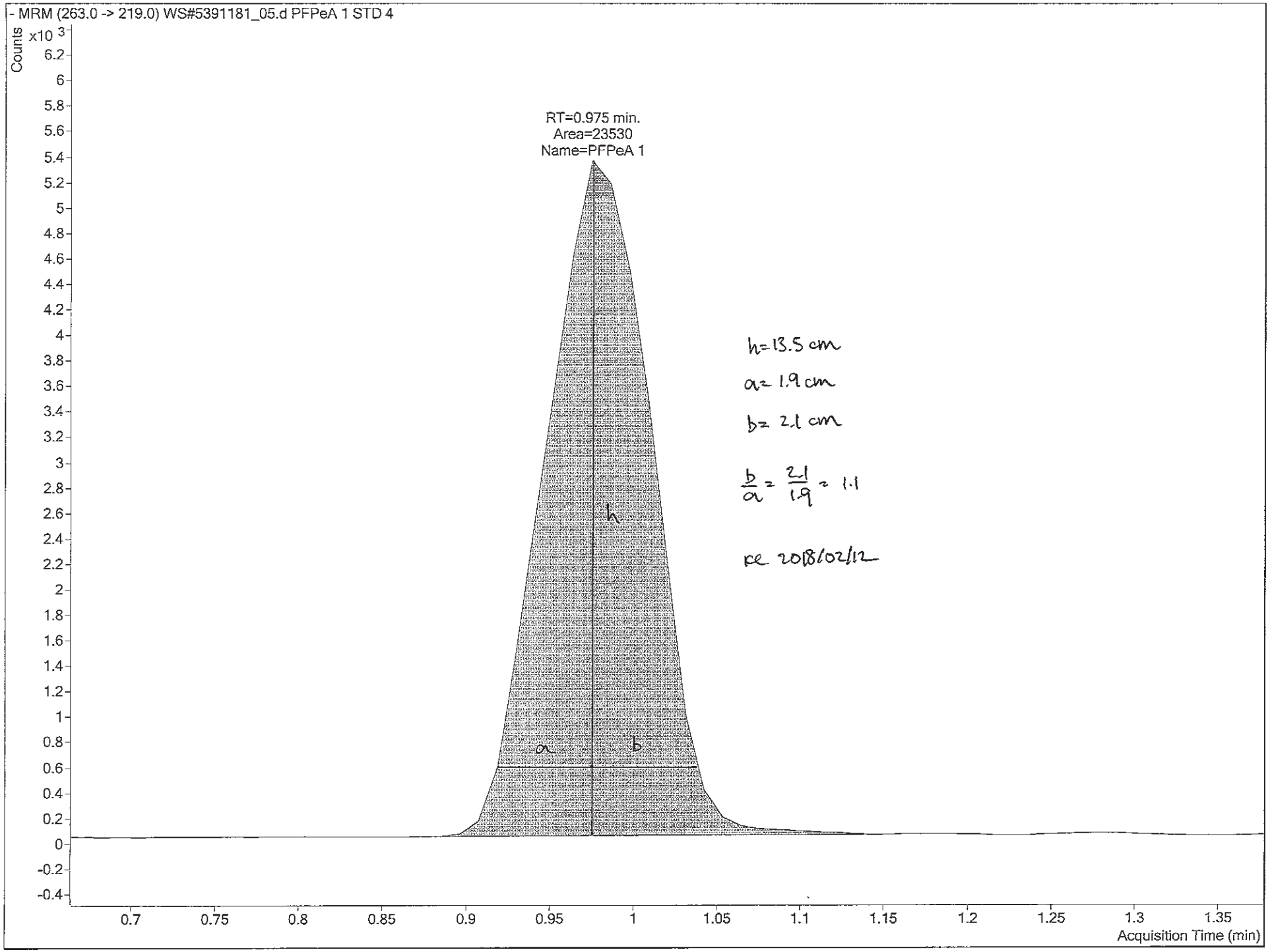
$x = \frac{9.5146 - 0.004953}{0.436913} = 21.7655$

concentration = $21.7655 \times 0.024 = 0.5224$ mg/L

RE 2018/02/12



Maxxam Analytics


- MRM (263.0 -> 219.0) WS#5391181_05.d PFPeA 1 STD 4
Counts
x10 3
RT=0.975 min.
Area=23530
Name=PFPeA 1
h
a
b
h=13.5 cm
a= 1.9 cm
b= 2.1 cm
b/a = 2.1/1.9 = 1.1
RE 2018/02/12
Acquisition Time (min)

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/08

Test Code: **PFOSALCM-W**

Worksheet Number: **5391181**

Sample Number	Parameter Code	Parameter	
FZH326-01	ETFOSAA	EtFOSAA	*
FZH327-01	MEFOSAA	MeFOSAA	*
	PFBS	Perfluorobutane Sulfonate (PFBS)	
	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	
FZJ942-01	6:2FTS	6:2 Fluorotelomer sulfonate	*
FZJ955-01	8:2FTS	8:2 Fluorotelomer sulfonate	*
FZJ956-01	PFBA	Perfluorobutanoic acid	
FZJ957-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FZJ958-01	PFDS	Perfluorodecane Sulfonate	
FZJ959-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
FZJ960-01	PFHXA	Perfluorohexanoic Acid (PFHxA)	
FZJ961-01	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
GAC701-01	PFNA	Perfluorononanoic Acid (PFNA)	
GAC702-01	PFOSA	Perfluorooctane Sulfonamide (PFOSA)	
GAC703-01	PFPEA	Perfluoropentanoic Acid	

* - This parameter is usually off, but will be reported for this group of samples!

Report Name: Worksheet - Parameter Lists
Report Date: 2018/02/08

Test Code: **PFOSALCM-W**
Worksheet Number: **5391181**

Sample Number	Parameter Code	Parameter
		(PFPeA)
GAC704-01	PFTEDA	Perfluorotetradecanoic Acid
	PFTRDA	Perfluorotridecanoic Acid
	PFUNA	Perfluoroundecanoic Acid (PFUnA)
	PFDA	Perfluorodecanoic Acid (PFDA)
	PFDOA	Perfluorododecanoic Acid (PFDoA)
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)
	PFOS	Perfluorooctane Sulfonate (PFOS)

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5391181 Instrument Sequences

1.	5391181:MTRX SPK	MTRX SPK
2.	5391181:MTRX SPK:D1	MTRX SPK :D1
3.	5391181:SPIKE	SPIKE
4.	5391181:BLANK	BLANK
5.	5391181:FZH326-01	CEF-007-TW01-0118
6.	5391181:FZH327-01	CEF-007-TW02-0118
7.	5391181:FZJ942-01	[redacted]
8.	5391181:FZJ955-01	[redacted]
9.	5391181:FZJ956-01	[redacted]
10.	5391181:FZJ957-01	[redacted]
11.	5391181:FZJ958-01	[redacted]
12.	5391181:FZJ959-01	[redacted]
13.	5391181:FZJ960-01	[redacted]
14.	5391181:FZJ961-01	[redacted]
15.	5391181:GAC701-01	[redacted]
16.	5391181:GAC702-01	[redacted]
17.	5391181:GAC703-01	[redacted]
18.	5391181:GAC704-01	[redacted]

Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180209_Low.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180209\WS#5391181
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

20180209 ll

verified by ICE
20180209

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P1-A1	PFC_Water_Low.m	WS#5391181_01.d	Sample		As Method	-
2	STD 1	P1-C1	PFC_Water_Low.m	WS#5391181_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-C2	PFC_Water_Low.m	WS#5391181_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-C3	PFC_Water_Low.m	WS#5391181_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-C4	PFC_Water_Low.m	WS#5391181_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-C5	PFC_Water_Low.m	WS#5391181_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-C6	PFC_Water_Low.m	WS#5391181_07.d	Calibration	STD 6	As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P1-C7	PFC_Water_Low.m	WS#5391181_08.d	Sample		As Method	-
9	ICV	P1-C8	PFC_Water_Low.m	WS#5391181_09.d	QC	ICV	As Method	-
10	ISC	P1-A2	PFC_Water_Low.m	WS#5391181_10.d	ConCal	STD 1	As Method	-
11	5391181:BLANK	P1-C9	PFC_Water_Low.m	WS#5391181_11.d	Sample		As Method	-
12	5391181:SPIKE	P1-D1	PFC_Water_Low.m	WS#5391181_12.d	QC	ICV	As Method	-
13	5391181:MTRX SPK	P1-D2	PFC_Water_Low.m	WS#5391181_13.d	QC	ICV	As Method	-
14	5391181:MTRX SPK:D1	P1-D3	PFC_Water_Low.m	WS#5391181_14.d	QC	ICV	As Method	-
15	IB	P1-C7	PFC_Water_Low.m	WS#5391181_15.d	Sample		As Method	-
16	5391181:FZH326-01:10x	P1-D4	PFC_Water_Low.m	WS#5391181_16.d	Sample		As Method	-
17	5391181:FZH326-01	P1-D5	PFC_Water_Low.m	WS#5391181_17.d	Sample		As Method	-
18	IB	P1-C7	PFC_Water_Low.m	WS#5391181_18.d	Sample		As Method	-
19	5391181:FZH327-01:10x	P1-D6	PFC_Water_Low.m	WS#5391181_19.d	Sample		As Method	-
20	5391181:FZH327-01	P1-D7	PFC_Water_Low.m	WS#5391181_20.d	Sample		As Method	-
21	IB	P1-C7	PFC_Water_Low.m	WS#5391181_21.d	Sample		As Method	-
22	5391181:FZJ942-01	P1-D8	PFC_Water_Low.m	WS#5391181_22.d	Sample		As Method	-
23	5391181:FZJ955-01:10x	P1-D9	PFC_Water_Low.m	WS#5391181_23.d	Sample		As Method	-
24	5391181:FZJ955-01	P1-E1	PFC_Water_Low.m	WS#5391181_24.d	Sample		As Method	-
25	IB	P1-C7	PFC_Water_Low.m	WS#5391181_25.d	Sample		As Method	-
26	5391181:FZJ956-01:10x	P1-E2	PFC_Water_Low.m	WS#5391181_26.d	Sample		As Method	-
27	5391181:FZJ956-01	P1-E3	PFC_Water_Low.m	WS#5391181_27.d	Sample		As Method	-
28	IB	P1-C7	PFC_Water_Low.m	WS#5391181_28.d	Sample		As Method	-
29	CCV	P1-A5	PFC_Water_Low.m	WS#5391181_29.d	ConCal	STD 4	As Method	-
30	5391181:FZJ957-01:10x	P1-E4	PFC_Water_Low.m	WS#5391181_30.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5391181:FZJ957-01	P1-E5	PFC_Water_Low.m	WS#5391181_31.d	Sample		As Method	-
32	IB	P1-C7	PFC_Water_Low.m	WS#5391181_32.d	Sample		As Method	-
33	5391181:FZJ958-01:10x	P1-E6	PFC_Water_Low.m	WS#5391181_33.d	Sample		As Method	-
34	5391181:FZJ958-01	P1-E7	PFC_Water_Low.m	WS#5391181_34.d	Sample		As Method	-
35	IB	P1-C7	PFC_Water_Low.m	WS#5391181_35.d	Sample		As Method	-
36	5391181:FZJ959-01:10x	P1-E8	PFC_Water_Low.m	WS#5391181_36.d	Sample		As Method	-
37	5391181:FZJ959-01	P1-E9	PFC_Water_Low.m	WS#5391181_37.d	Sample		As Method	-
38	IB	P1-C7	PFC_Water_Low.m	WS#5391181_38.d	Sample		As Method	-
39	5391181:FZJ960-01:50x	P1-F1	PFC_Water_Low.m	WS#5391181_39.d	Sample		As Method	-
40	5391181:FZJ960-01:10x	P1-F2	PFC_Water_Low.m	WS#5391181_40.d	Sample		As Method	-
41	IB	P1-C7	PFC_Water_Low.m	WS#5391181_41.d	Sample		As Method	-
42	5391181:FZJ961-01:25x	P1-F3	PFC_Water_Low.m	WS#5391181_42.d	Sample		As Method	-
43	5391181:FZJ961-01:5x	P1-F4	PFC_Water_Low.m	WS#5391181_43.d	Sample		As Method	-
44	IB	P1-C7	PFC_Water_Low.m	WS#5391181_44.d	Sample		As Method	-
45	CCV	P1-A5	PFC_Water_Low.m	WS#5391181_45.d	ConCal	STD 4	As Method	-
46	5391181:GAC701-01	P1-F5	PFC_Water_Low.m	WS#5391181_46.d	Sample		As Method	-
47	5391181:GAC702-01	P1-F6	PFC_Water_Low.m	WS#5391181_47.d	Sample		As Method	-
48	5391181:GAC703-01	P1-F7	PFC_Water_Low.m	WS#5391181_48.d	Sample		As Method	-
49	5391181:GAC704-01	P1-F8	PFC_Water_Low.m	WS#5391181_49.d	Sample		As Method	-
50	CCV	P1-A5	PFC_Water_Low.m	WS#5391181_50.d	ConCal	STD 4	As Method	-

Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180209_Low_FOSAA.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180209\WS#5391181_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B1: Solution# 272 (FSRE18)

2018/02/09

verified by RE
2018/02/09

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P1-A1	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_01.d	Sample		As Method	-
2	STD 1	P1-C1	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-C2	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-C3	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-C4	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-C5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-C6	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P1-C8	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P1-A2	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5391181:BLANK	P1-C9	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_11.d	Sample		As Method	-
12	5391181:SPIKE	P1-D1	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_12.d	QC	ICV	As Method	-
13	5391181:MTRX SPK	P1-D2	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_13.d	QC	ICV	As Method	-
14	5391181:MTRX SPK:D1	P1-D3	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_14.d	QC	ICV	As Method	-
15	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_15.d	Sample		As Method	-
16	5391181:FZH326-01:10x	P1-D4	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_16.d	Sample		As Method	-
17	5391181:FZH326-01	P1-D5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_17.d	Sample		As Method	-
18	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_18.d	Sample		As Method	-
19	5391181:FZH327-01:10x	P1-D6	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_19.d	Sample		As Method	-
20	5391181:FZH327-01	P1-D7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_20.d	Sample		As Method	-
21	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_21.d	Sample		As Method	-
22	5391181:FZJ942-01	P1-D8	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_22.d	Sample		As Method	-
23	5391181:FZJ955-01:10x	P1-D9	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_23.d	Sample		As Method	-
24	5391181:FZJ955-01	P1-E1	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_24.d	Sample		As Method	-
25	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_25.d	Sample		As Method	-
26	5391181:FZJ956-01:10x	P1-E2	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_26.d	Sample		As Method	-
27	5391181:FZJ956-01	P1-E3	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_27.d	Sample		As Method	-
28	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_28.d	Sample		As Method	-
29	CCV	P1-A5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_29.d	ConCal	STD 4	As Method	-
30	5391181:FZJ957-01:10x	P1-E4	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_30.d	Sample		As Method	-
31	5391181:FZJ957-01	P1-E5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_31.d	Sample		As Method	-
32	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_32.d	Sample		As Method	-
33	5391181:FZJ958-01:10x	P1-E6	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_33.d	Sample		As Method	-
34	5391181:FZJ958-01	P1-E7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_34.d	Sample		As Method	-

Maxxam Analytics

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D:\MassHunter\Worklists\PFCs\PFC_180209_Low_FOSAA.wkl

Report generation date: 09-Feb-2018 10:15:37 AM

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
35	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_35.d	Sample		As Method	-
36	5391181:FZJ959-01:10x	P1-E8	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_36.d	Sample		As Method	-
37	5391181:FZJ959-01	P1-E9	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_37.d	Sample		As Method	-
38	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_38.d	Sample		As Method	-
39	5391181:FZJ960-01:50x	P1-F1	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_39.d	Sample		As Method	-
40	5391181:FZJ960-01:10x	P1-F2	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_40.d	Sample		As Method	-
41	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_41.d	Sample		As Method	-
42	5391181:FZJ961-01:25x	P1-F3	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_42.d	Sample		As Method	-
43	5391181:FZJ961-01:5x	P1-F4	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_43.d	Sample		As Method	-
44	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_44.d	Sample		As Method	-
45	CCV	P1-A5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_45.d	ConCal	STD 4	As Method	-
46	5391181:GAC701-01	P1-F5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_46.d	Sample		As Method	-
47	5391181:GAC702-01	P1-F6	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_47.d	Sample		As Method	-
48	5391181:GAC703-01	P1-F7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_48.d	Sample		As Method	-
49	5391181:GAC704-01	P1-F8	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_49.d	Sample		As Method	-
50	CCV	P1-A5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_50.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/09 12:32 PM	PFC_Water_Low.m	WS#5391181_02.d	P1-C1
STD 2	-	2018/02/09 12:37 PM	PFC_Water_Low.m	WS#5391181_03.d	P1-C2
STD 3	-	2018/02/09 12:42 PM	PFC_Water_Low.m	WS#5391181_04.d	P1-C3
STD 4	-	2018/02/09 12:47 PM	PFC_Water_Low.m	WS#5391181_05.d	P1-C4
STD 5	-	2018/02/09 12:51 PM	PFC_Water_Low.m	WS#5391181_06.d	P1-C5
STD 6	-	2018/02/09 12:56 PM	PFC_Water_Low.m	WS#5391181_07.d	P1-C6
IB	-	2018/02/09 1:01 PM	PFC_Water_Low.m	WS#5391181_08.d	P1-C7
ICV	-	2018/02/09 1:06 PM	PFC_Water_Low.m	WS#5391181_09.d	P1-C8
ISC	-	2018/02/09 1:11 PM	PFC_Water_Low.m	WS#5391181_10.d	P1-A2
5391181:BLANK	-	2018/02/09 1:16 PM	PFC_Water_Low.m	WS#5391181_11.d	P1-C9
5391181:SPIKE	-	2018/02/09 1:21 PM	PFC_Water_Low.m	WS#5391181_12.d	P1-D1
5391181:MTRX SPK	FZJ955	2018/02/09 1:26 PM	PFC_Water_Low.m	WS#5391181_13.d	P1-D2
5391181:MTRX SPK:D1	FZJ955	2018/02/09 1:31 PM	PFC_Water_Low.m	WS#5391181_14.d	P1-D3
IB	-	2018/02/09 1:36 PM	PFC_Water_Low.m	WS#5391181_15.d	P1-C7
5391181:FZH326-01:10x	Reported for PFHxS, PFOA, and PFOS only.	2018/02/09 1:41 PM	PFC_Water_Low.m	WS#5391181_16.d	P1-D4
5391181:FZH326-01	Reported for all except PFHxS, PFOA, and PFOS	2018/02/09 1:46 PM	PFC_Water_Low.m	WS#5391181_17.d	P1-D5
IB	-	2018/02/09 1:51 PM	PFC_Water_Low.m	WS#5391181_18.d	P1-C7
5391181:FZH327-01:10x	Reported for PFHxS, PFOA, and PFOS only.	2018/02/09 1:56 PM	PFC_Water_Low.m	WS#5391181_19.d	P1-D6
5391181:FZH327-01	Reported for all except PFHxS, PFOA, and PFOS	2018/02/09 2:01 PM	PFC_Water_Low.m	WS#5391181_20.d	P1-D7
IB	-	2018/02/09 2:05 PM	PFC_Water_Low.m	WS#5391181_21.d	P1-C7
5391181:FZJ942-01	-	2018/02/09 2:10 PM	PFC_Water_Low.m	WS#5391181_22.d	P1-D8
5391181:FZJ955-01:10x	Reported for PFHxS and PFOS only.	2018/02/09 2:15 PM	PFC_Water_Low.m	WS#5391181_23.d	P1-D9
5391181:FZJ955-01	Reported for all except PFHxS and PFOS.	2018/02/09 2:20 PM	PFC_Water_Low.m	WS#5391181_24.d	P1-E1
IB	-	2018/02/09 2:25 PM	PFC_Water_Low.m	WS#5391181_25.d	P1-C7
5391181:FZJ956-01:10x	Reported for PFHxS and PFOS only.	2018/02/09 2:30 PM	PFC_Water_Low.m	WS#5391181_26.d	P1-E2
5391181:FZJ956-01	Reported for all except PFHxS and PFOS.	2018/02/09 2:35 PM	PFC_Water_Low.m	WS#5391181_27.d	P1-E3
IB	-	2018/02/09 2:40 PM	PFC_Water_Low.m	WS#5391181_28.d	P1-C7
CCV	-	2018/02/09 2:45 PM	PFC_Water_Low.m	WS#5391181_29.d	P1-A5
5391181:FZJ957-01:10x	Not used.	2018/02/09 2:50 PM	PFC_Water_Low.m	WS#5391181_30.d	P1-E4
5391181:FZJ957-01	Reported for all.	2018/02/09 2:55 PM	PFC_Water_Low.m	WS#5391181_31.d	P1-E5
IB	-	2018/02/09 3:00 PM	PFC_Water_Low.m	WS#5391181_32.d	P1-C7
5391181:FZJ958-01:10x	Not used.	2018/02/09 3:05 PM	PFC_Water_Low.m	WS#5391181_33.d	P1-E6
5391181:FZJ958-01	Reported for all.	2018/02/09 3:10 PM	PFC_Water_Low.m	WS#5391181_34.d	P1-E7

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
IB	-	2018/02/09 3:15 PM	PFC_Water_Low.m	WS#5391181_35.d	P1-C7
5391181:FZJ959-01:10x	Not used.	2018/02/09 3:19 PM	PFC_Water_Low.m	WS#5391181_36.d	P1-E8
5391181:FZJ959-01	Reported for all.	2018/02/09 3:24 PM	PFC_Water_Low.m	WS#5391181_37.d	P1-E9
IB	-	2018/02/09 3:29 PM	PFC_Water_Low.m	WS#5391181_38.d	P1-C7
5391181:FZJ960-01:50x	Reported for 6:2-FTS and PFOS.	2018/02/09 3:34 PM	PFC_Water_Low.m	WS#5391181_39.d	P1-F1
5391181:FZJ960-01:10x	Reported for all except 6:2-FTS and PFOS.	2018/02/09 3:39 PM	PFC_Water_Low.m	WS#5391181_40.d	P1-F2
IB	-	2018/02/09 3:44 PM	PFC_Water_Low.m	WS#5391181_41.d	P1-C7
5391181:FZJ961-01:25x	Reported for PFPeA only.	2018/02/09 3:49 PM	PFC_Water_Low.m	WS#5391181_42.d	P1-F3
5391181:FZJ961-01:5x	Reported for all except 6:2-FTS, PFOS, and PFP	2018/02/09 3:54 PM	PFC_Water_Low.m	WS#5391181_43.d	P1-F4
IB	-	2018/02/09 3:59 PM	PFC_Water_Low.m	WS#5391181_44.d	P1-C7
CCV	-	2018/02/09 4:04 PM	PFC_Water_Low.m	WS#5391181_45.d	P1-A5
5391181:GAC701-01	-	2018/02/09 4:09 PM	PFC_Water_Low.m	WS#5391181_46.d	P1-F5
5391181:GAC702-01	-	2018/02/09 4:14 PM	PFC_Water_Low.m	WS#5391181_47.d	P1-F6
5391181:GAC703-01	-	2018/02/09 4:19 PM	PFC_Water_Low.m	WS#5391181_48.d	P1-F7
5391181:GAC704-01	-	2018/02/09 4:24 PM	PFC_Water_Low.m	WS#5391181_49.d	P1-F8
CCV	-	2018/02/09 4:29 PM	PFC_Water_Low.m	WS#5391181_50.d	P1-A5
ISC	-	2018/02/12 1:55 PM	PFC_Water_Low.m	WS#5391181_54.d	P3-F7
5391181:FZJ961-01:50x	Reported for 6:2-FTS and PFOS only.	2018/02/12 2:01 PM	PFC_Water_Low.m	WS#5391181_55.d	P3-F8
CCV	-	2018/02/12 2:06 PM	PFC_Water_Low.m	WS#5391181_56.d	P3-F9

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/09 10:29 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_02.d	P1-C1
STD 2	-	2018/02/09 10:31 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_03.d	P1-C2
STD 3	-	2018/02/09 10:34 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_04.d	P1-C3
STD 4	-	2018/02/09 10:36 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_05.d	P1-C4
STD 5	-	2018/02/09 10:39 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_06.d	P1-C5
STD 6	-	2018/02/09 10:41 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_07.d	P1-C6
IB	-	2018/02/09 10:43 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_08.d	P1-C7
ICV	-	2018/02/09 10:46 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_09.d	P1-C8
ISC	-	2018/02/09 10:48 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_10.d	P1-A2
5391181:BLANK	-	2018/02/09 10:51 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_11.d	P1-C9
5391181:SPIKE	-	2018/02/09 10:53 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_12.d	P1-D1
5391181:MTRX SPK	FZJ955	2018/02/09 10:56 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_13.d	P1-D2
5391181:MTRX SPK:D1	FZJ955	2018/02/09 10:58 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_14.d	P1-D3
IB	-	2018/02/09 11:00 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_15.d	P1-C7
5391181:FZH326-01:10x	Not used.	2018/02/09 11:03 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_16.d	P1-D4
5391181:FZH326-01	Reported for all.	2018/02/09 11:05 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_17.d	P1-D5
IB	-	2018/02/09 11:08 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_18.d	P1-C7
5391181:FZH327-01:10x	Not used.	2018/02/09 11:10 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_19.d	P1-D6
5391181:FZH327-01	Reported for all.	2018/02/09 11:12 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_20.d	P1-D7
IB	-	2018/02/09 11:15 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_21.d	P1-C7
5391181:FZJ942-01	-	2018/02/09 11:17 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_22.d	P1-D8
5391181:FZJ955-01:10x	-	2018/02/09 11:20 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_23.d	P1-D9
5391181:FZJ955-01	-	2018/02/09 11:22 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_24.d	P1-E1
IB	-	2018/02/09 11:24 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_25.d	P1-C7
5391181:FZJ956-01:10x	-	2018/02/09 11:27 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_26.d	P1-E2
5391181:FZJ956-01	-	2018/02/09 11:29 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_27.d	P1-E3
IB	-	2018/02/09 11:32 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_28.d	P1-C7
CCV	-	2018/02/09 11:34 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_29.d	P1-A5
5391181:FZJ957-01:10x	-	2018/02/09 11:36 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_30.d	P1-E4
5391181:FZJ957-01	-	2018/02/09 11:39 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_31.d	P1-E5
IB	-	2018/02/09 11:41 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_32.d	P1-C7
5391181:FZJ958-01:10x	-	2018/02/09 11:44 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_33.d	P1-E6
5391181:FZJ958-01	-	2018/02/09 11:46 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_34.d	P1-E7

Maxxam Analytics

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
IB	-	2018/02/09 11:49 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_35.d	P1-C7
5391181:FZJ959-01:10x	-	2018/02/09 11:51 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_36.d	P1-E8
5391181:FZJ959-01	-	2018/02/09 11:53 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_37.d	P1-E9
IB	-	2018/02/09 11:56 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_38.d	P1-C7
5391181:FZJ960-01:50x	-	2018/02/09 11:58 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_39.d	P1-F1
5391181:FZJ960-01:10x	-	2018/02/10 12:01 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_40.d	P1-F2
IB	-	2018/02/10 12:03 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_41.d	P1-C7
5391181:FZJ961-01:25x	-	2018/02/10 12:05 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_42.d	P1-F3
5391181:FZJ961-01:5x	-	2018/02/10 12:08 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_43.d	P1-F4
IB	-	2018/02/10 12:10 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_44.d	P1-C7
CCV	-	2018/02/10 12:13 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_45.d	P1-A5
5391181:GAC701-01	-	2018/02/10 12:15 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_46.d	P1-F5
5391181:GAC702-01	-	2018/02/10 12:17 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_47.d	P1-F6
5391181:GAC703-01	-	2018/02/10 12:20 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_48.d	P1-F7
5391181:GAC704-01	-	2018/02/10 12:22 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_49.d	P1-F8
CCV	-	2018/02/10 12:25 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_50.d	P1-A5

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/15

Worksheet # (s): 53966699

Analysis: PFOSALCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria 2018/02/20 MP	✓	✓		✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria	✓			✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria	✓			✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed			✓	✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS	✓			✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: MP Date: 2018/02/16

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a	
1	Repeats documented and referenced			✓	
2	Method and sample deviations noted, anomalies described (if applicable)			✓	
3	Data and QC validated in LIMS	✓			
4	Random calculation checked	✓			
5	Benchsheet (s) signed and dated	✓			
6	Data Package (if required) checked for completeness	✓			

Reviewed by: [signature] Date: 2018/02/16

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # PFOSALCM-W | Testcode: 5396699

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	.	✓	
2	Client sample ID verified against Lab ID (waters & oils)			✓
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: [signature] | Date: 2018/2/13

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: | Date:

Comments:

Refer to BRL-FCD-00002 2018/02/16 MG

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: | Date:

Comments:

WS# : 5396699

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Tuesday, February 13, 2018

Assigned to : Shahbaz Ahmad

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

sediment

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or (Vol)	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	MTRX SPK	0	PFC-W FZA786-01		0.2	125	3	1X					2018/02/13
	MTRX SPK	1	PFC-W FZA786-01		0.2	125	3	1X					2018/02/13
	SPIKE		PFC-W		0	125	3	1X					2018/02/13
	BLANK				0	125	3	1X					2018/02/13
B818419	*FZA783-01R		[redacted]		20.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA784-01R		[redacted]		20.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA785-01R		[redacted]		20.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA786-01R		[redacted]		0.2	125	3	1X	6	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA788-01R		[redacted]		20.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA789-01R		[redacted]		20.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA790-01R		[redacted]		20.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA791-01R		[redacted]		20.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA792-01R		[redacted]		20.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA802-01R		[redacted]		20.1	125	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/02/13
B819794	*FZH332-01R		CEF-342-06S-0118-*		20.1	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH334-01R		CEF-343-03S-0118		20.1	125	3	10X	6	2018/02/06	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH336-01R		FB-CEF-NFF-0122*		20.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH338-01R		CEF-372-08-0118		20.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH339-01R		CEF-372-08-0118-D		20.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH340-01R		CEF-003-28S-0118		20.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH341-01R		FB-CEF-016-01221*		20.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH342-01R		CEF-016-07S-0118		20.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH343-01R		CEF-016-17S-0118		20.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B820260	*FZJ934-01R		[redacted]		20.1	125	3	1X	2	2018/02/06	2018/02/09 23:00	DOD	2018/02/13

Remarks:

Samples extracted by: Shahbaz Ahmad

Instrumentation performed by:

Calculations performed by:

Validated by:

Date: 2018/02/15

Date: 2018/02/16

Date: 2018/02/16

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB818419	[redacted]			
GB819794	**SP8 Earth Toxics Inc** NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 F/C by NGV 2018/02/08 Project #: JM10 CECIL	**Rick Carr**	**Tier 5 (Enviro.) AECOM**	
GB820260	[redacted]			

SAD 2018/2/13

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B818419	FZA783-01R	
B818419	FZA784-01R	
B818419	FZA785-01R	
B818419	FZA786-01R	
B818419	FZA788-01R	
B818419	FZA789-01R	
B818419	FZA790-01R	
B818419	FZA791-01R	
B818419	FZA792-01R	
B818419	FZA802-01R	
B819794	FZH332-01R	
B819794	FZH334-01R	
B819794	FZH336-01R	
B819794	FZH338-01R	
B819794	FZH339-01R	
B819794	FZH340-01R	
B819794	FZH341-01R	
B819794	FZH342-01R	
B819794	FZH343-01R	
B820260	FZJ934-01R	

S1 2825 25
S2 2800 50
S3 2700 15 } SK 7377 2/3

S4 2813 37.5
S5 2775 75
S6 2725 125 } I-5297 2/3

ICV 2788 62.5 — I-5299 2/3
ICB 2850 —

Worksheet Reagent Tracking Record

Worksheet # 539 6698

Surrogate/Spike solutions	√	Solution ID #	Conc.	Blk-Spk Volume (µL)		MS Volume (µL)		Samples Volume (µL)	
				Solid	Liquid	Solid	Liquid	Solid	Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299 1/3 DM3	1ug/mL	75	21 62.5	75	21 62.5	NA	NA
PFC Internal Standard Solution	✓	SI 6801 1/4 DM3	50/125 ng/mL	200	100 150	200	100 150	200	100 150
PFC Injection IS	✓	SI 6770 1/2	400 ng/mL	20	20	20	20	20	20
ICV	✓	I-5299 1/3							

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHBJ5451	2018/2/13	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRLPE 108-348		DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRLPE 108-342		0.2% NH_4OH	✓	PRLPE 108-357	
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/2/13
0.05M HCl							

*Spiked by: SM

Spike Date: 2018/2/13

Spike Syringe/Pipette ID#: G24390G

Int. Std Syringe/Pipette ID#: MM1011F

*Spiking Witnessed by: DM3

Final pH:

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #	Bottle Tracking
Pipettor K39732F K55791G		SPE Cartridge			QC Balance ID		Bottle# 18801
		Filter			Thermometer ID &Temp		Cap# 18778
Dispenser		Centrifuge					Systems plus Lot# 18-01-31
		Sonicator					

Comments:

* - SPIKING OF QC's & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet: 5396699

Dilution and Column Cleanup Worksheet

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added uL	New Effective Final Volume	INITIAL DATE	Column Clean Up
B819794	FZH339-01	1 X	10 X	12.5	–	150	12.5	SAP 2016/12/16	N/A

SAP 2016/12/16

Worksheet Number: **5396699**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	B818419 FZA783 ReWork	B818419 FZA784 ReWork
6:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
EtFOSAA	ug/L	81.89152	86.50419	81.46990	0	0	0
N-ethylperfluorooctane sulfonamidoe	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
MeFOSAA	ug/L	83.77645	86.49321	81.82236	0	0	0
N-methylperfluorooctanesulfonamidol	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutanoic acid	ug/L	78.26734	103.01333	87.10518	0	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	ug/L	78.12860	77.27161	78.72710	0	N/A*******	N/A*******
Perfluorodecane Sulfonate	ug/L	76.26618	84.69740	80.33875	0	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	ug/L	79.13409	88.59966	78.03500	0	N/A*******	N/A*******
Perfluoroheptane sulfonate	ug/L	82.49752	93.31286	75.51033	0	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	ug/L	81.24347	83.85384	81.89415	0	N/A*******	N/A*******
Perfluorohexane Sulfonate (PFHxS)	ug/L	76.67552	80.40450	83.83048	0	N/A*******	N/A*******
Perfluorononanoic Acid (PFNA)	ug/L	80.81356	90.14536	84.08254	0	N/A*******	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	ug/L	86.80263	93.38657	82.92819	0	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	ug/L	85.39121	86.76922	81.35779	0	N/A*******	N/A*******
Perfluorotetradecanoic Acid	ug/L	86.09162	94.91401	75.46730	0	0	0
Perfluorotridecanoic Acid	ug/L	93.21887	100.76268	86.16368	0	N/A*******	N/A*******
Perfluoroundecanoic Acid (PFUnA)	ug/L	80.90519	93.00632	87.65415	0	0	0
Perfluorodecanoic Acid (PFDA)	ug/L	85.91489	90.77759	86.05988	0	N/A*******	N/A*******
Perfluorododecanoic Acid (PFDoA)	ug/L	87.89923	89.00862	88.97405	0	0	0
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	77.51000	79.68264	91.63664	0	N/A*******	N/A*******
Perfluorooctane Sulfonate (PFOS)	ug/L	78.88293	92.28659	88.34139	0	N/A*******	N/A*******
13C2-6:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	ug/L	103.046183	90.3397531	99.5678759	72.6292907	N/A*******	N/A*******
13C4-Perfluorobutanoic acid	ug/L	125.361650	104.403913	115.446888	65.1426527	N/A*******	N/A*******
D3-MeFOSAA	ug/L	119.063633	114.503326	96.5012287	60.0697015	112.272968	104.452849
D5-EtFOSAA	ug/L	118.064890	110.938028	92.2373381	57.7412796	112.233101	102.901171
N-methyl-d3-perfluorooctane sulfona	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	ug/L	118.240681	102.594706	107.799043	93.5404483	N/A*******	N/A*******
13C2-Perfluorododecanoic acid	ug/L	109.471290	101.202650	94.6627859	69.0291760	106.162006	90.8643354
13C2-Perfluorohexanoic acid	ug/L	119.939338	112.984723	109.935692	85.8754293	N/A*******	N/A*******
13C2-Perfluoroundecanoic acid	ug/L	120.165429	102.823242	104.756638	78.4780291	104.811742	99.1997934
13C4-Perfluoroheptanoic acid	ug/L	128.677245	111.899795	117.173752	105.346681	N/A*******	N/A*******
13C5-Perfluorononanoic acid	ug/L	127.505332	115.357178	108.561941	103.363673	N/A*******	N/A*******
13C4-Perfluorooctanoic acid	ug/L	131.923293	125.628386	105.393126	113.731104	N/A*******	N/A*******
13C4-Perfluorooctanesulfonate	ug/L	130.302284	113.843161	104.337259	77.6255263	N/A*******	N/A*******
13C5-Perfluoropentanoic acid	ug/L	125.935081	113.762432	117.771111	72.3004986	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	ug/L	106.312620	91.1177078	100.357118	92.9518459	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	ug/L	128.181971	125.624796	104.025069	53.6290853	N/A*******	N/A*******

2018/02/16

Worksheet Number: **5396699**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B818419 FZA785 ReWork	B818419 FZA786 ReWork	B818419 FZA788 ReWork	B818419 FZA789 ReWork	B818419 FZA790 ReWork	B818419 FZA791 ReWork	B818419 FZA792 ReWork
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
EtFOSAA	0	0	0	0	0	0	0
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
MeFOSAA	0	0	0	0	0	0	0
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorodecane Sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexane Sulfonate (PFHxS)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorononanoic Acid (PFNA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorotetradecanoic Acid	0	0	0	0	0	0	0
Perfluorotridecanoic Acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0	0	0	0
Perfluorodecanoic Acid (PFDA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorododecanoic Acid (PFDoA)	0	0	N/A*******	0	0	0	0
Perfluoro-n-Octanoic Acid (PFOA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorooctane Sulfonate (PFOS)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
D3-MeFOSAA	107.531370	115.522418	105.837881	100.439078	123.455838	116.938915	75.8042349
D5-EtFOSAA	104.113013	112.664482	99.1097756	96.6985420	122.200455	117.064133	71.5399115
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorododecanoic acid	93.5890020	93.1097997	89.0640359	94.2925682	110.548580	106.289973	99.9867732
13C2-Perfluorohexanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluoroundecanoic acid	102.241785	98.8544832	97.2867603	96.5175337	117.290987	120.393256	110.039307
13C4-Perfluoroheptanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C5-Perfluorononanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorooctanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorooctanesulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******

Worksheet Number: **5396699**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B818419 FZA802 ReWork	B819794 FZH332 ReWork	DL	B819794 FZH334 ReWork	DL	B819794 FZH336 ReWork	B819794 FZH338 ReWork
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.2	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.2	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	0.02	N/A*******	0.2	N/A*******	N/A*******
EtFOSAA	0	N/A*******	0.02	N/A*******	0.2	0	0
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	0.02	N/A*******	0.2	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	0.02	N/A*******	0.2	N/A*******	N/A*******
MeFOSAA	0	N/A*******	0.02	N/A*******	0.2	0	0
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	0.02	N/A*******	0.2	N/A*******	N/A*******
Perfluorobutanoic acid	N/A*******	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorobutane Sulfonate (PFBS)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorodecane Sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluoroheptanoic Acid (PFHpA)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluoroheptane sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorohexanoic Acid (PFHxA)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorohexane Sulfonate (PFHxS)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorononanoic Acid (PFNA)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorotetradecanoic Acid	0	0	0.02	0	0.2	0	0
Perfluorotridecanoic Acid	0	0	0.02	0	0.2	0	N/A*******
Perfluoroundecanoic Acid (PFUnA)	0	N/A*******	0.02	N/A*******	0.2	0	0
Perfluorodecanoic Acid (PFDA)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorododecanoic Acid (PFDoA)	0	N/A*******	0.02	N/A*******	0.2	0	0
Perfluoro-n-Octanoic Acid (PFOA)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorooctane Sulfonate (PFOS)	0	N/A*******	0.02	0	0.2	0	N/A*******
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******		N/A*******		N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******		N/A*******		N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	77.0240495	92.9612321		57.4026368		83.0777780	N/A*******
13C4-Perfluorobutanoic acid	N/A*******	N/A*******		N/A*******		86.9854758	N/A*******
D3-MeFOSAA	90.5648970	N/A*******		N/A*******		82.0972833	116.170591
D5-EtFOSAA	87.6515096	N/A*******		N/A*******		77.9473926	115.355592
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******		N/A*******		N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******		N/A*******		N/A*******	N/A*******
13C2-Perfluorodecanoic acid	90.7447894	N/A*******		N/A*******		91.7117749	N/A*******
13C2-Perfluorododecanoic acid	90.6698453	N/A*******		N/A*******		84.7621637	114.198509
13C2-Perfluorohexanoic acid	73.1806414	N/A*******		N/A*******		107.559677	N/A*******
13C2-Perfluoroundecanoic acid	97.2108002	N/A*******		N/A*******		93.0809511	106.678973
13C4-Perfluoroheptanoic acid	80.4039093	N/A*******		N/A*******		116.718774	N/A*******
13C5-Perfluorononanoic acid	73.8632288	N/A*******		N/A*******		118.317542	N/A*******
13C4-Perfluorooctanoic acid	55.8349474	N/A*******		N/A*******		111.835769	N/A*******
13C4-Perfluorooctanesulfonate	67.4932176	N/A*******		N/A*******		103.459068	N/A*******
13C5-Perfluoropentanoic acid	N/A*******	N/A*******		N/A*******		97.0783475	N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******		N/A*******		100.122646	N/A*******
18O2-Perfluorohexanesulfonate	78.8050133	N/A*******		N/A*******		81.3020829	N/A*******

Worksheet Number: **5396699**

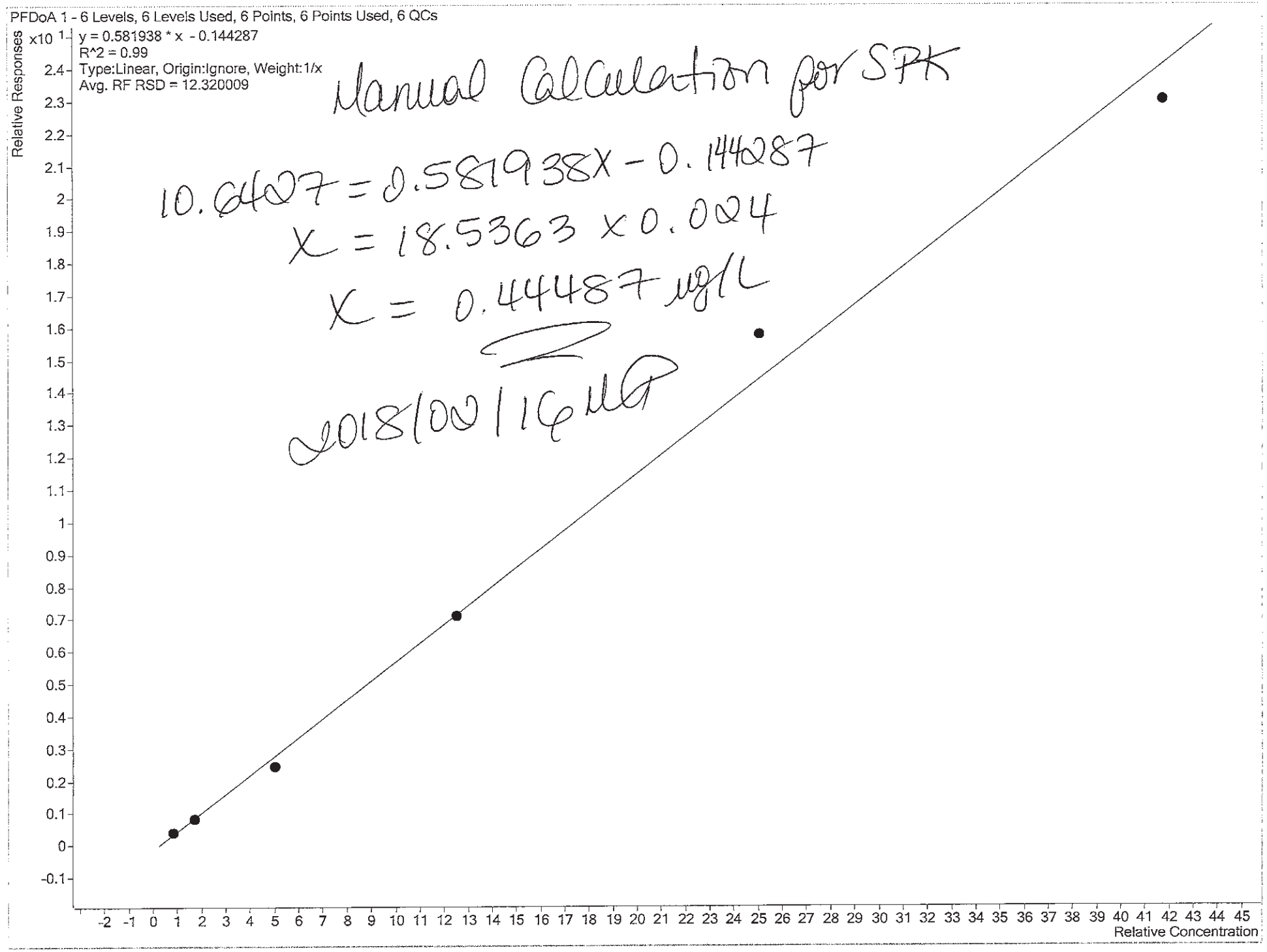
PFOS and PFOA in water by SPE/LCMS - Water

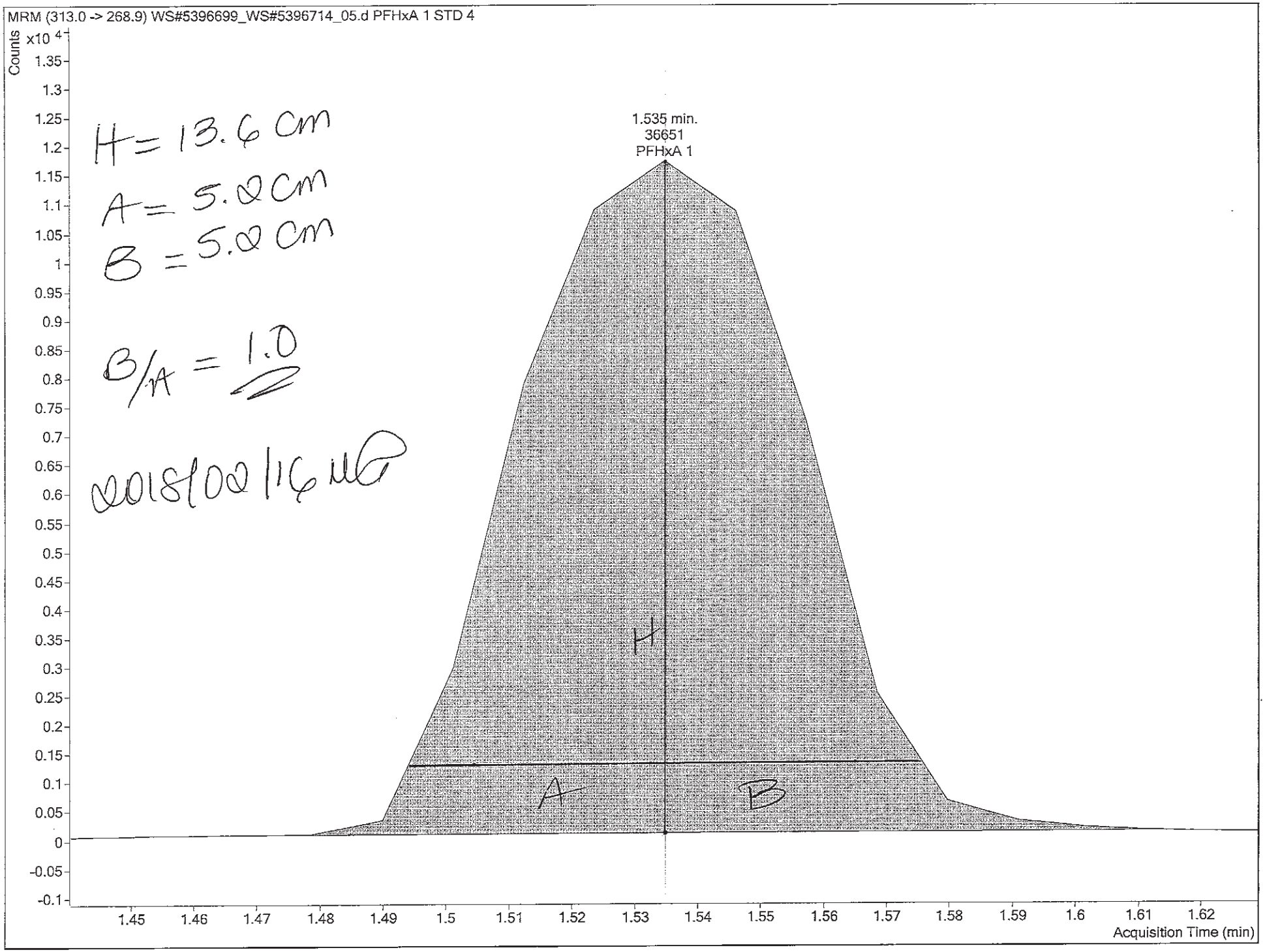
ug/L

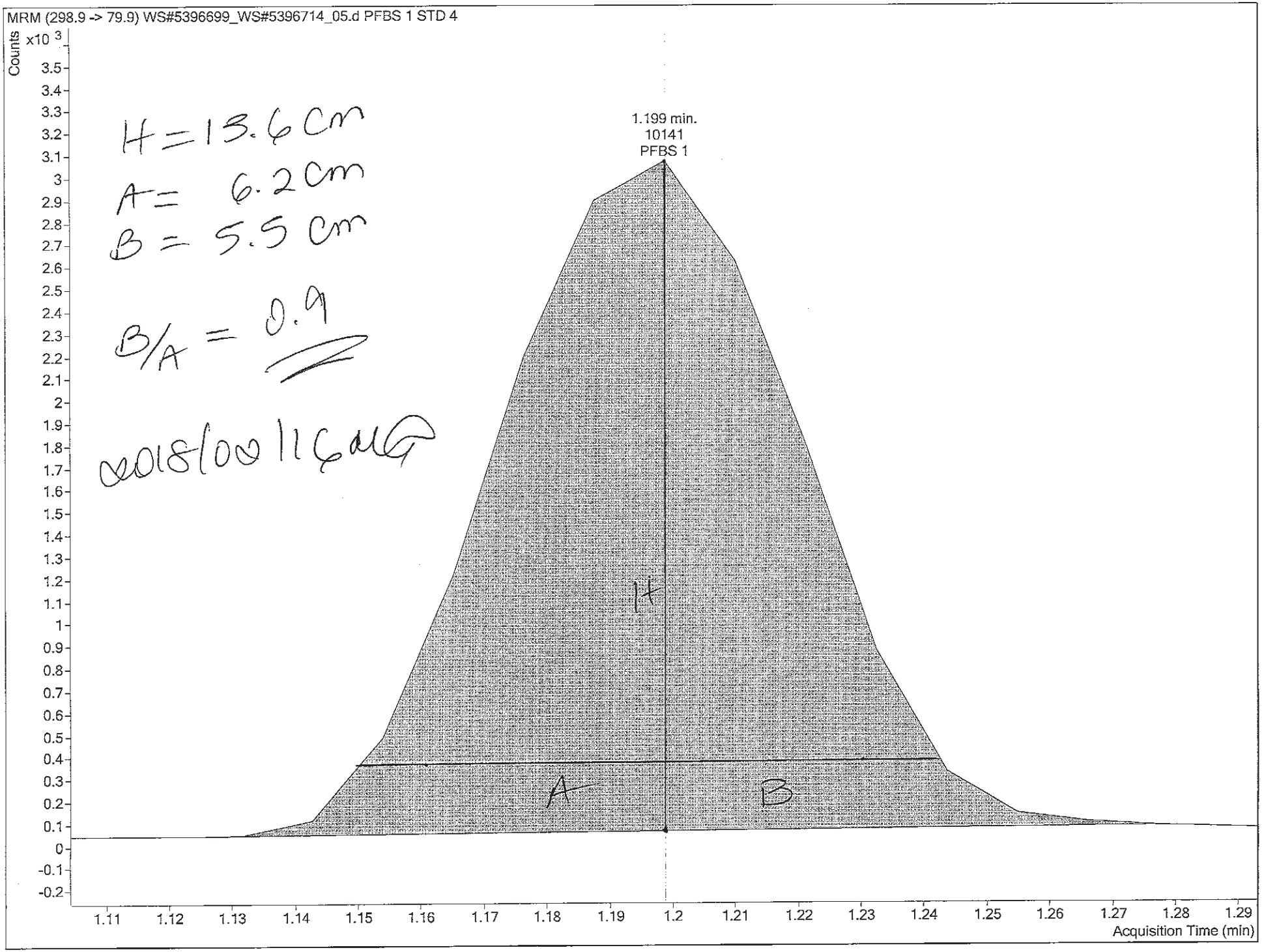
Parameter Name	B819794 FZH339 ReWork	B819794 FZH340 ReWork	B819794 FZH341 ReWork	B819794 FZH342 ReWork	B819794 FZH343 ReWork	B820260 FZJ934 ReWork	DL
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02
EtFOSAA	0	0	0	0	0	N/A*******	0.02
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02
MeFOSAA	0	0	0	0	0	N/A*******	0.02
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02
Perfluorobutanoic acid	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorobutane Sulfonate (PFBS)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorodecane Sulfonate	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluoroheptanoic Acid (PFHpA)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluoroheptane sulfonate	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorohexanoic Acid (PFHxA)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorohexane Sulfonate (PFHxS)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorononanoic Acid (PFNA)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	0	N/A*******	N/A*******	0	0.02
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorotetradecanoic Acid	0	0	0	0	0	N/A*******	0.02
Perfluorotridecanoic Acid	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0	0	N/A*******	0.02
Perfluorodecanoic Acid (PFDA)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorododecanoic Acid (PFDoA)	0	0	0	0	0	N/A*******	0.02
Perfluoro-n-Octanoic Acid (PFOA)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorooctane Sulfonate (PFOS)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	
13C2-perfluorotetradecanoic acid	N/A*******	N/A*******	102.239044	N/A*******	N/A*******	92.4555654	
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	93.8043979	N/A*******	N/A*******	88.3410084	
D3-MeFOSAA	114.001256	121.836584	97.2372780	123.007109	94.8946549	N/A*******	
D5-EtFOSAA	107.711261	116.757087	94.9652990	116.407122	92.9829425	N/A*******	
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	
13C2-Perfluorodecanoic acid	N/A*******	N/A*******	114.604644	N/A*******	N/A*******	N/A*******	
13C2-Perfluorododecanoic acid	103.809367	106.279044	99.9175652	100.802308	83.8402739	N/A*******	
13C2-Perfluorohexanoic acid	N/A*******	N/A*******	112.392232	N/A*******	N/A*******	N/A*******	
13C2-Perfluoroundecanoic acid	112.763254	102.896259	111.901055	107.521088	94.4960465	N/A*******	
13C4-Perfluoroheptanoic acid	N/A*******	N/A*******	125.500412	N/A*******	N/A*******	N/A*******	
13C5-Perfluorononanoic acid	N/A*******	N/A*******	136.263843	N/A*******	N/A*******	N/A*******	
13C4-Perfluorooctanoic acid	N/A*******	N/A*******	129.782024	N/A*******	N/A*******	N/A*******	
13C4-Perfluorooctanesulfonate	N/A*******	N/A*******	104.180629	N/A*******	N/A*******	N/A*******	
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	105.035879	N/A*******	N/A*******	N/A*******	
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	112.828669	N/A*******	N/A*******	94.8368633	
18O2-Perfluorohexanesulfonate	N/A*******	N/A*******	87.7307374	N/A*******	N/A*******	N/A*******	

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	RDL	MDL	IDL				
6:2 Fluorotelomer sulfonate	0.02	0.0066	0				
8:2 Fluorotelomer sulfonate	0.02	0.0066	0				
N-ethylperfluorooctane sulfonamide	0.02	0.01	0				
EtFOSAA	0.02	0.0033	0				
N-ethylperfluorooctane sulfonamidoe	0.02	0.0079	0				
N-methylperfluorooctane sulfonamide	0.02	0.013	0				
MeFOSAA	0.02	0.0029	0				
N-methylperfluorooctanesulfonamidol	0.02	0.012	0				
Perfluorobutanoic acid	0.02	0.0055	0				
Perfluorobutane Sulfonate (PFBS)	0.02	0.0054	0				
Perfluorodecane Sulfonate	0.02	0.006	0				
Perfluoroheptanoic Acid (PFHpA)	0.02	0.0074	0				
Perfluoroheptane sulfonate	0.02	0.008	0				
Perfluorohexanoic Acid (PFHxA)	0.02	0.0035	0				
Perfluorohexane Sulfonate (PFHxS)	0.02	0.0056	0				
Perfluorononanoic Acid (PFNA)	0.02	0.0087	0				
Perfluorooctane Sulfonamide (PFOSA)	0.02	0.0034	0				
Perfluoropentanoic Acid (PFPeA)	0.02	0.0075	0				
Perfluorotetradecanoic Acid	0.02	0.0027	0				
Perfluorotridecanoic Acid	0.02	0.0038	0				
Perfluoroundecanoic Acid (PFUnA)	0.02	0.0025	0				
Perfluorodecanoic Acid (PFDA)	0.02	0.0061	0				
Perfluorododecanoic Acid (PFDoA)	0.02	0.005	0				
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0.0033	0				
Perfluorooctane Sulfonate (PFOS)	0.02	0.006	0				
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							


PFDoA 1 - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 6 QCs
y = 0.581938 * x - 0.144287
R^2 = 0.99
Type:Linear, Origin:Ignore, Weight:1/x
Avg. RF RSD = 12.320009
Relative Responses
x10 1
Relative Concentration
Manual Calculation for SPK
10.6407 = 0.581938X - 0.144287
X = 18.5363 x 0.024
X = 0.44487 ug/L
2018/09/16 MG


MRM (313.0 -> 268.9) WS#5396699_WS#5396714_05.d PFHxA 1 STD 4
Counts
x10 4
1.535 min.
36651
PFHxA 1
H
A
B
Acquisition Time (min)
H = 13.6 cm
A = 5.2 cm
B = 5.2 cm
B/A = 1.0
2018/02/16 MG


MRM (298.9 -> 79.9) WS#5396699_WS#5396714_05.d PFBS 1 STD 4
Counts
x10 3
1.199 min.
10141
PFBS 1
H = 13.6 cm
A = 6.2 cm
B = 5.5 cm
B/A = 0.9
0.018/0.011 ng/mL
H
A
B
Acquisition Time (min)

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/13

Test Code: **PFOSALCM-W**

Worksheet Number: **5396699**

Sample Number	Parameter Code	Parameter	
FZA783-01	ETFOSAA	EtFOSAA	*
FZA784-01	MEFOSAA	MeFOSAA	*
FZA785-01	PFTEDA	Perfluorotetradecanoic Acid	
FZA786-01	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
FZA789-01	PFDOA	Perfluorododecanoic Acid (PFDoA)	
FZA790-01			
FZA791-01			
FZA792-01			
FZH338-01			
FZH339-01			
FZH340-01			
FZH342-01			
FZH343-01			
FZA788-01	ETFOSAA	EtFOSAA	*
	MEFOSAA	MeFOSAA	*
	PFTEDA	Perfluorotetradecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
FZA802-01	ETFOSAA	EtFOSAA	*
	MEFOSAA	MeFOSAA	*
	PFBS	Perfluorobutane Sulfonate (PFBS)	
	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid	

* - This parameter is usually off, but will be reported for this group of samples!

Report Name: Worksheet - Parameter Lists
Report Date: 2018/02/13

Test Code: **PFOSALCM-W**
Worksheet Number: **5396699**

Sample Number	Parameter Code	Parameter
		(PFDoA)
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)
	PFOS	Perfluorooctane Sulfonate (PFOS)
FZH332-01	PFTEDA	Perfluorotetradecanoic Acid
FZH334-01	PFTRDA	Perfluorotridecanoic Acid
FZH336-01	NONE	NONE
FZH341-01		
FZJ934-01	PFOSA	Perfluorooctane Sulfonamide (PFOSA)

SAS 2018/02/13

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5396699 Instrument Sequences

1.	5396699:MTRX SPK	MTRX SPK
2.	5396699:MTRX SPK:D1	MTRX SPK :D1
3.	5396699:SPIKE	SPIKE
4.	5396699:BLANK	BLANK
5.	5396699:FZA783-01	[redacted]
6.	5396699:FZA784-01	[redacted]
7.	5396699:FZA785-01	[redacted]
8.	5396699:FZA786-01	[redacted]
9.	5396699:FZA788-01	[redacted]
10.	5396699:FZA789-01	[redacted]
11.	5396699:FZA790-01	[redacted]
12.	5396699:FZA791-01	[redacted]
13.	5396699:FZA792-01	[redacted]
14.	5396699:FZA802-01	[redacted]
15.	5396699:FZH332-01	CEF-342-06S-0118-D
16.	5396699:FZH334-01	CEF-343-03S-0118
17.	5396699:FZH336-01	FB-CEF-NFF-012218-1
18.	5396699:FZH338-01	CEF-372-08-0118
19.	5396699:FZH339-01	CEF-372-08-0118-D
20.	5396699:FZH340-01	CEF-003-28S-0118
21.	5396699:FZH341-01	FB-CEF-016-012218-2
22.	5396699:FZH342-01	CEF-016-07S-0118
23.	5396699:FZH343-01	CEF-016-17S-0118
24.	5396699:FZJ934-01	[redacted]

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180215_Low.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180215\WS#5396699_WS#5396714
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column ~~#198~~ 199 AD 2018/02/15
MP A1: Solution# 280 (FSRE18)
MP B: Methanol, SHBJ5451, Sigma

AD
2018/02/15

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low.m	WS#5396699_WS#5396714_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low.m	WS#5396699_WS#5396714_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low.m	WS#5396699_WS#5396714_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low.m	WS#5396699_WS#5396714_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low.m	WS#5396699_WS#5396714_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low.m	WS#5396699_WS#5396714_07.d	Calibration	STD 6	As Method	-

2018/02/15

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P2-A8	PFC_Water_Low.m	WS#5396699_WS#5396714_08.d	Sample		As Method	-
9	ICV	P2-A9	PFC_Water_Low.m	WS#5396699_WS#5396714_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low.m	WS#5396699_WS#5396714_10.d	ConCal	STD 1	As Method	-
11	5396699:BLANK	P2-B1	PFC_Water_Low.m	WS#5396699_WS#5396714_11.d	Sample		As Method	-
12	5396699:SPIKE	P2-B2	PFC_Water_Low.m	WS#5396699_WS#5396714_12.d	QC	ICV	As Method	-
13	5396699:MTRX SPK	P2-B3	PFC_Water_Low.m	WS#5396699_WS#5396714_13.d	QC	ICV	As Method	-
14	5396699:MTRX SPK:D1	P2-B4	PFC_Water_Low.m	WS#5396699_WS#5396714_14.d	QC	ICV	As Method	-
15	5396699:FZA783-01	P2-B5	PFC_Water_Low.m	WS#5396699_WS#5396714_15.d	Sample		As Method	-
16	5396699:FZA784-01	P2-B6	PFC_Water_Low.m	WS#5396699_WS#5396714_16.d	Sample		As Method	-
17	5396699:FZA785-01	P2-B7	PFC_Water_Low.m	WS#5396699_WS#5396714_17.d	Sample		As Method	-
18	5396699:FZA786-01	P2-B8	PFC_Water_Low.m	WS#5396699_WS#5396714_18.d	Sample		As Method	-
19	5396699:FZA788-01	P2-B9	PFC_Water_Low.m	WS#5396699_WS#5396714_19.d	Sample		As Method	-
20	5396699:FZA789-01	P2-C1	PFC_Water_Low.m	WS#5396699_WS#5396714_20.d	Sample		As Method	-
21	5396699:FZA790-01	P2-C2	PFC_Water_Low.m	WS#5396699_WS#5396714_21.d	Sample		As Method	-
22	5396699:FZA791-01	P2-C3	PFC_Water_Low.m	WS#5396699_WS#5396714_22.d	Sample		As Method	-
23	5396699:FZA792-01	P2-C4	PFC_Water_Low.m	WS#5396699_WS#5396714_23.d	Sample		As Method	-
24	5396699:FZA802-01	P2-C5	PFC_Water_Low.m	WS#5396699_WS#5396714_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_25.d	ConCal	STD 4	As Method	-
26	5396699:FZH332-01	P2-C6	PFC_Water_Low.m	WS#5396699_WS#5396714_26.d	Sample		As Method	-
27	5396699:FZH334-01:10x	P2-C7	PFC_Water_Low.m	WS#5396699_WS#5396714_27.d	Sample		As Method	-
28	5396699:FZH336-01	P2-C8	PFC_Water_Low.m	WS#5396699_WS#5396714_28.d	Sample		As Method	-
29	5396699:FZH338-01	P2-C9	PFC_Water_Low.m	WS#5396699_WS#5396714_29.d	Sample		As Method	-
30	5396699:FZH339-01	P2-D1	PFC_Water_Low.m	WS#5396699_WS#5396714_30.d	Sample		As Method	-

Maxxam Analytics

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5396699:FZH340-01	P2-D2	PFC_Water_Low.m	WS#5396699_WS#5396714_31.d	Sample		As Method	-
32	5396699:FZH341-01	P2-D3	PFC_Water_Low.m	WS#5396699_WS#5396714_32.d	Sample		As Method	-
33	5396699:FZH342-01	P2-D4	PFC_Water_Low.m	WS#5396699_WS#5396714_33.d	Sample		As Method	-
34	5396699:FZH343-01	P2-D5	PFC_Water_Low.m	WS#5396699_WS#5396714_34.d	Sample		As Method	-
35	5396699:FZJ934-01	P2-D6	PFC_Water_Low.m	WS#5396699_WS#5396714_35.d	Sample		As Method	-
36	CCV	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_36.d	ConCal	STD 4	As Method	-
37	5396714:MTRX SPK	P2-D7	PFC_Water_Low.m	WS#5396699_WS#5396714_37.d	Sample		As Method	-
38	5396714:MTRX SPK:D1	P2-D8	PFC_Water_Low.m	WS#5396699_WS#5396714_38.d	Sample		As Method	-
39	5396714:FZH337-01	P2-D9	PFC_Water_Low.m	WS#5396699_WS#5396714_39.d	Sample		As Method	-
40	CCV	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_40.d	ConCal	STD 4	As Method	-

Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180215_Low_FOSAA.wkl

AD
2018/02/15

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180215\WS#5396699_WS#5396714_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #~~198~~ 199 AD 2018/02/15
MP A1: Solution# 280 (FSRE18)
MP B2:Solution# 284 (FSRE18)

2018/02/15

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P2-A9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5396699:BLANK	P2-B1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_11.d	Sample		As Method	-
12	5396699:SPIKE	P2-B2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_12.d	QC	ICV	As Method	-
13	5396699:MTRX SPK	P2-B3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_13.d	QC	ICV	As Method	-
14	5396699:MTRX SPK:D1	P2-B4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_14.d	QC	ICV	As Method	-
15	5396699:FZA783-01	P2-B5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_15.d	Sample		As Method	-
16	5396699:FZA784-01	P2-B6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_16.d	Sample		As Method	-
17	5396699:FZA785-01	P2-B7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_17.d	Sample		As Method	-
18	5396699:FZA786-01	P2-B8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_18.d	Sample		As Method	-
19	5396699:FZA788-01	P2-B9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_19.d	Sample		As Method	-
20	5396699:FZA789-01	P2-C1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_20.d	Sample		As Method	-
21	5396699:FZA790-01	P2-C2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_21.d	Sample		As Method	-
22	5396699:FZA791-01	P2-C3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_22.d	Sample		As Method	-
23	5396699:FZA792-01	P2-C4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_23.d	Sample		As Method	-
24	5396699:FZA802-01	P2-C5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_25.d	ConCal	STD 4	As Method	-
26	5396699:FZH332-01	P2-C6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_26.d	Sample		As Method	-
27	5396699:FZH334-01:10x	P2-C7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_27.d	Sample		As Method	-
28	5396699:FZH336-01	P2-C8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_28.d	Sample		As Method	-
29	5396699:FZH338-01	P2-C9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_29.d	Sample		As Method	-
30	5396699:FZH339-01	P2-D1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_30.d	Sample		As Method	-
31	5396699:FZH340-01	P2-D2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_31.d	Sample		As Method	-
32	5396699:FZH341-01	P2-D3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_32.d	Sample		As Method	-
33	5396699:FZH342-01	P2-D4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_33.d	Sample		As Method	-
34	5396699:FZH343-01	P2-D5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_34.d	Sample		As Method	-

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
35	5396699:FZJ934-01	P2-D6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_35.d	Sample		As Method	-
36	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_36.d	ConCal	STD 4	As Method	-
37	5396714:MTRX SPK	P2-D7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_37.d	Sample		As Method	-
38	5396714:MTRX SPK:D1	P2-D8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_38.d	Sample		As Method	-
39	5396714:FZH337-01	P2-D9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_39.d	Sample		As Method	-
40	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_40.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/15 4:15 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_02.d	P2-A2
STD 2	-	2018/02/15 4:20 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_03.d	P2-A3
STD 3	-	2018/02/15 4:25 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_04.d	P2-A4
STD 4	-	2018/02/15 4:30 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_05.d	P2-A5
STD 5	-	2018/02/15 4:35 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_06.d	P2-A6
STD 6	-	2018/02/15 4:40 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_07.d	P2-A7
IB	-	2018/02/15 4:45 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_08.d	P2-A8
ICV	-	2018/02/15 4:50 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_09.d	P2-A9
ISC	-	2018/02/15 4:55 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_10.d	P2-A2
5396699:BLANK	-	2018/02/15 5:00 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_11.d	P2-B1
5396699:SPIKE	-	2018/02/15 5:05 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_12.d	P2-B2
5396699:MTRX SPK	FZA786	2018/02/15 5:10 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_13.d	P2-B3
5396699:MTRX SPK:D1	FZA786	2018/02/15 5:15 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_14.d	P2-B4
5396699:FZA783-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:19 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_15.d	P2-B5
5396699:FZA784-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:24 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_16.d	P2-B6
5396699:FZA785-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:29 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_17.d	P2-B7
5396699:FZA786-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:34 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_18.d	P2-B8
5396699:FZA788-01	Reported for PFUnA , PFTeDA only.	2018/02/15 5:39 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_19.d	P2-B9
5396699:FZA789-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:44 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_20.d	P2-C1
5396699:FZA790-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:49 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_21.d	P2-C2
5396699:FZA791-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:54 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_22.d	P2-C3
5396699:FZA792-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:59 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_23.d	P2-C4
5396699:FZA802-01	Reinjected due to low ext IS recovery- Reporte	2018/02/15 6:04 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_24.d	P2-C5
CCV	-	2018/02/15 6:09 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_25.d	P2-A5
5396699:FZH332-01	Reported for PFTrDA , PFTeDA only.	2018/02/15 6:14 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_26.d	P2-C6
5396699:FZH334-01:10x	Reported for PFTrDA , PFTeDA only.	2018/02/15 6:19 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_27.d	P2-C7
5396699:FZH336-01	-	2018/02/15 6:24 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_28.d	P2-C8
5396699:FZH338-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 6:29 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_29.d	P2-C9
5396699:FZH339-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 6:33 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_30.d	P2-D1
5396699:FZH340-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 6:38 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_31.d	P2-D2
5396699:FZH341-01	-	2018/02/15 6:43 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_32.d	P2-D3
5396699:FZH342-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 6:48 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_33.d	P2-D4
5396699:FZH343-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 6:53 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_34.d	P2-D5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
5396699:FZJ934-01	Reported for PFOSA only.	2018/02/15 6:58 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_35.d	P2-D6
CCV	-	2018/02/15 7:03 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_36.d	P2-A5
CCV	-	2018/02/15 7:23 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_40.d	P2-A5
ISC	-	2018/02/16 8:47 AM	PFC_Water_Low.m	WS#5396699_WS#5396714_r_43.d	P2-A2
5396699:FZA802-01:R	Reported for PFOA	2018/02/16 8:52 AM	PFC_Water_Low.m	WS#5396699_WS#5396714_r_44.d	P2-C5
CCV	-	2018/02/16 8:57 AM	PFC_Water_Low.m	WS#5396699_WS#5396714_r_45.d	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/15 10:39 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_02.d	P2-A2
STD 2	-	2018/02/15 10:41 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_03.d	P2-A3
STD 3	-	2018/02/15 10:44 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_04.d	P2-A4
STD 4	-	2018/02/15 10:46 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_05.d	P2-A5
STD 5	-	2018/02/15 10:48 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_06.d	P2-A6
STD 6	-	2018/02/15 10:51 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_07.d	P2-A7
IB	-	2018/02/15 10:53 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_08.d	P2-A8
ICV	-	2018/02/15 10:56 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_09.d	P2-A9
ISC	-	2018/02/15 10:58 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_10.d	P2-A2
5396699:BLANK	-	2018/02/15 11:00 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_11.d	P2-B1
5396699:SPIKE	-	2018/02/15 11:03 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_12.d	P2-B2
5396699:MTRX SPK	FZA786	2018/02/15 11:05 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_13.d	P2-B3
5396699:MTRX SPK:D1	FZA786	2018/02/15 11:08 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_14.d	P2-B4
5396699:FZA783-01	-	2018/02/15 11:10 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_15.d	P2-B5
5396699:FZA784-01	-	2018/02/15 11:12 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_16.d	P2-B6
5396699:FZA785-01	-	2018/02/15 11:15 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_17.d	P2-B7
5396699:FZA786-01	-	2018/02/15 11:17 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_18.d	P2-B8
5396699:FZA788-01	-	2018/02/15 11:20 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_19.d	P2-B9
5396699:FZA789-01	-	2018/02/15 11:22 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_20.d	P2-C1
5396699:FZA790-01	-	2018/02/15 11:25 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_21.d	P2-C2
5396699:FZA791-01	-	2018/02/15 11:27 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_22.d	P2-C3
5396699:FZA792-01	-	2018/02/15 11:29 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_23.d	P2-C4
5396699:FZA802-01	-	2018/02/15 11:32 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_24.d	P2-C5
CCV	-	2018/02/15 11:34 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_25.d	P2-A5
5396699:FZH332-01	-	2018/02/15 11:37 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_26.d	P2-C6
5396699:FZH334-01:10x	Not Used	2018/02/15 11:39 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_27.d	P2-C7
5396699:FZH336-01	-	2018/02/15 11:41 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_28.d	P2-C8
5396699:FZH338-01	-	2018/02/15 11:44 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_29.d	P2-C9
5396699:FZH339-01	-	2018/02/15 11:46 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_30.d	P2-D1
5396699:FZH340-01	-	2018/02/15 11:49 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_31.d	P2-D2
5396699:FZH341-01	-	2018/02/15 11:51 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_32.d	P2-D3
5396699:FZH342-01	-	2018/02/15 11:53 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_33.d	P2-D4
5396699:FZH343-01	-	2018/02/15 11:56 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_34.d	P2-D5

Maxxam Analytics

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
5396699:FZJ934-01	-	2018/02/15 11:58 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_35.d	P2-D6
CCV	-	2018/02/15 12:01 PM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_36.d	P2-A5

DoD Projects - Internal Data Validation Checklist

Run date: 20180202|15

Worksheet # (s): 5396714

Analysis: PFOSALCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria 20180216 MS	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control			✓	✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria			✓	✓
7	Surrogate Recovery(s) is within acceptance criteria	✓			✓
8	Method Blank meets acceptance criteria			✓	✓
9	Matrix Spike recovery(s) meets acceptance criteria	✓			✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed			✓	✓
17	Dilution factors (where justified) have been checked for correctness and entered			✓	✓
18	Analytical observations/anomalies documented in LIMS	✓			✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: MKP Date: 20180216

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced			✓
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: AM Date: 2018/02/16

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5396714 | Testcode: PFOS ACCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time		✓	
2	Client sample ID verified against Lab ID (waters & oils)			✓
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded			✓
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: SAD | Date: 2018/02/13

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: | Date:

Comments:

Refer to BEL-FCD-00002 2018/02/14

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: | Date:

Comments:

WS# : 5396714

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Tuesday, February 13, 2018

Assigned to : Shahbaz Ahmad

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

sediment cm ml ml SAH 2018/2/13

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	MTRX SPK	0	PFC-W FZH337-01		60.1	125	3	1X					2018/02/13
	MTRX SPK	1	PFC-W FZH337-01		60.1	125	3	1X					2018/02/13
B819794	*FZH337-01R		CEF-076-109S-0118		60.1	125	3	1X	6	2018/02/05	2018/02/09 18:00	DOD	2018/02/13

2018/02/13

Remarks: Spike, blank and standards are referenced with WS # 5396711. 5396699 SAH 2018/2/13

Samples extracted by: Shahbaz Ahmad SAH 2018/02/13

Instrumentation performed by: AD Date: 2018/02/15

Calculations performed by: MG Date: 2018/02/16

Validated by: SM Date: 2018/02/16

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.)	AECOM

SAP 2017/2/13

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 F/C by NGV 2018/02/08 Project #: JM10 CECIL

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
B819794	FZH337-01R	

SAP 2017/2/13

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB818419	[redacted]			
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.) AECOM	
	NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 F/C by NGV 2018/02/08 Project #: JM10 CECIL			
GB820260	[redacted]			

SAD 2018/2/13

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B818419	FZA783-01R	
B818419	FZA784-01R	
B818419	FZA785-01R	
B818419	FZA786-01R	
B818419	FZA788-01R	
B818419	FZA789-01R	
B818419	FZA790-01R	
B818419	FZA791-01R	
B818419	FZA792-01R	
B818419	FZA802-01R	
B819794	FZH332-01R	
B819794	FZH334-01R	
B819794	FZH336-01R	
B819794	FZH338-01R	
B819794	FZH339-01R	
B819794	FZH340-01R	
B819794	FZH341-01R	
B819794	FZH342-01R	
B819794	FZH343-01R	
B820260	FZJ934-01R	

S1 2825 25
S2 2800 50
S3 2700 15
S4 2813 37.5
S5 2775 75
S6 2725 125
ICV 2788 62.5 —
IB 2850 —

} SK 7377 2/3

} I-5297 2/3

I-5299 2/3

ICAL + ICV info mag. 2018/02/22

Worksheet Reagent Tracking Record Worksheet # 5396714

Volume (µL)

Surrogate/Spike solutions	√	Solution ID #	Conc.	Blk-Spk		MS		Samples	
				Solid	Liquid	Solid	Liquid	Solid	Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299 1/3 DM3	1ug/mL	75	21 (62.5)	75	21 (62.5)	NA	NA
PFC Internal Standard Solution	✓	ST 6801 1/4 DM3	50/125 ng/mL	200	100 (150)	200	100 (150)	200	100/(150)
PFC Injection IS	✓	ST 6770 1/2	400 ng/mL	20	20	20	20	20	20
ICV	✓	I-5299 1/3							

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared	*Spiked by:
DCM				50% NaOH				SAP
Ottawa Sand				o-Phosphoric Acid				Spike Date
Methanol	✓	SHBJ5451	2018/2/13	Borax				2018/2/13
2-Propanol (IPA)				Calcium Chloride				Spike Syringe/Pipette ID#
Acetonitrile				EDTA				G243906
Sodium Sulfate				Phosphate Buffer				Int. Std Syringe/Pipette ID#
70:30 Methanol: Water				Sodium Thiosulphate				M410 11F
60:40 Water: Methanol	✓	PRLRE 108-348		DNPH				*Spiking Witnessed by:
DCM:Ethyl Ether (75:25)				FMOC				DM3
Hexane:IPA (98:2)				5M Acetate Buffer				Final pH
2% Formic Acid	✓	PRLRE 108-342		0.2% NH_4OH	✓	PRLRE	108-357	
0.2% Formic Acid				Leachate Fluid				
0.05M KOH				Reagent Water	✓	57297	2018/2/13	
0.05M HCl								

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #	Bottle Tracking
Pipettor K39732F	✓	SPE Cartridge	0033371477A	✓	QC Balance ID	FC-1	Bottle# 18801
K55191G	✓	Filter			Thermometer ID &Temp		Cap# 18778
Dispenser		Centrifuge	42148683	✓			Systems plus Lot#
		Sonicator					18-01-31

Comments:

* - SPIKING OF QC's & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet Number: **5396714**

PFOS and PFOA in water by SPE/LCMS - Water

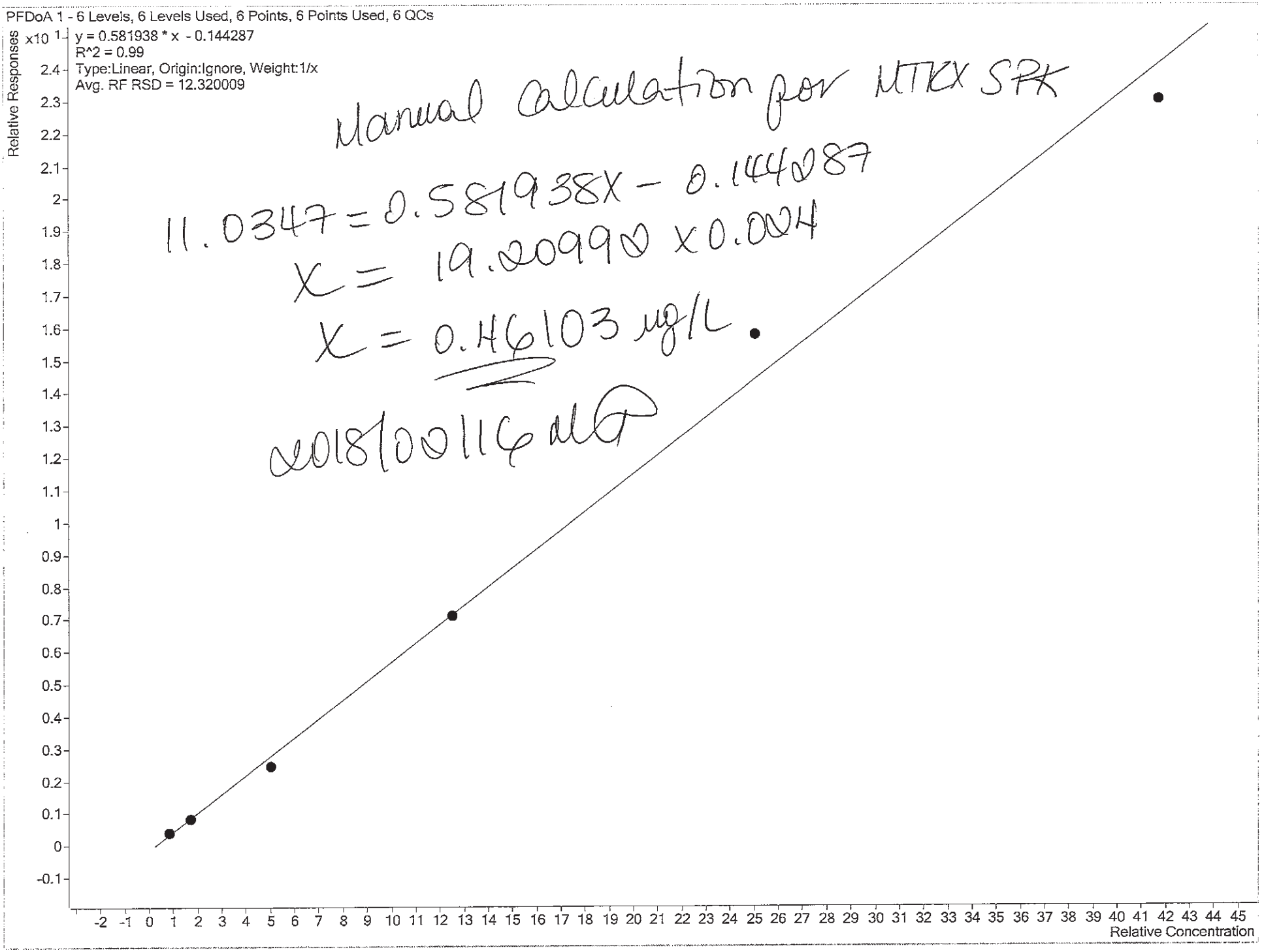
ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	B819794 FZH337 ReWork	DL	RDL	MDL
6:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0066
8:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0066
N-ethylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.01
EtFOSAA	ug/L	86.78801	80.14263	0	0.02	0.02	0.0033
N-ethylperfluorooctane sulfonamidoe	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0079
N-methylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.013
MeFOSAA	ug/L	86.53541	80.43983	0	0.02	0.02	0.0029
N-methylperfluorooctanesulfonamidol	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.012
Perfluorobutanoic acid	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0055
Perfluorobutane Sulfonate (PFBS)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0054
Perfluorodecane Sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.006
Perfluoroheptanoic Acid (PFHpA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0074
Perfluoroheptane sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.008
Perfluorohexanoic Acid (PFHxA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0035
Perfluorohexane Sulfonate (PFHxS)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0056
Perfluorononanoic Acid (PFNA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0087
Perfluorooctane Sulfonamide (PFOSA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0034
Perfluoropentanoic Acid (PFPeA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0075
Perfluorotetradecanoic Acid	ug/L	88.39458	81.27698	0	0.02	0.02	0.0027
Perfluorotridecanoic Acid	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0038
Perfluoroundecanoic Acid (PFUnA)	ug/L	89.46859	85.72518	0	0.02	0.02	0.0025
Perfluorodecanoic Acid (PFDA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0061
Perfluorododecanoic Acid (PFDoA)	ug/L	92.20755	88.47387	0	0.02	0.02	0.005
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0033
Perfluorooctane Sulfonate (PFOS)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.006
13C2-6:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******			
13C2-8:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******			
13C2-perfluorotetradecanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C4-Perfluorobutanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
D3-MeFOSAA	ug/L	113.987707	122.281086	121.161036			
D5-EtFOSAA	ug/L	111.890400	121.524434	111.791646			
N-methyl-d3-perfluorooctane sulfona	ug/L	N/A*******	N/A*******	N/A*******			
N-ethyl-d5-perfluorooctane sulfonam	ug/L	N/A*******	N/A*******	N/A*******			
13C2-Perfluorodecanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C2-Perfluorododecanoic acid	ug/L	102.664221	103.894579	105.230821			
13C2-Perfluorohexanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C2-Perfluoroundecanoic acid	ug/L	106.786555	117.246318	107.177760			
13C4-Perfluoroheptanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C5-Perfluorononanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C4-Perfluorooctanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C4-Perfluorooctanesulfonate	ug/L	N/A*******	N/A*******	N/A*******			
13C5-Perfluoropentanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C8-Perfluorooctane Sulfonamide	ug/L	N/A*******	N/A*******	N/A*******			
1802-Perfluorohexanesulfonate	ug/L	N/A*******	N/A*******	N/A*******			

2018/09/14

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	IDL						
6:2 Fluorotelomer sulfonate	0						
8:2 Fluorotelomer sulfonate	0						
N-ethylperfluorooctane sulfonamide	0						
EtFOSAA	0						
N-ethylperfluorooctane sulfonamidoe	0						
N-methylperfluorooctane sulfonamide	0						
MeFOSAA	0						
N-methylperfluorooctanesulfonamidol	0						
Perfluorobutanoic acid	0						
Perfluorobutane Sulfonate (PFBS)	0						
Perfluorodecane Sulfonate	0						
Perfluoroheptanoic Acid (PFHpA)	0						
Perfluoroheptane sulfonate	0						
Perfluorohexanoic Acid (PFHxA)	0						
Perfluorohexane Sulfonate (PFHxS)	0						
Perfluorononanoic Acid (PFNA)	0						
Perfluorooctane Sulfonamide (PFOSA)	0						
Perfluoropentanoic Acid (PFPeA)	0						
Perfluorotetradecanoic Acid	0						
Perfluorotridecanoic Acid	0						
Perfluoroundecanoic Acid (PFUnA)	0						
Perfluorodecanoic Acid (PFDA)	0						
Perfluorododecanoic Acid (PFDoA)	0						
Perfluoro-n-Octanoic Acid (PFOA)	0						
Perfluorooctane Sulfonate (PFOS)	0						
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



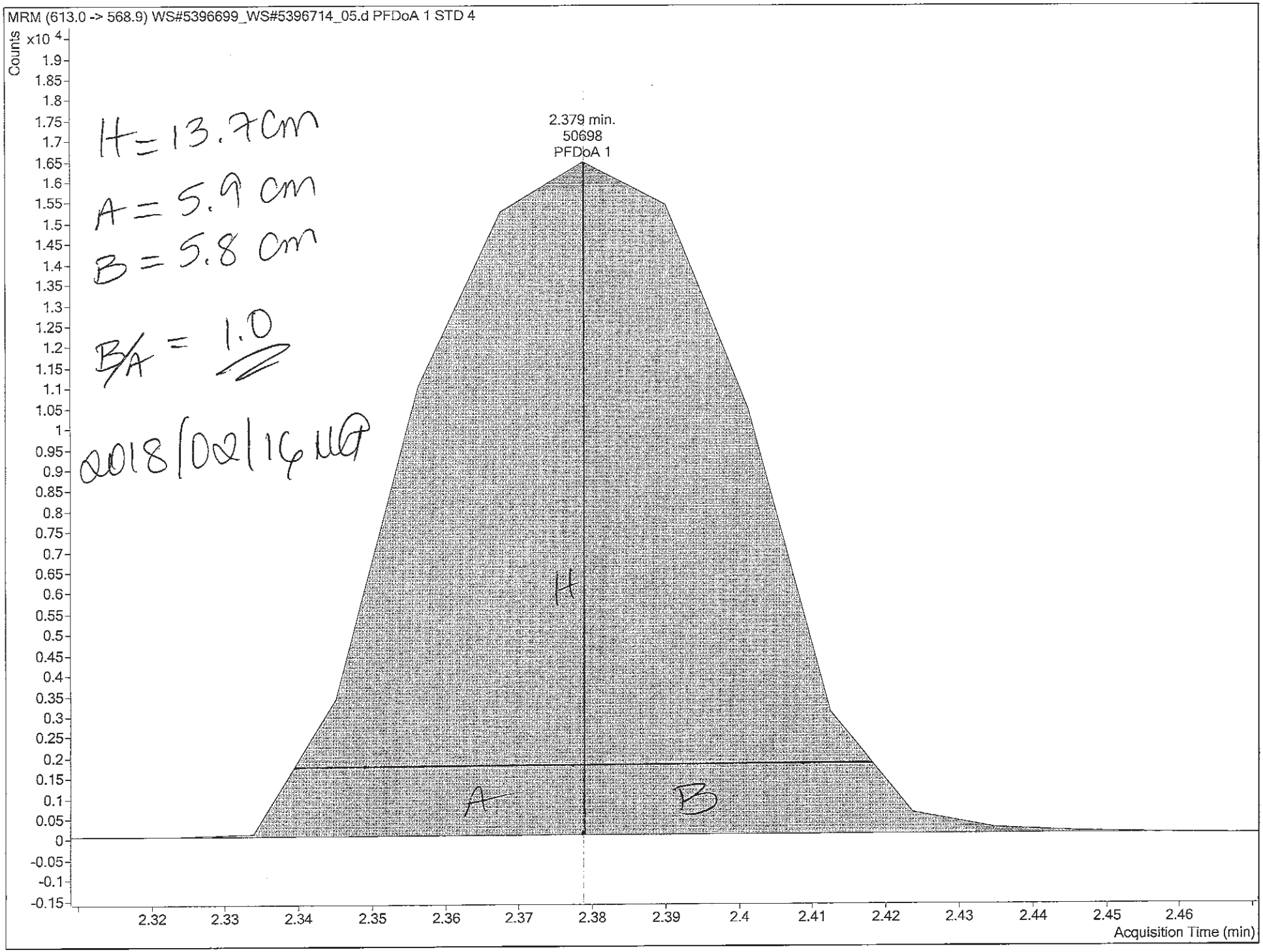
Manual calculation for MTKX SPK

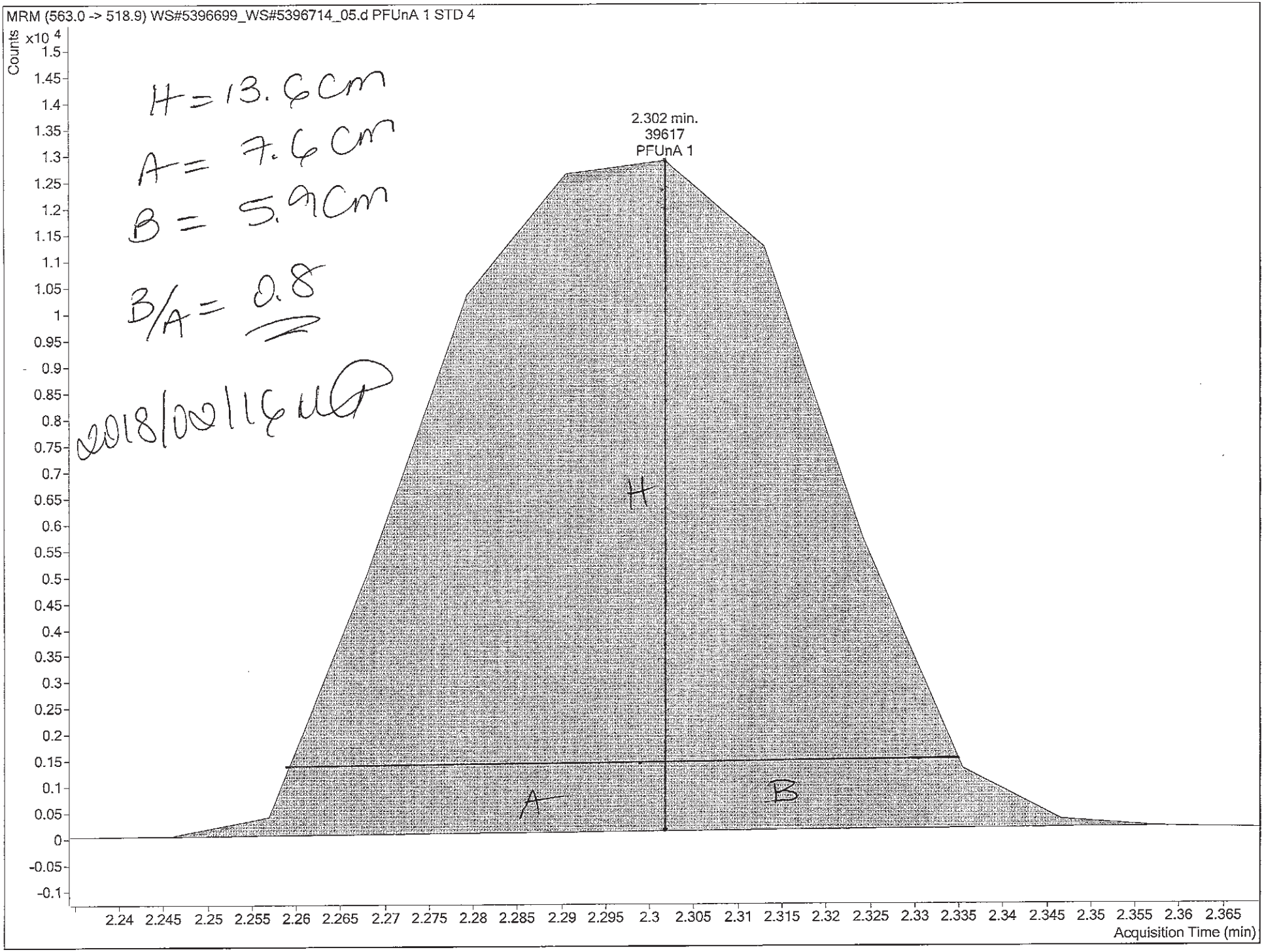
$11.0347 = 0.581938X - 0.144287$

$X = 19.20990 \times 0.004$

$X = 0.76103$ ng/L.

0.018/0.0116 ng


MRM (613.0 -> 568.9) WS#5396699_WS#5396714_05.d PFDoA 1 STD 4
Counts
x10 4
2.379 min.
50698
PFDoA 1
H = 13.7cm
A = 5.9 cm
B = 5.8 cm
B/A = 1.0
2018/02/16 MG
H
A
B
Acquisition Time (min)


MRM (563.0 -> 518.9) WS#5396699_WS#5396714_05.d PFUnA 1 STD 4
Counts
x10 4
2.302 min.
39617
PFUnA 1
H = 13.6 cm
A = 7.6 cm
B = 5.9 cm
B/A = 0.8
2018/02/16
H
A
B
Acquisition Time (min)

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/13

Test Code: **PFOSALCM-W**

Worksheet Number: **5396714**

Sample Number	Parameter Code	Parameter	
FZH337-01	ETFOSAA	EtFOSAA	*
	MEFOSAA	MeFOSAA	*
	PFTEDA	Perfluorotetradecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	

SAD 2018/01/13

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5396714 Instrument Sequences

1. 5396714:MTRX SPK — MTRX SPK
2. 5396714:MTRX SPK:D1 — MTRX SPK :D1
3. 5396714:FZH337-01 — CEF-076-109S-0118

2013/02/13

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180215_Low.wkl

Maxxam Analytics

AD
2018/02/15

Operator Name:	---
Run Type:	Standard Start
Part of Method to Run:	Acquisition Only
Execution of Acquisition-DA:	Synchronous
Acquisition Method Path:	D:\MassHunter\Acquisition Method
DA Method Path:	D:\MassHunter\methods
Data File Path:	D:\MassHunter\Data\PFC\20180215\WS#5396699_WS#5396714
Pre-Worklist Script:	---
Post-Worklist Script:	SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script:	---
Overlapped Injection:	Yes
Clear Sample Selection After Run:	Yes
Wait Time for Ready(Min):	10
Threshold Disk Value(GB):	10
Comment:	Column #198 MP A1: Solution# 280 (FSRE18) MP B: Methanol, SHBJ5451, Sigma

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low.m	WS#5396699_WS#5396714_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low.m	WS#5396699_WS#5396714_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low.m	WS#5396699_WS#5396714_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low.m	WS#5396699_WS#5396714_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low.m	WS#5396699_WS#5396714_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low.m	WS#5396699_WS#5396714_07.d	Calibration	STD 6	As Method	-

2018/02/15

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P2-A8	PFC_Water_Low.m	WS#5396699_WS#5396714_08.d	Sample		As Method	-
9	ICV	P2-A9	PFC_Water_Low.m	WS#5396699_WS#5396714_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low.m	WS#5396699_WS#5396714_10.d	ConCal	STD 1	As Method	-
11	5396699:BLANK	P2-B1	PFC_Water_Low.m	WS#5396699_WS#5396714_11.d	Sample		As Method	-
12	5396699:SPIKE	P2-B2	PFC_Water_Low.m	WS#5396699_WS#5396714_12.d	QC	ICV	As Method	-
13	5396699:MTRX SPK	P2-B3	PFC_Water_Low.m	WS#5396699_WS#5396714_13.d	QC	ICV	As Method	-
14	5396699:MTRX SPK:D1	P2-B4	PFC_Water_Low.m	WS#5396699_WS#5396714_14.d	QC	ICV	As Method	-
15	5396699:FZA783-01	P2-B5	PFC_Water_Low.m	WS#5396699_WS#5396714_15.d	Sample		As Method	-
16	5396699:FZA784-01	P2-B6	PFC_Water_Low.m	WS#5396699_WS#5396714_16.d	Sample		As Method	-
17	5396699:FZA785-01	P2-B7	PFC_Water_Low.m	WS#5396699_WS#5396714_17.d	Sample		As Method	-
18	5396699:FZA786-01	P2-B8	PFC_Water_Low.m	WS#5396699_WS#5396714_18.d	Sample		As Method	-
19	5396699:FZA788-01	P2-B9	PFC_Water_Low.m	WS#5396699_WS#5396714_19.d	Sample		As Method	-
20	5396699:FZA789-01	P2-C1	PFC_Water_Low.m	WS#5396699_WS#5396714_20.d	Sample		As Method	-
21	5396699:FZA790-01	P2-C2	PFC_Water_Low.m	WS#5396699_WS#5396714_21.d	Sample		As Method	-
22	5396699:FZA791-01	P2-C3	PFC_Water_Low.m	WS#5396699_WS#5396714_22.d	Sample		As Method	-
23	5396699:FZA792-01	P2-C4	PFC_Water_Low.m	WS#5396699_WS#5396714_23.d	Sample		As Method	-
24	5396699:FZA802-01	P2-C5	PFC_Water_Low.m	WS#5396699_WS#5396714_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_25.d	ConCal	STD 4	As Method	-
26	5396699:FZH332-01	P2-C6	PFC_Water_Low.m	WS#5396699_WS#5396714_26.d	Sample		As Method	-
27	5396699:FZH334-01:10x	P2-C7	PFC_Water_Low.m	WS#5396699_WS#5396714_27.d	Sample		As Method	-
28	5396699:FZH336-01	P2-C8	PFC_Water_Low.m	WS#5396699_WS#5396714_28.d	Sample		As Method	-
29	5396699:FZH338-01	P2-C9	PFC_Water_Low.m	WS#5396699_WS#5396714_29.d	Sample		As Method	-
30	5396699:FZH339-01	P2-D1	PFC_Water_Low.m	WS#5396699_WS#5396714_30.d	Sample		As Method	-

Maxxam Analytics

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5396699:FZH340-01	P2-D2	PFC_Water_Low.m	WS#5396699_WS#5396714_31.d	Sample		As Method	-
32	5396699:FZH341-01	P2-D3	PFC_Water_Low.m	WS#5396699_WS#5396714_32.d	Sample		As Method	-
33	5396699:FZH342-01	P2-D4	PFC_Water_Low.m	WS#5396699_WS#5396714_33.d	Sample		As Method	-
34	5396699:FZH343-01	P2-D5	PFC_Water_Low.m	WS#5396699_WS#5396714_34.d	Sample		As Method	-
35	5396699:FZJ934-01	P2-D6	PFC_Water_Low.m	WS#5396699_WS#5396714_35.d	Sample		As Method	-
36	CCV	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_36.d	ConCal	STD 4	As Method	-
37	5396714:MTRX SPK	P2-D7	PFC_Water_Low.m	WS#5396699_WS#5396714_37.d	Sample		As Method	-
38	5396714:MTRX SPK:D1	P2-D8	PFC_Water_Low.m	WS#5396699_WS#5396714_38.d	Sample		As Method	-
39	5396714:FZH337-01	P2-D9	PFC_Water_Low.m	WS#5396699_WS#5396714_39.d	Sample		As Method	-
40	CCV	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_40.d	ConCal	STD 4	As Method	-

Maxxam Analytics

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180215_Low_FOSAA.wkl

Maxxam Analytics

AD
2018/02/15

Operator Name:	---
Run Type:	Standard Start
Part of Method to Run:	Acquisition Only
Execution of Acquisition-DA:	Synchronous
Acquisition Method Path:	D:\MassHunter\Acquisition Method
DA Method Path:	D:\MassHunter\methods
Data File Path:	D:\MassHunter\Data\PFC\20180215\WS#5396699_WS#5396714_FOSAA
Pre-Worklist Script:	---
Post-Worklist Script:	SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script:	---
Overlapped Injection:	Yes
Clear Sample Selection After Run:	Yes
Wait Time for Ready(Min):	10
Threshold Disk Value(GB):	10
Comment:	Column #198 MP A1: Solution# 280 (FSRE18) MP B2:Solution# 284 (FSRE18)

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P2-A9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5396699:BLANK	P2-B1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_11.d	Sample		As Method	-
12	5396699:SPIKE	P2-B2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_12.d	QC	ICV	As Method	-
13	5396699:MTRX SPK	P2-B3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_13.d	QC	ICV	As Method	-
14	5396699:MTRX SPK:D1	P2-B4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_14.d	QC	ICV	As Method	-
15	5396699:FZA783-01	P2-B5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_15.d	Sample		As Method	-
16	5396699:FZA784-01	P2-B6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_16.d	Sample		As Method	-
17	5396699:FZA785-01	P2-B7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_17.d	Sample		As Method	-
18	5396699:FZA786-01	P2-B8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_18.d	Sample		As Method	-
19	5396699:FZA788-01	P2-B9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_19.d	Sample		As Method	-
20	5396699:FZA789-01	P2-C1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_20.d	Sample		As Method	-
21	5396699:FZA790-01	P2-C2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_21.d	Sample		As Method	-
22	5396699:FZA791-01	P2-C3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_22.d	Sample		As Method	-
23	5396699:FZA792-01	P2-C4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_23.d	Sample		As Method	-
24	5396699:FZA802-01	P2-C5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_25.d	ConCal	STD 4	As Method	-
26	5396699:FZH332-01	P2-C6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_26.d	Sample		As Method	-
27	5396699:FZH334-01:10x	P2-C7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_27.d	Sample		As Method	-
28	5396699:FZH336-01	P2-C8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_28.d	Sample		As Method	-
29	5396699:FZH338-01	P2-C9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_29.d	Sample		As Method	-
30	5396699:FZH339-01	P2-D1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_30.d	Sample		As Method	-
31	5396699:FZH340-01	P2-D2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_31.d	Sample		As Method	-
32	5396699:FZH341-01	P2-D3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_32.d	Sample		As Method	-
33	5396699:FZH342-01	P2-D4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_33.d	Sample		As Method	-
34	5396699:FZH343-01	P2-D5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_34.d	Sample		As Method	-

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
35	5396699:FZJ934-01	P2-D6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_35.d	Sample		As Method	-
36	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_36.d	ConCal	STD 4	As Method	-
37	5396714:MTRX SPK	P2-D7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_37.d	Sample		As Method	-
38	5396714:MTRX SPK:D1	P2-D8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_38.d	Sample		As Method	-
39	5396714:FZH337-01	P2-D9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_39.d	Sample		As Method	-
40	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_40.d	ConCal	STD 4	As Method	-

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FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/15 4:15 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_02.d	P2-A2
STD 2	-	2018/02/15 4:20 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_03.d	P2-A3
STD 3	-	2018/02/15 4:25 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_04.d	P2-A4
STD 4	-	2018/02/15 4:30 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_05.d	P2-A5
STD 5	-	2018/02/15 4:35 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_06.d	P2-A6
STD 6	-	2018/02/15 4:40 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_07.d	P2-A7
IB	-	2018/02/15 4:45 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_08.d	P2-A8
ICV	-	2018/02/15 4:50 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_09.d	P2-A9
ISC	-	2018/02/15 4:55 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_10.d	P2-A2
CCV	-	2018/02/15 7:03 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_36.d	P2-A5
5396714:MTRX SPK	FZH337	2018/02/15 7:08 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_37.d	P2-D7
5396714:MTRX SPK:D1	FZH337	2018/02/15 7:13 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_38.d	P2-D8
5396714:FZH337-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 7:18 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_39.d	P2-D9
CCV	-	2018/02/15 7:23 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_40.d	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/15 10:39 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_02.d	P2-A2
STD 2	-	2018/02/15 10:41 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_03.d	P2-A3
STD 3	-	2018/02/15 10:44 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_04.d	P2-A4
STD 4	-	2018/02/15 10:46 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_05.d	P2-A5
STD 5	-	2018/02/15 10:48 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_06.d	P2-A6
STD 6	-	2018/02/15 10:51 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_07.d	P2-A7
IB	-	2018/02/15 10:53 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_08.d	P2-A8
ICV	-	2018/02/15 10:56 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_09.d	P2-A9
ISC	-	2018/02/15 10:58 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_10.d	P2-A2
CCV	-	2018/02/15 12:01 PM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_36.d	P2-A5
5396714:MTRX SPK	FZH337	2018/02/15 12:03 PM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_37.d	P2-D7
5396714:MTRX SPK:D1	FZH337	2018/02/15 12:05 PM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_38.d	P2-D8
5396714:FZH337-01	-	2018/02/15 12:08 PM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_39.d	P2-D9
CCV	-	2018/02/15 12:10 PM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_40.d	P2-A5

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C9-PFDA
	Mass labeled IS	STD 4	STD 4
	IS Area	28147	35314
		IS Peak Area	IS Peak Area
STD 1		25741	34399
STD 2		27981	35531
STD 3		29424	36955
STD 4		28147	35314
STD 5		29859	36873
STD 6		29422	35570
IB		29106	37296
ICV		28001	33648
ISC		26497	34805
5383466:BLANK		29859	39886
5383466:SPIKE		29307	37003
5383466:MTRX SPK		27642	37506
5383466:MTRX SPK:D1		25480	33966
IB		26939	38248
5383466:FZA783-01		25882	34758
5383466:FZA784-01		24676	33994
5383466:FZA785-01		27247	34955
5383466:FZA786-01		26008	35273
5383466:FZA788-01		25728	33925
5383466:FZA789-01		26172	36609
5383466:FZA790-01		28289	37505
5383466:FZA791-01		28121	36445
5383466:FZA792-01		28688	38079
CCV		26693	36124
5383466:FZH336-01		27884	37923
5383466:FZH338-01		26448	34863
5383466:FZH339-01		25164	30767
5383466:FZH340-01		28111	36130
5383466:FZH341-01		27813	36173
5383466:FZH342-01		27752	36036
5383466:FZH343-01		27164	36234
CCV		27441	35024

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	28326
		IS Peak Area
STD 1		26183
STD 2		28851
STD 3		29289
STD 4		28326
STD 5		28590
STD 6		27901
IB		28656
ICV		27331
ISC		25738
5383466:BLANK		30305
5383466:SPIKE		29691
5383466:MTRX SPK		29366
5383466:MTRX SPK:D1		27872
IB		28486
5383466:FZA783-01		28289
5383466:FZA784-01		26622
5383466:FZA785-01		27990
5383466:FZA786-01		27719
5383466:FZA788-01		27328
5383466:FZA789-01		28684
5383466:FZA790-01		29109
5383466:FZA791-01		29148
5383466:FZA792-01		29407
CCV		28134
5383466:FZH336-01		29109
5383466:FZH338-01		27615
5383466:FZH339-01		25195
5383466:FZH340-01		27688
5383466:FZH341-01		29013
5383466:FZH342-01		28807
5383466:FZH343-01		28498
CCV		28351
CCV		28872
5383466:SPIKE:R		30309
CCV		29023

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C9-PFDA
	Mass labeled IS	STD 4	STD 4
	IS Area	28147	35314
		IS Peak Area	IS Peak Area
STD 1		25741	34399
STD 2		27981	35531
STD 3		29424	36955
STD 4		28147	35314
STD 5		29859	36873
STD 6		29422	35570
IB		29106	37296
ICV		28001	33648
ISC		26497	34805
CCV		27441	35024
5383485:FZH337-01		27267	36713
5383485:MTRX SPK		23400	32571
5383485:MTRX SPK:D1		26743	36341
IB		28585	37236
CCV		27560	36811

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	28326
		IS Peak Area
STD 1		26183
STD 2		28851
STD 3		29289
STD 4		28326
STD 5		28590
STD 6		27901
IB		28656
ICV		27331
ISC		25738
CCV		28351
5383485:FZH337-01		27490
5383485:MTRX SPK		24818
5383485:MTRX SPK:D1		26099
IB		27923
CCV		28308

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	32806	34491	41938	43455
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
STD 1		31547		40575	
STD 2		31482		42308	
STD 3		31926		40767	
STD 4		32806		41938	
STD 5		31504		39393	
STD 6		31071		38348	
IB		29753		39820	
ICV		32370		43532	
ISC		32150		41525	
5386102:BLANK		32505		40494	
5386102:SPIKE		32560		42455	
5386102:MTRX SPK		29803		37721	
5386102:MTRX SPK:D1		29149		36576	
IB		32514		42276	
5386102:FZA801-01		31765		42246	
5386102:FZA802-01		41475		49869	
5386102:FZA803-01		35436		45046	
5386102:FZA804-01		32197		40725	
5386102:FZA805-01		31057		40745	
5386102:FZA806-01		29544		38435	
5386102:FZH328-01		30996		38972	
5386102:FZH329-01		28126		38227	
5386102:FZH330-01		32627		40871	
5386102:FZH335-01		30264		38485	
CCV		33413		42329	
5386102:FZH344-01		30203		38903	
5386102:FZH345-01		31004		38786	
5386102:FZH346-01		30546		40067	
5386102:FZH347-01		30143		39310	
5386102:FZH348-01		29953		38951	
5386102:FZJ934-01		30902		40936	
CCV		32937		44706	
ISC			34491		43455
IB			33420		42585
5386102:FZJ934-01			32849		45154
CCV			35453		44102

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	34558
		IS Peak Area
STD 1		33632
STD 2		34091
STD 3		33520
STD 4		34558
STD 5		32642
STD 6		32000
IB		32617
ICV		35298
ISC		34350
5386102:BLANK		33885
5386102:SPIKE		33412
5386102:MTRX SPK		31685
5386102:MTRX SPK:D1		31716
IB		32431
5386102:FZA801-01		32722
5386102:FZA802-01		45409
5386102:FZA803-01		37497
5386102:FZA804-01		33884
5386102:FZA805-01		32429
5386102:FZA806-01		29837
5386102:FZH328-01		31315
5386102:FZH329-01		30665
5386102:FZH330-01		31697
5386102:FZH335-01		30947
CCV		35131
5386102:FZH344-01		31668
5386102:FZH345-01		33239
5386102:FZH346-01		32946
5386102:FZH347-01		32447
5386102:FZH348-01		31093
5386102:FZJ934-01		34319
CCV		35154

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C9-PFDA
	Mass labeled IS	STD 4	STD 4
	IS Area	23335	32614
		IS Peak Area	IS Peak Area
STD 1		25110	32852
STD 2		21438	30728
STD 3		22684	29920
STD 4		23335	32614
STD 5		23887	31422
STD 6		23411	31550
IB		26633	35487
ICV		25129	34664
ISC		29289	39482
5387452:BLANK		26906	38785
5387452:SPIKE		27268	36952
5387452:FZH318-01		26742	34724
5387452:FZH319-01		26537	34677
5387452:FZH320-01		25101	34257
5387452:FZH321-01		28194	36082
5387452:FZH322-01		27728	35724
5387452:FZH323-01		28728	37120
5387452:FZH331-01:20x		29962	39889
5387452:FZH331-01:2x		25213	33548
IB		29708	37977
5387452:FZH332-01:10x		27765	36538
5387452:FZH332-01		28515	37150
IB		29480	38322
CCV		27894	36656
5387452:FZH333-01:100x		28836	35379
5387452:FZH333-01:10x		25953	32989
IB		30398	38604
5387452:FZH334-01:10x		28283	36820
5387452:FZH334-01:D1:10x		28076	37847
IB		30795	38294
CCV		29863	38016

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	29446
		IS Peak Area
STD 1		32495
STD 2		28730
STD 3		28975
STD 4		29446
STD 5		29045
STD 6		28522
IB		30892
ICV		29357
ISC		32624
5387452:BLANK		30871
5387452:SPIKE		29667
5387452:FZH318-01		28259
5387452:FZH319-01		29003
5387452:FZH320-01		27332
5387452:FZH321-01		30905
5387452:FZH322-01		30847
5387452:FZH323-01		29979
5387452:FZH331-01:20x		32097
5387452:FZH331-01:2x		27805
IB		31828
5387452:FZH332-01:10x		29922
5387452:FZH332-01		31562
IB		31742
CCV		29985
5387452:FZH333-01:100x		30396
5387452:FZH333-01:10x		27522
IB		32095
5387452:FZH334-01:10x		29282
5387452:FZH334-01:D1:10x		28912
IB		31826
CCV		30756

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C9-PFDA
	Mass labeled IS	STD 4	STD 4
	IS Area	21649	28437
		IS Peak Area	IS Peak Area
STD 1		21986	30410
STD 2		20032	26332
STD 3		22277	30779
STD 4		21649	28437
STD 5		20825	26760
STD 6		21682	28751
IB		22297	29387
ICV		22492	30514
ISC		24034	32777
5389177:BLANK		22966	30416
5389177:SPIKE		23803	30268
5389177:SPIKE:D1		22196	28195
5389177:FZA807-01		22530	29719
5389177:FZA808-01		22142	29462
5389177:FZA809-01		21360	26718
5389177:FZH324-01:100x		22416	30180
5389177:FZH324-01:10x		21770	29401
IB		22580	27966
5389177:FZH325-01:100x		22961	30341
5389177:FZH325-01:10x		22336	29662
IB		22526	29513
5389177:FZJ938-01		20849	28242
5389177:FZJ941-01:10x		23138	29182
5389177:FZJ941-01		22287	28837
IB		23136	29942
CCV		22921	30245
5389177:FZJ953-01:50x		22621	30273
5389177:FZJ953-01:10x		22180	30261
IB		22158	29196
5389177:FZJ954-01:25x		22380	29980
5389177:FZJ954-01:5x		22050	29672
IB		23315	30723
CCV		23371	30394

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	22636
		IS Peak Area
STD 1		24326
STD 2		21526
STD 3		23563
STD 4		22636
STD 5		21784
STD 6		20928
IB		22354
ICV		21894
ISC		24330
5389177:BLANK		22583
5389177:SPIKE		22763
5389177:SPIKE:D1		21014
5389177:FZA807-01		22315
5389177:FZA808-01		22445
5389177:FZA809-01		20946
5389177:FZH324-01:100x		21763
5389177:FZH324-01:10x		21395
IB		22275
5389177:FZH325-01:100x		22516
5389177:FZH325-01:10x		22348
IB		21982
5389177:FZJ938-01		21039
5389177:FZJ941-01:10x		22106
5389177:FZJ941-01		21225
IB		22490
CCV		22437
5389177:FZJ953-01:50x		22335
5389177:FZJ953-01:10x		22112
IB		22057
5389177:FZJ954-01:25x		22837
5389177:FZJ954-01:5x		22412
IB		22271
CCV		22407

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C9-PFDA
	Mass labeled IS	STD 4	STD 4
	IS Area	24336	31660
		IS Peak Area	IS Peak Area
STD 1		23265	31397
STD 2		23676	30926
STD 3		23144	30938
STD 4		24336	31660
STD 5		23276	31734
STD 6		22811	29039
IB		20118	26942
ICV		24288	32215
ISC		23804	32182
5390275:BLANK		25220	33519
5390275:SPIKE		20746	27176
5390275:SPIKE:D1		23523	30943
5390275:FZH306-01:10x		25064	32842
5390275:FZH306-01		21947	29926
IB		20823	26431
5390275:FZH307-01		24072	31080
5390275:FZH308-01		23890	32295
5390275:FZH309-01		24803	32633
5390275:FZH310-01		25338	32529
5390275:FZH311-01		23258	30398
5390275:FZH312-01		22201	31529
5390275:FZH313-01		22997	30369
5390275:FZH314-01		24707	31608
CCV		24806	32186
5390275:FZH315-01		23762	32357
5390275:FZH316-01		24654	33518
5390275:FZH317-01		24651	33318
5390275:FZT419-01:10x		22782	30367
5390275:FZT419-01		22054	30454
IB		20118	26900
5390275:FZT420-01		24368	32418
5390275:FZT421-01		23233	30895
5390275:FZT422-01		24155	31821
5390275:FZT423-01		23594	31236
5390275:FZT424-01		23008	31282
CCV		24204	32789
5390275:FZT425-01		23542	31050
CCV		24535	32723

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	25154
		IS Peak Area
STD 1		24231
STD 2		24810
STD 3		24721
STD 4		25154
STD 5		24748
STD 6		23294
IB		21134
ICV		24598
ISC		24430
5390275:BLANK		25518
5390275:SPIKE		21375
5390275:SPIKE:D1		23768
5390275:FZH306-01:10x		25178
5390275:FZH306-01		22234
IB		21079
5390275:FZH307-01		24082
5390275:FZH308-01		25352
5390275:FZH309-01		24562
5390275:FZH310-01		25998
5390275:FZH311-01		22685
5390275:FZH312-01		23193
5390275:FZH313-01		24051
5390275:FZH314-01		24450
CCV		25073
5390275:FZH315-01		24471
5390275:FZH316-01		24664
5390275:FZH317-01		24614
5390275:FZT419-01:10x		23518
5390275:FZT419-01		22422
IB		20276
5390275:FZT420-01		24424
5390275:FZT421-01		24873
5390275:FZT422-01		24737
5390275:FZT423-01		23957
5390275:FZT424-01		24401
CCV		25106
5390275:FZT425-01		24107
CCV		25357

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	20587	25620	27112	34132
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
STD 1		21505		29170	
STD 2		22000		30116	
STD 3		23128		29118	
STD 4		20587		27112	
STD 5		21174		27233	
STD 6		20402		25923	
IB		21988		28703	
ICV		21926		28789	
ISC		23329		30557	
5391181:BLANK		20411		27053	
5391181:SPIKE		22104		28291	
5391181:MTRX SPK		21073		27955	
5391181:MTRX SPK:D1		20854		29597	
IB		21528		28472	
5391181:FZH326-01:10x		22457		29038	
5391181:FZH326-01		20728		27366	
IB		21638		28367	
5391181:FZH327-01:10x		22045		27838	
5391181:FZH327-01		20209		26670	
IB		22349		29226	
5391181:FZJ942-01		20430		27463	
5391181:FZJ955-01:10x		20471		28011	
5391181:FZJ955-01		21296		27262	
IB		21610		27875	
5391181:FZJ956-01:10x		22010		29748	
5391181:FZJ956-01		20711		27527	
IB		21027		29672	
CCV		20920		27348	
5391181:FZJ957-01:10x		23360		30860	
5391181:FZJ957-01		19908		25526	
IB		21481		29056	
5391181:FZJ958-01:10x		21223		27763	
5391181:FZJ958-01		20954		27121	
IB		22099		28898	
5391181:FZJ959-01:10x		22202		28947	
5391181:FZJ959-01		21395		28180	
IB		21579		29029	
5391181:FZJ960-01:50x		20509		27248	
5391181:FZJ960-01:10x		19942		27541	
IB		22089		28204	

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	20587	25620	27112	34132
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
5391181:FZJ961-01:25x		21592		29050	
5391181:FZJ961-01:5x		21571		28978	
IB		21713		29059	
CCV		21506		27920	
5391181:GAC701-01		21315		28168	
5391181:GAC702-01		21312		24577	
5391181:GAC703-01		21636		28116	
5391181:GAC704-01		23213		27308	
CCV		22098		28298	
ISC			25620		34132
5391181:FZJ961-01:50x			23269		28510
CCV			22928		30394

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	21811
		IS Peak Area
STD 1		23093
STD 2		22945
STD 3		23705
STD 4		21811
STD 5		21467
STD 6		20755
IB		22116
ICV		22425
ISC		24055
5391181:BLANK		20838
5391181:SPIKE		21771
5391181:MTRX SPK		21742
5391181:MTRX SPK:D1		21611
IB		22013
5391181:FZH326-01:10x		21301
5391181:FZH326-01		21615
IB		22151
5391181:FZH327-01:10x		22245
5391181:FZH327-01		21211
IB		22048
5391181:FZJ942-01		20867
5391181:FZJ955-01:10x		21500
5391181:FZJ955-01		21939
IB		21985
5391181:FZJ956-01:10x		21980
5391181:FZJ956-01		21305
IB		21830
CCV		21203
5391181:FZJ957-01:10x		22345
5391181:FZJ957-01		20022
IB		21901
5391181:FZJ958-01:10x		20831
5391181:FZJ958-01		20700
IB		22222
5391181:FZJ959-01:10x		20504
5391181:FZJ959-01		20124
IB		21805
5391181:FZJ960-01:50x		21016
5391181:FZJ960-01:10x		21264
IB		21446
5391181:FZJ961-01:25x		21932
5391181:FZJ961-01:5x		21485

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	21811
		IS Peak Area
IB		21932
CCV		21334
5391181:GAC701-01		21072
5391181:GAC702-01		23041
5391181:GAC703-01		21744
5391181:GAC704-01		23089
CCV		21524

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV
	IS Area	22554	32416
		IS Peak Area	IS Peak Area
STD 1		25927	
STD 2		24969	
STD 3		25417	
STD 4		22554	
STD 5		22966	
STD 6		24246	
IB		26065	
ICV		25421	
ISC		26238	
5396699:BLANK		24303	
5396699:SPIKE		24971	
5396699:MTRX SPK		23199	
5396699:MTRX SPK:D1		23790	
5396699:FZA783-01		20364	
5396699:FZA784-01		21739	
5396699:FZA785-01		24437	
5396699:FZA786-01		23166	
5396699:FZA788-01		26438	
5396699:FZA789-01		26327	
5396699:FZA790-01		23035	
5396699:FZA791-01		26734	
5396699:FZA792-01		27684	
5396699:FZA802-01		25076	
CCV		24750	
5396699:FZH332-01		26857	
5396699:FZH334-01:10x		23286	
5396699:FZH336-01		26577	
5396699:FZH338-01		22356	
5396699:FZH339-01		22519	
5396699:FZH340-01		23244	
5396699:FZH341-01		27193	
5396699:FZH342-01		23878	
5396699:FZH343-01		24293	
5396699:FZJ934-01		26756	
CCV		24591	
CCV		24736	
ISC			32416
5396699:FZA802-01:R			28934
CCV			28392

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	25796
		IS Peak Area
STD 1		27678
STD 2		27671
STD 3		27255
STD 4		25796
STD 5		26388
STD 6		27400
IB		27800
ICV		28101
ISC		28624
5396699:BLANK		27095
5396699:SPIKE		28179
5396699:MTRX SPK		26043
5396699:MTRX SPK:D1		26287
5396699:FZA783-01		23363
5396699:FZA784-01		23860
5396699:FZA785-01		27890
5396699:FZA786-01		25662
5396699:FZA788-01		27993
5396699:FZA789-01		28087
5396699:FZA790-01		26220
5396699:FZA791-01		29188
5396699:FZA792-01		30529
5396699:FZA802-01		27559
CCV		26628
5396699:FZH332-01		29100
5396699:FZH334-01:10x		25375
5396699:FZH336-01		28742
5396699:FZH338-01		25425
5396699:FZH339-01		25622
5396699:FZH340-01		25495
5396699:FZH341-01		28358
5396699:FZH342-01		26611
5396699:FZH343-01		26091
5396699:FZJ934-01		28945
CCV		26549

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	22554
		IS Peak Area
STD 1		25927
STD 2		24969
STD 3		25417
STD 4		22554
STD 5		22966
STD 6		24246
IB		26065
ICV		25421
ISC		26238
CCV		24591
5396714:MTRX SPK		22210
5396714:MTRX SPK:D1		23334
5396714:FZH337-01		24522
CCV		24736

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	25796
		IS Peak Area
STD 1		27678
STD 2		27671
STD 3		27255
STD 4		25796
STD 5		26388
STD 6		27400
IB		27800
ICV		28101
ISC		28624
CCV		26549
5396714:MTRX SPK		24143
5396714:MTRX SPK:D1		24615
5396714:FZH337-01		25937
CCV		26293

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

Product Number:	**34860**
Batch Number:	**SHBJ5451**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	27 SEP 2017
Expiration Date:	SEP 2022

CH_3OH

Recd: j
2017/11/20
4 x 4 L
LC group

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: **34860**
Batch Number: **SHBJ5451**

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Rec'd: 2017/12/28
By: [illegible]
HPLC - M.L.
8 x 4 L

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	34860
Batch Number:	SHBJ0339
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	30 OCT 2017
Expiration Date:	OCT 2022

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.04
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.14
UV Absorbance 210nm	≤ 0.60	0.33
UV Absorbance 205nm	≤ 1.00	0.68
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period 1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information tained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact hnical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

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Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	34860
Batch Number:	SHBJ7527
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	18 DEC 2017
Expiration Date:	NOV 2022

HPLC
3Bottles
2018 10 1 21
E.G

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.14
UV Absorbance 210nm	≤ 0.60	0.33
UV Absorbance 205nm	≤ 1.00	0.64
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	99.94 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Maxxam Analytics
CAM FCD-01357/1
PRLRE: 108 PG: 88

REAGENT PREPARATION FORM

eagent # 175 Replaced Reagent # 173 Analyst: TRW

eagent Name: 0.2% NH4OH Preparation date: 2017/11/30 Expiry date: Daily

nal Volume: 500ml Oven No. : — Temp. : — Final Conc.: 0.2:99.8 v/v

alance ID: — Pipette/Syringe/Cylinder ID: N31477F 5553 Storage: shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	1mL	2016/12/14	2017/04/03	Fisher	158310	2021/04/30
MeOH	499mL	2017/11/27	2017/11/30	Sigma	SHBJ5451	2022/09/30
		TRW 2017/11/30				

NOTES:

Reagent # 176 Replaced Reagent # 160 Analyst: GSZ

Reagent Name: 0.3% NH4OH in MeOH Preparation date: 2017/11/30 Expiry date: Daily

Final Volume: 250 ml Oven No. : — Temp. : — Final Conc.: 0.3 : 99.7 v/v

Balance ID: — Pipette/Syringe/Cylinder ID: N31477F Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	0.75 ml	2016/12/16	2017/04/03	Fisher	158310	2021/04/30
MeOH	249.25 ml	2017/11/27	2017/11/30	Sigma	SHBJ5451	2022/09/30
			2017/11/30			
		GSZ				

NOTES: 250ml Class A Vol. Cylinder (3026)

DO NOT WRITE BENEATH ANY INSERTS OR PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL ENTRIES, CORRECTIONS AND INSERTS. INCLUDE ALL RELEVANT TRACEABLE REFERENCES ON ALL INSERTS.

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201 796-7100 tel
201 796-1626 fax

Certificate of Analysis

Fisher Chemicals Quality System are been found to be in accordance with the specifications of the Quality Management System standard ISO 9001:2008 Company by ANSI-ASQ National Accreditation Board - ANAB - FS 40618

This is to certify that product of the lot number listed above was found to comply with the specifications when tested. Certain data may have been supplied by other plants. Fisher Scientific Company LLC and its affiliates, subsidiaries or agents, do not make any further warranties of merchantability and fitness for a particular purpose. Certain products may be hazardous if not used properly. Buyer assumes all risks of use, storage, or handling of materials when not used in accordance with Fisher's suggested procedures. This product is not to be used for clinical, therapeutic, or diagnostic purposes when supplied as an OTC (over the counter) drug. This product is for laboratory use only.

Catalog Number	A649	Quality Test / Release Date	4/Jul/16
Lot Number	160916		
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States	* Suggested Retest Date	Apr-2021
Chemical Origin	Inorganic-non-mineral		
BSE/TSE Comment	This product does not contain and is not manufactured with any material tissue of animal origin. Any animal products, included as constituents where finished specification characteristics allow (GMP) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and irradiation.		

Rec'd: 2016/12/28
bottles - BB

Result name	Units	Specification	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	<= 0.5	0.001
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.050
ASSAY	(w/w) %	Inclusive Between 28.0 - 30.0	30.0
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.5	0.002
CARBON DIOXIDE	%	<= 0.002	<0.0030
CHLORIDE	ppm	<= 0.5	<0.001
HEXAVALENT (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.2	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.2	0.001
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2.0
PHOSPHATE (PO4)	ppm	<= 0.5	<0.10
POTASSIUM (K)	ppm	<= 0.5	0.001
RESIDUE AFTER IGNITION	ppm	<= 3	<3.00
SODIUM (Na)	ppm	<= 0.5	0.002
SUBSTANCES REDUCING PERMA	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2.0
TIN (Sn)	ppm	<= 0.2	0.001
TITANIUM (Ti)	ppm	<= 0.1	0.001
ZINC (Zn)	ppm	<= 0.1	0.001

AUTHORIZED BY

Quality Control Manager SPF

Note: This data applies only to the specific sample(s) tested and to the lot(s) from which it was taken. Unless otherwise agreed, Fisher Scientific makes no other warranty of any kind whatsoever, express or implied, including warranties of merchantability and fitness for a particular purpose, whether or not made in connection with sale or use of its products. Fisher Scientific's exclusive liability for any claim of any kind whatsoever, including claims based on contract, negligence, strict liability or otherwise, shall in no event exceed the purchase price paid. In no event shall Fisher Scientific be liable for consequential damages.

Received: 2016/12/10 1x500mL MMN
Received: 2016/12/14 1x500mL MMN
Received: 2016/12/16 1x500mL MMN

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Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

Product Number:	**34860**
Batch Number:	**SHBJ5451**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	27 SEP 2017
Expiration Date:	SEP 2022

CH_3OH

Recd: j
2017/11/20
4 x 4 L
LC group

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ5451

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Date Received: 2017/11/27 4x4 L

REAGENT PREPARATION FORM

Reagent # 277 Replaced Reagent # 266 Analyst: la

Reagent Name: DNPH Solution Preparation date: 2018/01/10 Expiry date: Daily

Final Volume: 10 ml Oven No. : — Temp. : — Final Conc.: —

Balance ID: FC-1 Pipette/Syringe/Cylinder ID: K 551916 Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
DNPH	0.05010 la	2016/07/15	2016/07/15	Spectar	ZEK0212	2022/05/31
ACN	10 ml	2017/09/20	2018/01/09	Fisher	172966	2024/05/31

2018/01/10 la

NOTES:

Reagent # 278 Replaced Reagent # 274 Analyst: GSZ

Reagent Name: 0.3% NH4OH in MeOH Preparation date: 2018/01/10 Expiry date: Daily

Final Volume: 250ml Oven No. : — Temp. : — Final Conc.: 0.3 : 99.7 v/v

Balance ID: — Pipette/Syringe/Cylinder ID: N31477F Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	0.75 ml	2017/08/15 ~~2016/12/16~~	2017/12/22	Fisher	166631	2020/01/31
MeOH	249.25 ml	GSZ 2018/01/10 2018/01/09	2018/01/10	Sigma	SHBJ5451	2022/09/30

GSZ 2018/01/10

NOTES: 250ml Class A Vol. Cylinder (3026)

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ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

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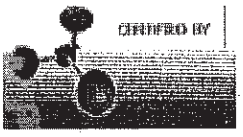
This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not make regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained.

Catalog Number	A563	Quality Test / Release Date	1/17/2017
Lot Number	166551	Expiration Date	Jan/20
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter
ALUMINUM	ppm	<= 0.3	0.012
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.050
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	29.5
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.006
CARBON DIOXIDE	%	<= 0.002	0.0020
CHLORIDE	ppm	<= 0.5	<0.50
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.044
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2.0
PHOSPHATE (PO4)	ppm	<= 0.4	<0.40
POTASSIUM (K)	ppm	<= 0.3	0.002
RESIDUE AFTER IGNITION	ppm	<= 3	3.00
SODIUM (Na)	ppm	= Report	0.015
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2.0
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.003



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Quality Assurance Specialist - Certificate of Analysis BPF

Note: The date listed is valid for all package sizes of this lot of this product, expressed as a extension of the catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-8701.
*Based on suggested storage conditions.

Date Received: 2017.08.15 - 1 bottle -HPLC

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Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBJ5451**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	27 SEP 2017
Expiration Date:	SEP 2022

Rec'd: 2
2017/11/20
4 x 4 L
LC supply

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 236nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.80 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ5451

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Date Received: 2017/11/10 4x4L
Date Received: 2017/11/27 4x4L
Date Received: 2017/12/01 4x4L
Date Received: 2017/12/04 4x4L
Date Received: 2017/12/07 4x4L
Date Received: 2017/12/09 4x4L
Date Received: 2017/12/12 4x4L
Date Received: 2017/12/16 4x4L
Date Received: 2017/12/17 4x4L
Date Received: 2017/12/19 4x4L
Date Received: 2018/01/04 4x4L
Date Received: 2018/01/09 4x4L
Date Received: 2018/01/19 4x4L

REAGENT PREPARATION FORM

Reagent # 287 Replaced Reagent # 280 Analyst: GSZ

Reagent Name: 0.3% NH_4OH in MeOH Preparation date: 2018/01/12 Expiry date: Daily

Final Volume: 250mL Oven No. : — Temp. : — Final Conc.: 0.3 : 99.7 v/v

Balance ID: — Pipette/Syringe/Cylinder ID: N31477F Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH_4OH	0.75 mL	2017/08/15	2017/12/22	Fisher	166631	2020/01/31
MeOH	249.25mL	2018/01/09	2018/01/12	Sigma	SHBJ5451	2022/09/30
		GSZ 2018/01/12				

NOTES: 250mL Class A Vol. Cylinder (3026)

Reagent # 288 Replaced Reagent # 279 Analyst: SSV

Reagent Name: 0.2% NH_4OH in MeOH Preparation date: 2018/01/12 Expiry date: Daily

Final Volume: 250mL Oven No. : — Temp. : — Final Conc.: 0.2 : 99.8 v/v

Balance ID: — Pipette/Syringe/Cylinder ID: N31477F Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH_4OH	0.5mL	2017/08/15	2017/12/22	Fisher	166631	2020/01/31
MeOH	249.5mL	2018/01/09	2018/01/12	Sigma	SHBJ 5451	2022/09/30
			SSV 2018/01/12			

NOTES: 250 mL class A vol. cylinder # 3026

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ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific Quality System has been found to conform to Quality Management System standard ISO 9001:2008 issued by SAI Global Certificate Number CERT - 0000618

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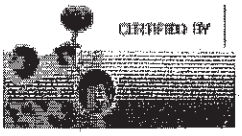
Catalog Number	A669	Quality Test / Release Date	1/17/2017
Lot Number	166631	Expiration Date	Jan/20
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
B&E/T&E Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter
ALUMINUM	ppm	<= 0.3	0.012
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.050
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	29.5
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.008
CARBON DIOXIDE	%	<= 0.002	0.0020
CHLORIDE	ppm	<= 0.5	<0.50
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.044
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2.0
PHOSPHATE (PO4)	ppm	<= 0.4	<0.40
POTASSIUM (K)	ppm	<= 0.3	0.002
RESIDUE AFTER IGNITION	ppm	<= 3	3.00
SODIUM (Na)	ppm	= Report	0.015
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2.0
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.003



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Quality Assurance Specialist - Certificate of Analysis BPF

Note: The date listed is valid for all package sizes of the lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-4701.
*Based on suggested storage condition.

Date Received: 2017.08.15 - 1 bottle -HPLC

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Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	34860
Batch Number:	SHBJ5451
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004695
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	27 SEP 2017
Expiration Date:	SEP 2022

Rec'd: 2
2017/11/20
4 x 4 L
LC pump

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

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Certificate of Analysis

Product Number: 34886
Batch Number: SHBJ5451

Michael Gredy, Manager
Quality Control
Sheboygan Falls, WI US

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Date Received: 2017/11/10 4x4L
Date Received: 2017/11/27 4x4L
Date Received: 2017/12/01 4x4L
Date Received: 2017/12/04 4x4L
Date Received: 2017/12/07 4x4L
Date Received: 2017/12/09 4x4L
Date Received: 2017/12/12 4x4L
Date Received: 2017/12/16 4x4L
Date Received: 2017/12/17 4x4L
Date Received: 2017/12/19 4x4L
Date Received: 2018/01/04 4x4L
Date Received: 2018/01/06 4x4L
Date Received: 2018/01/09 4x4L
Date Received: 2018/01/19 4x4L
Date Received: 2018/02/07 4x4L

REAGENT PREPARATION FORM

Reagent # 327 Replaced Reagent # 287 Analyst: LR

Reagent Name: 0.3% NH4OH in MeOH Preparation date: 2018/01/30 Expiry date: Daily

Final Volume: 100 ml Oven No. : — Temp. : — Final Conc.: 0.3-99.7 v/v

Balance ID: — Pipette/Syringe/Cylinder ID: J4343401 Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	0.3 ml	2018/01/09	2018/01/25	Fisher	172996	2020/08/31
MeOH	99.7 ml	2018/01/19	2018/01/30	Sigma	SHBJ5451	2022/09/30
				2018/01/30 LR		

NOTES: Cylinder # 6394

Reagent # 328 Replaced Reagent # 323 Analyst: DMB

Reagent Name: 0.2% NH4OH in MeOH Preparation date: 2018/01/30 Expiry date: Daily

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 0.2: 99.8 v/v

Balance ID: — Pipette/Syringe/Cylinder ID: N3M77F Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	2ml	2018/01/09	2018/01/25	Fisher	172996	2020/08/31
MeOH	998mL	2018/01/19	2018/01/30	Sigma	SHBJ5451	2022/09/30
	2018/01/30					

NOTES: 1L cylinder # 5553

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Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

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Catalog Number	A669	Quality Test / Release Date	6/24/2017
Lot Number	172396	Expiration Date	Aug/2020
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		

BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.
Chemical Comment	This product is free from genetically modified substances and is gluten free.

Test Name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	-<= 5.3	0.002
ARSENIC AND ANTIMONY	ppm	-<= 5.05	<0.050
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	29.2
BORON (B)	ppm	-<= 5.1	0.001
CALCIUM (Ca)	ppm	-<= 5.3	0.008
CARBON DIOXIDE	%	-<= 5.052	<0.0020
CHLORIDE	ppm	-<= 5.5	<0.50
CHROMIUM (Cr)	ppm	-<= 5.2	0.001
COPPER (Cu)	ppm	-<= 5.1	0.001
GOLD (Au)	ppm	-<= 5.3	0.001
HEAVY METALS (as Pb)	ppm	-<= 5.5	<0.5
IRON (Fe)	ppm	-<= 5.1	0.001
LEAD (Pb)	ppm	-<= 5.2	0.001
MAGNESIUM (Mg)	ppm	-<= 5.3	0.001
MANGANESE (Mn)	ppm	-<= 5.2	0.001
NICKEL (Ni)	ppm	-<= 5.1	0.001
NITRATE (NO3)	ppm	-<= 2	<2.0
PHOSPHATE (PO4)	ppm	-<= 5.4	<0.40
POTASSIUM (K)	ppm	-<= 5.3	0.002
RESIDUE AFTER IGNITION	ppm	-<= 3	<3.00
SODIUM (Na)	ppm	= Report	0.005
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	-<= 2	<2.0
TIN (Sn)	ppm	-<= 5.3	0.001
TITANIUM (Ti)	ppm	-<= 5.3	0.001
ZINC (Zn)	ppm	-<= 5.3	0.003

Quality Assurance Specialist - Certificate of Analysis EPF

Note: The data listed is valid for all package sizes of this lot of this product, unless noted as a subset of the catalog number listed above. If there are any questions with this certificate, please see Chemical Services at (800) 926-6161 Fisher-tel, support@fisher.com@fisher

Date Received: 2017/12/28-RAZ-P2B
Date Received: 2018/01/09-lov-HPLC 1X500ml

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Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBJ5451**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	27 SEP 2017
Expiration Date:	SEP 2022

Rec'd: 9
2017/11/20
4 x 4 L
LC samp

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	**100.00 %**
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	**0.0001 %**
Expiration Date Period 1800 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ5451

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Date Received: 2017/11/10 4x4L
Date Received: 2017/11/27 4x4L
Date Received: 2017/12/01 4x4L
Date Received: 2017/12/04 4x4L
Date Received: 2017/12/07 4x4L
Date Received: 2017/12/09 4x4L
Date Received: 2017/12/12 4x4L
Date Received: 2017/12/16 4x4L
Date Received: 2017/12/17 4x4L
Date Received: 2017/12/19 4x4L
Date Received: 2018/01/04 4x4L
Date Received: 2018/01/06 4x4L
Date Received: 2018/01/09 4x4L
Date Received: 2018/01/19 4x4L

REAGENT PREPARATION FORM

Reagent # 331 Replaced Reagent # 327 Analyst: GSZ

Reagent Name: 0.3% NH_4OH in MeOH Preparation date: 2018/01/31 Expiry date: Daily

Final Volume: 100ml Oven No. : — Temp. : — Final Conc.: 0.3 : 99.7 v/v

Balance ID: — Pipette/Syringe/Cylinder ID: V434346 Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH_4OH	0.3 ml	2018/01/09	2018/01/25	Fisher	172996	2020/08/31
MeOH	99.7 ml	2018/01/19	2018/01/30	Sigma	SHBJ5451	2022/09/30
			GSZ, 2018/01/31			

NOTES: 100ml Class A Vol. Cylinder (6394)

Reagent # 332 Replaced Reagent # 325 Analyst: SSV

Reagent Name: FMOC Preparation date: 2018/01/31 Expiry date: Daily

Final Volume: ~~25ml~~ 50ml Oven No. : SSV 2018/01/31 Temp. : Final Conc.:

Balance ID: FC-1 Pipette/Syringe/Cylinder ID: 0603 Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
FMOC	0.0752g	2017/04/06	2018/01/09	Aldrich	WXBC3138V	2022/04/06
ACN	50ml	2017/09/20	2018/01/09	Fisher	172966	2022/05/31
			SSV 2018/01/31			

NOTES:

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ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific Quality System has been found to conform to Quality Management System Standard ISO/IEC 9001:2008 standards by SAI Global Certification Number QMS - 004018

This is to certify that units of the lot number below were tested and found to comply with the specifications of this grade listed. Certain data have been authorized by third parties. Fisher Scientific makes only those claims of warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products labeled "CAUTION: Reagent" are sold for use in food, drug, or medical device manufacturing. Fisher does not extend responsibility coverage under 21 CFR for materials used with the FDA. This warranty and the stated analytical results followed

Catalog Number	A669	Quality Test / Release Date	6/24/2017
Lot Number	172396	Expiration Date	Aug2020
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		

BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.
Chemical Comment	This product is free from genetically modified substances and is gluten free.

Test Name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	-= 5.3	0.002
ARSENIC AND ANTIMONY	ppm	-= 5.05	-0.050
ASSAY	w/w %	Inclusive Between 25.0 - 30.0	29.2
BORON (B)	ppm	-= 5.1	0.001
CALCIUM (Ca)	ppm	-= 5.3	0.003
CARBON DIOXIDE	%	-= 5.002	-0.0123
CHLORIDE	ppm	-= 5.5	-5.53
CHROMIUM (Cr)	ppm	-= 5.2	0.001
COPPER (Cu)	ppm	-= 5.1	0.001
GOLD (Au)	ppm	-= 5.3	0.001
HEAVY METALS (as Pb)	ppm	-= 5.5	-0.5
IRON (Fe)	ppm	-= 5.1	0.001
LEAD (Pb)	ppm	-= 5.2	0.001
MAGNESIUM (Mg)	ppm	-= 5.3	0.001
MANGANESE (Mn)	ppm	-= 5.2	0.001
NICKEL (Ni)	ppm	-= 5.1	0.001
NITRATE (NO3)	ppm	-= 2	-2.0
PHOSPHATE (PO4)	ppm	-= 5.4	-0.40
POTASSIUM (K)	ppm	-= 5.3	0.002
RESIDUE AFTER IGNITION	ppm	-= 3	-3.00
SODIUM (Na)	ppm	= Report	0.005
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	-= 2	-2.0
TIN (Sn)	ppm	-= 5.3	0.001
TITANIUM (Ti)	ppm	-= 5.3	0.001
ZINC (Zn)	ppm	-= 5.3	0.003



Quality Assurance Specialist - Certificate of Analysis EPF

Note: This data listed is valid for all package sizes of this lot of this product, unless noted on a subsequent line catalog number listed above. If there are any questions with this certificate, please call Customer Service at (800) 926-4161
Toll-free US, supported always worldwide

Date Received: 2017/12/28-RAZ-P2B
Date Received: 2018/01/09-lov-HPLC 1X500ml

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	34860
Batch Number:	SHBJ5451
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	27 SEP 2017
Expiration Date:	SEP 2022

Rec'd: 9
2017/11/20
4 x 4 L
LC pump

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1300 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

SIGMA-ALDRICH

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3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ5451

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

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Date Received: 2017/11/10 4x4L
Date Received: 2017/11/27 4x4L
Date Received: 2017/12/01 4x4L
Date Received: 2017/12/04 4x4L
Date Received: 2017/12/07 4x4L
Date Received: 2017/12/09 4x4L
Date Received: 2017/12/12 4x4L
Date Received: 2017/12/16 4x4L
Date Received: 2017/12/17 4x4L
Date Received: 2017/12/19 4x4L
Date Received: 2018/01/04 4x4L
Date Received: 2018/01/06 4x4L
Date Received: 2018/01/09 4x4L
Date Received: 2018/01/19 4x4L

REAGENT PREPARATION FORM

Reagent # 333 Replaced Reagent # 329 Analyst: TAC

Reagent Name: 0.2% NH4OH Preparation date: 2018/02/01 Expiry date: daily

Final Volume: 1Lt Oven No. : — Temp. : — Final Conc.: 0.2 : 99.8

Balance ID: — Pipette/Syringe/Cylinder ID: K39876F Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	2 ml	2018/01/01	2018/01/05	Fisher	172996	2020/08/31
MeOH	998ml	2018/01/19	2018/01/31	Sigma	SHBJ5451	2022/09/30

TAC 2018/02/01

NOTES: 1L cylinder #5553

Reagent # 334 Replaced Reagent # 317 Analyst: [illegible]

Reagent Name: 2% Formic acid Preparation date: 2018/02/01 Expiry date: 2018/04/01

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 2% v/v

Balance ID: — Pipette/Syringe/Cylinder ID: K551916 Storage: shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic acid	20 ml	2017/08/30	2017/09/29	SIGMA	SHBJ1624	2018/05/31
LCMS H2O	980	2018/01/31	2018/01/31	Omni	57297	2018/10/31

NOTES: 1L cylinder #5553

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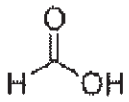
3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA. techserv@sial.com
Outside USA. eurtechserv@sial.com

Certificate of Analysis

Product Name:
Formic acid - reagent grade, ≥95%

Product Number:	F0507
Batch Number:	SHBJ1624
Brand:	SIGALD
CAS Number:	64-18-6
MDL Number:	MFCD00003297
Formula:	CH2O2
Formula Weight:	46.03 g/mol
Quality Release Date:	24 MAY 2017
Expiration Date:	MAY 2018



Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Very Faint Yellow
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 10 %	< 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.6 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.2 %
Expiration Date Period	----------	----------
1 Year		

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

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Date Received:2017/08/11-SSB-1 bottle-P2A
Date Received:2017/08/25 -SSB-1 bottle-P2A
Date Received:2017/08/29-SSB-1 bottle-P2A
Date Received:2017/12/07-SSB-1 bottle-P2A

Certificate of Analysis

MilliporeSigma

Date of Release: 10/27/2017

Name: Water
OmniSolv®: For LC/MS

Item No: WX0001-1, WX0001-6, WX0001-901

Lot / Batch No: 57297

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-OCT-2019	
Evaporation residue		1	< 0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.22	mAU
Gradient at 254 nm		0.5	0.09	mAU
LC/MS Purity (n-octylsulphonic)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Meets, suitable for LC/MS			Conforms	
UV Abs. at 205 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400–210 nm		0.005	< 0.001	AU
UV Cut-off		190	< 190	nm

Dr. Oliver Schramm
Quality Control Manager
This document has been produced electronically and is valid without a signature.

EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
290 Concord Road
Billerica, MA 01821
U.S.A.
The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

Date Received: 2017/12/01 1 x 4L LCMS
Date Received: 2017/12/04 4 x 4L LCMS
Date Received: 2017/12/06 4 x 4L LCMS
Date Received: 2017/12/07 4 x 4L LCMS
Date Received: 2017/12/10 4 x 4L LCMS
Date Received: 2017/12/19 4 x 4L LCMS
Date Received: 2017.12.28 - 8 x 4L - HPLC
Date Received: 2017.12.29 - 8 x 4L - HPLC
Date Received: 2018.01.04 - 8 x 4L - HPLC
Date Received: 2018.01.19 - 8 x 4L - HPLC
Date Received: 2018.01.31 - 8 x 4L - HPLC

REAGENT PREPARATION FORM

Reagent # 337 Replaced Reagent # 335 Analyst: SHD

Reagent Name: 0.2% NH4OH Preparation date: 2018/02/03 Expiry date: Daily

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 0.2%

Balance ID: — Pipette/Syringe/Cylinder ID: K39876 F Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	998	2018/01/18	2018/02/01	Sigma	SHBJ5451	2022/9/30
NH4OH	2ml	2017/08/15	2017/12/22	Fisher	166631	2020/01/31
		SHD				

NOTES:

Reagent # 338 Replaced Reagent # 331 Analyst: SHD

Reagent Name: 0.3% NH4OH in MeOH Preparation date: 2018/02/05 Expiry date: Daily

Final Volume: 100ml Oven No. : — Temp. : — Final Conc.: 0.3:99.7 v/v

Balance ID: — Pipette/Syringe/Cylinder ID: J43434G Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE.
NH4OH	0.3ml	2018/01/09	2018/01/25	Fisher	172996	2020/08/31
MeOH	99.7ml	2018/01/31	2018/02/05	Sigma	SHBJ 7527	2022/11/30
			SHD 2018/02/05			

NOTES:

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SIGMA-ALDRICH®

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3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

Product Number:	**34860**
Batch Number:	**SHBJ5451**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	27 SEP 2017
Expiration Date:	SEP 2022

CH_3OH

Rec'd: 9
2017/11/20
4 x 4 L
LC sump

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ5451

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

Date Received: 2017/11/10 4x4L
Date Received: 2017/11/27 4x4L
Date Received: 2017/12/01 4x4L
Date Received: 2017/12/04 4x4L
Date Received: 2017/12/07 4x4L
Date Received: 2017/12/09 4x4L
Date Received: 2017/12/12 4x4L
Date Received: 2017/12/16 4x4L
Date Received: 2017/12/17 4x4L
Date Received: 2017/12/19 4x4L
Date Received: 2018/01/04 4x4L
Date Received: 2018/01/06 4x4L
Date Received: 2018/01/09 4x4L
Date Received: 2018/01/19 4x4L

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0000019

This is to certify that units of the lot number listed were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (SPF/SCONFIS/PSINGP gasket) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	1/17/2017
Lot Number	166631	Expiration Date	Jan/20
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter
ALUMINUM	ppm	<= 0.3	0.012
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.050
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	29.6
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.008
CARBON DIOXIDE	%	<= 0.002	0.0020
CHLORIDE	ppm	<= 0.5	<0.50
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.044
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2.0
PHOSPHATE (PO4)	ppm	<= 0.4	<0.40
POTASSIUM (K)	ppm	<= 0.3	0.002
RESIDUE AFTER IGNITION	ppm	<= 3	3.00
SODIUM (Na)	ppm	= Report	0.015
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2.0
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.003



CERTIFIED BY



Quality Assurance Specialist - Certificate of Analysis BPF

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a subsection of this catalog number listed above. If there are any questions with this Certificate, please call Chemical Services at (800) 237-6703.
*Based on suggested storage conditions.

Date Received: 2017.08.15 - 1 bottle -HPLC

REAGENT PREPARATION FORM

Reagent # 339 Replaced Reagent # 335 Analyst: SSV

Reagent Name: 0.2% NH4OH Preparation date: 2018/02/05 Expiry date: Daily

Final Volume: 1L Oven No.: — Temp.: — Final Conc.: 0.2% (0.2:99.8)

Balance ID: _____ Pipette/Syringe/Cylinder ID: 043434G Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	~~2ml~~ SSV 2018/02/05 ~~998ml~~	2018/01/09	2018/1/25	Fisher	172996	2020/08/31
M-eOH	~~2ml~~ 998ml SSV 2018/02/05	2018/01/19	2018/02/02	Sigma	SHBJ 5451	2022/09/30
			2018/02/05 SSV.			

NOTES: 1L cylinder # 5553

Reagent # 340 Replaced Reagent # 339 Analyst: DMJ

Reagent Name: 0.2% NH4OH Preparation date: 2018/02/06 Expiry date: Daily

Final Volume: 1L Oven No.: — Temp.: — Final Conc.: 0.2% 0.2:99.8 V/V

Balance ID: — Pipette/Syringe/Cylinder ID: 043434G Storage: shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	2 ml	2017/08/15	2017/12/22	Fisher	166631	2020/01/31
M-eOH	998	2018/01/31	2018/02/06	Sigma	SHBJ7527	2022/11/30
		2018/02/06				

NOTES: 1L cylinder # 5553

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ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management Systems Standard ISO9001:2008 standard by SAI Global Certifonts Number CERT - 0000018

This is to certify that units of the lot number listed were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (BP/FCC/NF/ASTM/USP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	1/17/2017
Lot Number	166831	Expiration Date	Jan/20
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter
ALUMINUM	ppm	<= 0.3	0.012
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.050
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	29.6
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.008
CARBON DIOXIDE	%	<= 0.002	0.0020
CHLORIDE	ppm	<= 0.5	<0.50
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.044
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2.0
PHOSPHATE (PO4)	ppm	<= 0.4	<0.40
POTASSIUM (K)	ppm	<= 0.3	0.002
RESIDUE AFTER IGNITION	ppm	<= 3	3.00
SODIUM (Na)	ppm	= Report	0.015
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2.0
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.003



Certified By



Quality Assurance Specialist - Certificate of Analysis BPF

Note: The date listed is valid for all package sizes of this lot of this product, unopened as a extension of the catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-4701.
*Based on suggested storage condition.

Date Received: 2017.08.15 - 1 bottle -HPLC

SIGMA-ALDRICH

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: ourtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

Product Number:	34860
Batch Number:	SHBJ7527
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	18 DEC 2017
Expiration Date:	NOV 2022

CH_3OH

HPLC
3Bottles
2018 10 1 21
E. G

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.14
UV Absorbance 210nm	≤ 0.60	0.33
UV Absorbance 205nm	≤ 1.00	0.64
Fluorescence 254nm	1.0 ppb	< 0.1 ppb
Fluorescence 365nm	1.0 ppb	< 0.1 ppb
Purity (GC)	99.90 %	99.94 %
Color Test	10 APHA	< 5 APHA
Water (by Karl Fischer)	0.03 %	< 0.01 %
Residue on Evaporation	0.0005 %	0.0001 %
Expiration Date Period 1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

REAGENT PREPARATION FORM

Reagent # 341 Replaced Reagent # 339 Analyst: DM3

Reagent Name: 60:40 H_2O:MeOH Preparation date: 2018/02/06 Expiry date: 2018/04/06

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 60:40 V/V

Balance ID: — Pipette/Syringe/Cylinder ID: 5553 Storage: shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
H_2O 2018/02/06 600 ml DM3	600mL	2018/01/31	2018/02/05	Omni	57297	2018/04/31
MeOH	400mL	2018/01/31	2018/02/06	sigma	SHBJ7527	2022/11/30
		2018/02/06				

NOTES: 1L cylinder # 5553

Reagent # 342 Replaced Reagent # 334 Analyst: DM3

Reagent Name: 2% Formic acid Preparation date: 2018/02/06 Expiry date: 2018/04/06

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 2%

Balance ID: — Pipette/Syringe/Cylinder ID: K551916 Storage: shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic Acid	20ml	2018/01/30	2018/02/06	sigma	SHBJ 2924	2018/07/31
LCMS H_2O	980ml	2018/01/31	2018/02/05	omni	57297	2018/10/31
		2018/02/06				

NOTES: 1L cylinder # 5553

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Certificate of Analysis

MilliporeSigma

Date of Release:	10/2/2017
Name:	Water OmniSolv®, For LC/MS
Item No:	WX0001-1, WX0001-6, WX0001-901
Lot / Batch No:	57297
Country of Origin:	USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Recertification date			31-OCT-2018	
Evaporation residue		1	< 0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.22	mAU
Gradient at 254 nm		0.5	0.09	mAU
LC/MS Purity (ion chromatogram)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 205 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400–260 nm		0.005	< 0.001	AU
UV Cut-off		190	< 190	nm

Dr. Oliver Schramel
Quality Control Manager
This document has been produced electronically and is valid without a signature.

EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
290 Concord Road
Billerica, MA 01821
U.S.A.
The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

Date Received: 2017/12/01 1 x 4L LCMS
Date Received: 2017/12/04 4 x 4L LCMS
Date Received: 2017/12/06 4 x 4L LCMS
Date Received: 2017/12/07 4 x 4L LCMS
Date Received: 2017/12/10 4 x 4L LCMS
Date Received: 2017/12/19 4 x 4L LCMS
Date Received: 2017.12.28 - 8 x 4L - HPLC
Date Received: 2017.12.29 - 8 x 4L - HPLC
Date Received: 2018.01.04 - 8 x 4L - HPLC
Date Received: 2018.01.19 - 8 x 4L - HPLC
Date Received: 2018.01.31 - 8 x 4L - HPLC

SIGMA-ALDRICH

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	34860
Batch Number:	SHBJ7527
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	18 DEC 2017
Expiration Date:	NOV 2022

HPLC
3Bottles
2018 10 1 31
E. G

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.14
UV Absorbance 210nm	≤ 0.60	0.39
UV Absorbance 205nm	≤ 1.00	0.64
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	99.96 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

REAGENT PREPARATION FORM

Reagent # 341 Replaced Reagent # 339 Analyst: DM3

Reagent Name: 60:40 H_2O:MeOH Preparation date: 2018/02/06 Expiry date: 2018/04/06

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 60:40 V/V

Balance ID: — Pipette/Syringe/Cylinder ID: 5553 Storage: shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
H_2O 2018/02/06 600ml DM3	600mL	2018/01/31	2018/02/05	Omni	57297	2018/10/31
MeOH	400mL	2018/01/31	2018/02/06	Sig	SHBS7527	2022/11/30

2018/02/06

NOTES: 1L cylinder # 5553

Reagent # 342 Replaced Reagent # 334 Analyst: DM3

Reagent Name: 2% Formic acid Preparation date: 2018/02/06 Expiry date: 2018/04/06

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 2%

Balance ID: — Pipette/Syringe/Cylinder ID: K551916 Storage: shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic Acid	20ml	2018/01/30	2018/02/06	Sigma	SHBJ 2924	2018/07/31
LCMS H_2O	980mL	2018/01/31	2018/02/05	Omni	57297	2018/10/31

2018/02/06

NOTES: 1L cylinder # 5553

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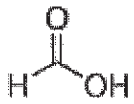
3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Formic acid - reagent grade, ≥95%

Product Number:	F0507
Batch Number:	SHBJ2924
Brand:	SIGALD
CAS Number:	64-18-6
MDL Number:	MFCD00003297
Formula:	CH2O2
Formula Weight:	46.03 g/mol
Quality Release Date:	17 JUL 2017
Expiration Date:	JUL 2018



Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Colorless
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	< 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.6 %
Expiration Date Period		
1 Year		

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Rec'd:
9 2017/09/22
1X, 100 mL
LC group

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Version Number: 1

Date Received: 2017/11/29-SSB- 1(500ml)-P2A
Date Received: 2018.01.30 - 2 bottles - HPLC

Certificate of Analysis

MilliporeSigma

Date of Release: 10/27/2017

Name: Water
OmniSolv®, For LC/MS

Item No: WX0001-1, WX0001-8, WX0001-901

Lot / Batch No: 57297

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-OCT-2018	
Evaporation residue		1	< 0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.22	mAU
Gradient at 254 nm		0.5	0.09	mAU
LC/MS Purity (n-Butylbenzene)		50	>50	ppb
LC/MS Purity (reserpine)		50	>50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400–280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Dr. Oliver Schramel
Quality Control Manager
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EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
290 Concord Road
Billerica, MA 01821
USA
The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

Date Received: 2017/12/01 1 x 4L LCMS
Date Received: 2017/12/04 4 x 4L LCMS
Date Received: 2017/12/06 4 x 4L LCMS
Date Received: 2017/12/07 4 x 4L LCMS
Date Received: 2017/12/10 4 x 4L LCMS
Date Received: 2017/12/19 4 x 4L LCMS
Date Received: 2017.12.28 - 8 x 4L - HPLC
Date Received: 2017.12.29 - 8 x 4L - HPLC
Date Received: 2018.01.04 - 8 x 4L - HPLC
Date Received: 2018.01.19 - 8 x 4L - HPLC
Date Received: 2018.01.31 - 8 x 4L - HPLC
Date Received: 2018.02.07 - 4 x 4L - HPLC
Date Received: 2018.02.07 - 4 x 4L - HPLC

REAGENT PREPARATION FORM

Reagent # 343 Replaced Reagent # 340 Analyst: DMZ

Reagent Name: 0.2% NH4OH Preparation date: 2018/02/07 Expiry date: daily

Final Volume: 1L Oven No.: — Temp.: — Final Conc.: 0.2:99.8

Balance ID: — Pipette/Syringe/Cylinder ID: N314777P Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	2mL	2017/08/15	2017/12/22	Fisher	166631	2020/01/31
MeOH	998mL	2018/01/31	2018/02/01	Sigma	SHBJ7527	2022/11/30

2018/02/07 DMZ

NOTES:

1L cylinder #5553

Reagent # 344 Replaced Reagent # 310 Analyst: LR

Reagent Name: 70:30 (MeOH:H2O) Preparation date: 2018/02/07 Expiry date: 2018/04/07

Final Volume: 1L Oven No.: — Temp.: — Final Conc.: 70:30 v/v

Balance ID: — Pipette/Syringe/Cylinder ID: 5553 Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	700 mL	2018/01/31	2018/02/06	Sigma	SHBJ 7527	2022/01/30
LCMS H2O	300mL	2018/01/31	2018/02/06	omni	57297	2018/10/31

LR 2018/02/07 LR

NOTES:

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1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0000018

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data here have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	1/17/2017
Lot Number	166531	Expiration Date	Jan20
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter
ALUMINUM	ppm	<= 0.3	0.012
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.050
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	29.6
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.005
CARBON DIOXIDE	%	<= 0.002	0.0020
CHLORIDE	ppm	<= 0.5	<0.50
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.044
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2.0
PHOSPHATE (PO4)	ppm	<= 0.4	<0.40
POTASSIUM (K)	ppm	<= 0.3	0.002
RESIDUE AFTER IGNITION	ppm	<= 3	3.00
SODIUM (Na)	ppm	= Report	0.015
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2.0
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.003





Quality Assurance Specialist - Certificate of Analysis BPF

Note: The date listed is valid for all package sizes of this lot of this product, expressed as a extension of the catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-4701.
*Based on suggested storage conditions.

Date Received: 2017.08.15 - 1 bottle -HPLC

SIGMA-ALDRICH
sigma-aldrich.com
3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

Product Number:	34860
Batch Number:	SHBJ7527
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH_4O
Formula Weight:	32.04 g/mol
Quality Release Date:	18 DEC 2017
Expiration Date:	NOV 2022

CH_3OH

HPLC
3 Bottles
2018 10 1 121
E. G

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.14
UV Absorbance 210nm	≤ 0.60	0.33
UV Absorbance 205nm	≤ 1.00	0.64
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 305nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	99.94 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

REAGENT PREPARATION FORM

Reagent # 345 Replaced Reagent # 336 Analyst: SAD

Reagent Name: FMOC Preparation date: 2018/02/07 Expiry date: Daily

Final Volume: 50ml Oven No. : — Temp. : — Final Conc.: —

Balance ID: FC-1 Pipette/Syringe/Cylinder ID: 0603 Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
FMOC	0.0751	2017/11/08	2018/01/09	Sigma	WXBC3136V	2022/11/06
ACN	50	2017/09/20	2018/01/03	Fisher	172966	2022/05/31
			SAD 2018/02/07			

NOTES:

Reagent # 346 Replaced Reagent # 343 Analyst: DM3

Reagent Name: 0.2 % NH_4OH Preparation date: 2018/02/08 Expiry date: daily

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 0.2 : 99.8 %v

Balance ID: — Pipette/Syringe/Cylinder ID: N314775 Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH_4OH	2 mL	2017/09/15	2017/09/22	Fisher	166631	2020/01/31
MeOH	998 mL	2018/01/31	2018/02/06	Sigma	SHBJ3527	2022/11/30
			DM3			
		2018/02/08				

NOTES: 1L cylinder # 5553

DO NOT WRITE BENEATH ANY INSERTS OR PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL ENTRIES, CORRECTIONS AND INSERTS. INCLUDE ALL RELEVANT TRACEABLE REFERENCES ON ALL INSERTS.
ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0000018

This is to certify that units of the lot number listed were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained.

Catalog Number	A554	Quality Test / Release Date	1/17/2017
Lot Number	166531	Expiration Date	Jan/20
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter
ALUMINUM	ppm	<= 0.3	0.012
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.050
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	29.6
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.008
CARBON DIOXIDE	%	<= 0.002	0.0020
CHLORIDE	ppm	<= 0.5	<0.50
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.044
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2.0
PHOSPHATE (PO4)	ppm	<= 0.4	<0.40
POTASSIUM (K)	ppm	<= 0.3	0.002
RESIDUE AFTER IGNITION	ppm	<= 3	3.00
SODIUM (Na)	ppm	= Report	0.015
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2.0
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.003





Quality Assurance Specialist - Certificate of Analysis BPF

Notes: The date listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-8701.
*Based on suggested storage conditions

Date Received: 2017.08.15 - 1 bottle -HPLC

SIGMA-ALDRICH®

sigma-aldrich.com

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

Product Number:	34860
Batch Number:	SHBJ7527
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	18 DEC 2017
Expiration Date:	NOV 2022

CH_3OH

HPLC
3Bottles
2018 10 1 171
E. G

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.14
UV Absorbance 210nm	≤ 0.60	0.33
UV Absorbance 205nm	≤ 1.00	0.64
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	< 0.1 ppb
Purity (GC)	≥ 99.90 %	99.94 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

REAGENT PREPARATION FORM

Reagent # 347 Replaced Reagent # 346 Analyst: SAD

Reagent Name: 0.4 % NH4OH Preparation date: 2018/2/08 Expiry date: Daily

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 0.2%

Balance ID: — Pipette/Syringe/Cylinder ID: N314775 Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	1 mL	2018/01/18	2018/01/25	Fisher	172996	2020/08/31
MeOH	499mL	2018/02/07	2018/2/8	Sigma	SHBJ5451	2022/09/30
		SAD	2018/02/08			

NOTES:

Reagent # 348 Replaced Reagent # 341 Analyst: SAD

Reagent Name: H2O:MeOH 60:40 Preparation date: 2018/02/08 Expiry date: 2018/04/08

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 60:40 v/v

Balance ID: — Pipette/Syringe/Cylinder ID: 5553 Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	400	2018/02/07	2018/2/8	Sigma	SHBJ5451	2022/9/30
H2O	600	2018/02/07	2018/2/8	Omni	57297	2018/10/31
		SAD	2018/02/08			

NOTES:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific Quality System has been found to conform to Quality Management System Standard ISO/IEC 9001:2008 assessed by SAI Global Certificate Number QMS 11 - 0000016

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Catalog Number	A669	Quality Test / Release Date	6/24/2017
Lot Number	172396	Expiration Date	Aug2020
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		

BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.
Chemical Comment	This product is free from genetically modified substances and is gluten free.

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	-= 5.3	0.002
ARSENIC AND ANTIMONY	ppm	-= 5.05	<0.050
ASSAY	WW %	Inclusive Between 28.0 - 30.0	29.2
BORON (B)	ppm	-= 5.1	0.001
CALCIUM (Ca)	ppm	-= 5.3	0.003
CARBON DIOXIDE	%	-= 5.002	<0.0020
CHLORIDE	ppm	-= 5.5	<0.50
CHROMIUM (Cr)	ppm	-= 5.2	0.001
COPPER (Cu)	ppm	-= 5.1	0.001
GOLD (Au)	ppm	-= 5.3	0.001
HEAVY METALS (as Pb)	ppm	-= 5.5	<0.5
IRON (Fe)	ppm	-= 5.1	0.001
LEAD (Pb)	ppm	-= 5.2	0.001
MAGNESIUM (Mg)	ppm	-= 5.3	0.001
MANGANESE (Mn)	ppm	-= 5.2	0.001
NICKEL (Ni)	ppm	-= 5.1	0.001
NITRATE (NO3)	ppm	-= 2	<2.0
PHOSPHATE (PO4)	ppm	-= 5.4	<0.40
POTASSIUM (K)	ppm	-= 5.3	0.002
RESIDUE AFTER IGNITION	ppm	-= 3	<3.00
SODIUM (Na)	ppm	= Report	0.005
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	-= 2	<2.0
TIN (Sn)	ppm	-= 5.3	0.001
TITANIUM (Ti)	ppm	-= 5.3	0.001
ZINC (Zn)	ppm	-= 5.3	0.003

Quality Assurance Specialist - Certificate of Analysis BPF

Note: The data listed is valid for all package sizes of this lot number unless otherwise noted. If there are any questions with this certificate, please call Customer Service at (800) 201-7701
*Allowed lot supplied at large concentration

Date Received: 2017/12/28-RAZ-P2B
Date Received: 2018/01/09-lov-HPLC 1X500ml

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

Product Number:	**34860**
Batch Number:	**SHBJ5451**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	27 SEP 2017
Expiration Date:	SEP 2022

CH_3OH

Rcvd: j
2017/11/20
4 x 4 L
LC group

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

SIGMA-ALDRICH®

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Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ5451

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

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Date Received: 2017/11/10 4x4L
Date Received: 2017/11/27 4x4L
Date Received: 2017/12/01 4x4L
Date Received: 2017/12/04 4x4L
Date Received: 2017/12/07 4x4L
Date Received: 2017/12/09 4x4L
Date Received: 2017/12/12 4x4L
Date Received: 2017/12/16 4x4L
Date Received: 2017/12/17 4x4L
Date Received: 2017/12/19 4x4L
Date Received: 2018/01/04 4x4L
Date Received: 2018/01/06 4x4L
Date Received: 2018/01/09 4x4L
Date Received: 2018/01/19 4x4L
Date Received: 2018/02/07 4x4L

REAGENT PREPARATION FORM

Reagent # 347 Replaced Reagent # 346 Analyst: SAD

Reagent Name: 0.4% NH4OH Preparation date: 2018/02/08 Expiry date: Daily

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 0.2%

Balance ID: — Pipette/Syringe/Cylinder ID: N314771 Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	1 mL	2018/01/08	2018/01/25	Fisher	172496	2020/08/31
MeOH	499mL	2018/09/07	2018/2/8	Sigma	SHBJ5451	2022/09/30
		SAD	2018/02/08			

NOTES:

Reagent # 348 Replaced Reagent # 341 Analyst: SAD

Reagent Name: H2O:MeOH 60:40 Preparation date: 2018/02/08 Expiry date: 2018/04/08

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 60:40 v/v

Balance ID: — Pipette/Syringe/Cylinder ID: 5553 Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	400	2018/02/07	2018/2/8	Sigma	SHBJ5451	2022/9/30
H2O	600	2018/01/12	2018/2/8	Omni	57297	2018/10/31
		SAD	2018/02/08			

NOTES:

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBJ5451**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	27 SEP 2017
Expiration Date:	SEP 2022

Recd: 2017/11/20
4 x 4 L
LC syrup

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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Website: www.sigmaaldrich.com
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Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ5451

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

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Version Number: 1

Date Received: 2017/11/10 4x4L
Date Received: 2017/11/27 4x4L
Date Received: 2017/12/01 4x4L
Date Received: 2017/12/04 4x4L
Date Received: 2017/12/07 4x4L
Date Received: 2017/12/09 4x4L
Date Received: 2017/12/12 4x4L
Date Received: 2017/12/16 4x4L
Date Received: 2017/12/17 4x4L
Date Received: 2017/12/19 4x4L
Date Received: 2018/01/04 4x4L
Date Received: 2018/01/06 4x4L
Date Received: 2018/01/09 4x4L
Date Received: 2018/01/19 4x4L
Date Received: 2018/02/07 4x4L

Certificate of Analysis

MILLIPORE SIGMA

Date of Release: 10/27/2017

Name: Water
GinnSolvit For LC/MS

Item No: WX0001-1, WX0001-6, WX0001-001

Lot / Batch No: 57297

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-OCT-2018	
Evaporation residue		1	< 0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.22	mAU
Gradient at 254 nm		0.5	0.09	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-250 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Dr. Oliver Schrumpf
Quality Control Manager
This document has been produced electronically and is valid without a signature.

EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
200 Concord Road
Billerica, MA 01821
U.S.A.
The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

Date Received: 2017/12/01 1 x 4L LCMS
Date Received: 2017/12/04 4 x 4L LCMS
Date Received: 2017/12/06 4 x 4L LCMS
Date Received: 2017/12/07 4 x 4L LCMS
Date Received: 2017/12/10 4 x 4L LCMS
Date Received: 2017/12/19 4 x 4L LCMS
Date Received: 2017.12.28 - 8 x 4L - HPLC
Date Received: 2017.12.29 - 8 x 4L - HPLC
Date Received: 2018.01.04 - 8 x 4L - HPLC
Date Received: 2018.01.19 - 8 x 4L - HPLC
Date Received: 2018.01.31 - 8 x 4L - HPLC
Date Received: 2018.02.07 - 4 x 4L - HPLC
Date Received: 2018.02.07 - 4 x 4L - HPLC

REAGENT PREPARATION FORM

Reagent # 355 Replaced Reagent # 350 Analyst: 652

Reagent Name: 0.3% NH4OH in MeOH Preparation date: 2018/02/12 Expiry date: Daily

Final Volume: 250ml Oven No. : — Temp. : — Final Conc.: 0.3 : 99.7 v/v

Balance ID: — Pipette/Syringe/Cylinder ID: J434346 Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	0.75 ml	2018/01/09	2018/01/25	Fisher	172996	2020/07/31
MeOH	249.25 ml	2018/02/07	2018/02/09	Sigma	SHBJ5495	2022/09/30
		652, 2018/02/12				

NOTES: 250ml Class A vol. cylinder (3026)

Reagent # 356 Replaced Reagent # _____ Analyst: JB

Reagent Name: FMOC Preparation date: 2018/02/12 Expiry date: Daily

Final Volume: _____ Oven No. : _____ Temp. : _____ Final Conc.: _____

Balance ID: _____ Pipette/Syringe/Cylinder ID: _____ Storage: _____

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE

NOTES:

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Fisher Scientific
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Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

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This is to certify that units of this lot number have been tested and found to comply with the specification of this grade listed. Quality data have been established by Fisher Scientific and only statistically valid parameters, monitored on control, including the tested parameter, are considered by us to be critical for the product's performance. Certain products (CAS#/UN#/GHS) mentioned are sold for use in food, drug, or medical device manufacturing. Please refer any claims exceeding values of 21 CFR are available UPC's with the FDA. This Assay(s) are the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	8/24/2017
Lot Number	172386	Expiration Date	Aug/2020
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Chemical Comment	This product is free from genetically modified substances and is gluten free.		

Test Name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	<= 5.3	0.002
ARSENIC AND ANTIMONY	ppm	<= 5.05	<0.050
ASSAY	wt/ %	Inclusive Between 28.0 - 30.0	29.2
BORON (B)	ppm	<= 5.1	0.001
CALCIUM (Ca)	ppm	<= 5.3	0.008
CARBON DIOXIDE	%	<= 5.052	<0.0020
CHLORIDE	ppm	<= 5.5	<0.50
CHROMIUM (Cr)	ppm	<= 5.2	0.001
COPPER (Cu)	ppm	<= 5.1	0.001
GOLD (Au)	ppm	<= 5.3	0.001
HEAVY METALS (as Pb)	ppm	<= 5.5	<0.5
IRON (Fe)	ppm	<= 5.1	0.001
LEAD (Pb)	ppm	<= 5.2	0.001
MAGNESIUM (Mg)	ppm	<= 5.3	0.001
MANGANESE (Mn)	ppm	<= 5.2	0.001
NICKEL (Ni)	ppm	<= 5.1	0.001
NITRATE (NO3)	ppm	<= 2	<2.0
PHOSPHATE (PO4)	ppm	<= 5.4	<0.40
POTASSIUM (K)	ppm	<= 5.3	0.002
RESIDUE AFTER IGNITION	ppm	<= 3	<3.00
SODIUM (Na)	ppm	= Report	0.005
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2.0
TIN (Sn)	ppm	<= 5.3	0.001
TITANIUM (Ti)	ppm	<= 5.3	0.001
ZINC (Zn)	ppm	<= 5.3	0.003

Quality Assurance Specialist - Certificate of Analysis EPF

Note: The data listed is valid for all package sizes of this lot of this product, unless noted in a statement of this catalog number listed above. If there are any questions with this certificate, please call Customer Service at (800)926-6168. Tested on supplied sample only.

Date Received: 2017/12/28-RAZ-P2B
Date Received: 2018/01/09-lov-HPLC 1X500ml

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBJ5451**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	27 SEP 2017
Expiration Date:	SEP 2022

Rec'd: 3
2017/11/20
4 x 4 L
LC pump

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ5451

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Date Received: 2017/11/10 4x4L
Date Received: 2017/11/27 4x4L
Date Received: 2017/12/01 4x4L
Date Received: 2017/12/04 4x4L
Date Received: 2017/12/07 4x4L
Date Received: 2017/12/09 4x4L
Date Received: 2017/12/12 4x4L
Date Received: 2017/12/16 4x4L
Date Received: 2017/12/17 4x4L
Date Received: 2017/12/19 4x4L
Date Received: 2018/01/04 4x4L
Date Received: 2018/01/06 4x4L
Date Received: 2018/01/09 4x4L
Date Received: 2018/01/19 4x4L
Date Received: 2018/02/07 4x4L

REAGENT PREPARATION FORM

Reagent # 357 Replaced Reagent # 354 Analyst: DM3

Reagent Name: 0.2% NH4OH Preparation date: 2018/02/13 Expiry date: daily

Final Volume: 1L Oven No. : - Temp. : - Final Conc.: 0.2:99.8 v/v

Balance ID: - Pipette/Syringe/Cylinder ID: M39732F Storage: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	2mL	2018/01/09	2018/01/25	Fisher	172996	2020/07/31
MeOH	998mL	2018/01/02	2018/02/13	Sigma	SHBJ5451	2022/09/30
		2018/02/13 DM3				

NOTES: 1L cylinder # 5553

Reagent # 358 Replaced Reagent # 342 Analyst: SSV

Reagent Name: 2% formic acid Preparation date: 2018/02/13 Expiry date: 2018/04/13

Final Volume: 1L Oven No. : - Temp. : - Final Conc.: 2%

Balance ID: - Pipette/Syringe/Cylinder ID: K551916 Storage: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
formic acid	20mL	2017/08/25	2017/12/07	Sigma	SHBJ 1624	2018/05/31
LCMS H2O	980mL	2017/12/06	2018/02/13	OMNI	57297	2018/10/31
		2018/02/13	SSV			

NOTES: 1L cylinder # 5553

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.4329 fax

Certificate of Analysis

Fisher Scientific Quality Systems has been found to conform to Quality Management System Standard ISO/IEC 17025:2005 standards by SAI Global Certification Number CERT - 0008816

This is to certify that units of the lot number listed and found to comply with the specifications of the grade listed. No duty data have been established by this laboratory for any deviations, omissions or inclusions, including the intended manufacture or manufacturability and fitness for a particular purpose. Certain chemicals (listed on the MSDS) are sold for use in drugs, food, or medical devices manufacturing. Fisher does not claim responsibility for compliance under 21 CFR for raw materials sold in accordance with the FDA. The following are the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	8/24/2017
Lot Number	172996	Expiration Date	Aug/2020
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		

BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.
Chemical Comment	This product is free from genetically modified substances and is gluten free.

Test Name	Units	Specifications	Test Value
APPEARANCE		REPORT	COLORLESS AND FREE FROM SUSPENDED MATTER
ALUMINUM	ppm	=< 5.3	0.002
ARSENIC AND ANTIMONY	ppm	=< 5.05	<0.050
ASSAY	Wt/ %	Inclusive Between 28.0 - 30.0	29.2
BORON (B)	ppm	=< 5.1	0.001
CALCIUM (Ca)	ppm	=< 5.3	0.005
CARBON DIOXIDE	%	=< 5.052	<0.0020
CHLORIDE	ppm	=< 5.5	<0.50
CHROMIUM (Cr)	ppm	=< 5.2	0.001
COPPER (Cu)	ppm	=< 5.1	0.001
GOLD (Au)	ppm	=< 5.3	0.001
HEAVY METALS (as Pb)	ppm	=< 5.5	<0.5
IRON (Fe)	ppm	=< 5.1	0.001
LEAD (Pb)	ppm	=< 5.2	0.001
MAGNESIUM (Mg)	ppm	=< 5.3	0.001
MANGANESE (Mn)	ppm	=< 5.2	0.001
NICKEL (Ni)	ppm	=< 5.1	0.001
NITRATE (NO3)	ppm	=< 2	<2.0
PHOSPHATE (PO4)	ppm	=< 5.4	<0.40
POTASSIUM (K)	ppm	=< 5.3	0.002
RESIDUE AFTER IGNITION	ppm	=< 3	<3.00
SODIUM (Na)	ppm	= Report	0.005
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	=< 2	<2.0
TIN (Sn)	ppm	=< 5.3	0.001
TITANIUM (Ti)	ppm	=< 5.3	0.001
ZINC (Zn)	ppm	=< 5.3	0.003

Teresa Bailey-Wright

Quality Assurance Specialist - Certificate of Analysis SPF

Note: The data listed is valid for all packages lots of this product, unless stated as a reference of the catalog number listed above. If there are any questions with this certificate, please call Technical Services at (800) 227-4701
Stored at suggested storage condition

Date Received: 2017/12/28-RAZ-P2B
Date Received: 2018/01/09-lov-HPLC 1X500ml

SIGMA-ALDRICH®

sigma-aldrich.com

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Website: www.sigmaaldrich.com
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Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

Product Number:	**34860**
Batch Number:	**SHBJ5451**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	27 SEP 2017
Expiration Date:	SEP 2022

CH_3OH

Recd: 2
2017/11/20
4 x 4 L
LC pump

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
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UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	< 0.01
UV Absorbance 240nm	≤ 0.10	0.02
UV Absorbance 235nm	≤ 0.10	0.03
UV Absorbance 230nm	≤ 0.20	0.05
UV Absorbance 220nm	≤ 0.30	0.11
UV Absorbance 210nm	≤ 0.60	0.28
UV Absorbance 205nm	≤ 1.00	0.65
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	0.0001 %
Expiration Date Period 1800 Days		

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Version Number: 1

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: 34860
Batch Number: SHBJ5451

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

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Version Number: 1

Date Received: 2017/11/10 4x4L
Date Received: 2017/11/27 4x4L
Date Received: 2017/12/01 4x4L
Date Received: 2017/12/04 4x4L
Date Received: 2017/12/07 4x4L
Date Received: 2017/12/09 4x4L
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Date Received: 2017/12/16 4x4L
Date Received: 2017/12/17 4x4L
Date Received: 2017/12/19 4x4L
Date Received: 2018/01/04 4x4L
Date Received: 2018/01/06 4x4L
Date Received: 2018/01/09 4x4L
Date Received: 2018/01/19 4x4L
Date Received: 2018/02/07 4x4L

Maxxam

CAM FCD-00595/1
FSRE: 18 PG: 133

REAGENT PREPARATION FORM

SOLUTION # 265 REAGENT NAME: 20 mM Ammonium acetate

ANALYST: KC DATE PREPARED: 2018/01/16 EXPIRY DATE: 2018/03/16

STORAGE: R/T BALANCE ID: MS 204S PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium acetate	~~16.~~ 6.1645g KC 2018/01/16	2017/08/03	2017/09/18	Sigma	BCBT4732	2019/01/30
Water	4L	2017/12/28	2018/01/16	Millipore	57297	2018/10/31
		KC 2018/01/16				

NOTES:

SOLUTION # 266 REAGENT NAME: 50/50 ACN / 20 mM Ammonium Formate

ANALYST: J DATE PREPARED: 2018/01/17 EXPIRY DATE: 2018/03/17

STORAGE: RT BALANCE ID: AB-02 PIPET/SYRINGE ID: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium Formate	0.6301g	2017/08/03	2017/10/17	Sigma	MKBJ4480V	2022/08/03
RODiAP	500 mL	—	—	in-house	—	—
ACN	500 mL	2017/09/20	2017/10/17	Fisher	172966	2022/05/31
		J 2018/01/17				

NOTES:

ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.
RT = Room Temperature

SIGMA-ALDRICH

3050 Spruce Street, Saint Louis, MO 63103 USA
Email USA: techserv@sial.com Outside USA: eurtechserv@sial.com

Product Name:	AMMONIUM ACETATE reagent grade, >= 98 %
Product Number:	A7262
Batch Number:	BCBT4732
Brand:	Sigma-Aldrich
CAS Number:	631-61-8
Formula:	$CH_3CO_2NH_4$
Formula Weight:	77.08
Storage Temperature:	2-8 C
Quality Release Date:	16 JAN 2017
Recommended Retest Date:	JAN 2019

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	WHITE	WHITE
APPEARANCE (FORM)	MOIST CRYSTALS	MOIST CRYSTALS
TITRATION	≥ 98 %	99.6 %
TITRATION (METHOD)	TITRATION WITH NAOH	TITRATION WITH NAOH
SOLUBILITY (COLOR)	COLORLESS	COLORLESS
SOLUBILITY (TURBIDITY)	CLEAR	CLEAR
SOLUBILITY (METHOD)	1 G/ML, H2O	1 G/ML, H2O

Claudia Seither

Dr. Claudia Gellner
Manager Quality Control
Buchs, Switzerland

Rec'd: J
20 17/08/03
1 X 500 g
LC group
Storage: FD

Sigma-Aldrich warrants that at the time of the quality release or subsequent retest date the product conformed to the information contained in this publication. The current specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Certificate of Analysis

MILLIPORE SIGMA

Date of Release:	10/27/2017
Name:	Water OmniSolv®, For LC/MS
Item No:	WX0001-1, WX0001-6, WX0001-901
Lot / Batch No:	57297
Country of Origin:	USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			31-OCT-2019	
Evaporation residue		1	< 0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.22	mAU
Gradient at 254 nm		0.5	0.09	mAU
LC/MS Purity (5-mM solvent)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 255 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400–280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Dr. Oliver Schrumpf
Quality Control Manager
This document has been produced electronically and is valid without a signature.

EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
400 Common Road
Billerica, MA 01821
U.S.A.
The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

Date Received: 2017/12/01 1 x 4L LCMS
Date Received: 2017/12/04 4 x 4L LCMS
Date Received: 2017/12/06 4 x 4L LCMS
Date Received: 2017/12/07 4 x 4L LCMS
Date Received: 2017/12/10 4 x 4L LCMS
Date Received: 2017/12/19 4 x 4L LCMS
Date Received: 2017.12.28 - 8 x 4L - HPLC
Date Received: 2017.12.29 - 8 x 4L - HPLC
Date Received: 2018.01.04 - 8 x 4L - HPLC
Date Received: 2018.01.19 - 8 x 4L - HPLc

Maxxam

CAM FCD-00595/1
FSRE: 18 PG: 136

REAGENT PREPARATION FORM

SOLUTION # 271 **REAGENT NAME:** 25mM Ammonium Bicarbonate pH 10

ANALYST: JI **DATE PREPARED:** 2018/01/26 **EXPIRY DATE:** 2018/02/26

STORAGE: RT **BALANCE ID:** AB-02 **PIPET/SYRINGE ID:** —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium Hydrogen Carbonate	3.9501g	2017/10/17	2017/10/20	Merck	K47547305	2019/01/31
RODI H2O	top up to 2L	—	—	in-house	—	—
Ammonium Hydroxide	drop wise up to pH 10	2017/10/17	2018/01/15	Fisher	7217070	2020/08/23
			JI 2018/01/26			

NOTES: pH meter Account Fisher AP-61 S/N 342908

SOLUTION # 272 **REAGENT NAME:** 50:50 MeOH: ACN

ANALYST: KEL **DATE PREPARED:** 2018/01/29 **EXPIRY DATE:** 2018/03/29

STORAGE: RT **BALANCE ID:** - **PIPET/SYRINGE ID:** -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Methanol	500 mL	2018/01/09	2018/01/16	Fisher	171027	2022/05/31
Acetonitrile	500 mL	2018/01/09	2018/01/29	Honeywell	H0848	2019/03/15
		KL 2018/01/29				

NOTES:

ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.
RT = Room Temperature

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0000010

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	A454	Quality Test / Release Date	5/14/2017
Lot Number	171027		
Description	METHANOL, OPTIMA, A.C.S.		
Country of Origin	Trinidad	* Suggested Retest Date	May-2022
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Recd: 3
2017/08/21
4 x 4L

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	CLEAR, COLORLESS LIQUID
ASSAY	%	>= 99.9	99.9
CARBONYL COMPOUNDS	%	<= 0.001	0.0003
COLOR	APHA	<= 5	5
EVAPORATION RESIDUE	ppm	<= 1	0.4
FLUORESCENCE BACKGROUND	ppb	<= 1	<1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
LC GRADIENT SUITABILITY	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 205 NM	ABSORBANCE UNITS	<= 1.00	0.93
OPTICAL ABS AT 220 NM	ABSORBANCE UNITS	<= 0.23	0.23
OPTICAL ABS AT 230 NM	ABSORBANCE UNITS	<= 0.11	0.10
OPTICAL ABS AT 254 NM	ABSORBANCE UNITS	<= 0.01	0.010
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.3260 - 1.3300	1.3284
SOLUBILITY IN WATER	PASS/FAIL	= PASS TEST	PASS TEST
SUBSTANCES DARKENED BY H2SO4	PASS/FAIL	= PASS TEST	PASS TEST
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
TITRATABLE ACID	mEq/g	<= 0.0003	0.00020
TITRATABLE BASE	mEq/g	<= 0.0002	0.00003
WATER (H2O)	%	<= 0.07	0.01



Teresa Bailey-Wepfer

Quality Assurance Specialist - Certificate of Analysis BPF

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of the catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-5701.
*Based on suggested storage condition.

Date Received: 2017.09.01- 4 bottles - P2A
Date Received:2017/10/17-4 x 4L - LC
Date Received: 2017/10/19-JT- 2 bottles-P1
Date Received: 2017/11/23-PBE-1x4L
Date Received: 2018.01.09 - 4 x 4L - HPLC Main Lab
Date Received: 2018.01.10 - 4 x 4L - HPLC Main Lab

Rec'd: 2018/01/09 by: AR
2 x 1L
Storage: ML - Flamm Cabinet.

Honeywell Specialty Chemicals Seelze GmbH
Wunstorferstrasse 40
Seelze, 30926
Telefon: +49 5137 8238-0
www.lab-honeywell.com

Honeywell

CERTIFICATE OF ANALYSIS

Brand:	Honeywell Riedel-de Haën™
Product:	34967
Lot No:	H084B
Production date:	25.Mar.2017
Best before:	15.Mar.2019

Acetonitrile LC-MS CHROMASOLV

Parameter	Specification	Units	Result	Units
assay (GC)	min. 99.9	%	99.99	%
propionitrile (GC)	max. 0.2	%	<0.2	%
non-volatile matter	max. 0.0002	%	<0.0002	%
water (Karl Fischer)	max. 0.01	%	0.001	%
free acid (as CH3COOH)	max. 0.001	%	0.0008	%
free alkali (as NH3)	max. 0.0001	%	<0.0001	%
silver (Ag)	max. 0.1	ppm	<0.1	ppm
aluminium (Al)	max. 0.5	ppm	<0.5	ppm
barium (Ba)	max. 0.1	ppm	<0.1	ppm
bismuth (Bi)	max. 0.1	ppm	<0.1	ppm
calcium (Ca)	max. 0.05	ppm	<0.05	ppm
cadmium (Cd)	max. 0.05	ppm	<0.05	ppm
cobalt (Co)	max. 0.02	ppm	<0.02	ppm
chromium (Cr)	max. 0.02	ppm	<0.02	ppm
copper (Cu)	max. 0.02	ppm	<0.02	ppm
iron (Fe)	max. 0.02	ppm	<0.02	ppm
potassium (K)	max. 0.05	ppm	<0.05	ppm
lithium (Li)	max. 0.1	ppm	<0.1	ppm
magnesium (Mg)	max. 0.1	ppm	<0.1	ppm
manganese (Mn)	max. 0.02	ppm	<0.02	ppm
molybdenum (Mo)	max. 0.1	ppm	<0.1	ppm
sodium (Na)	max. 0.05	ppm	<0.05	ppm
nickel (Ni)	max. 0.02	ppm	<0.02	ppm
lead (Pb)	max. 0.02	ppm	<0.02	ppm
tin (Sn)	max. 0.1	ppm	<0.1	ppm
strontium (Sr)	max. 0.1	ppm	<0.1	ppm

Honeywell

Acetonitrile LC-MS CHROMASOLV

Parameter	Specification	Units	Result	Units
zinc (Zn)	max. 0.1	ppm	<0.1	ppm
HPLC-gradient at 210 nm	max. 1	mAU	<1	mAU
HPLC-gradient at 254 nm	max. 0.2	mAU	<0.2	mAU
baseline drift at 210 nm	max. 12	mAU	<12	mAU
suitability for the LC-MS	complying		complying	
fluorescence (chinin) at 254 nm	max. 0.5	ppb	<0.5	ppb
fluorescence (chinin) at 365 nm	max. 0.5	ppb	<0.5	ppb
absorbance at 195 nm	max. 0.097		<0.097	
absorbance at 200 nm	max. 0.022		<0.022	
absorbance at 230 nm	max. 0.004		<0.004	

Maxxam

CAM FCD-00595/1
FSRE: 18 PG: 140

REAGENT PREPARATION FORM

SOLUTION # 280 REAGENT NAME: 20 mM Ammonium acetate

ANALYST: KCl DATE PREPARED: 2018/02/06 EXPIRY DATE: 2018/04/06

STORAGE: RT BALANCE ID: MS204S PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium acetate	6.1658g	2017/08/03	2017/09/18	Sigma	BCBT4732	2019/01/30
Water	4L	2017/12/06	2018/02/06	Millipore	57297	2018/10/31
		KC 2018/02/06				

NOTES:

SOLUTION # 281 REAGENT NAME: 20 mM Ammonium Acetate

ANALYST: [illegible] DATE PREPARED: 2018/02/09 EXPIRY DATE: 2018/04/10

STORAGE: RT BALANCE ID: AB02 PIPET/SYRINGE ID:

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium Acetate	3.0804g	2017/08/03	2017/09/18	Sigma	BCBT4732	2019/01/30
LCMS Water	2L	2017/12/28	2018/02/09	(Omni Solv) EMD Millipore	57297	2018/10/31
	[illegible] 2018/02/09					

NOTES:

ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.
RT = Room Temperature

SIGMA-ALDRICH

3050 Spruce Street, Saint Louis, MO 63103 USA
Email USA: techserv@sial.com Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:	AMMONIUM ACETATE reagent grade, >= 98 %
Product Number:	A7262
Batch Number:	BCBT4732
Brand:	Sigma-Aldrich
CAS Number:	631-61-8
Formula:	$CH_3CO_2NH_4$
Formula Weight:	77.08
Storage Temperature:	2-8 C
Quality Release Date:	16 JAN 2017
Recommended Retest Date:	JAN 2019

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	WHITE	WHITE
APPEARANCE (FORM)	MOIST CRYSTALS	MOIST CRYSTALS
TITRATION	≥ 98 %	99.6 %
TITRATION (METHOD)	TITRATION WITH NAOH	TITRATION WITH NAOH
SOLUBILITY (COLOR)	COLORLESS	COLORLESS
SOLUBILITY (TURBIDITY)	CLEAR	CLEAR
SOLUBILITY (METHOD)	1 G/ML, H2O	1 G/ML, H2O

Claudia Geitner

Dr. Claudia Geitner
Manager Quality Control
Buchs, Switzerland

Rec'd: j
20 17/08/03
1 X 500 g
LC group
Storage: FD

Sigma-Aldrich warrants that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Certificate of Analysis

MilliPORE SIGMA

Date of Release: 10/27/2017

Name: Water
Chromasolv, For LC/MS

Item No: WX0001-1, WX0001-3, WX0001-901

Lot / Batch No: 57297

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
Expiration date			SI-OCT-2018	
Evaporation residue		1	< 0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.88	mAU
Gradient at 254 nm		0.5	0.09	mAU
LC/MS Purity (n-nitrosamine)		50	<50	ppb
LC/MS Purity (preservative)		50	<50	ppb
Metals, solitare for LC/MS			Conforms	
UV Abs. at 205 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-200 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Dr. Oliver Schrumpf
Quality Control Manager
This document has been produced electronically and is valid without a signature.

EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
290 Concord Road
Billerica, MA 01822
U.S.A.
The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

Date Received: 2017/12/01 1 x 4L LCMS
Date Received: 2017/12/04 4 x 4L LCMS
Date Received: 2017/12/06 4 x 4L LCMS
Date Received: 2017/12/07 4 x 4L LCMS
Date Received: 2017/12/10 4 x 4L LCMS
Date Received: 2017/12/19 4 x 4L LCMS
Date Received: 2017.12.28 - 8 x 4L - HPLC
Date Received: 2017.12.29 - 8 x 4L - HPLC
Date Received: 2018.01.04 - 8 x 4L - HPLC
Date Received: 2018.01.19 - 8 x 4L - HPLC
Date Received: 2018.01.31 - 8 x 4L - HPLC
Date Received: 2018.02.07 - 4 x 4L - HPLC
Date Received: 2018.02.07 - 4 x 4L - HPLC

Maxxam

CAM FCD-00595/1
FSRE: 18 PG: 142

REAGENT PREPARATION FORM

SOLUTION # 284 REAGENT NAME: 50:50 MeOH: ACN

ANALYST: KC DATE PREPARED: 2018/02/12 EXPIRY DATE: 2018/04/12

STORAGE: RT BALANCE ID: - PIPET/SYRINGE ID: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Methanol	500 mL	2018/01/09	2018/01/30	Fisher	171027	2022/05/31
Acetonitrile	500 mL	2018/01/09	2018/01/29	Honeywell	H0848	2019/03/15

KC 2018/02/12

NOTES:

SOLUTION # 285 REAGENT NAME: 1/39 H2O / Acetonitrile

ANALYST: SM DATE PREPARED: 2018/02/12 EXPIRY DATE:

STORAGE: RT BALANCE ID: — PIPET/SYRINGE ID: FE-8-68

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
RO D1 Water	10 mL	—	—	In-house	—	—
Acetonitrile	390 mL	2018/02/12	2018/02/12	Fisher	176083	2024/09/31

SM 2018/02/12

NOTES:

ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.
RT = Room Temperature

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0009910

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, aforesaid or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/JP/BP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR not maintain DMFs with the FDA. The following are the actual analytical results obtained:

Catalog Number	A454	Quality Test / Release Date	6/16/2017
Lot Number	171027		
Description	METHANOL, OPTIMA, A.C.S.		
Country of Origin	Trinidad	* Suggested Retest Date	May-2022
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Rec'd: 9
2017/08/21
4 x 4L

Result name	Units	Specification	Test Value
APPEARANCE		REPORT	CLEAR, COLORLESS LIQUID
ASSAY	%	>= 99.9	99.9
CARBONYL COMPOUNDS	%	<= 0.001	0.0008
COLOR	APHA	<= 5	5
EVAPORATION REBIDUE	ppm	<= 1	0.4
FLUORESCENCE BACKGROUND	ppb	<= 1	<1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
LC GRADIENT SUITABILITY	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 205 NM	ABSORBANCE UNITS	<= 1.00	0.83
OPTICAL ABS AT 220 NM	ABSORBANCE UNITS	<= 0.23	0.23
OPTICAL ABS AT 230 NM	ABSORBANCE UNITS	<= 0.11	0.10
OPTICAL ABS AT 254 NM	ABSORBANCE UNITS	<= 0.01	0.010
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.3260 - 1.3300	1.3284
SOLUBILITY IN WATER	PASS/FAIL	= PASS TEST	PASS TEST
SUBSTANCES DARKENED BY H2SO4	PASS/FAIL	= PASS TEST	PASS TEST
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
TITRATABLE ACID	mEq/g	<= 0.0003	0.00020
TITRATABLE BASE	mEq/g	<= 0.0002	0.00003
WATER (H2O)	%	<= 0.07	0.01

CERTIFIED BY

Quality Assurance Specialist - Certificate of Analysis BPF

Note: The date listed is valid for all package sizes of this lot of this product, expressed as a extension of the catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Date Received: 2017.09.01- 4 bottles - P2A
Date Received:2017/10/17-4 x 4L - LC
Date Received: 2017/10/19-JT- 2 bottles-P1
Date Received: 2017/11/23-PBE-1x4L
Date Received: 2018.01.09 - 4 x 4L - HPLC Main Lab
Date Received: 2018.01.10 - 4 x 4L - HPLC Main Lab

Rec'd: 2018/01/09 by: AR
2 x 1L
Storage: ML - Flamm Cabinet.

Honeywell

CERTIFICATE OF ANALYSIS

Honeywell Specialty Chemicals Seelze GmbH
Wunstorferstrasse 40
Seelze, 30926
Telefon: +49 5137 8238-0
www.lab-honeywell.com

Brand: Honeywell Riedel-de Haën™
Product: 34967
Lot No: H084B
Production date: 25.Mar.2017
Best before: 15.Mar.2019

Acetonitrile LC-MS CHROMASOLV

Parameter	Specification	Units	Result	Units
assay (GC)	min. 99.9	%	99.99	%
propionitrile (GC)	max. 0.2	%	<0.2	%
non-volatile matter	max. 0.0002	%	<0.0002	%
water (Karl Fischer)	max. 0.01	%	0.001	%
free acid (as CH3COOH)	max. 0.001	%	0.0008	%
free alkali (as NH3)	max. 0.0001	%	<0.0001	%
silver (Ag)	max. 0.1	ppm	<0.1	ppm
aluminium (Al)	max. 0.5	ppm	<0.5	ppm
barium (Ba)	max. 0.1	ppm	<0.1	ppm
bismuth (Bi)	max. 0.1	ppm	<0.1	ppm
calcium (Ca)	max. 0.05	ppm	<0.05	ppm
cadmium (Cd)	max. 0.05	ppm	<0.05	ppm
cobalt (Co)	max. 0.02	ppm	<0.02	ppm
chromium (Cr)	max. 0.02	ppm	<0.02	ppm
copper (Cu)	max. 0.02	ppm	<0.02	ppm
iron (Fe)	max. 0.02	ppm	<0.02	ppm
potassium (K)	max. 0.05	ppm	<0.05	ppm
lithium (Li)	max. 0.1	ppm	<0.1	ppm
magnesium (Mg)	max. 0.1	ppm	<0.1	ppm
manganese (Mn)	max. 0.02	ppm	<0.02	ppm
molybdenum (Mo)	max. 0.1	ppm	<0.1	ppm
sodium (Na)	max. 0.05	ppm	<0.05	ppm
nickel (Ni)	max. 0.02	ppm	<0.02	ppm
lead (Pb)	max. 0.02	ppm	<0.02	ppm
tin (Sn)	max. 0.1	ppm	<0.1	ppm
strontium (Sr)	max. 0.1	ppm	<0.1	ppm

Honeywell

Acetonitrile LC-MS CHROMASOLV

Parameter	Specification	Units	Result	Units
zinc (Zn)	max. 0.1	ppm	<0.1	ppm
HPLC-gradient at 210 nm	max. 1	mAU	<1	mAU
HPLC-gradient at 254 nm	max. 0.2	mAU	<0.2	mAU
baseline drift at 210 nm	max. 12	mAU	<12	mAU
suitability for the LC-MS	complying		complying	
fluorescence (chinin) at 254 nm	max. 0.5	ppb	<0.5	ppb
fluorescence (chinin) at 365 nm	max. 0.5	ppb	<0.5	ppb
absorbance at 195 nm	max. 0.097		<0.097	
absorbance at 200 nm	max. 0.022		<0.022	
absorbance at 230 nm	max. 0.004		<0.004	

Certificate of Analysis

Date of Release: 10/27/2017

Name: Water
OmniSolv®, For LC/MS

Item No: WX0001...1, WX0001...6, WX0001...901

Lot / Batch No: 57297

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-OCT-2019	
Evaporation residue		1	< 0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.22	mAU
Gradient at 254 nm		0.5	0.09	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400–250 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Dr. Oliver Schrunk

Quality Control Manager
This document has been produced electronically and is valid without a signature.

EMD Millipore Corporation, an affiliate of Merck KGaA, Darmstadt, Germany
290 Concord Road
Billerica, MA 01821
U.S.A.
The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.

Date Received: 2017/12/01 1 x 4L LCMS
Date Received: 2017/12/06 4 x 4L LCMS

PRLST 142 PG. 172

PREPARATION OF STANDARDS OF INTERMEDIARY CONCENTRATION

Solution No.: I-5297 Date: 2018/01/30 Expiry Date: 2019/01/30 Discard Date: —

Replaces Solution No.: I-5244 Replaced by Solution: _____ Chemist: LaV

Compound(s)/Solution Name: Comp: PFC working soln A

Number of Parent Solution(s): See attached sheet

Concentration of Parent Solution(s): See attached sheet (mg, ug)/mL

Aliquot of Parent Solution(s): See attached Sheet mL / uL

Pippette/Syringe ID N31477F (1ml)

Dilution Solvent: 0.3% NH4OH in MeOH Dilution Volume: 25 mL

Final Concentration(s): 1.0 (mg, ug)/mL

Solution derivatized (as methyl ester): — As Other (specify): —

Solution Contains Surrogate Compounds: — For mix refer to table on page: —

Solution used for: PFC Volumetric Flask: 25 ml Class A 5640
(identify by serial number or other unique ID)

Solvent Supplier: See PRLRE108-327 Lot No.: See PRLRE108-327

Date Opened: See PRLRE108-327

Storage Location: F2-11 One time Use, Not Stored: —

Ampule Supplier: Wellington Date Opened: —

Mix Name: —

Catalogue No.: — Ampule expiry Date: See attached sheet

Lot No.: See attached sheet

Date Received: See attached Sheet

Notes/Comments:

I-5297 (PRLST 142 Pg. 172)

Compound Name	ID#	Conc. (ug/mL)	Vol.. of Stock standard (uL)	Final Conc. (ug/mL)	Exp. date
PFBA	S4269-1	50	500	1	2022/05/29
L-PFBS	S4269-2	44.2	565	1	2022/09/21
PFPeA	S4269-3	50	500	1	2022/06/14
PFHxA	S4269-4	50	500	1	2022/09/27
br-PFHxSk	S4269-5	45.5	549	1	2022/01/04
PFHpA	S4269-6	50	500	1	2021/12/02
L-PFHpS	S4269-7	47.6	525	1	2022/09/01
PFOA	S4269-8	50	500	1	2022/02/17
brPFOSK	S4269-9	46.4	540	1	2022/01/12
PFNA	S4269-10	50	500	1	2022/07/20
PFDA	S4269-11	50	500	1	2022/05/29
L-PFDS	S4269-12	48.2	518	1	2022/02/17
PFUdA	S4269-13	50	500	1	2022/09/21
PFDoA	S4269-14	50	500	1	2022/05/29
PFTrDA	S4269-15	50	500	1	2022/05/02
PFTeDA	S4269-16	50	500	1	2022/09/21
PFOSA (FOSA-I)	S4269-17	50	500	1	2022/09/01
N-MeFOSA-M	S4269-18	50	500	1	2022/07/05
N-EtFOSA-M	S4269-19	50	500	1	2022/07/05
N-MeFOSE-M	S4269-20	50	500	1	2022/04/24
N-EtFOSE-M	S4269-21	50	500	1	2022/04/24
N-MeFOSAA	S4269-22	50	500	1	2022/01/11
N-EtFOSAA	S4269-23	50	500	1	2022/01/11
6:2FTS	S4269-24	47.4	528	1	2022/04/20
8:2FTS	S4269-25	47.9	522	1	2021/12/12

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La, 2018/01/30

PRLST 133 PG 150

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4269 Date: 2018/01/03 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: Lav

S-4269 (PRLST133 p. 150)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4269-1	PFBA	PFBA0517	2017/11/30	2022/05/29	S4240-1		50	MeOH	FZ-11
S4269-2	L-PFBS	LPFBS0917	2017/11/30	2022/09/21	S4240-2		44.2	MeOH	FZ-11
S4269-3	PFPeA	PFPeA0617	2017/11/30	2022/06/14	S4240-3		50	MeOH	FZ-11
S4269-4	PFHxA	PFHxA0917	2017/11/30	2022/09/27	S4240-4		50	MeOH	FZ-11
S4269-5	br-PFHxSk	brPFHxSK0117	2017/11/30	2022/01/04	S4240-5		45.5	MeOH	FZ-11
S4269-6	PFHpA	PFHpA1216	2017/11/30	2021/12/02	S4240-6		50	MeOH	FZ-11
S4269-7	L-PFHpS	LPFHpS0817	2017/11/30	2022/09/01	S4240-7		47.6	MeOH	FZ-11
S4269-8	PFOA	PFOA0217	2017/09/26	2022/02/17	S4240-8		50	MeOH	FZ-11
S4269-9	brPFOSK	brPFOSK0117	2017/11/30	2022/01/12	S4240-9		46.4	MeOH	FZ-11
S4269-10	PFNA	PFNA0717	2017/11/30	2022/07/20	S4240-10		50	MeOH	FZ-11
S4269-11	PFDA	PFDA0517	2017/11/30	2022/05/29	S4240-11		50	MeOH	FZ-11
S4269-12	L-PFDS	LPFDS0217	2017/11/30	2022/02/17	S4240-12		48.2	MeOH	FZ-11
S4269-13	PFUdA	PFUdA0917	2017/11/30	2022/09/21	S4240-13		50	MeOH	FZ-11
S4269-14	PFDoA	PFDoA0517	2017/11/30	2022/05/29	S4240-14		50	MeOH	FZ-11
S4269-15	PFTrDA	PFTrDA0517	2017/11/30	2022/05/02	S4240-15		50	MeOH	FZ-11
S4269-16	PFTeDA	PFTeDA0917	2017/11/30	2022/09/21	S4240-16		50	MeOH	FZ-11
S4269-17	PFOSA (FOSA-I)	FOSA08171	2017/11/30	2022/09/01	S4240-17		50	IPA	FD-59
S4269-18	N-MeFOSA-M	NMeFOSA0717M	2017/11/30	2022/07/05	S4240-18		50	MeOH	FZ-11
S4269-19	N-EtFOSA-M	NEtFOSA0717M	2017/11/30	2022/07/05	S4240-19		50	MeOH	FZ-11
S4269-20	N-MeFOSE-M	NMeFOSE0417M	2017/11/30	2022/04/24	S4240-20		50	MeOH	FZ-11
S4269-21	N-EtFOSE-M	NEtFOSE0417M	2017/11/30	2022/04/24	S4240-21		50	MeOH	FZ-11
S4269-22	N-MeFOSAA	NMeFOSAA0117	2017/11/30	2022/01/11	S4240-22		50	MeOH	FD-59
S4269-23	N-EtFOSAA	NEtFOSAA0117	2017/11/30	2022/01/11	S4240-23		50	MeOH	FD-59
S4269-24	6:2FTS	62FTS0417	2017/11/30	2022/04/20	S4240-24		47.4	MeOH	FD-59
S4269-25	8:2FTS	82FTS1216	2017/11/30	2021/12/12	S4240-25		47.9	MeOH	FD-59
Date Opened (All compounds): 2018/01/03			Supplier (All compounds) : Wellington				Chemist: Lav		

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Lav, 2018/01/03

_____
(specify model and serial no.)

Solvent Used: _____

Solvent Supplier: _____ Lot No(s).: _____

Date Opened: _____

Storage Location / Conditions: _____

Notes/Comments _____

WELLINGTON LABORATORIES

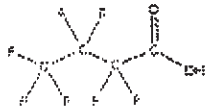
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA0517

STRUCTURE:

CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 05/29/2017
EXPIRY DATE: 05/29/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

657 2017/11/30
2 ampules

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

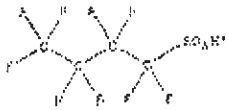
Certified By: _____ Date: 05/30/2017
E.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	L-PFBS	**LOT NUMBER:**	LPFBS0917
COMPOUND:	Potassium perfluoro-1-butanesulfonate		
STRUCTURE:		**CAS #:**	29420-49-3



MOLECULAR FORMULA:	$C_4F_9SO_3K$	**MOLECULAR WEIGHT:**	338.19
CONCENTRATION:	50.0 ± 2.5 µg/ml (K salt) 44.2 ± 2.2 µg/ml (PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED:	09/21/2017		
EXPIRY DATE:	09/21/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

692 2017/11/30
2 ampoules

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 09/22/2017
B.G Chalm, General Manager

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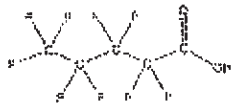
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFPeA	LOT NUMBER:	PFPeA0617
COMPOUND:	Perfluoro-n-pentanoic acid		
STRUCTURE:		CAS #:	2706-90-3



MOLECULAR FORMULA:	$C_5HF_9O_2$	MOLECULAR WEIGHT:	264.05
CONCENTRATION:	50 ± 2.5 µg/ml	SOLVENT(S):	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED:	06/14/2017		
EXPIRY DATE:	06/14/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampoule
2017/06/30 GSZ

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of Perfluoro-n-heptenoic acid (PFHpA) and ~ 0.2% of $C_7H_2F_{12}O_2$ (hydrido - derivative) as measured by ^{19}F NMR

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Certified By: _____ Date: 06/16/2017
D.G. Chittim, General Manager

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Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

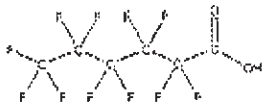
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFHxA
COMPOUND: Perfluoro-n-hexanoic acid

LOT NUMBER: PFHxA0817

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA: $C_6HF_{11}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 314.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yy) 09/27/2017
EXPIRY DATE: (mm/dd/yy) 09/27/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

GSZ 2017/11/30
2 ampules

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 1.0% of branched isomers.

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Certified By: _____ Date: 11/01/2017
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFHxSK
LOT NUMBER:	brPFHxSK0117
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt)
	45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S):	Methanol
DATE PREPARED:	01/03/2017
LAST TESTED:	01/04/2017
EXPIRY DATE:	01/04/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

GS2 2017/11/30
2 ampules

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

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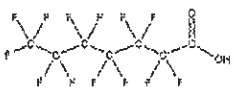
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHpA
COMPOUND: Perfluoro-n-heptanoic acid

LOT NUMBER: PFHpA1216

STRUCTURE:



CAS #: 375-85-9

Received from
2016-12-16
2 x 1.2 mL
FZ-11

MOLECULAR FORMULA:	$C_7HF_{13}O_2$	**MOLECULAR WEIGHT:**	364.06
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED:	12/02/2016		
EXPIRY DATE:	12/02/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: B.G. Chittim Date: 12/12/2016

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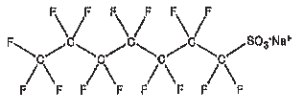
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date Received: 2017/06/02-DMZ-1.2ml-FD
Date Received: 2017/08/09 1X1.2ml HPLC
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date Received: 2017/06/02-DMZ-1.2ml-FD
Date Received: 2017/08/09 1X1.2ml HPLC
Date Received: 2017/08/30 1X1.2ml HPLC
Date received 2017/09/26 1x2 ampules HPLC
DATE RECEIVED 2017/09/12 2 ampules HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	L-PFHpS	**LOT NUMBER:**	LPFHpS0817
COMPOUND:	Sodium perfluoro-1-heptanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_7F_{15}SO_3Na$	**MOLECULAR WEIGHT:**	472.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.6 ± 2.4 µg/ml (PFHpS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	09/01/2017		
EXPIRY DATE: (mm/dd/yyyy)	09/01/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 x 2 ampules
GSZ 2017/09/26

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of L-PFHxS ($C_6F_{13}SO_3Na$) and ~ 0.1% of L-PFOS ($C_8F_{17}SO_3Na$).

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Certified By: _____ **Date:** 09/07/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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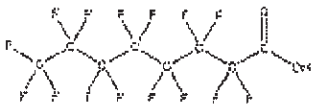
Date Received: 2017/11/30 1x2 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFOA	**LOT NUMBER:**	PFOA0217
COMPOUND:	Perfluoro-n-octanoic acid		
STRUCTURE:		**CAS #:**	335-67-1



MOLECULAR FORMULA:	$C_8HF_{15}O_2$	**MOLECULAR WEIGHT:**	414.07
CONCENTRATION:	50 ± 2.5 µg/mL	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED:	02/17/2017		
EXPIRY DATE:	02/17/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2. LC/MS/MS Data (Selected MRM Transitions)

Received: 2017/06/02
DMZ, 1.2mL x 1
Fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: B.G. Criddle Date: 02/22/2017

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date recieved:2017/05/29 1.2x1 - HPLC
date recieved:2017/05/29 1.2x1 - HPLC
Date Received:2017/06/02-1.2 x 1-HPLC
date recieved:2017/08/09 1.2x1 - HPLC
date recieved:2017/08/30 1.2x1 - HPLC
date received 2017/09/26 1x4 ampules HPLC
date received 2017/09/12 2 ampules HPLC
date received 2017/09/26 2 ampules HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK0117
CONCENTRATION:	50 ± 2.5 µg/ml (total potassium salt)
	46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED:	01/03/2017
LAST TESTED:	01/12/2017
EXPIRY DATE:	01/12/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

Received: 6/7/06/02
DM2, 1.2 mL x 1
Fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer, potassium salt).

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date recieved:2017/05/29 1.2x1- HPLC
date received: 2017/08/09 1 ampule HPLC
date received: 2017/08/30 1 ampule HPLC
date eceived: 2017/09/26 1.2x1ampule HPLC
date received 2017/09/12 2 ampules
Date Received: 2017.11.30 - 2 ampoules -HPLC

Ampoule: 2 TRW
Date received: 2017/01/12

WELLINGTON LABORATORIES

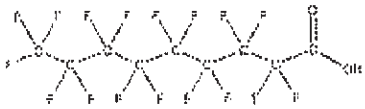
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFNA
COMPOUND: Perfluoro-n-nonanoic acid

LOT NUMBER: PFNA0717

STRUCTURE:

CAS #: 375-95-1



MOLECULAR FORMULA: $C_9HF_{17}O_2$
CONCENTRATION: 50 ± 2.5 ug/ml

MOLECULAR WEIGHT: 464.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 07/20/2017
EXPIRY DATE: 07/20/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of perfluoro-n-octanoic acid (PFOA), < 0.1% of perfluoro-n-heptanoic acid (PFHpA), and < 0.1% of perfluoro-n-undecanoic acid (PFUdA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim, General Manager

Date: 07/24/2017

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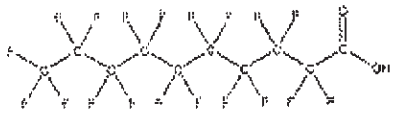
Form 27, Issued 2016.11.30
Revised 4, Revised 2017.03.09

Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFDA	**LOT NUMBER:**	PFDA0517
COMPOUND:	Perfluoro-n-decanoic acid		
STRUCTURE:		**CAS #:**	335-76-2



MOLECULAR FORMULA:	$C_{10}HF_{19}O_2$	**MOLECULAR WEIGHT:**	514.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/26/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/26/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/DATA ATTACHED:

1 ampoule
2017/06/20 GS2

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-nonanoic acid (PFNA).

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Certified By: _____ Date: 06/30/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFDS
COMPOUND: Sodium perfluoro-1-decanesulfonate
LOT NUMBER: LPFDS0217

STRUCTURE:



CAS #: 2806-15-7

MOLECULAR FORMULA: $C_{10}F_{11}SO_3Na$
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
48.2 ± 2.4 µg/ml (PFDS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 02/17/2017
EXPIRY DATE: 02/17/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 622.13
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1. LC/MS Data (TIC and Mass Spectrum)
Figure 2. LC/MS/MS Data (Selected MRM Transitions)

Date received 2017/03/10 #2 Ampules HPLC SSV

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.9% of sodium perfluoro-1-dodecanesulfonate (L-PFDoS).

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Certified By: B.G. Chittim Date: 02/22/2017

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Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date REceived: 2017/06/02-DMZ-1.2ml-FD
date received: 2017/08/30 1 ampule HPLC
DATE RECEIVED: 2017/09/26 1X2 AMPULES HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

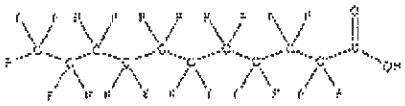
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFUdA
COMPOUND: Perfluoro-n-undecanoic acid

LOT NUMBER: PFUdA0917

STRUCTURE:

CAS #: 2058-94-8



MOLECULAR FORMULA: $C_xHF_nO_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 564.09
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 09/21/2017
EXPIRY DATE: 09/21/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

GSE 2017/11/30
2 AMPOULES

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 09/22/2017
B.G. Chittim, General Manager

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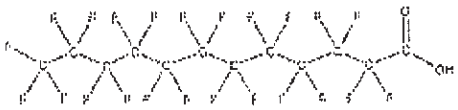
Ampoule 2 TRW
Date received: 2017/09/22

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFDoA
COMPOUND: Perfluoro-n-dodecanoic acid
LOT NUMBER: PFDoA0517

STRUCTURE:
CAS #: 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{23}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml
MOLECULAR WEIGHT: 614.10
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 05/29/2017
EXPIRY DATE: 05/29/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ Date: 05/30/2017
B.G. Chittim, General Manager

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Date Received: 2017.11.30 - 2 ampoules - HPLC

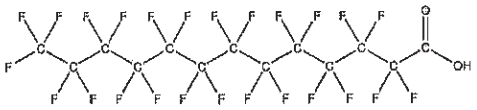
Date Received: 2017.08.30 - 1 ampoule - HPLC

Maxxam Analytics 1149 of 2177

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFTrDA	**LOT NUMBER:**	PFTrDA0517
COMPOUND:	Perfluoro-n-tridecanoic acid		
STRUCTURE:		**CAS #:**	72629-94-8



MOLECULAR FORMULA:	$C_{13}HF_{25}O_2$	**MOLECULAR WEIGHT:**	664.11
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/02/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/02/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

HPLC ①
2017/08/09

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFUdA ($C_{11}HF_{21}O_2$), ~ 0.4% of PFDoA ($C_{12}HF_{23}O_2$), and ~ 0.1% of PFTeDA ($C_{14}HF_{27}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/04/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Received 2017/05/29 1 x 1.2mL HPLC
Received 2017/08/09 1 x 1.2mL HPLC
Received 2017/08/30 1 x 1.2mL HPLC
Received 2017/09/26 1 x 2 ampules HPLC
Received 2017/09/12 2 ampules HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

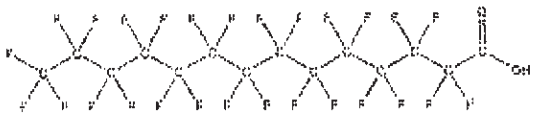
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFTeDA
COMPOUND: Perfluoro-n-tetradecanoic acid

LOT NUMBER: PFTeDA0917

STRUCTURE:

CAS #: 376-06-7



MOLECULAR FORMULA: $C_{14}HF_{27}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 714.11
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 09/21/2017
EXPIRY DATE: 09/21/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

GSZ 2017/11/30
2 ampules

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of PFDoA ($C_{12}HF_{23}O_2$) and ~ 0.2% of PFPeDA ($C_{15}HF_{31}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 09/21/2017
B.G. Chatim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

WELLINGTON LABORATORIES

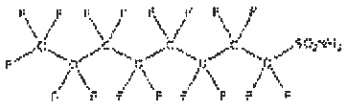
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: FOSA-I
COMPOUND: Perfluoro-1-octanesulfonamide

LOT NUMBER: FOSA08171

STRUCTURE:

CAS #: 754-91-6



MOLECULAR FORMULA: $C_8H_2F_{17}NO_2S$
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/01/2017
EXPIRY DATE: (mm/dd/yyyy) 09/01/2022
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 499.14
SOLVENT(S): Isopropanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

652 2017/11/30
2 ampoules

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 09/14/2017
S.C. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

WELLINGTON LABORATORIES

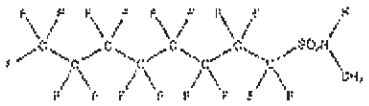
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M
COMPOUND: N-methylperfluoro-1-octanesulfonamide

LOT NUMBER: NMeFOSA0717M

STRUCTURE:

CAS #: 31506-32-8



MOLECULAR FORMULA: $C_9H_5F_{17}NO_2S$
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: 07/05/2017
EXPIRY DATE: 07/05/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 513.17
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 ampoule
2017/08/30 GSZ

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 07/10/2017
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Date received: 2017/11/30 1 ampoule - HPLC

WELLINGTON LABORATORIES

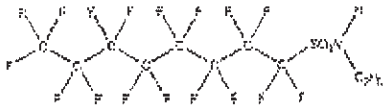
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSA-M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEtFOSA0717M

STRUCTURE:

CAS #: 4151-50-2



MOLECULAR FORMULA: $C_{10}H_5F_{17}NO_2S$
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: 07/05/2017
EXPIRY DATE: 07/05/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 527.20
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 ampoule
2017/08/30 642

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 07/18/2017
B.G. Chittim, General Manager

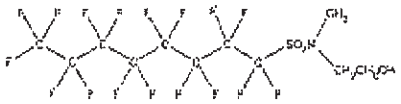
Wellington Laboratories Inc., 345 Southgate Dr, Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Date Received: 2017.11.30 - 1 ampoule - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	N-MeFOSE-M	**LOT NUMBER:**	NMeFOSE0417M
COMPOUND:	2-(N-methylperfluoro-1-octanesulfonamido)-ethanol		
STRUCTURE:		**CAS #:**	24448-09-7



MOLECULAR FORMULA:	$C_{11}H_8F_{17}NO_3S$	**MOLECULAR WEIGHT:**	557.22
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/24/2017 (HRGC/LRMS)		
	04/21/2017 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	04/24/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

Received: 2017/06/02
DM2 1:2 mL X 1
[illegible]

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 06/05/2017
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

date recieved: 2017/05/29 1x1.2 HPLC
date recieved: 2017/06/02 1x1.2 HPLC
date recieved: 2017/08/09 1x1.2 HPLC
date recieved: 2017/08/30 1x1.2 HPLC
date received: 2017/09/26 1x1.2 HPLC
Date Received: 2017.08.09 - 1 ampoule - HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

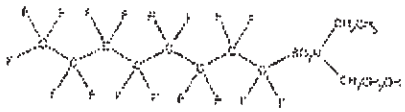
PRODUCT CODE: N-EtFOSE-M

COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol

LOT NUMBER: NEtFOSE0417M

STRUCTURE:

CAS #: 1691-89-2



MOLECULAR FORMULA: $C_{10}H_{12}F_{17}NO_3S$

CONCENTRATION: 50 ± 2.5 µg/ml

CHEMICAL PURITY: >98%

LAST TESTED: 04/24/2017 (HRGC/LRMS)
04/21/2017 (LC/MS)

EXPIRY DATE: 04/24/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 871.25

SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

Received: 2017/06/02
DMZ, 1.2 mL X 1
Fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim, General Manager

Date: 04/26/2017

Wellington Laboratories Inc., 345 Southgate Dr, Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

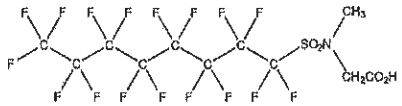
date recieved:2017/05/29 1x1.2 HPLC
date recieved:2017/08/09 1x1.2 HPLC
date recieved:2017/08/30 1x1.2 HPLC
date received:2017/08/09 1x1.2 HPLC
date received: 2017/09/26 1x1.2 HPLC
Date received: 2017.08.09 - 1 ampoule - HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSAA **LOT NUMBER:** NMeFOSAA0117
COMPOUND: N-methylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 2355-31-9



MOLECULAR FORMULA: $C_{11}H_9F_{17}NO_4S$ **MOLECULAR WEIGHT:** 571.21
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 01/11/2017
EXPIRY DATE: (mm/dd/yyyy) 01/11/2022
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

17PLC(1) 2017.8.09

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/12/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form#:27, Issued 2004-11-10
Revision#:3, Revised 2016-03-24

Received date 2017/05/25 1 x 1.2mL HPLC
Received date 2017/08/09 1 x 1.2mL HPLC
Received date 2017/08/30 1 x 1.2mL HPLC
RECEIVED DATE: 2017/09/26 1X1.2 mL HPLC
received date 2017-09-12 2 ampules HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

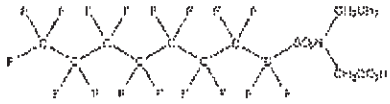
Ampoule: 2 TRW
Date received: 2017/09/12

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSAA
LOT NUMBER: NEtFOSAA0117
COMPOUND: N-ethylperfluoro-1-octanosulfonamidoacetic acid

STRUCTURE:
CAS #: 2991-50-6



MOLECULAR FORMULA: $C_{12}H_8F_{17}NO_4S$
MOLECULAR WEIGHT: 585.23
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 01/11/2017
EXPIRY DATE: 01/11/2022
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim
Date: 01/12/2017

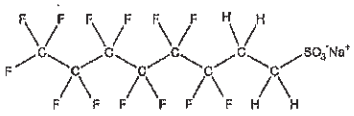
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Received : 20170525HPLC,
RECEIVED:2017/09/26 HPLC
Date Received: 2017.08.09 - 1 ampoule - HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	6:2FTS	**LOT NUMBER:**	62FTS0417
COMPOUND:	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_8H_4F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	450.15
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.4 ± 2.4 µg/ml (6:2FTS anion)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/20/2017		
EXPIRY DATE: (mm/dd/yyyy)	04/20/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/24/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

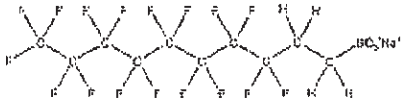
Date Recieved: 2017/05/25 1x1.2 HPLC
Date Recieved: 2017/08/09 1x1.2 HPLC
Date Recieved: 2017/08/30 1x1.2 HPLC
Date Recieved: 2017/09/26 1x1.2 HPLC
Date Recieved: 2017/11/30 1x1.2 HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: 8:2FTS **LOT NUMBER:** 82FTS1218
COMPOUND: Sodium 1H,1H,2H,2H-perfluorodecane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_8H_4F_{17}SO_3Na$ **MOLECULAR WEIGHT:** 650.16
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
47.9 ± 2.4 µg/ml (8:2FTS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 12/12/2016
EXPIRY DATE: 12/12/2021
RECOMMENDED STORAGE: Refrigerate ampoule

Date received
2017/03/10
2 Ampoules
HPLC
SSV

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 12/21/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form# 27, Issued 2004-11-18
Revised to: Newest 2015-09-24

Received 2017/05/25 2 x 1.2mL MMN FD-59
Received 2017/05/29 2 x 1.2mL MMN FD-59
Received 2017/08/09 2 x 1.2mL MMN FD-59
Received 2017/08/30 2 x 1.2mL MMN FD-59
Received 2017/09/26 2 x 1.2nL HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

PREPARATION OF STANDARDS OF INTERMEDIARY CONCENTRATION

Solution No.: I-5299 Date: 2018/01/31 Expiry Date: 2019/01/31 Discard Date: _____

Replaces Solution No.: I-5239 Replaced by Solution: _____ Chemist: GSZ

Compound(s)/Solution Name: PFC SECOND SOURCE SPIKING SOLUTION A

Number of Parent Solution(s): See attached sheet

Concentration of Parent Solution(s): See attached sheet (mg, ug)/mL

Aliquot of Parent Solution(s): See attached sheet mL / uL

Pippette/Syringe ID J434346 (1mL)

Dilution Solvent: 0.3% NH4OH in MeOH Dilution Volume: 25 mL

Final Concentration(s): 1.C (mg, ug)/mL

Solution derivatized (as methyl ester): - As Other (specify): -

Solution Contains Surrogate Compounds: - For mix refer to table on page: -

Solution used for: PFC Volumetric Flask: 25ml Class A (5640)
(identify by serial number or other unique ID)

Solvent Supplier: See PRLRE 108-331 Lot No.: See PRLRE 108-331

Date Opened: See PRLRE 108-331

Storage Location: F211 One time Use, Not Stored: -

Ampule Supplier: Wellington Date Opened: See attached sheet

Mix Name: -

Catalogue No.: - Ampule expiry Date: See attached sheet

Lot No.: See attached sheet

Date Received: See attached sheet

Notes/Comments:

I-5299 (PRLST 140-174)

Compound Name	ID#	Conc. (ug/mL)	Vol.. of Stock standard (uL)	Final Conc. (ug/mL)	Exp. date
PFBA	S4261-1	50	500	1	2022/05/29
L-PFBS	S4261-2	44.2	565	1	2022/09/21
PFPeA	S4261-3	50	500	1	2022/06/14
PFHxA	S4261-4	50	500	1	2022/09/27
br-PFHxSk	S4261-5	45.5	549	1	2022/01/04
PFHpA	S4261-6	50	500	1	2021/12/02
L-PFHpS	S4261-7	47.6	525	1	2022/09/01
PFOA	S4261-8	50	500	1	2022/02/17
brPFOSK	S4261-9	46.4	540	1	2022/01/12
PFNA	S4261-10	50	500	1	2022/07/20
PFDA	S4261-11	50	500	1	2022/05/29
L-PFDS	S4261-12	48.2	518	1	2022/02/17
PFUdA	S4261-13	50	500	1	2022/09/21
PFDoA	S4261-14	50	500	1	2022/05/29
PFTrDA	S4261-15	50	500	1	2022/05/02
PFTeDA	S4261-16	50	500	1	2022/09/21
PFOSA (FOSA-I)	S4261-17	50	500	1	2022/09/01
N-MeFOSA-M	S4261-18	50	500	1	2022/07/05
N-EtFOSA-M	S4261-19	50	500	1	2022/07/05
N-MeFOSE-M	S4261-20	50	500	1	2022/04/24
N-EtFOSE-M	S4261-21	50	500	1	2022/04/24
N-MeFOSAA	S4261-22	50	500	1	2022/01/11
N-EtFOSAA	S4261-23	50	500	1	2022/01/11
6:2FTS	S4261-24	47.4	528	1	2022/04/20
8:2FTS	S4261-25	47.9	522	1	2021/12/12

No writing on bottom page.

GSZ, 2018/01/31

PRLST 133 PG 145

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4261 Date: 2017/12/15 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

S-4261 (PRLST 133 p. 145)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
S4261-1	PFBA	PFBA0517	2017/11/30	2022/05/29	S4240-1		50	MeOH	FZ-11
S4261-2	L-PFBS	LPFBS0917	2017/11/30	2022/09/21	S4240-2		44.2	MeOH	FZ-11
S4261-3	PFPeA	PFPeA0617	2017/11/30	2022/06/14	S4240-3		50	MeOH	FZ-11
S4261-4	PFHxA	PFHxA0917	2017/11/30	2022/09/27	S4240-4		50	MeOH	FZ-11
S4261-5	br-PFHxSk	brPFHxSK0117	2017/11/30	2022/01/04	S4240-5		45.5	MeOH	FZ-11
S4261-6	PFHpA	PFHpA1216	2017/11/30	2021/12/02	S4240-6		50	MeOH	FZ-11
S4261-7	L-PFHpS	LPFHpS0817	2017/11/30	2022/09/01	S4240-7		47.6	MeOH	FZ-11
S4261-8	PFOA	PFOA0217	2017/09/26	2022/02/17	S4240-8		50	MeOH	FZ-11
S4261-9	brPFOSK	brPFOSK0117	2017/11/30	2022/01/12	S4240-9		46.4	MeOH	FZ-11
S4261-10	PFNA	PFNA0717	2017/11/30	2022/07/20	S4240-10		50	MeOH	FZ-11
S4261-11	PFDA	PFDA0517	2017/11/30	2022/05/29	S4240-11		50	MeOH	FZ-11
S4261-12	L-PFDS	LPFDS0217	2017/11/30	2022/02/17	S4240-12		48.2	MeOH	FZ-11
S4261-13	PFUdA	PFUdA0917	2017/11/30	2022/09/21	S4240-13		50	MeOH	FZ-11
S4261-14	PFDoA	PFDoA0517	2017/11/30	2022/05/29	S4240-14		50	MeOH	FZ-11
S4261-15	PFTrDA	PFTrDA0517	2017/11/30	2022/05/02	S4240-15		50	MeOH	FZ-11
S4261-16	PFTeDA	PFTeDA0917	2017/11/30	2022/09/21	S4240-16		50	MeOH	FZ-11
S4261-17	PFOSA (FOSA-I)	FOSA08171	2017/11/30	2022/09/01	S4240-17		50	IPA	FD-59
S4261-18	N-MeFOSA-M	NMeFOSA0717M	2017/11/30	2022/07/05	S4240-18		50	MeOH	FZ-11
S4261-19	N-EtFOSA-M	NEtFOSA0717M	2017/11/30	2022/07/05	S4240-19		50	MeOH	FZ-11
S4261-20	N-MeFOSE-M	NMeFOSE0417M	2017/11/30	2022/04/24	S4240-20		50	MeOH	FZ-11
S4261-21	N-EtFOSE-M	NEtFOSE0417M	2017/11/30	2022/04/24	S4240-21		50	MeOH	FZ-11
S4261-22	N-MeFOSAA	NMeFOSAA0117	2017/11/30	2022/01/11	S4240-22		50	MeOH	FD-59
S4261-23	N-EtFOSAA	NEtFOSAA0117	2017/11/30	2022/01/11	S4240-23		50	MeOH	FD-59
S4261-24	6:2FTS	62FTS0417	2017/11/30	2022/04/20	S4240-24		47.4	MeOH	FD-59
S4261-25	8:2FTS	82FTS1216	2017/11/30	2021/12/12	S4240-25		47.9	MeOH	FD-59
Date Opened (All compounds): 2017/12/15			Supplier (All compounds) : Wellington				Chemist: GSZ		

No writing on bottom page.

GSZ, 2017/12/15

Solvent Used: _____

Solvent Supplier: _____ Lot No(s).: _____

Date Opened: _____

Storage Location / Conditions: _____ GSZ, 2017/12/15

Notes/Comments

DO NOT WRITE BENEATH ANY INSERTS ON THIS PAGE. DO NOT PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. DO NOT WRITE ALL INSERTS. LOGBOOK, PAGE AND APPROPRIATE SOLUTION NUMBER REFERENCES MUST BE WRITTEN ON ALL INSERTS.

WELLINGTON LABORATORIES

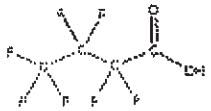
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA0517

STRUCTURE:

CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 05/29/2017
EXPIRY DATE: 05/29/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

697 2017/11/30
2 ampoules

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ Date: 05/30/2017
B.G. Chittim, General Manager

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Form 0.37, Issued 2004-11-16
Revision #4, Revised 2017-03-05

PFBA0517 (1 of 4)
rev2

Maxxam Analytics 1163 of 2177

WELLINGTON LABORATORIES

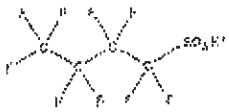
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFBS

COMPOUND: Potassium perfluoro-1-butanesulfonate

LOT NUMBER: LPFBS0017

STRUCTURE:



CAS #: 29420-49-3

MOLECULAR FORMULA: $C_4F_9SO_3K$

CONCENTRATION: 50.0 ± 2.5 µg/ml (K salt)
44.2 ± 2.2 µg/ml (PFBS anion)

CHEMICAL PURITY: >98%

LAST TESTED: 09/21/2017

EXPIRY DATE: 09/21/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 338.19

SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

662 2017/11/30
2 nonpolar

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 09/22/2017
B.G. Chilton, General Manager

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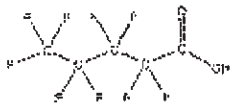
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	PFPeA	LOT NUMBER:	PFPeA0617
COMPOUND:	Perfluoro-n-pentanoic acid		
STRUCTURE:		CAS #:	2706-90-3



MOLECULAR FORMULA:	$C_5HF_9O_2$	MOLECULAR WEIGHT:	264.05
CONCENTRATION:	50 ± 2.5 µg/ml	SOLVENT(S):	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED:	06/14/2017		
EXPIRY DATE:	06/14/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampoule
2017/06/30 692

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of Perfluoro-n-heptanoic acid (PFHpA) and ~ 0.2% of $C_5H_2F_8O_2$ (hydride - derivative) as measured by ^{19}F NMR

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 06/16/2017
B.G. Chittim, General Manager

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Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

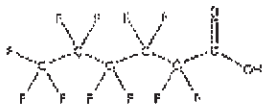
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFHxA
COMPOUND: Perfluoro-n-hexanoic acid

LOT NUMBER: PFHxA0917

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA: $C_6HF_{11}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 314.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 09/27/2017
EXPIRY DATE: 09/27/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

GSZ 2017/11/30
2 ampules

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 1.0% of branched isomers.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/01/2017
B.G. Chittim, General Manager

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Revision#4 Revised 2017-05-05

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE:	br-PFHxSK
LOT NUMBER:	brPFHxSK0117
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt)
	45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S):	Methanol
DATE PREPARED:	01/03/2017
LAST TESTED:	01/04/2017
EXPIRY DATE:	01/04/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (S/R)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

652 2017/01/30
Z. Angelis

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

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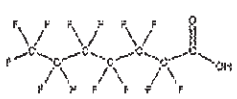
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFHpA
COMPOUND: Perfluoro-n-heptanoic acid

LOT NUMBER: PFHpA1216

STRUCTURE:



CAS #: 375-85-9

Received 2016-12-16 2x1.2ml FZ-11

MOLECULAR FORMULA: $C_7HF_{13}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 364.06
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 12/02/2016
EXPIRY DATE: 12/02/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 12/12/2016

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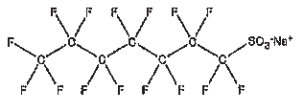
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date Received: 2017/06/02-DMZ-1.2ml-FD
Date Received: 2017/08/09 1X1.2ml HPLC
Received 2016/12/23 1 x 1.2mL MMN FZ-11
Received 2016/12/29 1 x 1.2mL MMN FZ-11
Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date Received: 2017/06/02-DMZ-1.2ml-FD
Date Received: 2017/08/09 1X1.2ml HPLC
Date Received: 2017/08/30 1X1.2ml HPLC
Date received 2017/09/26 1x2 ampules HPLC
DATE RECEIVED 2017/09/12 2 ampules HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	L-PFHpS	**LOT NUMBER:**	LPFHpS0817
COMPOUND:	Sodium perfluoro-1-heptanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_7F_{15}SO_3Na$	**MOLECULAR WEIGHT:**	472.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.6 ± 2.4 µg/ml (PFHpS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	09/01/2017		
EXPIRY DATE: (mm/dd/yyyy)	09/01/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 x 2 ampules
GSZ 2017/09/26

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of L-PFHxS ($C_6F_{13}SO_3Na$) and ~ 0.1% of L-PFOS ($C_8F_{17}SO_3Na$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 09/07/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

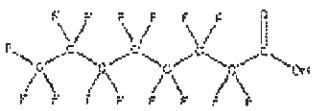
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Date Received: 2017/11/30 1x2 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFOA	**LOT NUMBER:**	PFOA0217
COMPOUND:	Perfluoro-n-octanoic acid		
STRUCTURE:		**CAS #:**	335-67-1



MOLECULAR FORMULA:	$C_8HF_{15}O_2$	**MOLECULAR WEIGHT:**	414.07
CONCENTRATION:	50 ± 2.5 µg/mL	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED:	02/17/2017		
EXPIRY DATE:	02/17/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2. LC/MS/MS Data (Selected MRM Transitions)

Received: 2017/06/02
DMS, 1.2mL x 1
Fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Griffin Date: 02/22/2017

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date recieved:2017/05/29 1.2x1 - HPLC
date recieved:2017/05/29 1.2x1 - HPLC
Date Received:2017/06/02-1.2 x 1-HPLC
date recieved:2017/08/09 1.2x1 - HPLC
date recieved:2017/08/30 1.2x1 - HPLC
date received 2017/09/26 1x4 ampules HPLC
date received 2017/09/12 2 ampules HPLC
date received 2017/09/26 2 ampules HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK011?
CONCENTRATION:	50 ± 2.5 µg/ml (total potassium salt)
	46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED:	01/08/2017
LAST TESTED:	01/12/2017
EXPIRY DATE:	01/12/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

Received: 2017/06/02
DM2, 1.2 mL x 1
Fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer, potassium salt).

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date recieved:2017/05/29 1.2x1- HPLC
date received: 2017/08/09 1 ampule HPLC
date received: 2017/08/30 1 ampule HPLC
date eceived: 2017/09/26 1.2x1ampule HPLC
date received 2017/09/12 2 ampules
Date Received: 2017.11.30 - 2 ampoules -HPLC

Ampoule: 2 mL
Date received: 2017/11/30

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFNA	**LOT NUMBER:**	PFNA0717
COMPOUND:	Perfluoro-n-nonanoic acid		
STRUCTURE:		**CAS #:**	375-95-1



MOLECULAR FORMULA:	$C_9HF_{17}O_2$	**MOLECULAR WEIGHT:**	464.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/20/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/20/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of perfluoro-n-octanoic acid (PFOA), < 0.1% of perfluoro-n-heptanoic acid (PFHpA), and < 0.1% of perfluoro-n-undecanoic acid (PFUdA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/24/2017
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

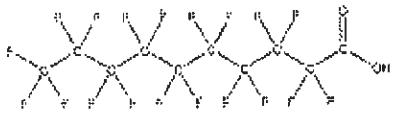
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFDA
COMPOUND: Perfluoro-n-decanoic acid

LOT NUMBER: PFDA0517

STRUCTURE:

CAS #: 335-76-2



MOLECULAR FORMULA: $C_{10}HF_{19}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 514.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >96%
LAST TESTED: (mm/dd/yy) 05/29/2017
EXPIRY DATE: (mm/dd/yy) 05/29/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

1 ampoule
2017/06/30 GSZ

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-nonanoic acid (PFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 05/30/2017
B G. Chittim, General Manager

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Form 27, Issued 2007-11-10
Amendments Revised 2017-03-07

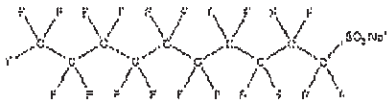
Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFDS
COMPOUND: Sodium perfluoro-1-decanesulfonate
LOT NUMBER: LPFDS0217

STRUCTURE:



CAS #: 2806-15-7

MOLECULAR FORMULA: $C_{10}F_{11}SO_3Na$
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
48.2 ± 2.4 µg/ml (PFDS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 02/17/2017
EXPIRY DATE: 02/17/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 622.13
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1. LC/MS Data (TIC and Mass Spectrum)
Figure 2. LC/MS/MS Data (Selected MRM Transitions)

Date received 2017/05/10 # 2 Ampules HPLC SSV

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.9% of sodium perfluoro-1-dodecanesulfonate (L-PFDoS).

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Certified By: B.G. Chittim Date: 02/22/2017

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Format 27, Issued 2006-11-15
Revised 2015-03-24

LPFDS0217 11 of 11
rev5

Received 2017/05/25 2 x 1.2mL MMN FZ-11
Received 2017/05/29 2 x 1.2mL MMN FZ-11
Date REceived: 2017/06/02-DMZ-1.2ml-FD
date received: 2017/08/30 1 ampule HPLC
DATE RECEIVED: 2017/09/26 1X2 AMPULES HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

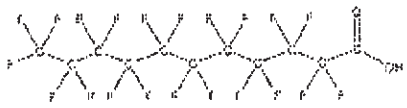
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFUdA
COMPOUND: Perfluoro-n-undecanoic acid

LOT NUMBER: PFUdA0917

STRUCTURE:

CAS #: 2058-94-8



MOLECULAR FORMULA: $C_{11}HF_{21}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 564.09
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 09/21/2017
EXPIRY DATE: 09/21/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

GSE 2017/11/30
2 AMPOULES

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ Date: 09/22/2017
B.G. Chittim, General Manager

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Form#37, Issued 2004-11-10
Revised#6, Revised 2017-03-09

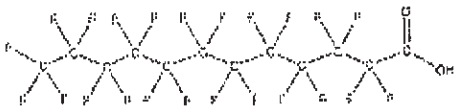
Ampoule 2 TRW
Date received: 2017/09/22

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFDoA
COMPOUND: Perfluoro-n-dodecanoic acid
LOT NUMBER: PFDoA0517

STRUCTURE:
CAS #: 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{23}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml
MOLECULAR WEIGHT: 614.10
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 05/28/2017
EXPIRY DATE: 05/29/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ Date: 05/30/2017
B.G. Chittim, General Manager

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Form 2.2, Issued 2006-11-16
Published & Revised 2017-03-06

Date Received: 2017.11.30 - 2 ampoules - HPLC

Date Received: 2017.08.30 - 1 ampoule - HPLC

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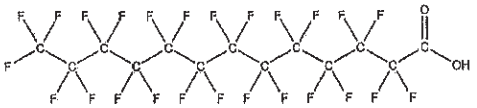
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFTrDA	**LOT NUMBER:**	PFTrDA0517
COMPOUND:	Perfluoro-n-tridecanoic acid		
STRUCTURE:		**CAS #:**	72629-94-8



MOLECULAR FORMULA:	$C_{13}HF_{25}O_2$	**MOLECULAR WEIGHT:**	664.11
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/02/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/02/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

HPLC ☐
2017/08/09

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFUdA ($C_{11}HF_{21}O_2$), ~ 0.4% of PFDoA ($C_{12}HF_{23}O_2$), and ~ 0.1% of PFTeDA ($C_{14}HF_{27}O_2$).

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Certified By: _____ **Date:** 05/04/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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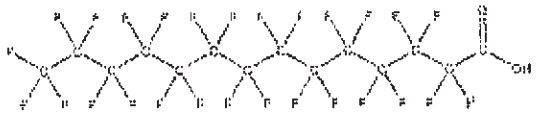
Received 2017/05/29 1 x 1.2mL HPLC
Received 2017/08/09 1 x 1.2mL HPLC
Received 2017/08/30 1 x 1.2mL HPLC
Received 2017/09/26 1 x 2 ampules HPLC
Received 2017/09/12 2 ampules HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	PFTeDA	LOT NUMBER:	PFTeDA0917
COMPOUND:	Perfluoro-n-tetradecanoic acid		
STRUCTURE:		CAS #:	376-06-7



MOLECULAR FORMULA:	$C_{14}HF_{27}O_2$	MOLECULAR WEIGHT:	714.11
CONCENTRATION:	50 ± 2.5 µg/ml	SOLVENT(S):	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED:	09/21/2017		
EXPIRY DATE:	09/21/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

652 2017/11/30
2. ampules

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the perfluoroalkyl acid to the methyl ester.
- Contains ~ 0.2% of PFDoA ($C_{12}HF_{23}O_2$) and ~ 0.2% of PFPeDA ($C_{15}HF_{29}O_2$).

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Certified By: _____ Date: 09/21/2017
B.G. Chittim, General Manager

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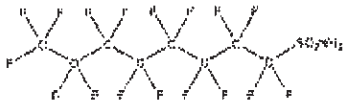
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: FOSA-I
COMPOUND: Perfluoro-1-octanesulfonamide

LOT NUMBER: FOSA08171

STRUCTURE:

CAS #: 754-91-6



MOLECULAR FORMULA: $C_8H_2F_{17}NO_2S$
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yy) 09/01/2017
EXPIRY DATE: (mm/dd/yy) 09/01/2022
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 499.14
SOLVENT(S): Isopropanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

652 2017/11/30
2 ampules

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Certified By: _____ Date: 09/14/2017 (mm/dd/yy)
S.C. Chilton, General Manager

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WELLINGTON LABORATORIES

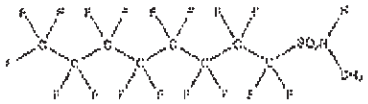
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M
COMPOUND: N-methylperfluoro-1-octanesulfonamide

LOT NUMBER: NMeFOSA0717M

STRUCTURE:

CAS #: 31506-32-8



MOLECULAR FORMULA: $C_9H_5F_{17}NO_2S$
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: 07/05/2017
EXPIRY DATE: 07/05/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 513.17
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 ampoule
2017/08/30 GSZ

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ Date: 07/10/2017
B.G. Chittim, General Manager

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Date received: 2017/11/30 1 ampoule - HPLC

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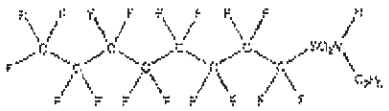
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSA-M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEtFOSA0717M

STRUCTURE:

CAS #: 4151-50-2



MOLECULAR FORMULA: $C_{10}H_5F_{17}NO_2S$
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: 07/05/2017
EXPIRY DATE: 07/05/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 527.20
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 ampoule
2017/08/30 642

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ Date: 07/18/2017
B.G. Chittim, General Manager

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Form 27, Issue 2004-11-10
Copyright 4, Revised 2017-02-06

NEtFOSA0717M 11 of 41

Date Received: 2017.11.30 - 1 ampoule - HPLC

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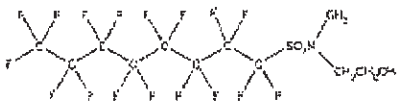
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	N-MeFOSE-M	**LOT NUMBER:**	NMeFOSE0417M
COMPOUND:	2-(N-methylperfluoro-1-octanesulfonamido)-ethanol		
STRUCTURE:		**CAS #:**	24448-09-7



MOLECULAR FORMULA:	$C_{11}H_8F_{17}NO_3S$	**MOLECULAR WEIGHT:**	557.22
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED:	04/24/2017 (HRGC/LRMS)		
	04/21/2017 (LC/MS)		
EXPIRY DATE:	04/24/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3. LC/MS/MS Data (Selected MRM Transitions)

received: 2017/06/02
0M2 ; 1.2 mL X 1
Fridge

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

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Certified By: _____ Date: 06/05/2017
B.G. Chittim, General Manager

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date recieved: 2017/05/29 1x1.2 HPLC
date recieved: 2017/06/02 1x1.2 HPLC
date recieved: 2017/08/09 1x1.2 HPLC
date recieved: 2017/08/30 1x1.2 HPLC
date received: 2017/09/26 1x1.2 HPLC
Date Received: 2017.08.09 - 1 ampoule - HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

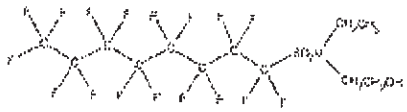
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSE-M
COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol
LOT NUMBER: NEtFOSE04176

STRUCTURE:

CAS #: 1691-99-2



MOLECULAR FORMULA: $C_{12}H_{10}F_{17}NO_3S$
CONCENTRATION: 50 ± 2.5 µg/mL
CHEMICAL PURITY: >98%
LAST TESTED: 04/04/2017 (HRGC/HRMS)
04/21/2017 (LC/MS)
EXPIRY DATE: 04/04/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 571.25
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/HRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

Received: 2017/06/02
0 mL, 1.2 mL x 1
Fridge.

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer

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Certified By: _____ **Date:** 04/26/2017
B.G. Chittim, Operations Manager

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date recieved:2017/05/29 1x1.2 HPLC
date recieved:2017/08/09 1x1.2 HPLC
date recieved:2017/08/30 1x1.2 HPLC
date received:2017/08/09 1x1.2 HPLC
date received: 2017/09/26 1x1.2 HPLC
Date received: 2017.08.09 - 1 ampoule - HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

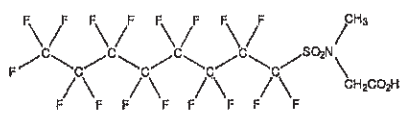
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSAA **LOT NUMBER:** NMeFOSAA0117

COMPOUND: N-methylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 2355-31-9



MOLECULAR FORMULA: $C_{11}H_9F_{17}NO_4S$ **MOLECULAR WEIGHT:** 571.21

CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 01/11/2017

EXPIRY DATE: (mm/dd/yyyy) 01/11/2022

RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

17PLC(1) 2017.8.09

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid molety to the methyl ester.

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Certified By: B.G. Chittim **Date:** 01/12/2017 (mm/dd/yyyy)

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Form#:27, Issued 2004-11-10
Revision#:3, Revised 2016-03-24

NMeFOSAA0117 (1 of 4)
rev0

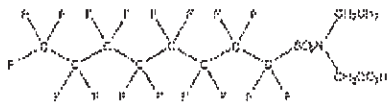
Received date 2017/05/25 1 x 1.2mL HPLC
Received date 2017/08/09 1 x 1.2mL HPLC
Received date 2017/08/30 1 x 1.2mL HPLC
RECEIVED DATE: 2017/09/26 1X1.2 mL HPLC
received date 2017-09-12 2 ampules HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

Ampoule: 2 TBD
Date received: 20170912

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	N-EtFOSAA	**LOT NUMBER:**	NEtFOSAA0117
COMPOUND:	N-ethylperfluoro-1-octanesulfonamidoacetic acid		
STRUCTURE:		**CAS #:**	2991-50-6



MOLECULAR FORMULA:	$C_{10}H_6F_{17}NO_4S$	**MOLECULAR WEIGHT:**	585.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED:	01/11/2017		
EXPIRY DATE:	01/11/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

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Certified By: B.G. Chittim **Date:** 01/12/2017

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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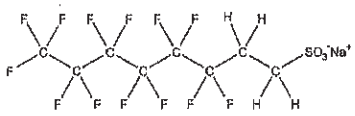
Received : 20170525HPLC,
RECEIVED:2017/09/26 HPLC
Date Received: 2017.08.09 - 1 ampoule - HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	6:2FTS	**LOT NUMBER:**	62FTS0417
COMPOUND:	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_8H_4F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	450.15
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.4 ± 2.4 µg/ml (6:2FTS anion)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/20/2017		
EXPIRY DATE: (mm/dd/yyyy)	04/20/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 04/24/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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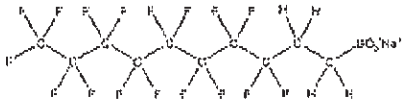
Date Recieved: 2017/05/25 1x1.2 HPLC
Date Recieved: 2017/08/09 1x1.2 HPLC
Date Recieved: 2017/08/30 1x1.2 HPLC
Date Recieved: 2017/09/26 1x1.2 HPLC
Date Recieved: 2017/11/30 1x1.2 HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 8:2FTS **LOT NUMBER:** 82FTS1218
COMPOUND: Sodium 1H,1H,2H,2H-perfluorodecane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_{10}H_4F_{17}SO_3Na$ **MOLECULAR WEIGHT:** 550.16
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
47.9 ± 2.4 µg/ml (8:2FTS anion)
CHEMICAL PURITY: >98%
LAST TESTED: 12/12/2016
EXPIRY DATE: 12/12/2021
RECOMMENDED STORAGE: Refrigerate ampoule

Date received 2017/03/10 # 2 Ampules HPLC SSV

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 12/21/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Received 2017/05/25 2 x 1.2mL MMN FD-59
Received 2017/05/29 2 x 1.2mL MMN FD-59
Received 2017/08/09 2 x 1.2mL MMN FD-59
Received 2017/08/30 2 x 1.2mL MMN FD-59
Received 2017/09/26 2 x 1.2nL HPLC
Date Received: 2017.11.30 - 2 ampoules - HPLC

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI.6715 Prep'n Date: 2017.11.30 Expiry Date: 2017.12.07 Discard Date: N/A
Replaces Solution No.: SI6706 Replaced by Solution: SI6722 Chemist: SMF
Sol'n. Name: Hexanes O terphenyl
Solution Used As: Internal Std: N/A Surrogate Spike: Yes
Spike Volume: 5.0 uL or mL (for I.S. uL per mL) For Instrument/Analysis: GC FID
Solvent(s): Hexanes Supplier(s): Fisher Lot No(s).: 174498
Date Solvent Opened: 2017.11.30
Volumetric Flask Used: Class A Syringe ID: G13542234
Storage Location and Conditions: FD.65
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL /uL)	Dilution Volume (mL)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug / ng)
O-terphenyl	PH-J-~~168~~ 169 SMF 2017.11.30	1000 mg/mL	4	4000	100	N/A

SMF 2017.11.30

Notes:

Solution No.: SI-6716 Prep'n Date: 2017/11/30 Expiry Date: 2018/06/20 Discard Date:
Replaces Solution No.: SI-6631 Replaced by Solution: Chemist: GSZ
Sol'n. Name: IND. IS
Solution Used As: Internal Std: / Surrogate Spike:
Spike Volume: 20 (uL) or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS-MS
Solvent(s): 0.3% NH4OH in MeOH Supplier(s): See PRLRE 108-176 Lot No(s).: See PRLRE 108-176
Date Solvent Opened: See PRLRE 108-176
Volumetric Flask Used: 200mL Class A (5640) Syringe ID: Pipette N31477F
Storage Location and Conditions: FZ11
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL (uL))	Dilution Volume (mL)	Final Conc'n. ng/mL (ug/mL)	Absolute Amount Spiked (ug/ng)
$^{13}C_9$ PFDA	S-4194	50	400	200	100	
$^{13}C_{6}$ PFHxA	S-4195	50	400	200	100	

GSZ 2017/11/30

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PRLST 133 PG 108

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4194 Date: 2017/09/18 Expiry Date: 2018/06/20 Discard Date: _____

Replaces Solution: S-4142 Replaced by Solution: _____ Chemist: GSZ

Compound: $^{13}C_9$ PFDA Purity: _____

Date Received: 2017/06/09 Expiry Date: 2018/06/20 Lot No.: SCID-014

Supplier: CIL

Date Opened: 2017/09/18

Final Gross Weight: – g/mg Dilution Volume: – mL

Tare Weight* : – g/mg Volumetric Flask: –

Net Weight: – g/mg **Concentration:** 50 (ug/mL) mg/mL

Adjusted Net Weight** : – mg Solvent(s): MeOH

Balance Used: –
(specify model and serial no.)

Solvent Used: –

Solvent Supplier: – Lot No(s).: –

Date Opened: –

Storage Location / Conditions: FZ 11

Notes/Comments
Received as solution in ampule.

Solution No.: S-4195 Date: 2017/09/18 Expiry Date: 2020/09/30 Discard Date: _____

Replaces Solution: S-4143 Replaced by Solution: _____ Chemist: GSZ

Compound: $^{13}C_6$ PFHxA Purity: _____

Date Received: 2017/06/09 Expiry Date: 2020/09/30 Lot No.: SDAA-004

Supplier: CIL

Date Opened: 2017/09/18

Final Gross Weight: – g/mg Dilution Volume: – mL

Tare Weight* : – g/mg Volumetric Flask: –

Net Weight: – g/mg **Concentration:** 50 ug/mL

Adjusted Net Weight** : – mg Solvent(s): MeOH

Balance Used: –
(specify model and serial no.)

Solvent Used: –

Solvent Supplier: – Lot No(s).: –

Date Opened: –

Storage Location / Conditions: FZ 11

Notes/Comments
Received as solution in ampule.

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Quality Standards:
ISO Guide 34 • ISO/IEC 17025 • ISO 13485 • cGMP

Product Name: (Isotopic Label & Derivation Specification)	PERFLUORODECANOIC ACID (13C9, 99%) 50 UG/ML IN METHANOL
Lot Number:	SCID-014
Catalog Number:	CLM-8172-S

Product Information

Chemical Purity Specification:	≥ 98%
Labeled CAS Number:	NA
Unlabeled CAS Number:	335-76-2
MW*:	523.02
Chemical Formula:	CF3(*CF2)8*CO2H
Storage:	Store at room temperature away from light and moisture.
Stability:	See storage and expiration date.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses wherever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NCSL Z540-1-1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number. Some possible packaging sizes and their corresponding suffix are -1.2, -1, -0.5, -1.0, or -0.1.

* *For isotopically labeled compounds. MW listed is for the fully enriched product.*

Approved by: T. J. Eckersley

Timothy J. Eckersley, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	06/20/2008
Expiration Date	06/20/2018
Concentration Based on Gravimetry	50.0 µg/mL
Chemical Purity of Neat Material(s)	>98%
LC/MS for Concentration	46.2 ± 6.4 µg/mL (k=2)

Received June 20 in 01/15 1x 1.2mL RT

50 Frontage Road, Andover, MA 01810-5413 USA • 1 800 322.1174 (North America) • 1 978 749.8000 (International) • isotope.com

Date Received:2016.8.17 - 1 x 1.2mL - HPLC
Date Received: 2016.09.14 -HPLC - 1 x 1.2ml
Date Received: 2016/11/22 1x 1.2ml MMN HPLC
Date Received:2017.02.15 - 1 x 1mL - HPLC (MMN)
Date received: 2017/06/09 - 1x1.2ml - HPLC

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Quality Standards:
ISO Guide 34 • ISO/IEC 17025 • ISO 13485 • cGMP

Product Name: (Isotopic Label & Enrichment Specification)	PERFLUOROHEXANOIC ACID, SODIUM SALT (13C6, 99%) 50 UG/ML IN METHANOL
Lot Number:	SDAA-004
Catalog Number:	CLM-8340-S

Product Information

Chemical Purity Specification:	≥ 98%
MW*: *For unequally labeled compounds, MW listed is for the fully enriched product.	320.00
Labeled CAS Number:	NA
Unlabeled CAS Number:	307-24-4
Chemical Formula:	*CF3(*CF2)4*COOH
Storage:	Store at room temperature away from light and moisture.
Stability:	See storage and expiration date.

Received from 2016/05/20 1x1.2ml RT

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NSCL Z540-1-1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number. Some possible packaging sizes and their corresponding suffix are -1.2, -1, -0.5, -10, or -0.1.

Approved by: T. J. Eckersley
Timothy J. Eckersley, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	9/30/2010
Expiration Date	9/30/2020
Concentration Based on Gravimetry	50.4 µg/mL
Chemical Purity of Neat Material(s)	99.2%
LC/MS for Concentration	47.1 ± 2.6 µg/mL (k=2)

50 Frontage Road, Andover, MA 01810-6413 USA • 1 800 322 1174 (North America) • 1 978 749 8000 (International) • isotope.com

Date Received: 2016/08/17 1x 1.2ml MMN HPLC
Date Received: 2016/09/14 1x 1.2ml MMN HPLC
Date Received: 2016/11/22 1x 1.2ml MMN HPLC
Date Received: 2017.02.15 - 1 x 1mL - HPLC (MMN)
Date Received: 2017.06.09 - 1 x 1.2ml - HPLC

144 PG 94

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI-6763 Prep'n Date: 2018/01/10 Expiry Date: 2021/09/30 Discard Date: _____
Replaces Solution No.: SI-6753 Replaced by Solution: _____ Chemist: GSZ
Sol'n. Name: PFC INTERNAL STD SPIKING SOLUTION
Solution Used As: Internal Std: / Surrogate Spike: _____
Spike Volume: — uL or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS/MS
Solvent(s): 0.3% NH4OH in MeOH Supplier(s): Su PRLRE 108-278 Lot No(s).: Su PRLRE 108-278
Date Solvent Opened: Su PRLRE 108-278
Volumetric Flask Used: 200mL Class A (5640) Syringe ID: Hamilton K19865F/N31477F
Storage Location and Conditions: FZ11
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date: Su attached sheet

SI-6763 (PRLST-144 p. 94)

Compound Name	ID#	Conc. (ug/mL)	Vol.. of Stock standard (uL)	Dilution volume (mL)	Final Conc. (ng/mL)	Exp. date
MPFBA	S4250-1	50	200	200	50	2022/04/12
M5PFPeA	S4250-2	50	200	200	50	2022/07/20
MPFHxA	S4255-1	50	200	200	50	2021/11/22
MPFHxS	S4250-3	50	200	200	50	2022/02/17
M4PFHpA	S4250-4	50	200	200	50	2022/05/03
MPFOA	S4250-5	50	200	200	50	2021/10/18
MPFOS	S4250-6	50	200	200	50	2022/10/17
MPFNA	S4250-7	50	200	200	50	2021/09/30
MPFDA	S4250-8	50	200	200	50	2021/09/30
MPFUdA	S4242-1	50	200	200	50	2021/11/22
MPFDoA	S4250-9	50	200	200	50	2022/05/23
M2PFTeDA	S4250-10	50	200	200	50	2022/03/01
MPFOSA	S4250-11	50	200	200	50	2022/04/20
D3-N-MeFOSAA	S4260-1	50	200	200	50	2021/11/22
D5-N-EtFOSAA	S4260-2	50	200	200	50	2021/11/22
D-N-MeFOSA-M	S4266-1	50	500	200	125	2022/04/20
D-N-EtFOSA-M	S4266-2	50	500	200	125	2022/10/11
D7-N-MeFOSE-M	S4266-3	50	500	200	125	2022/10/13
D9-N-EtFOSE-M	S4266-4	50	500	200	125	2022/10/13
M2-6:2FTS	S4266-5	50	500	200	125	2022/02/17
M2-8:2FTS	S4266-6	50	500	200	125	2022/07/05

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2018/01/10
GSZ ~~2017/12/27~~

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PRLST 133 PG 139

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4250 Date: 2017/12/01 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

S-4250 (PRLST 133 p. 139)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4250-1	MPFBA	MPFBA0417	2017/10/25	2022/04/12	S4204-1		50	MeOH	FZ-11
S4250-2	M5PFPeA	M5PFPeA0717	2017/10/25	2022/07/20	S4204-2		50	MeOH	FZ-11
S4250-3	MPFHxS	MPFHxS0217	2017/10/25	2022/02/17	S4204-3		50	MeOH	FZ-11
S4250-4	M4PFHpA	M4PFHpA0517	2017/10/25	2022/05/03	S4204-4		50	MeOH	FZ-11
S4250-5	MPFOA	MPFOA1016	2017/02/22	2021/10/18	S4204-5		50	MeOH	FZ-11
S4250-6	MPFOS	MPFOS1017	2017/10/25	2022/10/17	S4204-6		50	MeOH	FZ-11
S4250-7	MPFNA	MPFNA0916	2017/10/25	2021/09/30	S4204-7		50	MeOH	FZ-11
S4250-8	MPFDA	MPFDA0916	2017/02/22	2021/09/30	S4204-8		50	MeOH	FZ-11
S4250-9	MPFDoA	MPFDoA0517	2017/10/25	2022/05/23	S4204-9		50	MeOH	FZ-11
S4250-10	M2PFTeDA	M2PFTeDA0217	2017/10/25	2022/03/01	S4204-10		50	MeOH	FZ-11
S4250-11	MPFOSA	M8FOSA0417I	2017/05/31	2022/04/20	S4204-11		50	IPA	FD-59
Date opened (All compounds): 2017/12/01			Supplier: Wellington			Chemist: GSZ			

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Solution No.: S-4251 Date: 2017/12/05 Expiry Date: 2018/01/05 Discard Date: —

Replaces Solution: S-4249 Replaced by Solution: S-4252 Chemist: DPS

Compound: Morpholine Stock Std Purity: 99.9%

Date Received: 2016/09/07 Expiry Date: 2020/01/31 Lot No.: STBC 2152 V

Supplier: Sigma-Aldrich

Date Opened: 2016/09/06

Final Gross Weight: 0.0110 g/mg Dilution Volume: 10 mL

Tare Weight*: — g/mg Volumetric Flask: 10mL Class A

Net Weight: — g/mg **Concentration:** 1098.9 ug/mL

Adjusted Net Weight**: 0.010989 mg Solvent(s): —

Balance Used: FC-1
(specify model and serial no.)

Solvent Used: DI H2O

Solvent Supplier: — Lot No(s).: —

Date Opened: —

Storage Location / Conditions: FD-59

Notes/Comments Liquid in Bottle

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PRLST 133 PG 141

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4254 Date: 2017/12/06 Expiry Date: 2018/12/06 Discard Date: _____

Replaces Solution: S-4214 Replaced by Solution: _____ Chemist: GSZ

Compound: MORPHOLINE 2,2,3,3,5,5,6,6-d8 Purity: 98.9%

Date Received: 2016/08/16 Expiry Date: 2019/08/16 Lot No.: M-346

Supplier: CDN

Date Opened: 2016/08/23

Final Gross Weight: 0.0123 g/mg Dilution Volume: 10 mL

Tare Weight*: _____ g/mg Volumetric Flask: 10ml Class A (5636)

Net Weight: _____ g/mg **Concentration:** 1,216.5 ug/mL, mg/mL

Adjusted Net Weight**: 0.012165 g mg Solvent(s): DI H2O

Balance Used: FC-1
(specify model and serial no.)

Solvent Used: DI H2O

Solvent Supplier: — Lot No(s).: —

Date Opened: —

Storage Location / Conditions: FD59

Notes/Comments

Solution No.: S-4255 Date: 2017/12/07 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

S-4255 (PRLST 133 pg. 141)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4255-1	MPFHxA	MPFHxA1116	2017/11/07	2021/11/22	S4226-1		50	MeOH	FZ11
S4255-2	D-N-MeFOSA-M	dNMeFOSA0417M	2017/11/07	2022/04/20	S4242-2		50	MeOH	FZ11
S4255-3	D-N-EtFOSA-M	dNEtFOSA0417M	2017/11/07	2022/10/11	S4242-3		50	MeOH	FZ11
S4255-4	D7-N-MeFOSE-M	d7NMeFOSE1017M	2017/11/07	2022/10/13	S4242-4		50	MeOH	FZ11
S4255-5	D9-N-EtFOSE-M	d9NEtFOSE1017M	2017/11/07	2022/10/13	S4242-5		50	MeOH	FZ11
S4255-6	M2-6:2FTS	M262FTS0217	2017/11/07	2022/02/17	S4242-6		50	MeOH	FD59
S4255-7	M2-8:2FTS	M282FTS0717	2017/11/07	2022/07/05	S4242-7		50	MeOH	FD59
Date opened (All compounds): 2017/12/07			Supplier: Wellington			Chemist: GSZ			

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Notes/Comments

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PRLST 133 PG 135

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4242 Date: 2017/11/24 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

S-4242 (PRLST 133 pg 135)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4242-1	MPFUdA	MPFUdA1116	2017/09/07	2021/11/22	S4196		50	MeOH	FZ11
S4242-2	D-N-MeFOSA-M	dNMeFOSA0417M	2017/10/25	2022/04/20	S4226-4		50	MeOH	FZ11
S4242-3	D-N-EtFOSA-M	dNEtFOSA0417M	2017/10/25	2022/04/20	S4226-5		50	MeOH	FZ11
S4242-4	D7-N-MeFOSE-M	d7NMeFOSE0217M	2017/10/25	2022/03/23	S4226-6		50	MeOH	FZ11
S4242-5	D9-N-EtFOSE-M	d9NEtFOSE0317M	2017/10/25	2022/03/23	S4226-7		50	MeOH	FZ11
S4242-6	M2-6:2FTS	M262FTS0217	2017/10/25	2022/02/17	S4226-8		50	MeOH	FD59
S4242-7	M2-8:2FTS	M282FTS0717	2017/10/25	2022/07/05	S4226-9		50	MeOH	FD59
Date opened (All compounds): 2017/11/24			Supplier: Wellington			Chemist: GSZ			

No writing on bottom page.

Notes/Comments

Solution No.: S4243 Date: 2017/11/29 Expiry Date: 2018/11/29 Discard Date: _____

Replaces Solution: — Replaced by Solution: — Chemist: TH.

Compound: Metolachlor ESA Sodium salt Purity: _____

Date Received: 2017/11/23 Expiry Date: ~~2017/11/29~~ Lot No.: BCBT3582

Supplier: Sigma - Aldrich.

Date Opened: 2017/11/29

Final Gross Weight: 0.0024 (g)/mg Dilution Volume: 2 mL

Tare Weight*: _____ g/mg Volumetric Flask: Class A.

Net Weight: _____ g/mg Concentration: 1000 ug/mL

Adjusted Net Weight**: _____ mg Solvent(s): _____

Balance Used: Sartorius Serial # 00 31 304817.
(specify model and serial no.)

Solvent Used: Methanol.

Solvent Supplier: Sigma aldrich Lot No(s).: SHBJ5451

Date Opened: 2017/11/29

Storage Location / Conditions: _____

Notes/Comments

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PRLST 133 PG 144

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4260 Date: 2017/12/14 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

S-4260 (PRLST133 p. 144)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4260-1	D3-N-MeFOSAA	d3NMeFOSAA1116	2017/05/31	2021/11/22	S4226-2		50	MeOH	FD59
S4260-2	D5-N-EtFOSAA	d3NEtFOSAA1116	2017/05/31	2021/11/22	S4226-3		50	MeOH	FD59
Date opened (All compounds): 2017/12/14			Supplier: Wellington			Chemist: GSZ			

No writing on bottom page.

Storage Location / Conditions: _____

Notes/Comments

Solution No.: _____ Date: _____ Expiry Date: _____ Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: _____

Compound: _____ Purity: _____

Date Received: _____ Expiry Date: _____ Lot No.: _____

Supplier: _____

Date Opened: _____

GSZ 2017/12/15

Final Gross Weight: _____ g/mg Dilution Volume: _____ mL

Tare Weight* : _____ g/mg Volumetric Flask: _____

Net Weight: _____ g/mg **Concentration:** _____ ug/mL

Adjusted Net Weight** : _____ mg Solvent(s): _____

Balance Used: _____
(specify model and serial no.)

Solvent Used: _____

Solvent Supplier: _____ Lot No(s).: _____

Date Opened: _____

Storage Location / Conditions: _____

Notes/Comments

PRLST 133 PG 148

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4266 Date: 2017/12/22 Expiry Date: _____ Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

S-4266
(PRLST 133 p. 148)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4266-1	D-N-MeFOSA-M	dNMeFOSA0417M	2017/12/06	2022/04/20	S4255-2		50	MeOH	FZ11
S4266-2	D-N-EtFOSA-M	dNEtFOSA1017M	2017/12/06	2022/10/11	S4255-3		50	MeOH	FZ11
S4266-3	D7-N-MeFOSE-M	d7NMeFOSE1017M	2017/12/06	2022/10/13	S4255-4		50	MeOH	FZ11
S4266-4	D9-N-EtFOSE-M	d9NEtFOSE1017M	2017/12/06	2022/10/13	S4255-5		50	MeOH	FZ11
S4266-5	M2-6:2FTS	M262FTS0217	2017/12/06	2022/02/17	S4255-6		50	MeOH	FD59
S4266-6	M2-8:2FTS	M282FTS0717	2017/12/06	2022/07/05	S4255-7		50	MeOH	FD59
Date opened (All compounds): 2017/12/22			Supplier: Wellington			Chemist: GSZ			

No writing on bottom page.

Notes/Comments

Solution No.: S-4267 Date: 2017/12/27 Expiry Date: 2018/02/27 Discard Date: _____

Replaces Solution: S-4261 Replaced by Solution: _____ Chemist: GSZ

Compound: ACRYLAMIDE STOCK SOLUTION Purity: 100%

Date Received: 2016/11/02 Expiry Date: 2018/06/30 Lot No.: SLBN3158V

Supplier: Sigma

Date Opened: 2016/11/07

Final Gross Weight: 0.0106 g/mg Dilution Volume: 10 mL GSZ 2017/12/27

Tare Weight*: _____ g/mg Volumetric Flask: 10ml Class A S/N (5640)

Net Weight: 0.0106 g/mg Concentration: 1060 ug/mL

Adjusted Net Weight**: 10.6 mg Solvent(s): MeOH

Balance Used: OHAUS AP2105 SN N01360
(specify model and serial no.)

Solvent Used: MeOH

Solvent Supplier: Sigma Lot No(s).: SHBJ5451

Date Opened: 2017/12/27

Storage Location / Conditions: FZ 09

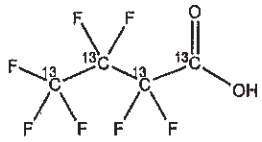
Notes/Comments

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFBA
LOT NUMBER: MPFBA0417
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA:	$^{13}C_4HF_7O_2$	**MOLECULAR WEIGHT:**	218.01
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	04/12/2017		
EXPIRY DATE: (mm/dd/yyyy)	04/12/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampoule
2017/09/07 ✓
1 ampoule
2014/10/25 65%

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/20/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

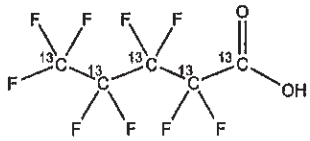
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M5PFPeA
COMPOUND: Perfluoro-n-[$^{13}C_5$]pentanoic acid

LOT NUMBER: M5PFPeA0717

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_5HF_9O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 269.01
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/20/2017
EXPIRY DATE: (mm/dd/yyyy) 07/20/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C ($^{13}C_5$)

1 ampoule
2017/09/07 →
1 ampoule
2017/10/25 GSZ

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-pentanoic acid.

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Certified By: _____ **Date:** 07/26/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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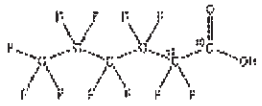
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFHxA	**LOT NUMBER:**	MPFHxA1118
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_4HF_{11}O_2$	**MOLECULAR WEIGHT:**	316.04
CONCENTRATION:	50 ± 2.5 µg/mL	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2-$^{13}C_2$)
LAST TESTED: mm/dd/yyyy	11/22/2016		
EXPIRY DATE: mm/dd/yyyy	11/22/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place (Freezer)		

HPLC (1)
2017/02/02
SSV

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-hexanoic acid and ~ 0.3% of perfluoro-n-octanoic acid.

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Certified By: _____ B.G. Chittim **Date:** 12/13/2016 mm/dd/yyyy

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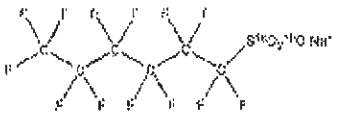
Received date: 2017/02/22 1x1.2 mL MMN
Received date: 2017/02/14 1x1.2 mL MMN
Received date: 2017/02/02 2x1.2 mL MZH
Received date: 2017/05/02 1x1.2 mL SSV
Received date: 2017/05/31 2x1.2 mL ssv
Date Received: 2017.05.02 - 1 x 1.2ml - HPLC
Date Received: 2017/09/12 - 1 ampule HPLC
Date Received: 2017/11/07 - 1 ampule HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFHxS	**LOT NUMBER:**	MPFHxS0217
COMPOUND:	Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_6F_{13}S^{18}O_2{}^{16}ONa$	**MOLECULAR WEIGHT:**	425.10
CONCENTRATION:	50.0 ± 2.5 µg/mL (Na salt) 47.3 ± 2.4 µg/mL (MPFHxS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	>94% ($^{18}O_2$)
LAST TESTED:	02/17/2017		
EXPIRY DATE:	02/17/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

FZ
1 ampule
HPLC
2017/05/02
JPS

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS ($C_6F_{13}S^{18}O_2{}^{16}O$) has been observed to be up to 10% lower than for PFHxS ($C_6F_{13}S^{16}O_3$) when both compounds are injected together. This difference may vary between instruments.
- Contains ~ 1.0% of sodium perfluoro-1-octane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFOS).
- Due to the isotopic purity of the starting material ($^{18}O_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

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Certified By: _____ B.G. Chittim **Date:** 03/02/2017

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Date received 2017/09/07 1 ampule HPLC
Date received 2017/10/25 1 ampule HPLC

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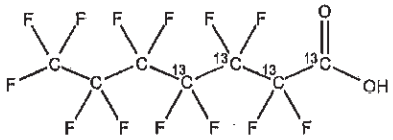
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M4PFHpA	**LOT NUMBER:**	M4PFHpA0517
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_3HF_{13}O_2$	**MOLECULAR WEIGHT:**	368.03
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	05/03/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/03/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampoule
2017/09/07 2
1 ampoule
2017/10/25 GSZ

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/11/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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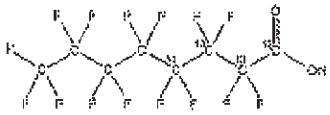
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFOA	**LOT NUMBER:**	MPFOA1016
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]octanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4HF_{15}O_2$	**MOLECULAR WEIGHT:**	418.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	10/18/2016		
EXPIRY DATE: (mm/dd/yyyy)	10/18/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

Received mmn
2016-12-12
1X1.2 mL
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of native perfluoro-n-octanoic acid (PFOA).

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Certified By: B.G. Chittim Date: 10/19/2016

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Form 37, Issued 2014-11-16
Revision 0, Revised 2015-03-24

Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
Received date: 2017/02/14 1x1.2 mL MMN
Received date: 2017/02/22 2x1.2 mL MZH

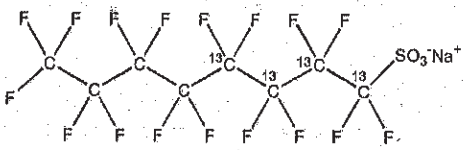
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS1017

COMPOUND: Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	526.08
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.8 ± 2.4 µg/ml (MPFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4\text{-}^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	10/17/2017		
EXPIRY DATE: (mm/dd/yyyy)	10/17/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 ampule
2017/10/25 GSZ

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.4% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/18/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

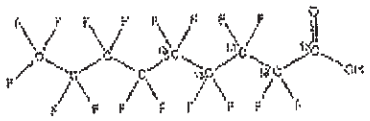
PRODUCT CODE: MPFNA

COMPOUND: Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid

LOT NUMBER: MPFNA0916

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_5{}^{12}C_4HF_{17}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 469.04

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: 09/30/2016

EXPIRY DATE: 09/30/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C (1,2,3,4,5-$^{13}C_5$)

Received
2016-12-12
1x1.2 ml
F2-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 10/11/2016

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Form 0127, Issued 2004-11-10
Revised 0, Revised 2015-03-24

MPFNA0916 (1 of 4)
rev0

Received date: 2017/02/22 2x1.2 mL MZ
Received date: 2017/05/02 1x1.2 mL ssv
Received date: 2017/05/31 2x1.2 mL ssv
Received date: 2017/09/07 2x1.2 mL TRW
Received date: 2017/10/25 2x1.2 mL

WELLINGTON LABORATORIES

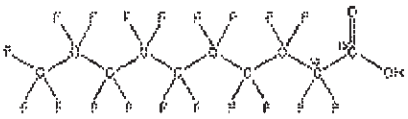
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid

LOT NUMBER: MPFDA0916

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_8HF_{19}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 516.07
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 09/30/2016
EXPIRY DATE: 09/30/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C (1,2-$^{13}C_2$)

Received mmd
2016-12-12
1x1.2 ml
F2-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of $^{13}C_4$-PFNA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 10/07/2016

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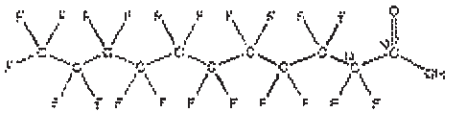
Date Received: 2017.02.02 - 1 x 1.2ml - HPLC
Received date: 2017/02/14 1x1.2 mL MMN
Date Received: 2017.02.22 - 2 x 1.2ml - HPLC,
Date Received: 2017.05.02 - 1 x 1.2ml - HPLC
Date Received: 2017.05.31 - 2 x 1.2ml - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFUdA	LOT NUMBER:	MPFUdA1116
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid		
STRUCTURE:		CAS #:	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_9HF_{21}O_2$	MOLECULAR WEIGHT:	566.08
CONCENTRATION:	50 ± 2.5 pg/ml	SOLVENT(S):	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	ISOTOPIC PURITY:	≥99% ^{13}C ($1,2-^{13}C_2$)
LAST TESTED:	11/22/2016		
EXPIRY DATE:	11/22/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

Received 2017/02/22
2 x 1.2 mL (TZ-4)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Presence of 1-$^{13}C_2$-PFUdA (~1%; see Figure 2), 2-$^{13}C_2$-PFUdA (~1%), and PFUdA (~0.2%; see Figure 2) are due to the isotopic purity of the ^{13}C-precursor.

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Certified By: B.G. Chittim Date: 12/07/2016

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Received 2017/05/02 2x1.2 mL HPLC
Date Received: 2017.05.02 - 1 x 1.2ml - HPLC
Date Received: 2017.06.29 - 1 x 1.2ml - HPLC
Date Received: 2017.09/07 - 1 x 1.2ml - HPLC
Date Received: 2017.02/22 - 1 x 1.2ml - HPLC

WELLINGTON LABORATORIES

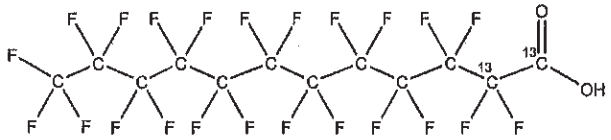
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFDoA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid

LOT NUMBER: MPFDoA0517

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{10}HF_{23}O_2$	**MOLECULAR WEIGHT:**	616.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	05/23/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/23/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampule
2017/09/07 ;
1 ampule
2017/10/25, GSZ

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/26/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

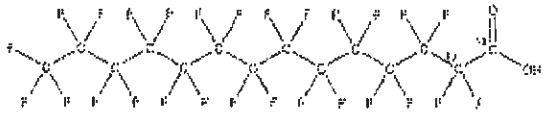
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFTeDA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid

LOT NUMBER: M2PFTeDA0217

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_{12}HF_{27}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 716.10
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 03/01/2017
EXPIRY DATE: 03/01/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C (1,2-$^{13}C_2$)

PV
1 ampule
HPLC
2017/05/02
DD3

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2. LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/07/2017
B.G. Chittim, General Manager

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Format 27, Issued 2020-11-10
Revision 4, Revised 2017-09-08

Date received 2017/09/07 1 ampule HPLC
Date received 2017/10/25 1 ampule HPLC

WELLINGTON LABORATORIES

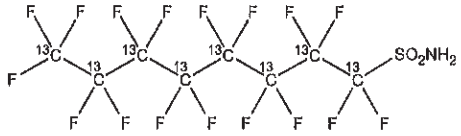
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M8FOSA-I
COMPOUND: Perfluoro-1-[$^{13}C_8$]octanesulfonamide

LOT NUMBER: M8FOSA0417I

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	507.09
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_6$)
LAST TESTED: (mm/dd/yyyy)	04/20/2017		
EXPIRY DATE: (mm/dd/yyyy)	04/20/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

Date received
2017/05/31

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.1% of perfluoro-1-[$^{13}C_4$]octanesulfonamide and ~ 0.01% of perfluoro-1-[$^{13}C_7$]heptanesulfonamide.

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Certified By: _____ **Date:** 05/04/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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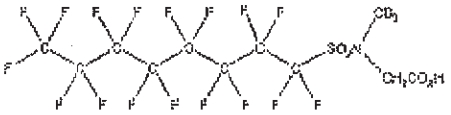
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA
LOT NUMBER: d3NMeFOSAA1116
COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $C_{11}D_3H_2F_{17}NO_4S$
MOLECULAR WEIGHT: 574.23
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥98% $^1H_1$
LAST TESTED: 11/22/2016
EXPIRY DATE: 11/22/2021
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

Received
2x1.2mL
2017-12-22
mtr

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim
Date: 12/07/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form#27, Issued 2004-11-19
Revision#2, Revised 2015-03-24

date recieved 2017/05/31 2x1`.2

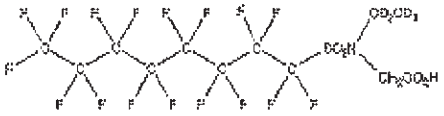
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d5-N-EtFOSAA **LOT NUMBER:** d5NEtFOSAA1116

COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_{10}D_4H_3F_{17}NO_4S$ **MOLECULAR WEIGHT:** 590.26

CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)

CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥98% $^{2}H_{4}$

LAST TESTED: (mm/dd/yyyy) 11/22/2016

EXPIRY DATE: (mm/dd/yyyy) 11/22/2021

RECOMMENDED STORAGE: Refrigerate ampoule

Received 2016/12/16 1 x 1.2 mL FD-59

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

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Certified By: B.G. Chittim **Date:** 12/01/2016 (mm/dd/yyyy)

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Form#127, Issued 2004-11-10
Revision# 3, Revised 2016-03-24

Received date: 2017/02/22 2x1.2 mL MZH
Received date: 2017/05/31 2x1.2 mL ssv

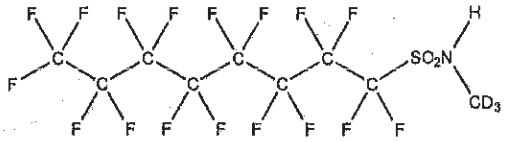
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d-N-MeFOSA-M
COMPOUND: N-methyl-d_3-perfluoro-1-octanesulfonamide
LOT NUMBER: dNMeFOSA0417M

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_9D_3HF_{17}NO_2S$	**MOLECULAR WEIGHT:**	516.19
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	04/20/2017		
EXPIRY DATE: (mm/dd/yyyy)	04/20/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

Date Received
2017/12/06
2 Ampoules

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/24/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

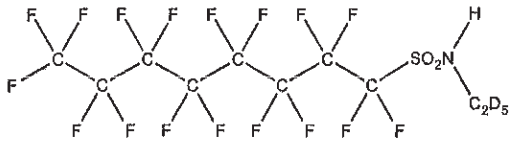
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d-N-EtFOSA-M
COMPOUND: N-ethyl-d_5-perfluoro-1-octanesulfonamide

LOT NUMBER: dNEtFOSA1017M

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_{10}D_5HF_{17}NO_2S$	**MOLECULAR WEIGHT:**	532.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	10/11/2017		
EXPIRY DATE: (mm/dd/yyyy)	10/11/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

Date received
2017/12/06
2 Ampules

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 11/06/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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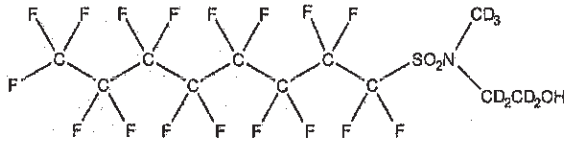
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d7-N-MeFOSE-M **LOT NUMBER:** d7NMeFOSE1017M
COMPOUND: 2-(N-methyl-d3-perfluoro-1-octanesulfonamido)ethan-d4-ol

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{11}D_7HF_{17}NO_3S$	**MOLECULAR WEIGHT:**	564.27
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_7$
LAST TESTED: (mm/dd/yyyy)	10/13/2017 (HRGC/LRMS) 10/12/2017 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	10/13/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

Date Reaived
2017/12/06
2 Ampoules

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

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Certified By: _____ **Date:** 11/03/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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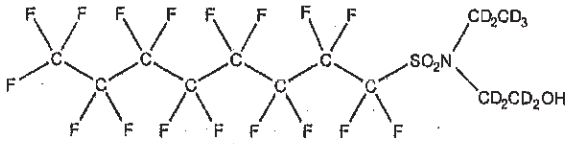
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d9-N-EtFOSE-M **LOT NUMBER:** d9NEtFOSE1017M
COMPOUND: 2-(N-ethyl-d5-perfluoro-1-octanesulfonamido)ethan-d4-ol

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{12}D_9HF_{17}NO_3S$	**MOLECULAR WEIGHT:**	580.31
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_9$
LAST TESTED: (mm/dd/yyyy)	10/13/2017 (HRGC/LRMS) 10/12/2017 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	10/13/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

Date Received
2017/12/06
2 Ampoules

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.
- Contains ~ 1.2% of N-ethyl-d5-perfluoro-1-octanesulfonamide.

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Certified By: _____ **Date:** 10/18/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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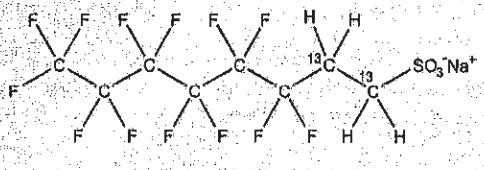
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-6:2FTS **LOT NUMBER:** M262FTS0217

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]octane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6H_4F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	452.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.5 ± 2.4 µg/ml (M2-6:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	02/17/2017		
EXPIRY DATE: (mm/dd/yyyy)	02/17/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

D.L. Rec'd
2017/12/06
2 Ampoules

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 6:2FTS and M2-6:2FTS will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 02/24/2017 (mm/dd/yyyy)

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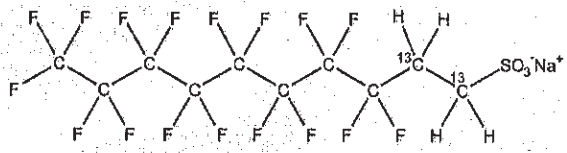
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M282FTS0717

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]decane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	552.15
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml (M2-8:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	07/05/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

Date Received
2017/12/06
2 Ampoules

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/07/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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144 PG 98

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI-6770 Prep'n Date: 2018/01/12 Expiry Date: 2018/06/20 Discard Date:
Replaces Solution No.: SI-6716 Replaced by Solution: Chemist: GSZ
Sol'n. Name: FNL. F.S.
Solution Used As: Internal Std: ✓ Surrogate Spike:
Spike Volume: 20 (uL) or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS/MS
Solvent(s): 0.3% NH4OH in MeOH Supplier(s): Su PRLRE 108-287 Lot No(s).: Su PRLRE 108-287
Date Solvent Opened: Su PRLRE 108-287
Volumetric Flask Used: 100mL Class A (5640) Syringe ID: Pipette M4101IF
Storage Location and Conditions: FZ11
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL (uL))	Dilution Volume (mL)	Final Conc'n. ng/mL (ug/mL)	Absolute Amount Spiked (ug / ng)
13 C9 PFDA	S-4194	50	200	100	100	—
13 C6 PFHxA	S-4195	50	200	100	100	—

GSZ 2018/01/12

Notes:

DPG 2018/01/16

Solution No.: SI-6771 Prep'n Date: 2018/01/16 Expiry Date: 2018/03/05 Discard Date: —
Replaces Solution No.: SI-6703 Replaced by Solution: — Chemist: DPG
Sol'n. Name: 2,3 Dibromopropionic Acid Surrogate
Solution Used As: Internal Std: — Surrogate Spike: ✓
Spike Volume: 40 (ul) or mL (for I.S. uL per mL) For Instrument/Analysis: GC-ECD
Solvent(s): MTBE Supplier(s): Fisher Lot No(s).: 161432
Date Solvent Opened: 2017/05/15
Volumetric Flask Used: 5630 [0mL] Class A Syringe ID: 579089-2
Storage Location and Conditions: FD-135 [1°C to 6°C]
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL (uL))	Dilution Volume (mL)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug / ng)
2,3 Dibromopropionic Acid	T-5091	1000	100	10	10	—

DPG 2018/01/16

Notes:

DO NOT WRITE BENEATH ANY INSERTS ON THIS PAGE. DO NOT PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS LOGBOOK, PAGE AND APPROPRIATE SOLUTION

PRLST 133 PG 108

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4194 Date: 2017/09/18 Expiry Date: 2018/06/20 Discard Date: _____

Replaces Solution: S-4142 Replaced by Solution: _____ Chemist: GSZ

Compound: $^{13}C_9$ PFDA Purity: _____

Date Received: 2017/06/09 Expiry Date: 2018/06/20 Lot No.: SCID-014

Supplier: CIL

Date Opened: 2017/09/18

Final Gross Weight: – g/mg Dilution Volume: – mL

Tare Weight* : – g/mg Volumetric Flask: –

Net Weight: – g/mg **Concentration:** 50 (ug/mL) mg/mL

Adjusted Net Weight** : – mg Solvent(s): MeOH

Balance Used: –
(specify model and serial no.)

Solvent Used: –

Solvent Supplier: – Lot No(s).: –

Date Opened: –

Storage Location / Conditions: FZ 11

Notes/Comments
Received as solution in ampule.

Solution No.: S-4195 Date: 2017/09/18 Expiry Date: 2020/09/30 Discard Date: _____

Replaces Solution: S-4143 Replaced by Solution: _____ Chemist: GSZ

Compound: $^{13}C_6$ PFHxA Purity: _____

Date Received: 2017/06/09 Expiry Date: 2020/09/30 Lot No.: SDAA-004

Supplier: CIL

Date Opened: 2017/09/18

Final Gross Weight: – g/mg Dilution Volume: – mL

Tare Weight* : – g/mg Volumetric Flask: –

Net Weight: – g/mg **Concentration:** 50 ug/mL

Adjusted Net Weight** : – mg Solvent(s): MeOH

Balance Used: –
(specify model and serial no.)

Solvent Used: –

Solvent Supplier: – Lot No(s).: –

Date Opened: –

Storage Location / Conditions: FZ 11

Notes/Comments
Received as solution in ampule.

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Quality Standards:
ISO Guide 34 • ISO/IEC 17025 • ISO 13485 • cGMP

Product Name: PERFLUORODECANOIC ACID
(Isotopic Label & Derivation Specification) (13C9, 99%) 50 UG/ML IN METHANOL

Lot Number: SCID-014

Catalog Number: CLM-8172-S

Product Information

Chemical Purity Specification:	≥ 98%
Labeled CAS Number:	NA
Unlabeled CAS Number:	335-76-2
MW*:	523.02
Chemical Formula:	CF3(*CF2)8*CO2H
Storage:	Store at room temperature away from light and moisture.
Stability:	See storage and expiration date.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses wherever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NCSL Z540-1-1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number. Some possible packaging sizes and their corresponding suffix are -1.2, -1, -0.5, -1.0, or -0.1.

* *For isotopically labeled compounds. MW listed is for the fully enriched product.*

Approved by: T. J. Eckersley

Timothy J. Eckersley, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	06/20/2008
Expiration Date	06/20/2018
Concentration Based on Gravimetry	50.0 µg/mL
Chemical Purity of Neat Material(s)	>98%
LC/MS for Concentration	46.2 ± 6.4 µg/mL (k=2)

Received June 20 in 01/15 1x 1.2mL RT

50 Frontage Road, Andover, MA 01810-5413 USA • 1 800 322.1174 (North America) • 1 978 749.8000 (International) • isotope.com

Date Received:2016.8.17 - 1 x 1.2mL - HPLC
Date Received: 2016.09.14 -HPLC - 1 x 1.2ml
Date Received: 2016/11/22 1x 1.2ml MMN HPLC
Date Received:2017.02.15 - 1 x 1mL - HPLC (MMN)
Date received: 2017/06/09 - 1x1.2ml - HPLC

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Quality Standards:
ISO Guide 34 • ISO/IEC 17025 • ISO 13485 • cGMP

Product Name: (Isotopic Label & Enrichment Specification)	PERFLUOROHEXANOIC ACID, SODIUM SALT (13C6, 99%) 50 UG/ML IN METHANOL
Lot Number:	SDAA-004
Catalog Number:	CLM-8340-S

Product Information

Chemical Purity Specification:	≥ 98%
MW*: *For unequally labeled compounds, MW listed is for the fully enriched product.	320.00
Labeled CAS Number:	NA
Unlabeled CAS Number:	307-24-4
Chemical Formula:	*CF3(*CF2)4*COOH
Storage:	Store at room temperature away from light and moisture.
Stability:	See storage and expiration date.

Received from 2016/05/20 1x1.2ml RT

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NSCL Z540-1-1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number. Some possible packaging sizes and their corresponding suffix are -1.2, -1, -0.5, -10, or -0.1.

Approved by: T. J. Eckersley
Timothy J. Eckersley, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	9/30/2010
Expiration Date	9/30/2020
Concentration Based on Gravimetry	50.4 µg/mL
Chemical Purity of Neat Material(s)	99.2%
LC/MS for Concentration	47.1 ± 2.6 µg/mL (k=2)

50 Frontage Road, Andover, MA 01810-6413 USA • 1 800 322 1174 (North America) • 1 978 749 8000 (International) • isotope.com

Date Received: 2016/08/17 1x 1.2ml MMN HPLC
Date Received: 2016/09/14 1x 1.2ml MMN HPLC
Date Received: 2016/11/22 1x 1.2ml MMN HPLC
Date Received: 2017.02.15 - 1 x 1mL - HPLC (MMN)
Date Received: 2017.06.09 - 1 x 1.2ml - HPLC

144 PG 114

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI-6801 Prep'n Date: 2018/02/12 Expiry Date: 2021/09/30 Discard Date: _____
Replaces Solution No.: SI-6763 Replaced by Solution: _____ Chemist: GSZ
Sol'n. Name: PFC INTERNAL STD SPIKING SOLUTION
Solution Used As: Internal Std: ✓ Surrogate Spike: _____
Spike Volume: — uL or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS/MS
Solvent(s): 0.3% NH4OH in MeOH Supplier(s): See PRLRE 108-355 Lot No(s).: See PRLRE 108-355
Date Solvent Opened: See PRLRE 108-355
Volumetric Flask Used: 200 mL Class A (5640) Syringe ID: Hamilton MA1011F/J434346
Storage Location and Conditions: FZ-11
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date: See attached sheet

SI-6801 (PRLST 144 p. 114)

Compound Name	ID#	Conc. (ug/mL)	Vol.. of Stock standard (uL)	Dilution volume (mL)	Final Conc. (ng/mL)	Exp. date
MPFBA	S4290-1	50	200	200	50	2022/04/12
M5PFPeA	S4290-2	50	200	200	50	2022/07/20
MPFHxA	S4290-3	50	200	200	50	2022/10/27
MPFHxS	S4290-4	50	200	200	50	2022/02/17
M4PFHpA	S4290-5	50	200	200	50	2022/05/03
MPFOA	S4290-6	50	200	200	50	2022/10/17
MPFOS	S4290-7	50	200	200	50	2022/10/17
MPFNA	S4290-8	50	200	200	50	2021/09/30
MPFDA	S4290-9	50	200	200	50	2022/07/13
MPFUdA	S4290-10	50	200	200	50	2021/11/22
MPFDoA	S4290-11	50	200	200	50	2022/05/23
M2PFTeDA	S4290-12	50	200	200	50	2022/11/30
MPFOSA	S4290-13	50	200	200	50	2022/10/11
D3-N-MeFOSAA	S4290-14	50	200	200	50	2022/05/19
D5-N-EtFOSAA	S4290-15	50	200	200	50	2021/11/22
D-N-MeFOSA-M	S4290-16	50	500	200	125	2022/04/20
D-N-EtFOSA-M	S4290-17	50	500	200	125	2022/10/11
D7-N-MeFOSE-M	S4290-18	50	500	200	125	2022/10/13
D9-N-EtFOSE-M	S4290-19	50	500	200	125	2022/10/13
M2-6:2FTS	S4290-20	50	500	200	125	2022/02/17
M2-8:2FTS	S4290-21	50	500	200	125	2022/07/05

No writing on bottom gauge.

GSZ, 2018/02/12

Notes:

DO NOT WRITE BENEATH ANY INSERTS ON THIS PAGE. DO NOT PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL INSERTS. LOGBOOK, PAGE AND APPROPRIATE SOLUTION NUMBER REFERENCES MUST BE WRITTEN ON ALL INSERTS.

PRLST 133 PG 163

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4290 Date: 2018/02/12 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

S-4290 (PRLST 133 pg. 163)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
S4290-1	MPFBA	MPFBA0417	2017/12/06	2022/04/12	S4250-1		50	MeOH	FZ-11
S4290-2	M5PFPeA	M5PFPeA0717	2017/12/06	2022/07/20	S4250-2		50	MeOH	FZ-11
S4290-3	MPFHxA	MPFHxA1017	2017/12/06	2022/10/27	S4255-1		50	MeOH	FZ11
S4290-4	MPFHxS	MPFHxS0217	2017/12/06	2022/02/17	S4250-3		50	MeOH	FZ-11
S4290-5	M4PFHpA	M4PFHpA0517	2017/12/06	2022/05/03	S4250-4		50	MeOH	FZ-11
S4290-6	MPFOA	MPFOA1017	2017/12/06	2022/10/17	S4250-5		50	MeOH	FZ-11
S4290-7	MPFOS	MPFOS1017	2017/12/06	2022/10/17	S4250-6		50	MeOH	FZ-11
S4290-8	MPFNA	MPFNA0916	2017/12/06	2021/09/30	S4250-7		50	MeOH	FZ-11
S4290-9	MPFDA	MPFDA0717	2017/12/06	2022/07/13	S4250-8		50	MeOH	FZ-11
S4290-10	MPFUdA	MPFUdA1116	2017/12/06	2021/11/22	S4242-1		50	MeOH	FZ11
S4290-11	MPFDoA	MPFDoA0517	2017/12/06	2022/05/23	S4250-9		50	MeOH	FZ-11
S4290-12	M2PFTeDA	M2PFTeDA1117	2017/12/06	2022/11/30	S4250-10		50	MeOH	FZ-11
S4290-13	MPFOSA	M8FOSA1017I	2017/12/06	2022/10/11	S4250-11		50	IPA	FD-59
S4290-14	D3-N-MeFOSAA	d3NMeFOSAA0517	2017/10/25	2022/05/19	S4260-1		50	MeOH	FD59
S4290-15	D5-N-EtFOSAA	d5NEtFOSAA1116 *	2017/10/25	2021/11/22	S4260-2		50	MeOH	FD59
S4290-16	D-N-MeFOSA-M	dNMeFOSA0417M	2017/12/06	2022/04/20	S4255-2		50	MeOH	FZ11
S4290-17	D-N-EtFOSA-M	dNEtFOSA1017M	2017/12/06	2022/10/11	S4255-3		50	MeOH	FZ11
S4290-18	D7-N-MeFOSE-M	d7NMeFOSE1017M	2017/12/06	2022/10/13	S4255-4		50	MeOH	FZ11
S4290-19	D9-N-EtFOSE-M	d9NEtFOSE1017M	2017/12/06	2022/10/13	S4255-5		50	MeOH	FZ11
S4290-20	M2-6:2FTS	M262FTS0217	2017/12/06	2022/02/17	S4255-6		50	MeOH	FD59
S4290-21	M2-8:2FTS	M282FTS0717	2017/12/06	2022/07/05	S4255-7		50	MeOH	FD59
Date opened (All compounds): 2018/02/12			Supplier: Wellington			Chemist: GSZ			

No writing on bottom page. * d5NEtFOSAA1116 GSZ 2018/02/16 GSZ, 2018/02/12

Solution No.: _____ Date: _____ Expiry Date: _____ Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: _____

Compound: _____ Purity: _____

Date Received: _____ Expiry Date: _____ Lot No.: _____

Supplier: _____

Date Opened: _____

Final Gross Weight: _____ g/mg Dilution Volume: _____ mL

Tare Weight* : _____ g/mg Volumetric Flask: _____

Net Weight: _____ g/mg **Concentration:** _____ ug/mL

Adjusted Net Weight** : _____ mg Solvent(s): _____

Balance Used: _____

(specify model and serial no.)

Solvent Used: _____

Solvent Supplier: _____ Lot No(s).: _____

Date Opened: _____

Storage Location / Conditions: _____

Notes/Comments

OK 10 2018/02/13

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WELLINGTON LABORATORIES

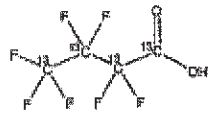
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFBA
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid

LOT NUMBER: MPFBA0417

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_4HF_7O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 218.01
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/12/2017
EXPIRY DATE: (mm/dd/yyyy) 04/12/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C (1,2,3,4-$^{13}C_4$)

1 ampoule
2017/10/25 65Z

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim, General Manager Date: 04/20/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Date Received: 2017.09.07 - 1 ampoule - HPLC
Date Received: 2017.12.06 - 1 ampoule - HPLC

Date Received: 2018.01.16 - 1 ampoule - HPLC

Date received: 2017/09/07 RW Ampoule: 1

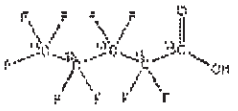
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M5PFPeA
COMPOUND: Perfluoro-n-[$^{13}C_5$]pentanoic acid

LOT NUMBER: M5PFPeA0717

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_5HF_9O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 269.01
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 07/20/2017
EXPIRY DATE: 07/20/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥98% ^{13}C ($^{13}C_5$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-pentanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 07/26/2017
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form 27 Issued 2004-11-10
Revised 4 Revised 2017-03-08

Date Received: 2017.10.25 - 1 ampoule - HPLC
Date Received: 2017.12.06 - 1 ampoule - HPLC
Date Received: 2018.01.16 - 1 ampoule -HPLC

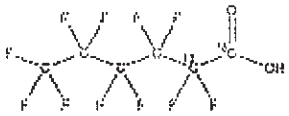
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFHxA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid

LOT NUMBER: MPFHxA1017

STRUCTURE:



CAS #: Not available

2018/01/16
1 ampoule
E.G

MOLECULAR FORMULA: $^{13}C_2{}^{12}C_4HF_9O_2$
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: 10/27/2017
EXPIRY DATE: 10/27/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 316.04
SOLVENT(S): Methanol
Water (<1%)
ISOTOPIC PURITY: ≥99% ^{13}C (1,2-$^{13}C_2$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-hexanoic acid and < 0.3% of perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/30/2017
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form#17, Issued 2021-11-10
Revision#4, Revised 2017-03-06

WPFHxA1017 (1 of 4)
[illegible]

Date Received: 2017.12.06 - 1 ampoule - HPLC

WELLINGTON LABORATORIES

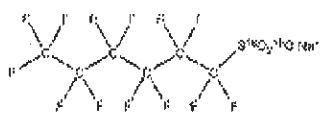
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFHxS

LOT NUMBER: MPFHxS0217

COMPOUND: Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $C_6F_{13}S^{18}O_2{}^{18}ONa$

MOLECULAR WEIGHT: 425.10

CONCENTRATION: 50.0 ± 2.5 µg/mL (Na salt)
47.3 ± 2.4 µg/mL (MPFHxS anion)

SOLVENT(S): Methanol

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: >94% ($^{18}O_2$)

LAST TESTED: 02/17/2017

EXPIRY DATE: 02/17/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

F2
1 ampoule
HPLC
2017/05/02
JPB3

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS ($C_6F_{13}S^{18}O_2{}^{18}O^-$) has been observed to be up to 10% lower than for PFHxS ($C_6F_{13}S^{18}O_3^-$) when both compounds are injected together. This difference may vary between instruments.
- Contains ~ 1.0% of sodium perfluoro-1-octane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFOS).
- Due to the isotopic purity of the starting material ($^{18}O_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 03/02/2017

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2049 • info@well-labs.com

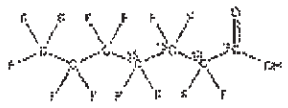
[illegible]

Date received 2017/09/07 1 ampoule HPLC
Date received 2017/10/25 1 ampoule HPLC
Date Received: 2017.10.25 - 1 ampoule - HPLC
Date Received: 2017.12.06 - 1 ampoule - HPLC
Date Received: 2018.01.16 - 1 ampoule - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M4PFHpA	**LOT NUMBER:**	M4PFHpA0517
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_3HF_{13}O_2$	**MOLECULAR WEIGHT:**	368.03
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED:	05/03/2017		
EXPIRY DATE:	05/03/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 ampoule
2017/10/26 652

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY. NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 05/11/2017
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Date Received: 2017.09.07 - 1 ampoule - HPLC
Date Received: 2017.12.06 - 1 ampoule - HPLC
Date Received: 2018.01.16 - 1 ampoule - HPLC

WELLINGTON LABORATORIES

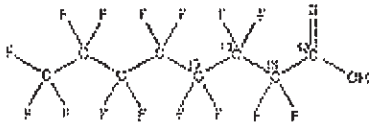
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFOA

COMPOUND: Perfluoro-n-(1,2,3,4-$^{13}C_4$)octanoic acid

LOT NUMBER: MPFOA1017

STRUCTURE:



CAS #: Not available

2018/01/16

MOLECULAR FORMULA: $^{13}C_4{}^{12}C_4HF_{15}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 418.04

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: 10/17/2017

EXPIRY DATE: 10/17/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C (1,2,3,4-$^{13}C_4$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of native perfluoro-n-octanoic acid (PFOA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/19/2017

B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form 27, Issued 2004-12-06
Revision 4, Revised 2017-03-06

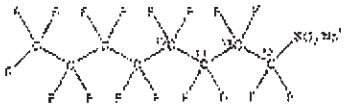
MPFOA1017 (1 of 4)

Date Received: 2017.12.06 - 1 ampoule - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFOS	**LOT NUMBER:**	MPFOS1017
COMPOUND:	Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	526.08
CONCENTRATION:	50.0 ± 2.5 ug/ml (Na salt) 47.8 ± 2.4 ug/ml (MPFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4\text{-}^{13}C_4$)
LAST TESTED:	10/17/2017		
EXPIRY DATE:	10/17/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

Pamgeuler
2017/10/25 652

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.4% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/18/2017
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Date Received: 2017.12.06 - 1 ampoule - HPLC

Date Received: 2018.01.16 - 1 ampoule - HPLC

WELLINGTON LABORATORIES

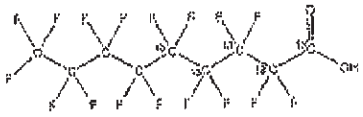
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFNA
COMPOUND: Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid

LOT NUMBER: MPFNA0916

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_5{}^{12}C_4HF_{17}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 469.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 09/30/2016
EXPIRY DATE: 09/30/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C (1,2,3,4,5-$^{13}C_5$)

Received
2016-12-12
1x1.2 mL
F2-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chilum Date: 10/11/2016 (mm/dd/yyyy)

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form#27, Issued 2004-11-12
Revision#3, Revised 2015-03-24

Received date: 2017/02/22 2x1.2 mL MZ
Received date: 2017/05/02 1x1.2 mL ssv
Received date: 2017/05/31 2x1.2 mL ssv
Received date: 2017/09/07 2x1.2 mL TRW
Received date: 2017/10/25 2x1.2 mL
Date Received: 2017.12.06 - 1 ampoule - HPLC

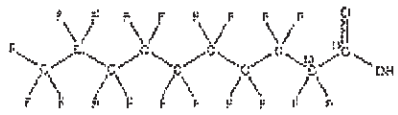
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFDA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid

LOT NUMBER: MPFDA0717

STRUCTURE:



CAS #: Not available

2018/01/16
1 ampoule
E.G

MOLECULAR FORMULA: $^{12}C_8{}^{13}C_2HF_{17}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 516.07
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/13/2017
EXPIRY DATE: (mm/dd/yyyy) 07/13/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C (1,2-$^{13}C_2$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of $^{13}C_4$-^{13}FNA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/14/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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Form# 27, Issued 2016-11-16
Revisions, Revised 2017-03-05

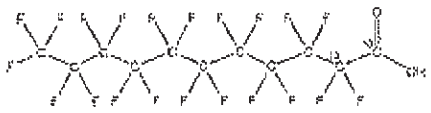
MPFDA0717 (1 of 4)
rev 0

Date Received: 2017.12.06 - 1 ampoule - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFUdA	LOT NUMBER:	MPFUdA1116
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid		
STRUCTURE:		CAS #:	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_9HF_{21}O_2$	MOLECULAR WEIGHT:	566.08
CONCENTRATION:	50 ± 2.5 pg/ml	SOLVENT(S):	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	ISOTOPIC PURITY:	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED:	11/22/2016		
EXPIRY DATE:	11/22/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

Received 2017/12/22.
1 x 1.2 mL (TZ-1)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Presence of $1\text{-}^{13}C_1$-PFUdA (~1%; see Figure 2), $2\text{-}^{13}C_1$-PFUdA (~1%), and PFUdA (~0.2%; see Figure 2) are due to the isotopic purity of the ^{13}C-precursor.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 12/07/2016

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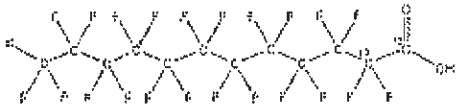
Received 2017/05/02 2x1.2 mL HPLC
Date Received: 2017.05.02 - 1 x 1.2ml - HPLC
Date Received: 2017.06.29 - 1 x 1.2ml - HPLC
Date Received: 2017.09/07 - 1 x 1.2ml - HPLC
Date Received: 2017.02/22 - 1 x 1.2ml - HPLC
Date Received: 2017.12.06 - 1 ampoule - HPLC
Date Received: 2018.01.16 - 1 ampoule - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFDoA	LOT NUMBER:	MPFDoA0517
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid		
STRUCTURE:		CAS #:	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{10}HF_{23}O_2$	MOLECULAR WEIGHT:	616.08
CONCENTRATION:	50 ± 2.5 µg/ml	SOLVENT(S):	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	ISOTOPIC PURITY:	≥99% ^{13}C (1,2-$^{13}C_2$)
LAST TESTED:	05/23/2017		
EXPIRY DATE:	05/23/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

Transfer
2017 Nov 25, 052-

ADDITIONAL INFORMATION:

- See page 2 for further details
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ Date: 05/26/2017
S.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Date Received: 2017.09.07 - 1 ampoule - HPLC
Date Received: 2017.12.06 - 1 ampoule - HPLC
Date Received: 2018.01.16 - 1 ampoule - HPLC

WELLINGTON LABORATORIES

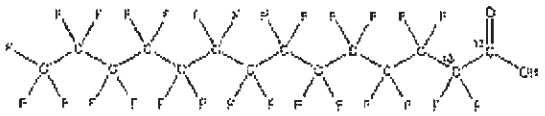
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2PFTeDA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid

LOT NUMBER: M2PFTeDA1117

STRUCTURE:

CAS #: Not available



2018/01/16
1 ampoule
E. G

MOLECULAR FORMULA: $^{13}C_2{}^{13}C_{12}HF_{27}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 716.10
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: 11/30/2017
EXPIRY DATE: 11/30/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C (1,2-$^{13}C_2$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 12/01/2017
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Form# 21, Issued 2004-11-19
Revision 4, Revised 2017-03-06

M2PFTeDA1117 (1 of 4)
rev0

Date Received: 2017.12.06 - 1 ampoule - HPLC

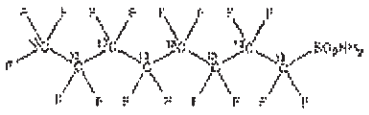
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M8FOSA-I
COMPOUND: Perfluoro-1-[$^{13}C_2$]octanesulfonamide

LOT NUMBER: M8FOSA1017I

STRUCTURE:



CAS #: Not available

2018/01/16
1 ampoule
4.6

MOLECULAR FORMULA: $^{13}C_2H_2F_{17}NO_2S$
CONCENTRATION: 50 ± 2.5 µg/ml
CHEMICAL PURITY: >98%
LAST TESTED: 10/11/2017
EXPIRY DATE: 10/11/2022
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 507.09
SOLVENT(S): Isopropanol
ISOTOPIC PURITY: ≥99% ^{13}C ($^{13}C_2$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.1% of perfluoro-1-[$^{13}C_2$]octanesulfonamide and ~ 0.01% of perfluoro-1-[$^{13}C_2$]heptanesulfonamide.

FOR LABORATORY USE ONLY; NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 10/20/2017
S.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Form 27 Issued 2004-11-19
Revision 4, Revised 2017-03-06

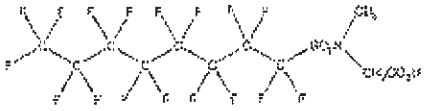
Date Received: 2017.12.06 - 1 ampoule - HPLC

Ampoule: 1 Tech
Date received: 2017/10/25

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	d3-N-MeFOSAA	**LOT NUMBER:**	d3NMeFOSAA0517
COMPOUND:	N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_{11}D_3H_4F_{17}NO_4S$	**MOLECULAR WEIGHT:**	574.23
CONCENTRATION:	50 ± 2.5 µg/mL	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	05/19/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/19/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ Date: 05/31/2017
R. G. Critten, General Manager (dd/mm/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

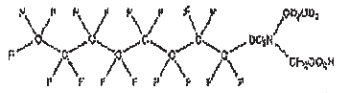
Date Received: 2017.10.25 - 1 ampoules - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d5-N-EtFOSAA **LOT NUMBER:** d5NEtFOSAA1116
COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_{10}D_4H_5F_{17}NO_4S$ **MOLECULAR WEIGHT:** 590.26
CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥98% $^{2}H_{4}$
LAST TESTED: 11/22/2016
EXPIRY DATE: 11/22/2021
RECOMMENDED STORAGE: Refrigerate ampoule

Received [illegible] 2016/12/16 17 1.2 ml FD-59

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 12/01/2016

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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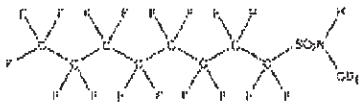
Form 22, Issued 2014-12-10
Revision 3, Revised 2016-03-24

Date Received: 2017/10/25 2x1.2 ml

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	d-N-MeFOSA-M	LOT NUMBER:	dNMeFOSA0417M
COMPOUND:	N-methyl-d_3-perfluoro-1-octanesulfonamide		
STRUCTURE:		CAS #:	Not available



MOLECULAR FORMULA:	$C_9D_3HF_{17}NO_2S$	MOLECULAR WEIGHT:	516.19
CONCENTRATION:	50 ± 2.5 µg/ml	SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%	ISOTOPIC PURITY:	≥98% $^2H_3$
LAST TESTED:	04/20/2017		
EXPIRY DATE:	04/20/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

Fz
2 ampoule
HPLC
2017/06/29
DPS

DOCUMENTATION/ DATA ATTACHED:

Figure 1. LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ Date: 04/24/2017
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Received date 2017/07/21 2 x 1.2mL HPLC
Received date 2017/08/09 1 x 1.2mL HPLC
Received date 2017/09/07 1 x 1.2mL HPLC
RECEIVED: 2017/09/27 1X2 AMPULES HPLC
Date Received: 2017.10.25 - 1 ampoule - HPLC
RECEIVED: 2017/11/07 1 x 1.2ml HPLC
RECEIVED: 2017/11/07 1 x 1.2ml HPLC
Date Received: 2017.12.06 - 1 ampoule - HPLC

WELLINGTON LABORATORIES

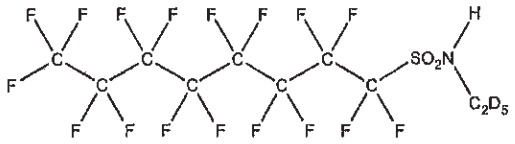
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d-N-EtFOSA-M
COMPOUND: N-ethyl-d_5-perfluoro-1-octanesulfonamide

LOT NUMBER: dNEtFOSA1017M

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_{10}D_5HF_{17}NO_2S$	**MOLECULAR WEIGHT:**	532.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	10/11/2017		
EXPIRY DATE: (mm/dd/yyyy)	10/11/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

Date received
2017/12/06
2 Ampules

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 11/06/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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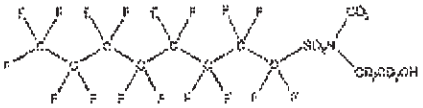
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	d7-N-MeFOSE-M	**LOT NUMBER:**	d7NMeFOSE1617M
COMPOUND:	2-(N-methyl-d3-perfluoro-1-octanesulfonamido)ethan-d4-ol		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_{11}D_7HF_{17}NO_3S$	**MOLECULAR WEIGHT:**	564.27
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_7$
LAST TESTED: (mm/dd/yyyy)	10/13/2017 (HRGC/LRMS) 10/12/2017 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	10/13/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 Ampoule
HPLC
2017/11/07

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/03/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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Created 27-Jan-2014 11:16
Updated/Revised 2017-03-08
d7NMeFOSE1617M (1 of 5)
rev 0

Date Received: 2017.12.06 - 1 ampoule - HPLC
Date Received: 2018.01.16 - 1 ampoule - HPLC

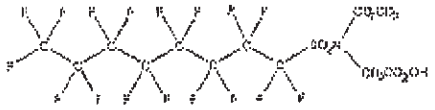
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d9-N-EtFOSE-M **LOT NUMBER:** d9NEtFOSE1017M

COMPOUND: 2-(N-ethyl-d5-perfluoro-1-octanesulfonamido)ethan-d4-ol

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_{10}D_4HF_{17}NO_3S$ **MOLECULAR WEIGHT:** 580.31

CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol

CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥98% $^2H_4$

LAST TESTED: 10/13/2017 (HRGC/LRMS)
10/12/2017 (LC/MS)

EXPIRY DATE: 10/13/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampoule
HPLC
2017/11/07

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.
- Contains ~ 1.2% of N-ethyl-d5-perfluoro-1-octanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

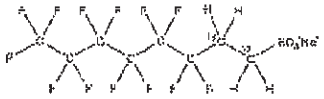
Certified By: B.G. Chittim, General Manager **Date:** 10/18/2017

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Date Received: 2017.12.06 - 1 ampoule - HPLC
Date Received: 2018.01.16 - 1 ampoule - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2-6:2FTS	LOT NUMBER:	M262FTS0217
COMPOUND:	Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]octane sulfonate		
STRUCTURE:		CAS #:	Not available
MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6H_2F_{13}SO_3Na$	MOLECULAR WEIGHT:	452.13
CONCENTRATION:	50.0 ± 2.5 µg/mL (Na salt) 47.5 ± 2.4 µg/mL (M2-6:2FTS anion)	SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%	ISOTOPIC PURITY:	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED:	02/17/2017		
EXPIRY DATE:	02/17/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

HPLC 2017/05/31 2x1.2 mL

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 6:2FTS and M2-6:2FTS will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ (S.G. Chittim) Date: 02/24/2017

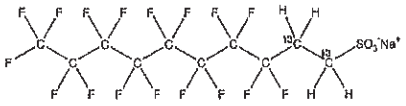
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2435 • Fax: 519-822-2849 • info@well-labs.com

Date Recieved:2017/05/02 2x1.2ml HPLC
Date Recieved:2017/06/29 2x1.2ml HPLC
Received date 2017/07/21 2 x 1.2mL HPLC
Received date 2017/09/07 1 x 1.2mL HPLC
Received date:2017/09/27 1x2 ampules HPLC
Received date:2017/10/25 1x2 ampules HPLC
Received date:2017/11/07 1x2 ampules HPLC
Date Received: 2017.11.07 - 1 ampule - HPLC
Date Received: 2017.12.06 - 2 ampoule - HPLC
Date Received: 2018.01.16 -1 ampoule - HPLC

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2-8:2FTS	**LOT NUMBER:**	M282FTS0717
COMPOUND:	Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]decane sulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	552.15
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml (M2-8:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C
LAST TESTED: (mm/dd/yyyy)	07/05/2017		($1,2\text{-}^{13}C_2$)
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

2 ampules x 1.2 mL
HPLC
2017/07/21
FDS

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/07/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

Date Recieved: 2017/07/21 2x1.2ml HPLC
Date Recieved: 2017/09/07 1x1.2ml HPLC
Received date: 2017/09/27 1x2 ampules HPLC
Received date: 2017/10/25 1x2 ampules HPLC
Date Received: 2017.11.07 - 1 ampule - HPLC
Date Received: 2018.01.16 -1 ampoule- HPLC
Date Received: 2017.12.06 - 2 ampoules - HPLC

PREPARATION OF SPIKING STANDARD SOLUTION

Solution No.: SK-7377 Prep'n Date: 2018/01/30 Expiry Date: 2019/01/30 Discard Date: —

Replaces Solution No.: SK-7277 Replaced by Solution: _____ Chemist: LaV

Solution Name: Comp. PFC working Sol'n C Solvent(s): 0.3% NH4OH in MeOH

Solvent Supplier(s): Aldrich Solvent Lot No(s): See PRLRE108-327

Date Opened: See PRLRE108-327

Volumetric Flask Used: 25 mL Class A (5640) Volume: 25 mL **Spike Volume:** — uL / mL*

Syringe ID: Pipette K39876F

Storage Location and Conditions: F2-11

For extended mix of compounds, refer to table on: —

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL / mL)*	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug / ng)*
Comp. PFC working Sol'n A	I-5297	1	2.5	100 ng/ml	—
				2018/01/30	

Notes:

Solution No.: SK-7378 Prep'n Date: 2018/01/30 Expiry Date: 2018/04/07 Discard Date: 2018/04/08

Replaces Solution No.: SK-7088 Replaced by Solution: — Chemist: K

Solution Name: Glyphosate Solvent(s): LC-MS Grade Water

Solvent Supplier(s): EMD Millipore Corp. Solvent Lot No(s): 57297

Date Opened: 2018/01/29

Volumetric Flask Used: Class A (#5640) Volume: 50 mL **Spike Volume:** — uL / mL*

Syringe ID: G434346

Storage Location and Conditions: FD-59

For extended mix of compounds, refer to table on: —

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL / mL)*	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug / ng)*
N-(Phosphonomethyl) glycine	S4212	3264 µg/ml	0.383	25 µg/ml	—
			K	2018/01/30	

Notes: Second source (for spiking and ICV)

K 2018/01/30

* = Specify Units

Do not write beneath any inserts or place any inserts on top of any raw data entered on this page. Initial and date all entries, corrections and inserts. Include ALL relevant traceable references on ALL inserts.

PREPARATION OF SPIKING STANDARD SOLUTION

Solution No.: SK-7389 Prep'n Date: 2018/01/31 Expiry Date: 2019/01/31 Discard Date: _____

Replaces Solution No.: N/A Replaced by Solution: N/A Chemist: WBA

Solution Name: 1,4 DIOXANE Spk Solvent(s): Acetone

Solvent Supplier(s): Fisher Solvent Lot No(s): 174411

Date Opened: 2018/01/31

Volumetric Flask Used: class A Volume: 10 mL **Spike Volume:** 100ul uL / mL *

Syringe ID: 100ul ~~Lot~~ Lot # 579137-1

Storage Location and Conditions: 2018/1/31 F2-11, F2-35

For extended mix of compounds, refer to table on: _____

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL/mL) *	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug ng) *
1,4 DIOXANE Spk	SK-7388	100	100	10	–
		2018/1/31			

Notes: MDL study only

Solution No.: SK-7390 Prep'n Date: 2018/01/31 Expiry Date: 2019/01/31 Discard Date: _____

Replaces Solution No.: SK-7268 Replaced by Solution: _____ Chemist: GSZ

Solution Name: PFC SECOND SOURCE SPIKING SOL'N C Solvent(s): 0.3% NH4OH in MeOH

Solvent Supplier(s): See PRLRE 108-331 Solvent Lot No(s): See PRLRE 108-331

Date Opened: 2018/01/31

Volumetric Flask Used: 10ml Class A (5640) Volume: 10 mL **Spike Volume:** – uL / mL *

Syringe ID: Pipette J434346

Storage Location and Conditions: F2 11

For extended mix of compounds, refer to table on: –

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL/mL) *	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug ng) *
PFC SECOND SOURCE SPIKING SOL'N A	I-5299	1	1	100 ug/mL	–
	GSZ 2018/01/31				

Notes:

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TUNE CHECK

Instrument: Agilent 6470 LC/MS/MS

Instrument Serial Number: SG1611G001

Maxxam Instrument Identification: LCMS04

Mass Calibration Performed: July 7, 2017

Tune Check Performed: July 10 & 11, 2017

Mass Assignment Reference Table_____Page 2

Analyte Precursor Ion Verification_____Page 4

Analyte Product Ion Verification_____Page 31

Extracted and Injection Internal Standard Precursor Ion Verification_____Page 59

Extracted and Injection Internal Standard Product Ion Verification_____Page 83

Reviewed by:

Adam Robinson, Supervisor – Liquid Chromatography

July 12 /2017
Date

Maxxam Analytics

Mass Assignments – Analytes, Extracted Internal Standards and Injection Internal Standards

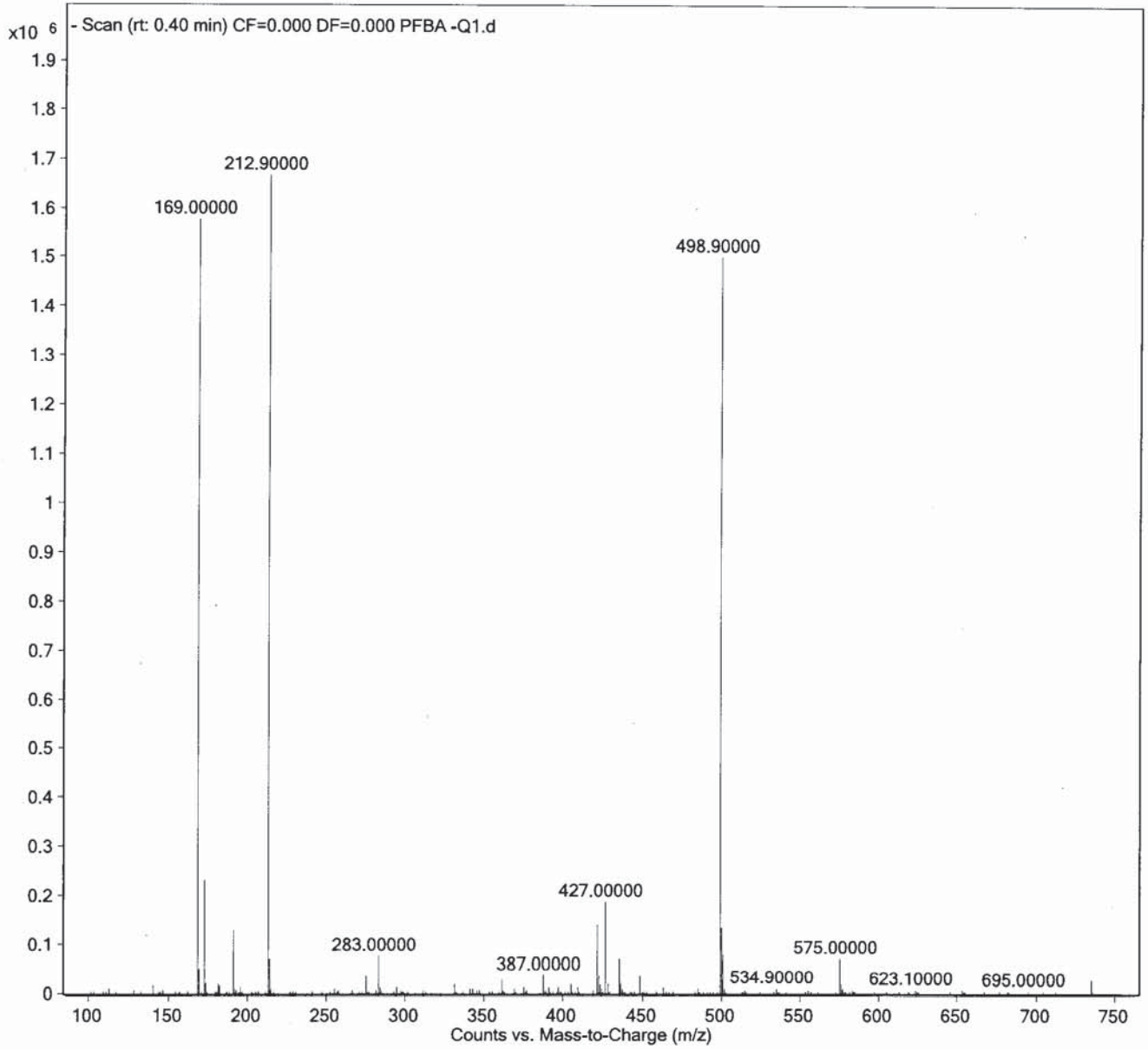
Compound	Abbreviation	Precursor Ion (m/z)	Precursor Ion Formula	Quant Ion (m/z)	Quantitation Ion Formula	Confirmation Ion (m/z)	Confirmation Ion Formula
Native Analytes							
Perfluorobutanoic acid	PFBA	212.9	$[CF_3(CF_2)_2CO_2]^-$	169.0	$[CF_3(CF_2)_2]^-$	[1] N/A	N/A
Perfluorobutanesulfonate	PFBS	298.9	$[CF_3(CF_2)_3SO_3]^-$	79.9	$[SO_3]^-$	98.9	$[FSO_3]^-$
Perfluoropentanoic acid	PFPeA	262.9	$[CF_3(CF_2)_3CO_2]^-$	218.9	$[CF_3(CF_2)_3]^-$	[1] N/A	N/A
Perfluorohexanoic acid	PFHxA	313.0	$[CF_3(CF_2)_4CO_2]^-$	269.0	$[CF_3(CF_2)_4]^-$	119.0	$[CF_3(CF_2)]^-$
Perfluorohexanesulfonate	PFHxS	398.9	$[CF_3(CF_2)_5SO_3]^-$	79.9	$[SO_3]^-$	98.9	$[FSO_3]^-$
Perfluoroheptanoic acid	PFHpA	363.0	$[CF_3(CF_2)_5CO_2]^-$	319.0	$[CF_3(CF_2)_5]^-$	169.2	$[CF_3(CF_2)_2]^-$
Perfluoroheptanesulfonate	PFHpS	448.9	$[CF_3(CF_2)_6SO_3]^-$	79.9	$[SO_3]^-$	99.0	$[FSO_3]^-$
Perfluorooctanoic acid	PFOA	413.1	$[CF_3(CF_2)_6CO_2]^-$	369.0	$[CF_3(CF_2)_6]^-$	169.0	$[CF_3(CF_2)_2]^-$
Perfluorooctanesulfonate	PFOS	498.8	$[CF_3(CF_2)_7SO_3]^-$	79.9	$[SO_3]^-$	98.9	$[FSO_3]^-$
Perfluorononanoic acid	PFNA	462.9	$[CF_3(CF_2)_7CO_2]^-$	419.0	$[CF_3(CF_2)_7]^-$	219.1	$[CF_3(CF_2)_3]^-$
Perfluorodecanoic acid	PFDA	513.0	$[CF_3(CF_2)_8CO_2]^-$	469.1	$[CF_3(CF_2)_8]^-$	218.9	$[CF_3(CF_2)_3]^-$
Perfluorodecanesulfonate	PFDS	598.9	$[CF_3(CF_2)_9SO_3]$-	79.9	$[SO_3]^-$	98.8	$[FSO_3]^-$
Perfluoroundecanoic acid	PFUnA	562.9	$[CF_3(CF_2)_9CO_2]^-$	519.0	$[CF_3(CF_2)_9]^-$	269.2	$[CF_3(CF_2)_4]^-$
Perfluorododecanoic acid	PFDoA	612.9	$[CF_3(CF_2)_{10}CO_2]^-$	569.0	$[CF_3(CF_2)_{10}]^-$	319.0	$[CF_3(CF_2)_5]^-$
Perfluorotridecanoic acid	PFTrDA	663.0	$[CF_3(CF_2)_{11}CO_2]^-$	619.0	$[CF_3(CF_2)_{11}]^-$	318.9	$[CF_3(CF_2)_5]^-$
Perfluorotetradecanoic acid	PFTeDA	713.0	$[CF_3(CF_2)_{12}CO_2]^-$	669.0	$[CF_3(CF_2)_{12}]^-$	319.2	$[CF_3(CF_2)_5]^-$
Perfluorooctane sulfonamide	PFOSA	497.9	$[CF_3(CF_2)_7SO_2NH]^-$	78.0	$[SO_2N]^-$	478.0	$[(CF_2)_8SO_2N]^-$
N-methylperfluorooctane sulfonamide	MeFOSA	511.9	$[CF_3(CF_2)_7SO_2N(CH_3)]^-$	169.0	$[CF_3(CF_2)_2]^-$	219.0	$[CF_3(CF_2)_3]^-$
N-ethylperfluorooctane sulfonamide	EtFOSA	526.0	$[CF_3(CF_2)_7SO_2N(C_2H_5)]^-$	169.0	$[CF_3(CF_2)_2]^-$	219.0	$[CF_3(CF_2)_3]^-$
N-methylperfluorooctane sulfonamidoethanol	MeFOSE	616.0	$[CF_3(CF_2)_7SO_2N(CH_3)C_2H_4OH{\cdot}CH_3CO_2]^-$	59.0	$[CH_3CO_2]^-$	[1] N/A	N/A
N-ethylperfluorooctane sulfonamidoethanol	EtFOSE	630.0	$[CF_3(CF_2)_7SO_2N(C_2H_5)C_2H_4OH{\cdot}CH_3CO_2]^-$	59.0	$[CH_3CO_2]^-$	[1] N/A	N/A
N-methylperfluorooctanesufonamidoacetic acid	MeFOSAA	570.1	$[CF_3(CF_2)_7SO_2N(CH_3)CH_2CO_2]^-$	419.1	$[CF_3(CF_2)_7]^-$	483.0	$[CF_3(CF_2)_7SO_2]^-$
N-ethylperfluorooctanesufonamidoacetic acid	EtFOSAA	584.1	$[CF_3(CF_2)_7SO_2N(CH_2CH_3)CH_2CO_2]^-$	419.1	$[CF_3(CF_2)_7]^-$	483.0	$[CF_3(CF_2)_7SO_2]^-$
6:2 Fluorotelomersulfonate	6:2FTS	427.0	$[CF_3(CF_2)_5CH_2CH_2SO_3]^-$	407.0	$[CF_3(CF_2)_4CFCHCH_2SO_3]^-$	80.9	$[SO_2OH]^-$
8:2 Fluorotelomersulfonate	8:2FTS	526.9	$[CF_3(CF_2)_7CH_2CH_2SO_3]^-$	507.0	$[CF_3(CF_2)_6CFCHCH_2SO_3]^-$	80.9	$[SO_2OH]^-$
Mass-labeled Extracted Internal Standards							
$^{13}C_4$-Perfluorobutanoic acid	MPFBA	216.9	$[^{13}CF_3(^{13}CF_2)_2{}^{13}CO_2]^-$	172.0	$[^{13}CF_3(^{13}CF_2)_2]^-$	N/A	N/A

Compound	Abbreviation	Precursor Ion (m/z)	Precursor Ion Formula	Quant Ion (m/z)	Quantitation Ion Formula	Confirmation Ion (m/z)	Confirmation Ion Formula
$^{13}C_5$-Perfluoropentanoic acid	MPFPeA	267.9	$[^{13}CF_3(^{13}CF_2)_3{}^{13}CO_2]^-$	223.0	$[^{13}CF_3(^{13}CF_2)_3]^-$	N/A	N/A
$^{13}C_2$-Perfluorohexanoic acid	MPFHxA	314.9	$[CF_3(CF_2)_3(^{13}CF_2){}^{13}CO_2]^-$	270.0	$[CF_3(CF_2)_3{}^{13}CF_2]^-$	N/A	N/A
$^{18}O_2$-Perfluorohexanesulfonate	MPFHxS	402.9	$[CF_3(CF_2)_5S(^{18}O)_2O]^-$	84.0	$[S(^{18}O)_2O]^-$	N/A	N/A
$^{13}C_4$-Perfluoroheptanoic acid	MPFHpA	366.9	$[CF_3CF_2(^{13}CF_2)_3{}^{13}CO_2]^-$	322.0	$[CF_3CF_2(^{13}CF_2)_4]^-$	N/A	N/A
$^{13}C_4$-Perfluorooctanoic acid	MPFOA	416.9	$[CF_3(CF_2)_3(^{13}CF_2)_3{}^{13}CO_2]^-$	372.0	$[CF_3(CF_2)_3(^{13}CF_2)_3]^-$	N/A	N/A
$^{13}C_4$-Perfluorooctanesulfonate	MPFOS	502.9	$[CF_3(CF_2)_3(^{13}CF_2)_4SO_3]^-$	79.9	$[SO_3]^-$	N/A	N/A
$^{13}C_5$-Perfluorononanoic acid	MPFNA	467.9	$[CF_3(CF_2)_3(^{13}CF_2)_4{}^{13}CO_2]^-$	423.0	$[CF_3(CF_2)_3(^{13}CF_2)_4]^-$	N/A	N/A
$^{13}C_2$-Perfluorodecanoic acid	MPFDA	514.9	$[CF_3(CF_2)_7(^{13}CF_2){}^{13}CO_2]^-$	470.0	$[CF_3(CF_2)_7{}^{13}CF_2]^-$	N/A	N/A
$^{13}C_2$-Perfluoroundecanoic acid	MPFUnA	564.9	$[CF_3(CF_2)_8(^{13}CF_2){}^{13}CO_2]^-$	520.0	$[CF_3(CF_2)_8{}^{13}CF_2]^-$	N/A	N/A
$^{13}C_2$-Perfluorododecanoic acid	MPFDoA	614.9	$[CF_3(CF_2)_9(^{13}CF_2){}^{13}CO_2]^-$	570.0	$[CF_3(CF_2)_9{}^{13}CF_2]^-$	N/A	N/A
$^{13}C_2$-Perfluorotetradecanoic acid	MPFTeDA	714.9	$[CF_3(CF_2)_{12}(^{13}CF_2){}^{13}CO_2]^-$	669.9	$[CF_3(CF_2)_{12}]^-$	N/A	N/A
$^{13}C_8$-Perfluorooctane sulfonamide	MPFOSA	505.8	$[^{13}CF_3(^{13}CF_2)_7SO_2NH]^-$	77.9	$[SO_2N]^-$	N/A	N/A
N-methyl-d_3-perfluorooctanesulfonamide	D_3-MeFOSA	514.9	$[CF_3(CF_2)_7SO_2N(CD_3)]^-$	168.9	$[CF_3(CF_2)_2]^-$	N/A	N/A
N-ethyl-d_5-perfluorooctanesulfonamide	D_5-EtFOSA	531.0	$[CF_3(CF_2)_7SO_2N(C_2D_5)]^-$	168.9	$[CF_3(CF_2)_2]^-$	N/A	N/A
N-methyl-d_3-perfluorooctanesulfonamidoethanol-d_4	D_7-MeFOSE	623.1	$[CF_3(CF_2)_7SO_2N(CD_3)CD_2CD_2OH \cdot CH_3CO_2]^-$	59.0	$[CH_3CO_2]^-$	N/A	N/A
N-ethyl-d_5-perfluorooctanesulfonamidoethanol-d_4	D_9-EtFOSE	639.1	$[CF_3(CF_2)_7SO_2N(CD_2CD_3)CD_2CD_2OH \cdot CH_3CO_2]^-$	59.0	$[CH_3CO_2]^-$	N/A	N/A
N-methyl-d_3-perfluorooctanesulfonamidoacetic acid	D_3-MeFOSAA	573.1	$[CF_3(CF_2)_7SO_2N(CD_3)CH_2CO_2]^-$	419.1	$[CF_3(CF_2)_7]^-$	N/A	N/A
N-ethyl-d_5-perfluorooctanesulfonamidoacetic acid	D_5-EtFOSAA	589.2	$[CF_3(CF_2)_7SO_2N(CD_2CD_3)CH_2CO_2]^-$	419.0	$[CF_3(CF_2)_7]^-$	N/A	N/A
$^{13}C_2$-Fluorotelomersulfonate (6:2)	M2-6:2FTS	429.0	$[CF_3(CF_2)_5(^{13}CH_2)_2SO_3]^-$	80.9	$[SO_2OH]^-$	N/A	N/A
$^{13}C_2$-Fluorotelomersulfonate (8:2)	M2-8:2FTS	528.9	$[CF_3(CF_2)_7(^{13}CH_2)_2SO_3]^-$	80.9	$[SO_2OH]^-$	N/A	N/A
Injection Internal Standards							
$^{13}C_6$-Perfluorohexanoic acid	$^{13}C_6$-PFHxA	318.9	$[^{13}CF_3(^{13}CF_2)_4{}^{13}CO_2]^-$	274.0	$[^{13}CF_3(^{13}CF_2)_4]^-$	N/A	N/A
$^{13}C_9$-Perfluorodecanoic acid	$^{13}C_9$-PFDA	521.9	$[CF_3(^{13}CF_2)_8{}^{13}CO_2]^-$	477.1	$[CF_3(^{13}CF_2)_8]^-$	N/A	N/A

Maxxam
A Bureau Veritas Group Company

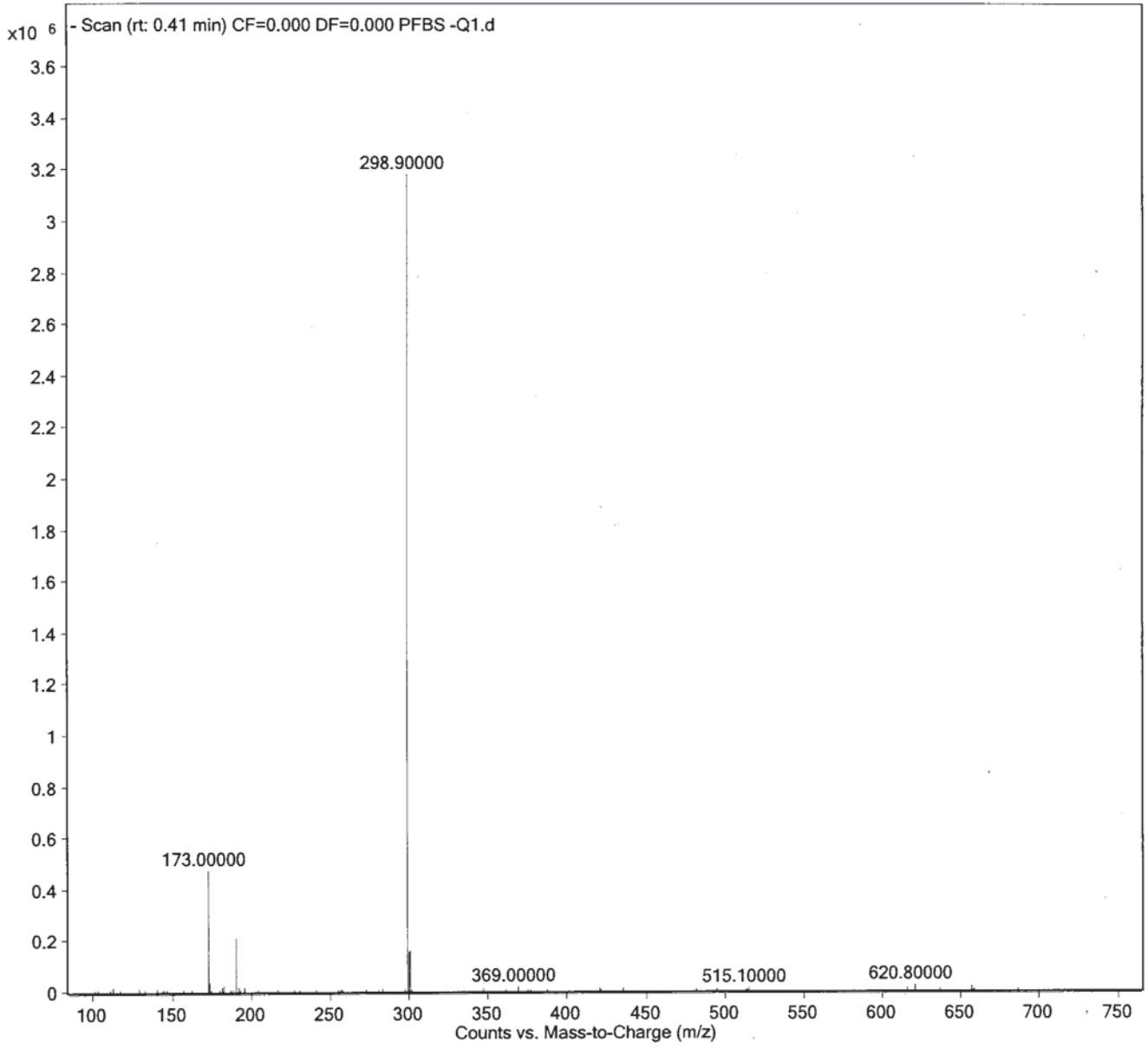
Analyte Precursor Ion Verification

Sample Name	PFBA -Q1	**Position**	P1-A1	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFBA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 4:37:04 PM



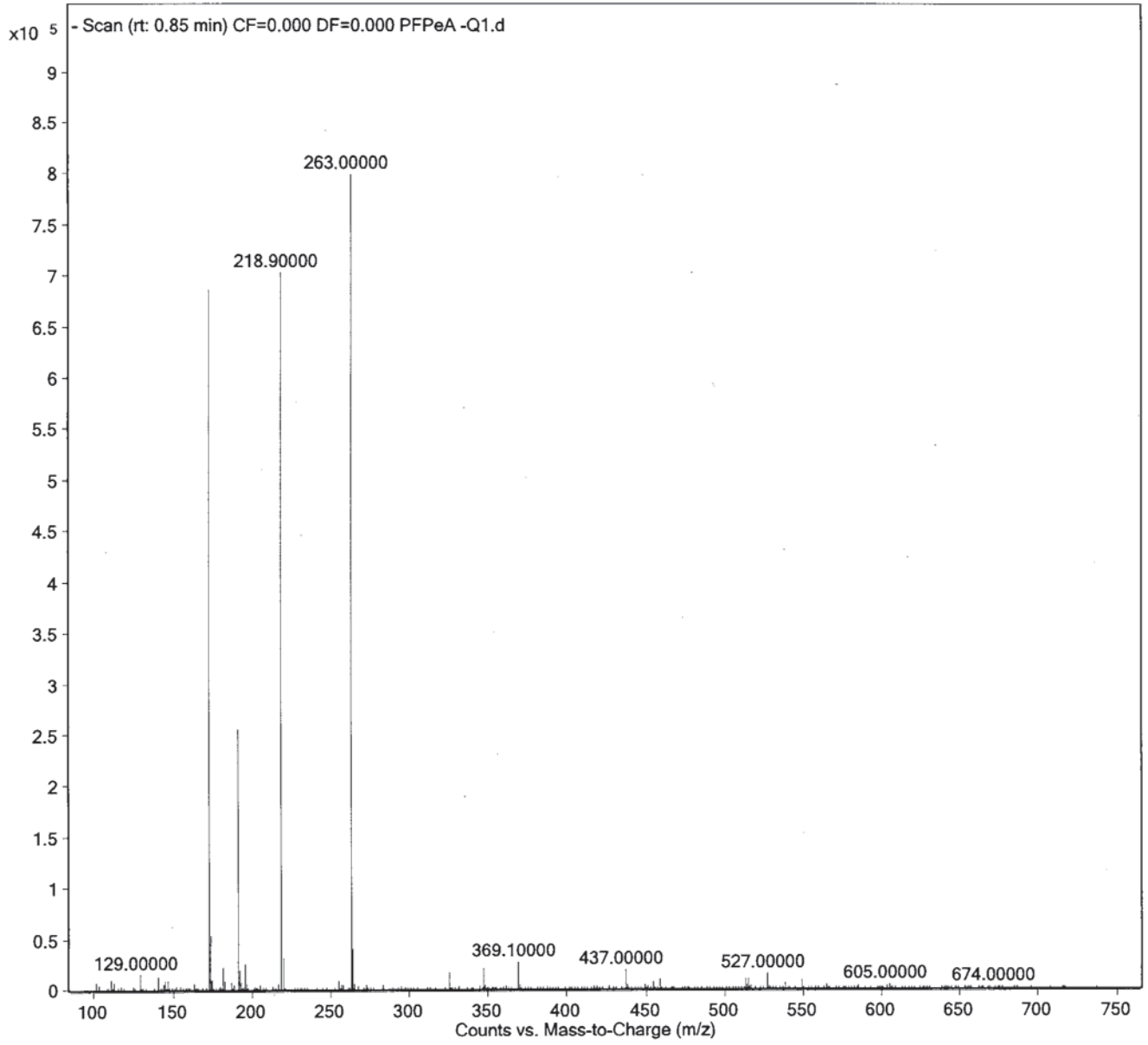
MaxXam Analytics

Sample Name	PFBS -Q1	**Position**	P1-A2	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFBS -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 4:42:36 PM



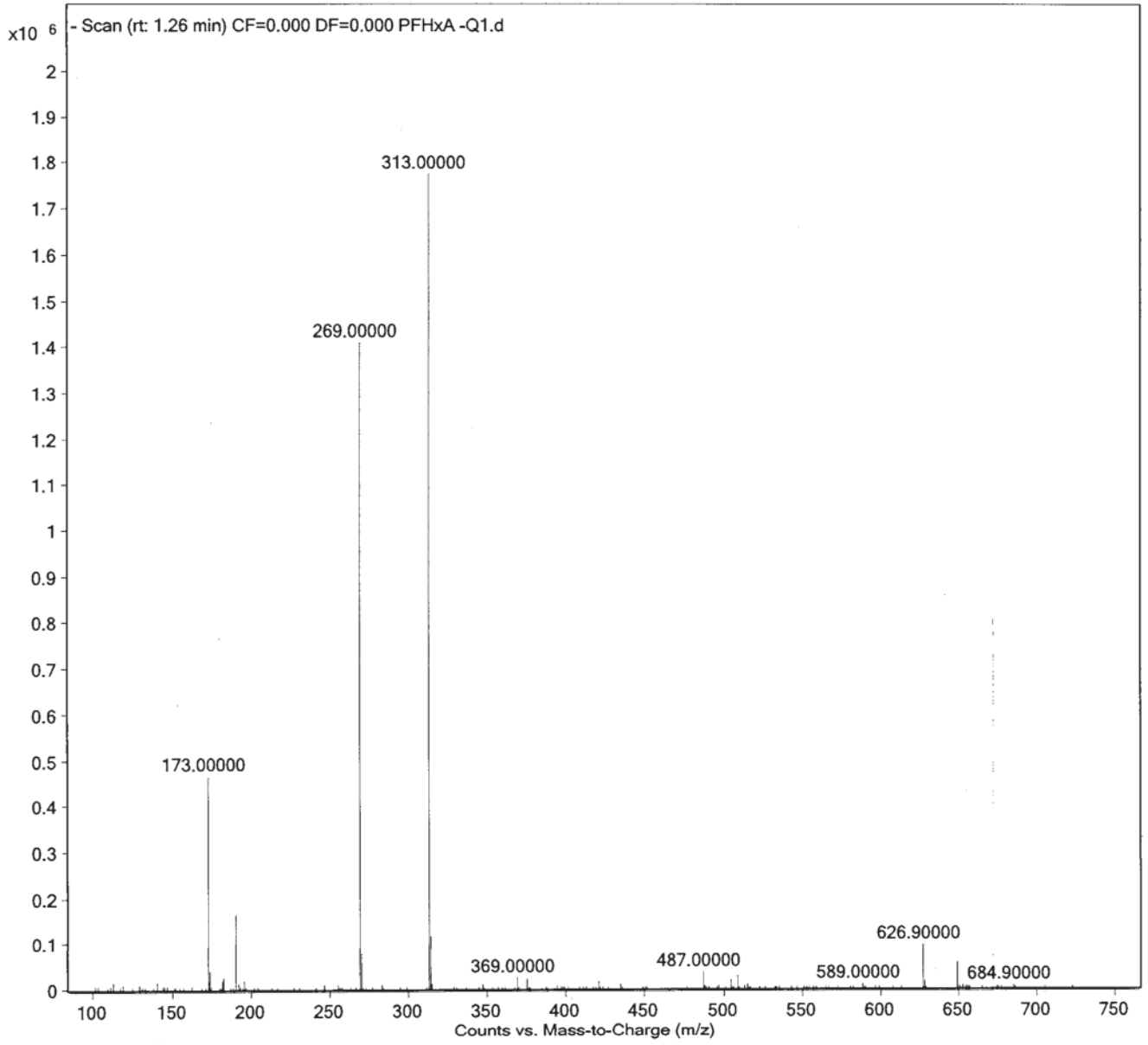
SGS AXYS Analytics

Sample Name	PFPeA -Q1	**Position**	P1-A3	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFPeA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 4:48:06 PM



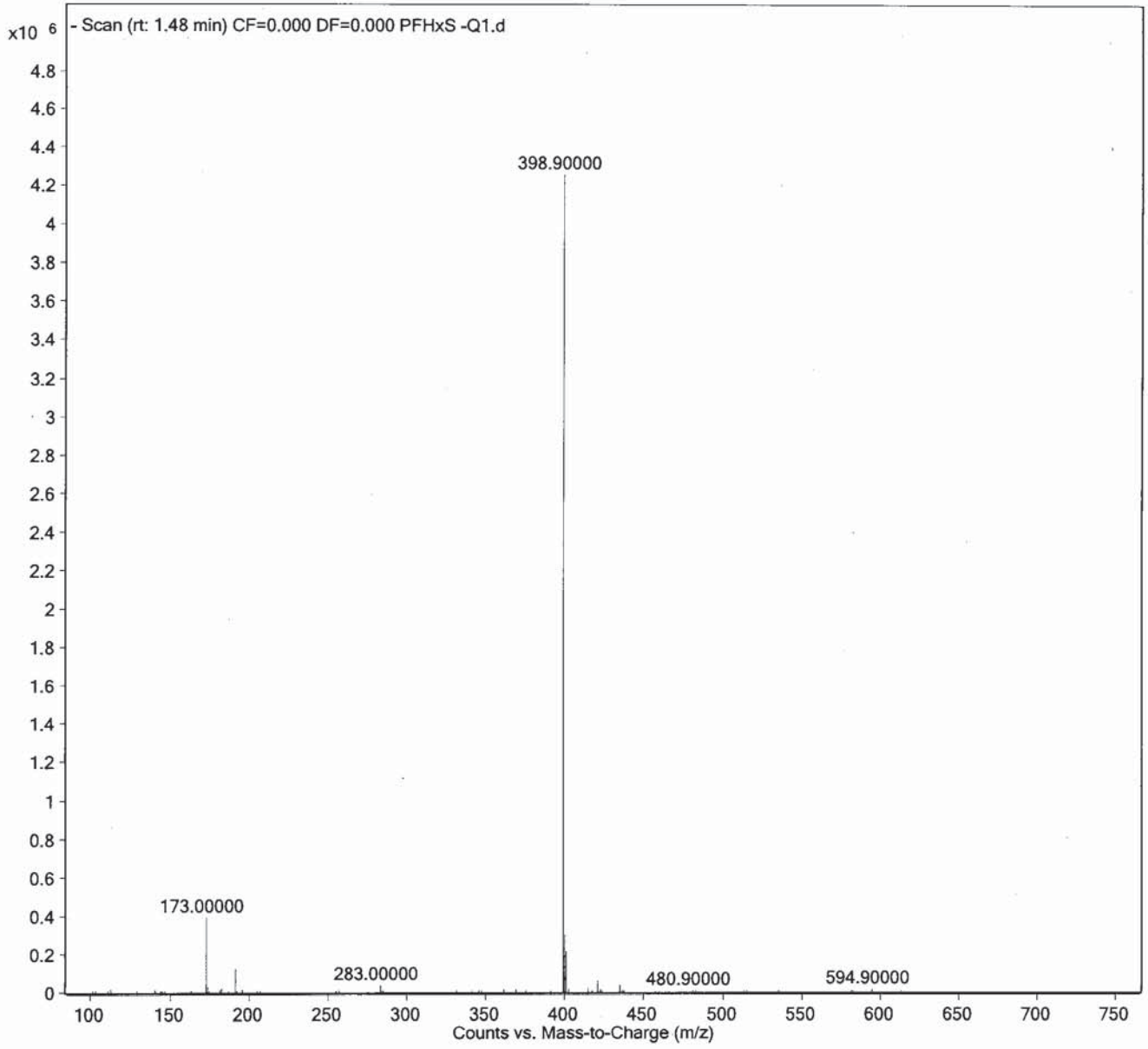
MaxXam Analytics

Sample Name	PFHxA -Q1	**Position**	P1-A4	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFHxA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 4:53:36 PM



MaxXam Analytics

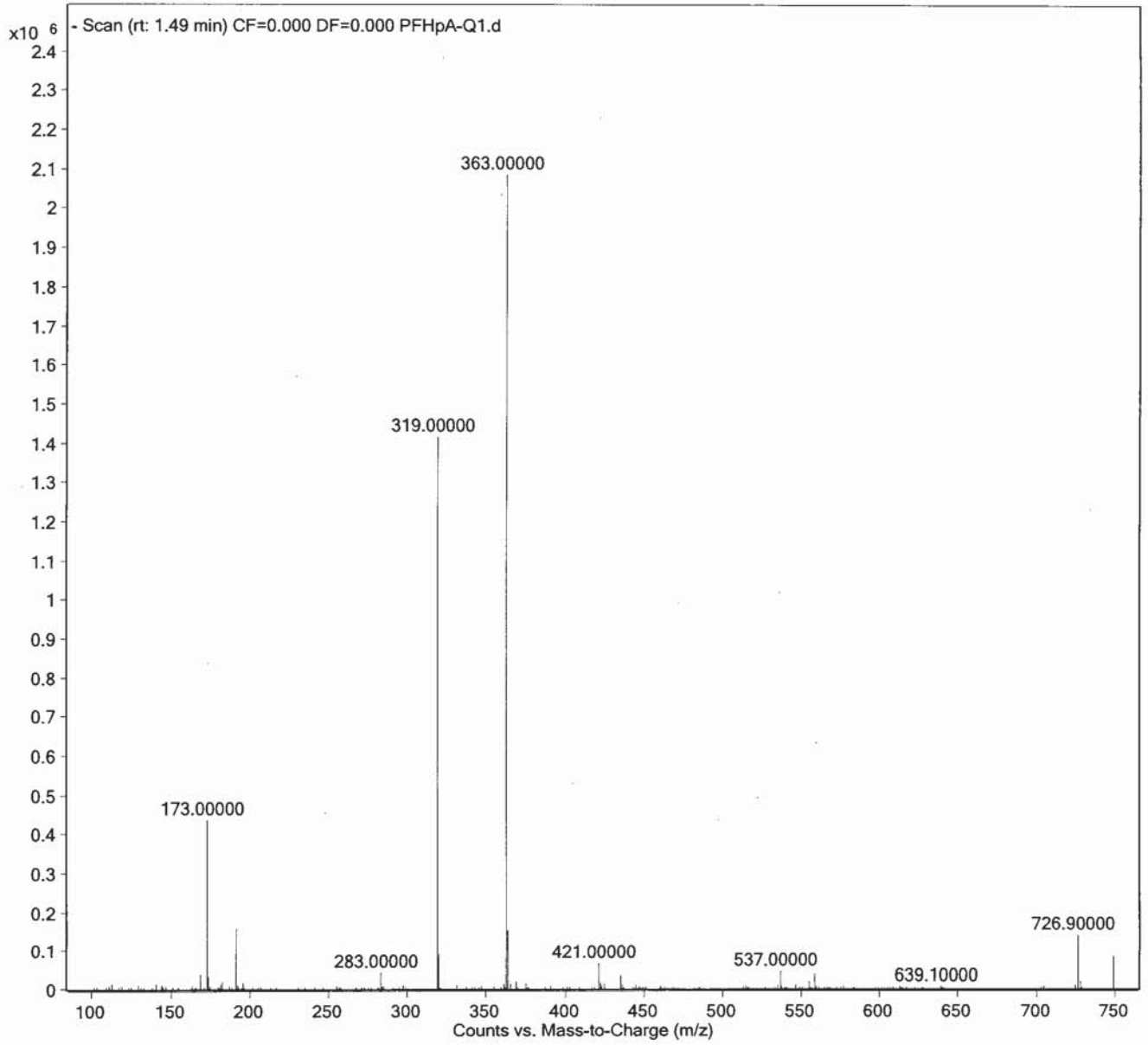
Sample Name	PFHxS -Q1	**Position**	P1-A5	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFHxS -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 4:59:06 PM



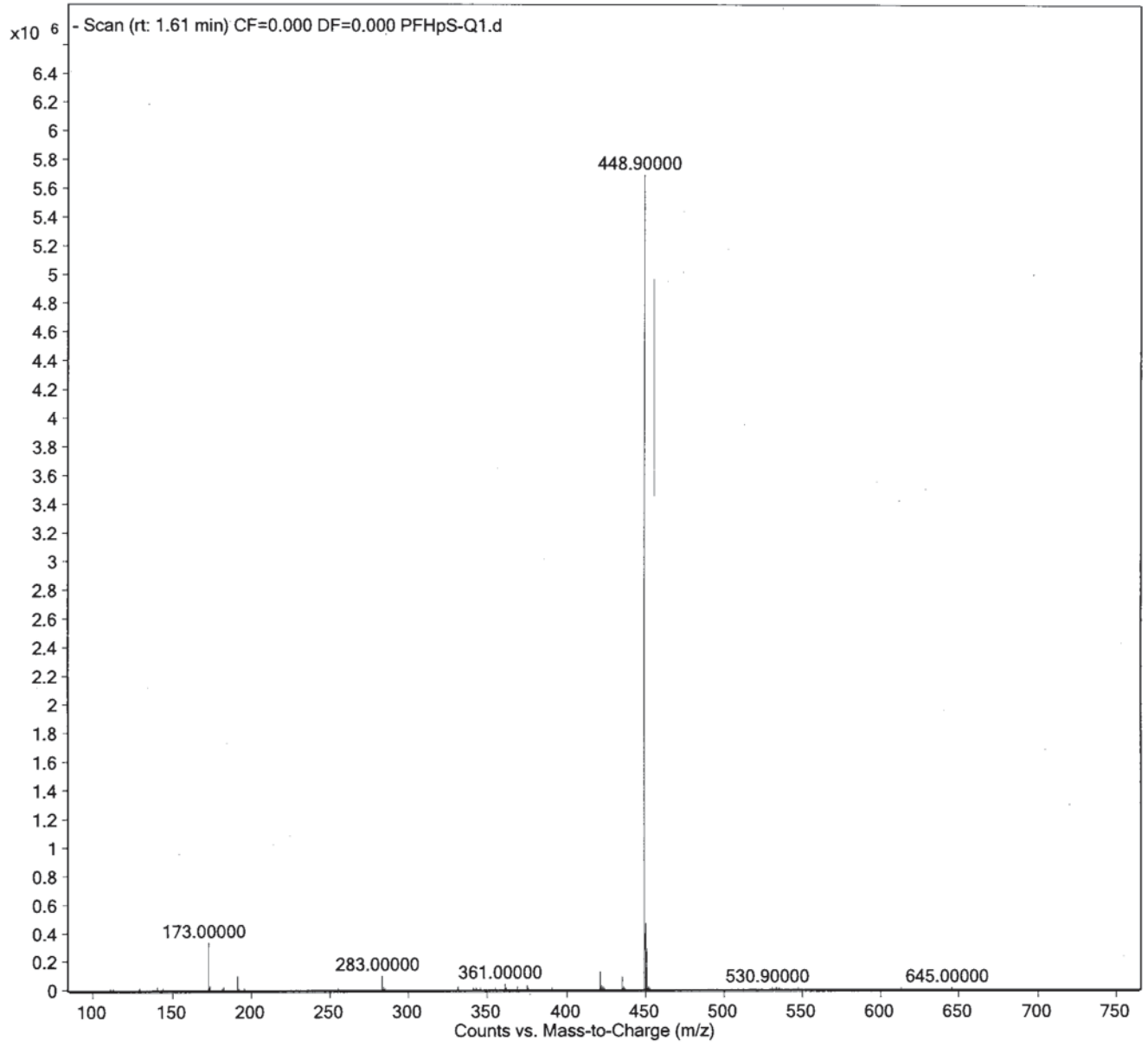
Maxxam Analytics

Sample Name	PFHpA-Q1	**Position**	P1-A6	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFHpA-Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 5:04:36 PM

MaxXam Analytics

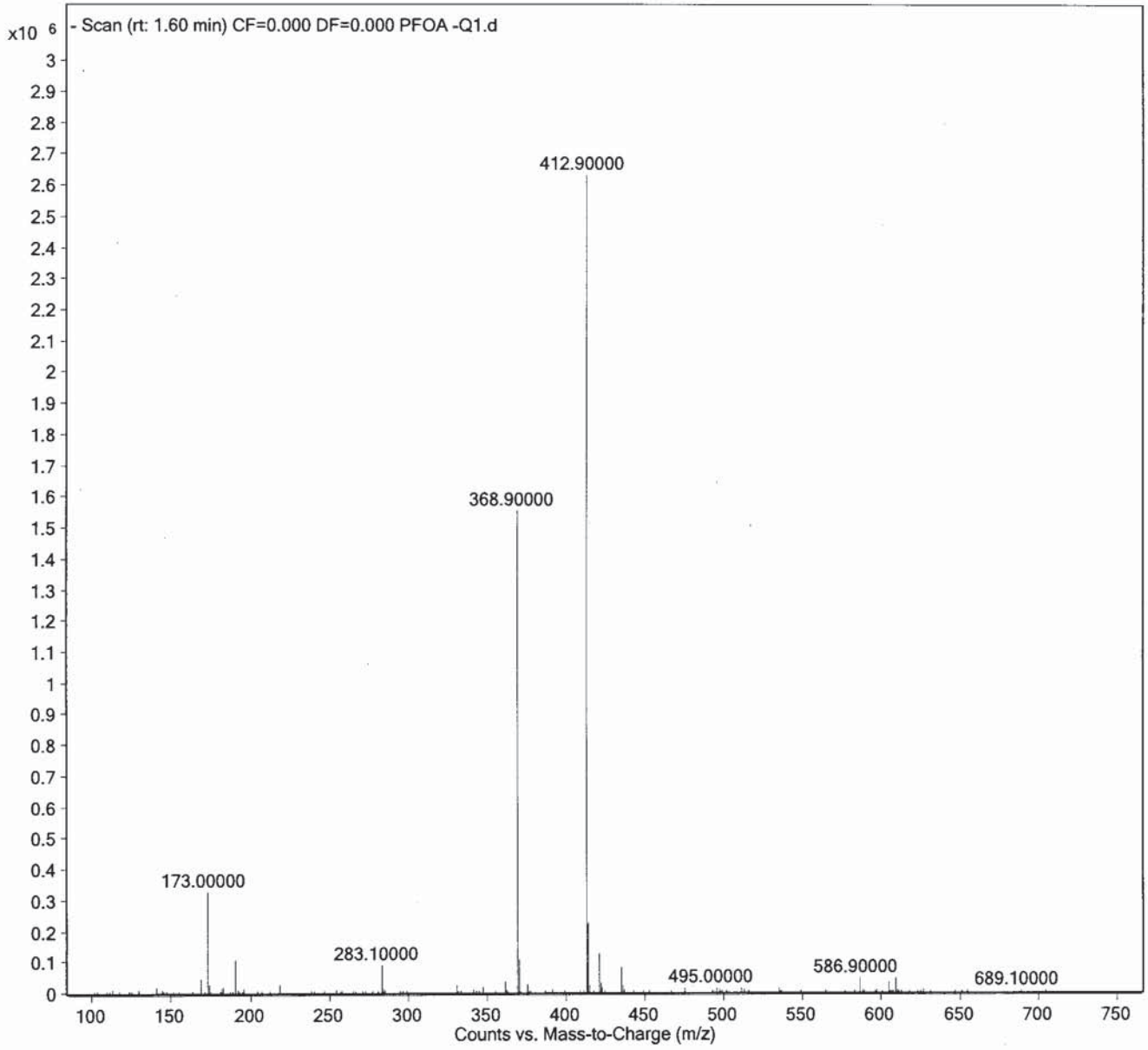


Sample Name	PFHpS-Q1	**Position**	P1-A7	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFHpS-Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 5:10:06 PM



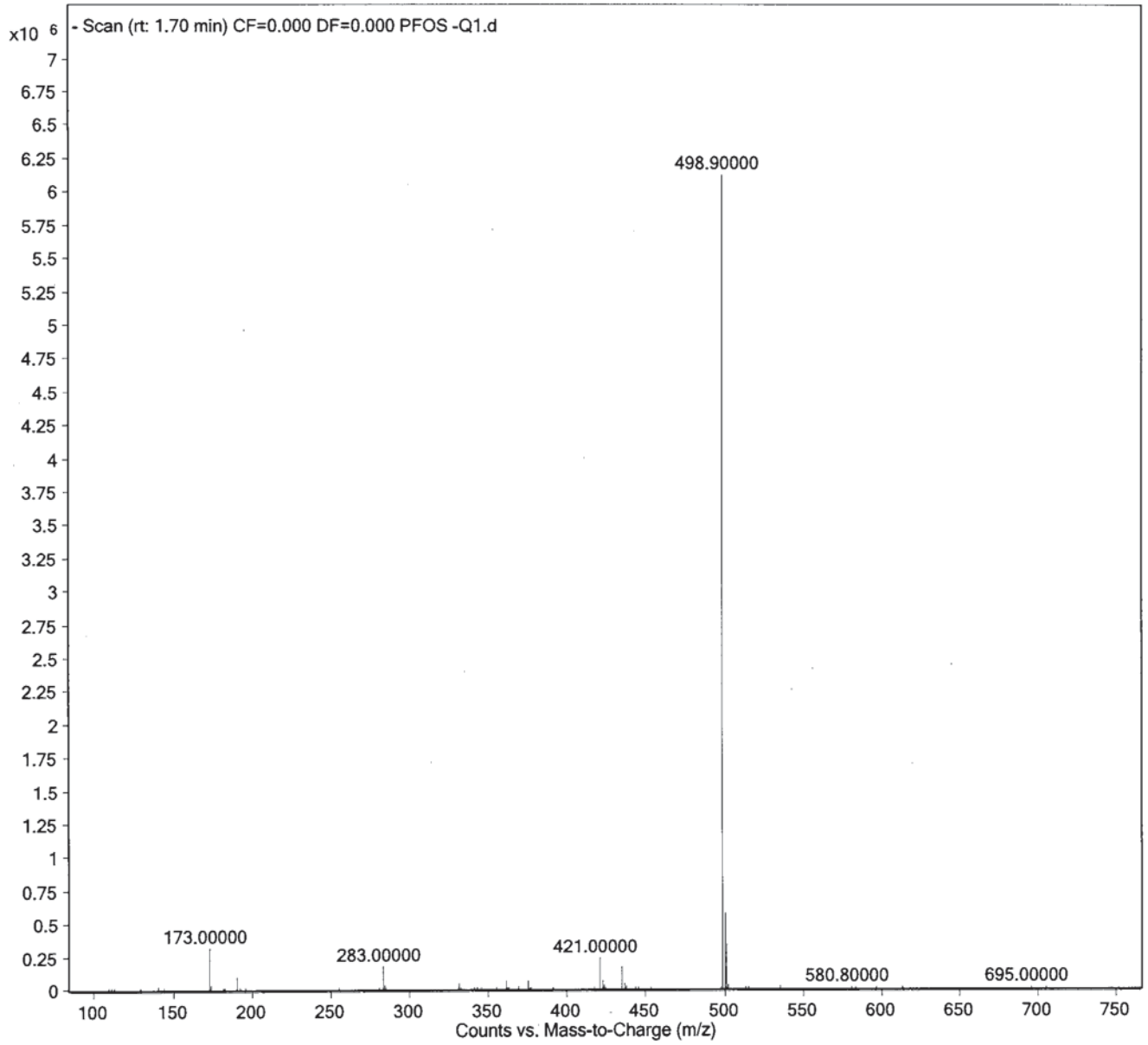
MaxXam Analytics

Sample Name	PFOA -Q1	**Position**	P1-A8	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFOA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 5:15:38 PM



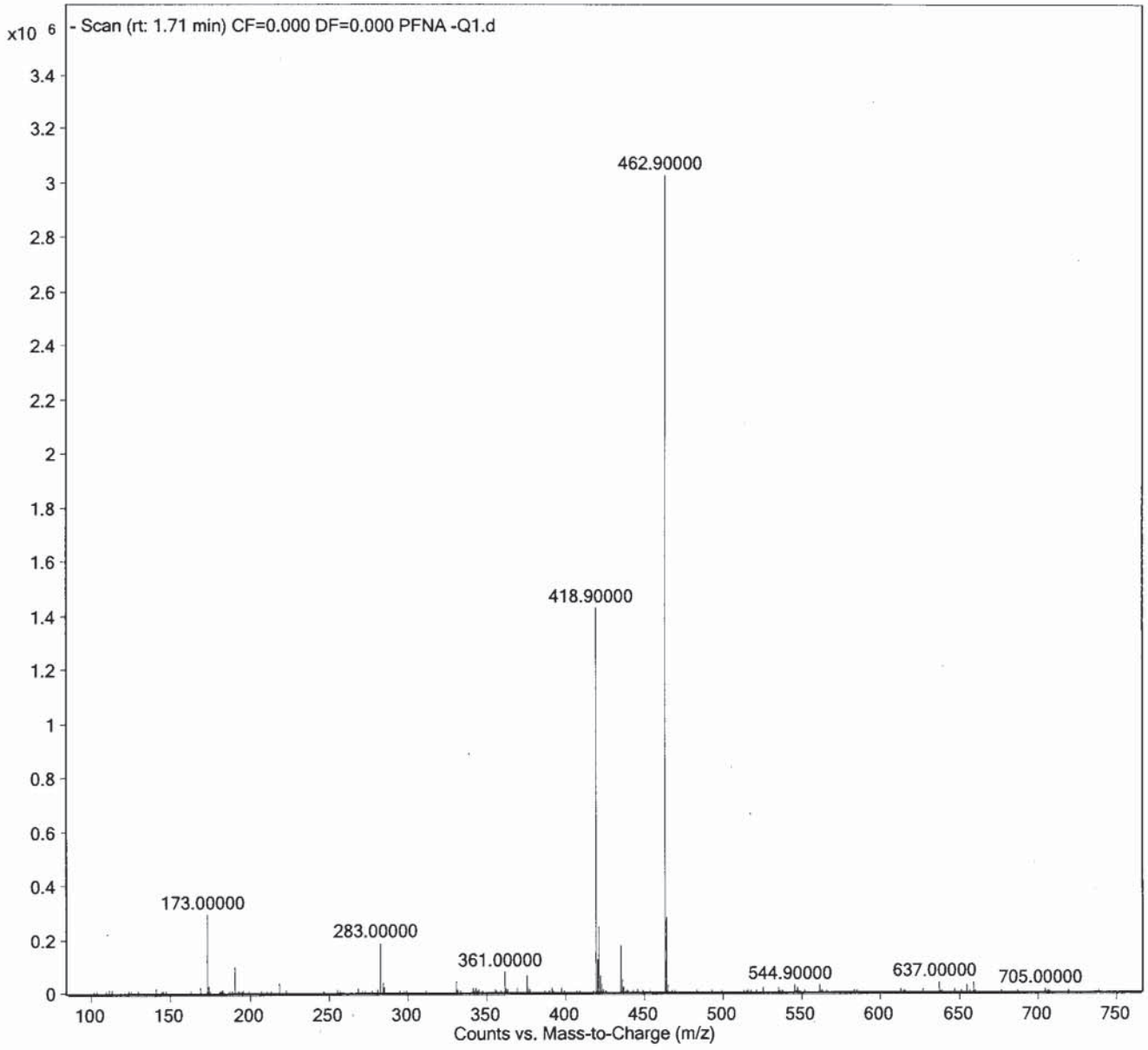
Maxxam Analytics

Sample Name	PFOS -Q1	**Position**	P1-A9	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFOS -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 5:21:10 PM



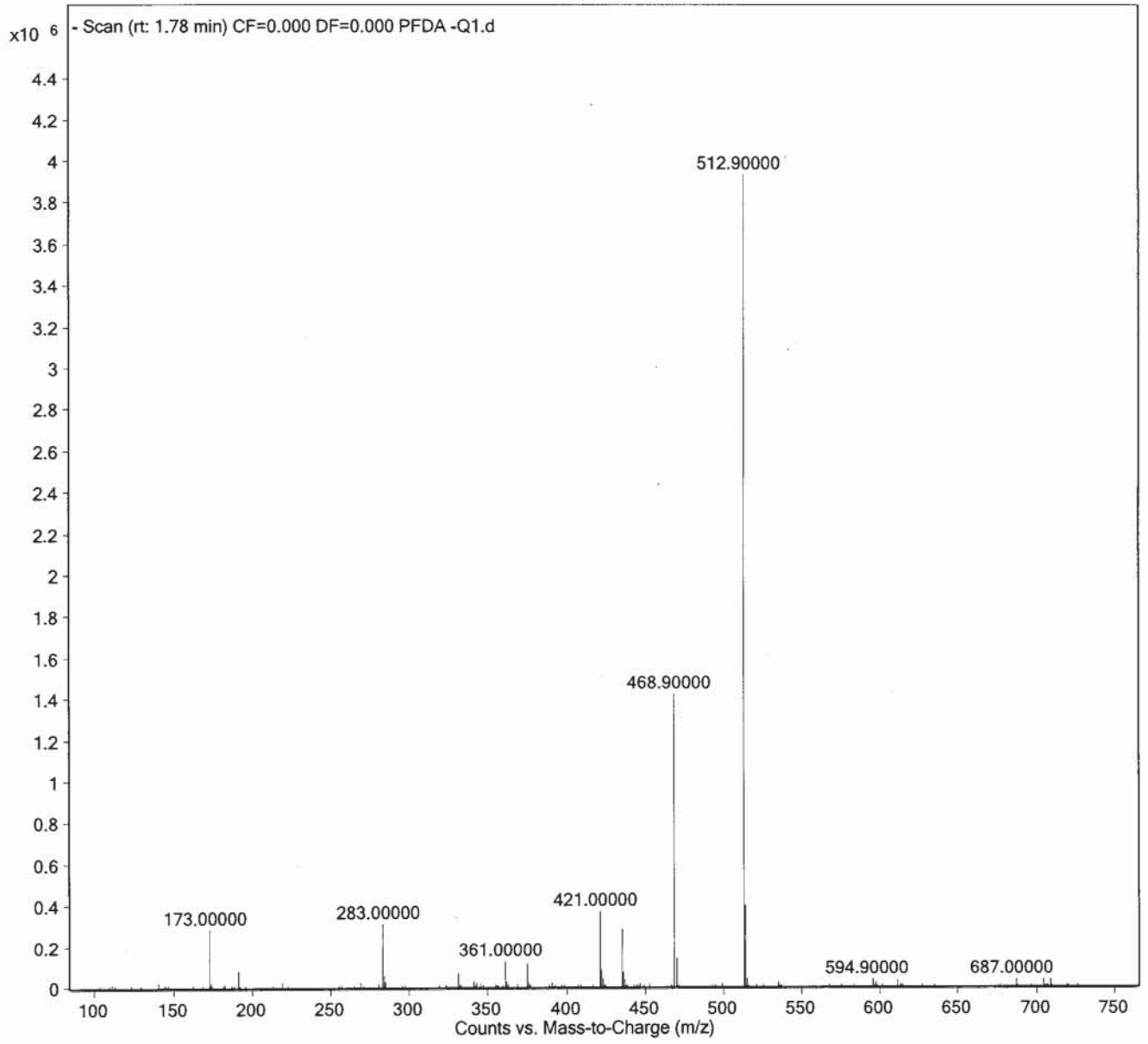
MaxXam Analytics

Sample Name	PFNA -Q1	**Position**	P1-B1	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFNA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 5:26:42 PM



Jaakam Analytics

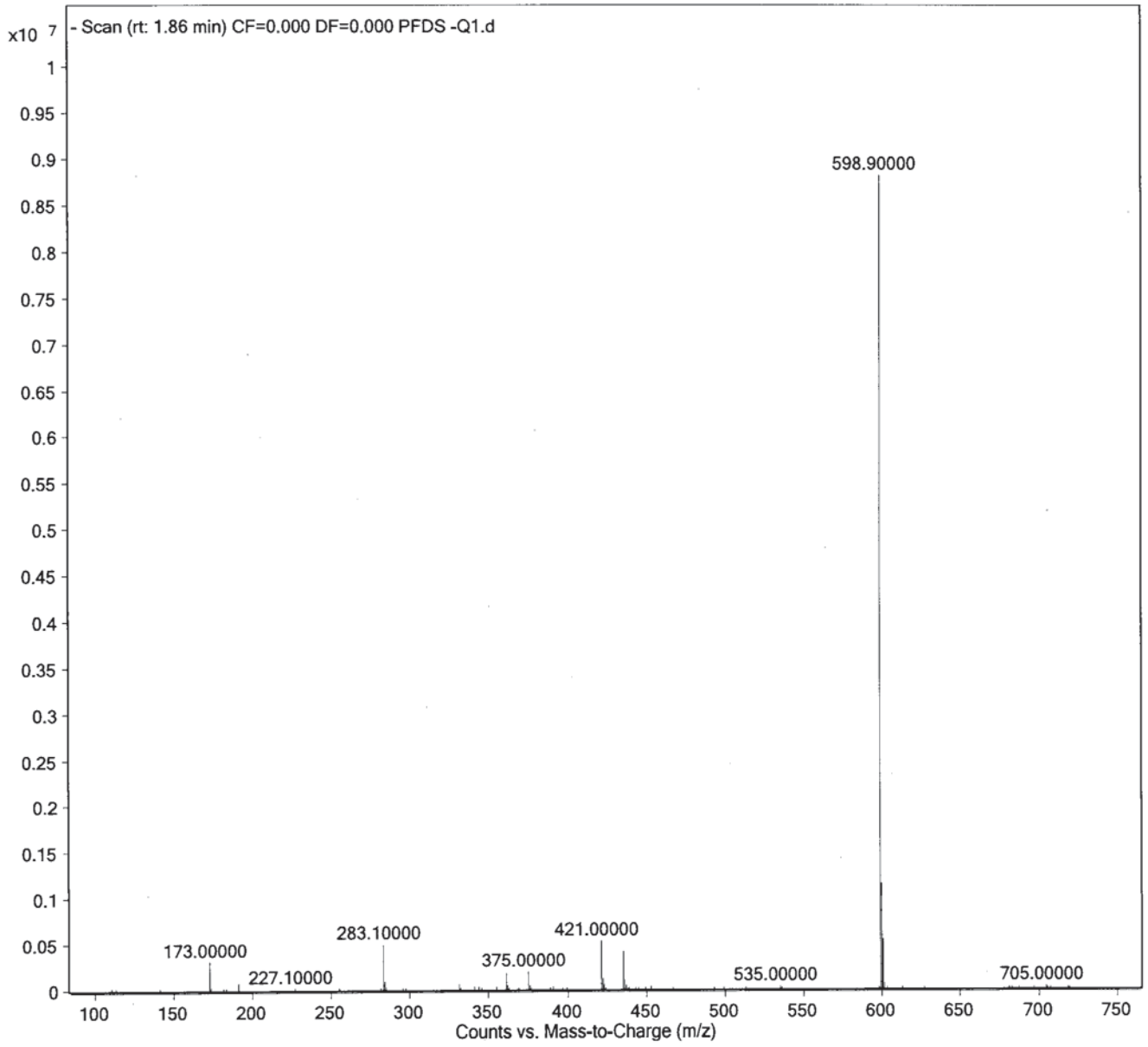
Sample Name	PFDA -Q1	**Position**	P1-B2	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFDA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 5:32:12 PM



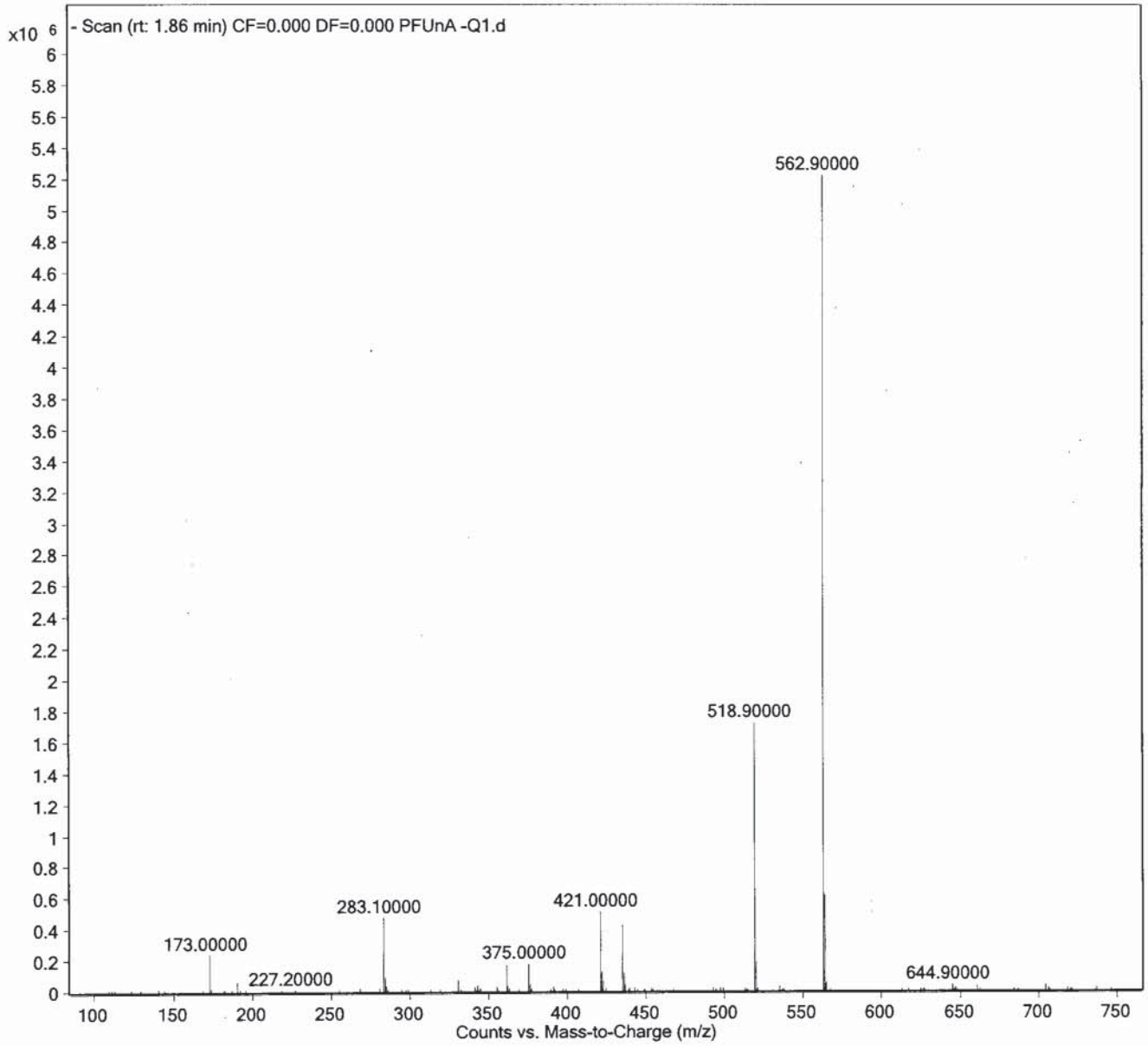
MaxXam Analytics

Sample Name	PFDS -Q1	**Position**	P1-B3	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFDS -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 5:37:42 PM

Maxxam Analytics

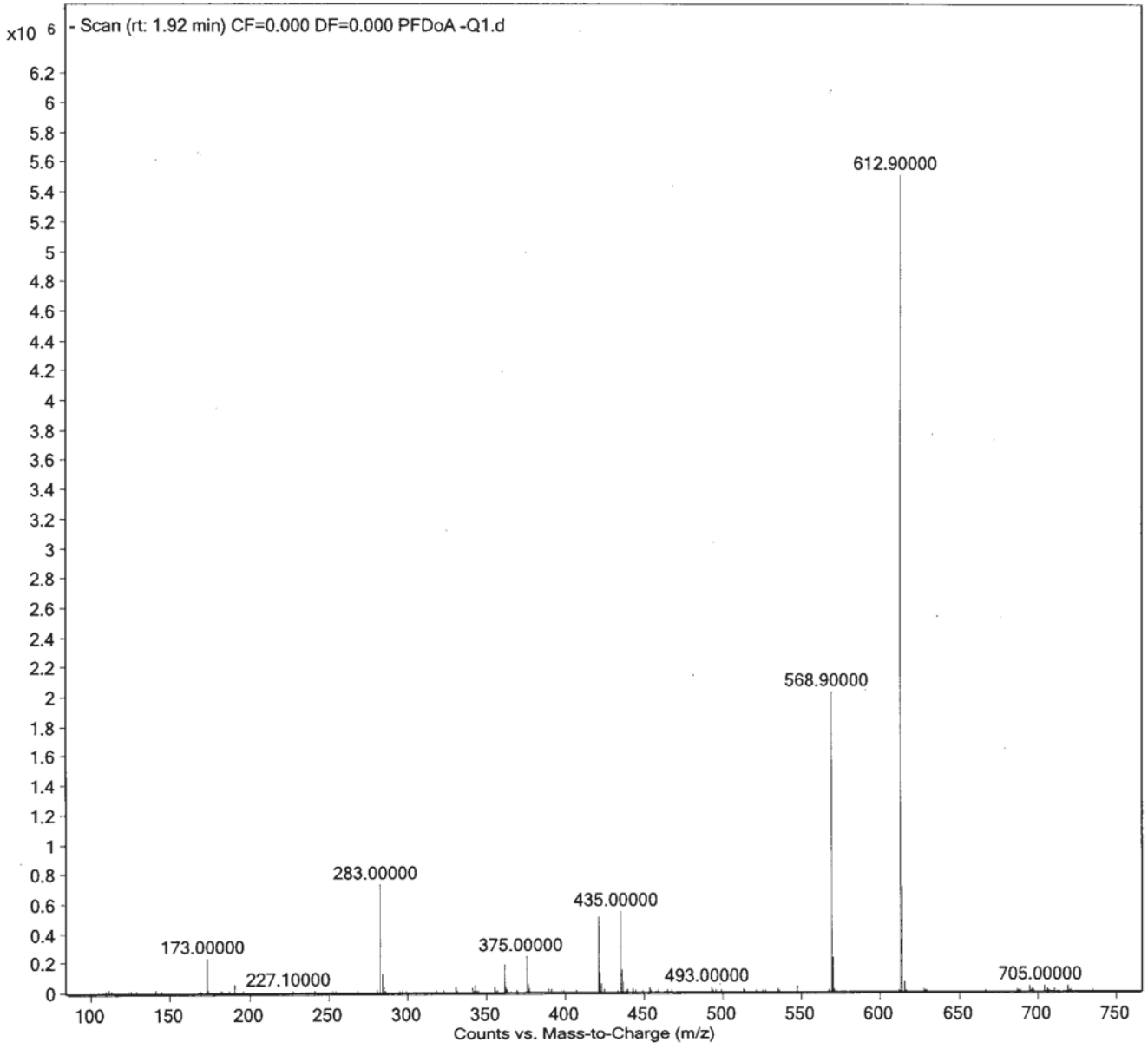


Sample Name	PFUnA -Q1	**Position**	P1-B4	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFUnA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 5:43:12 PM



Maxxam Analytics

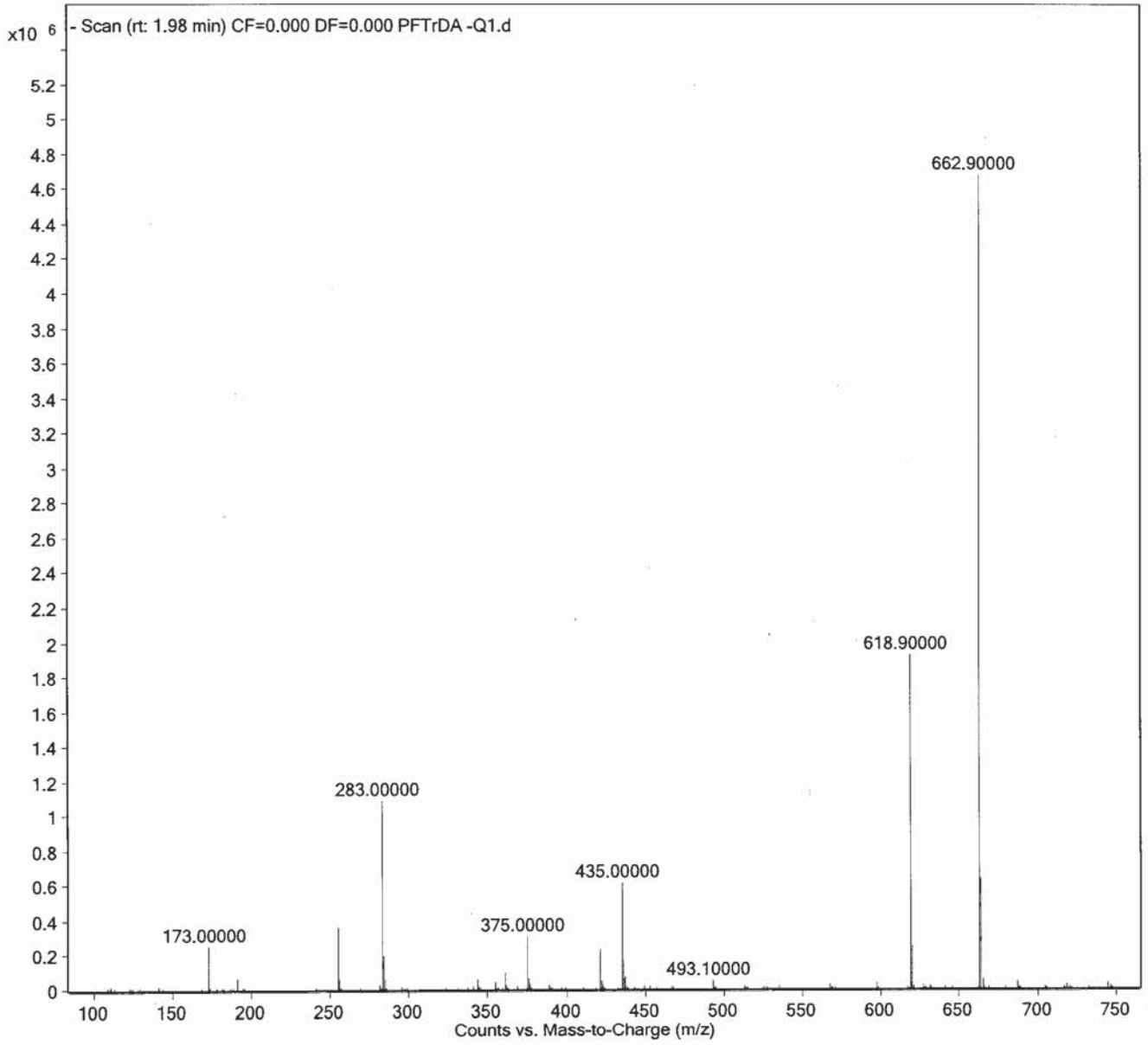
Sample Name	PFDoA -Q1	**Position**	P1-B5	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFDoA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 5:48:42 PM



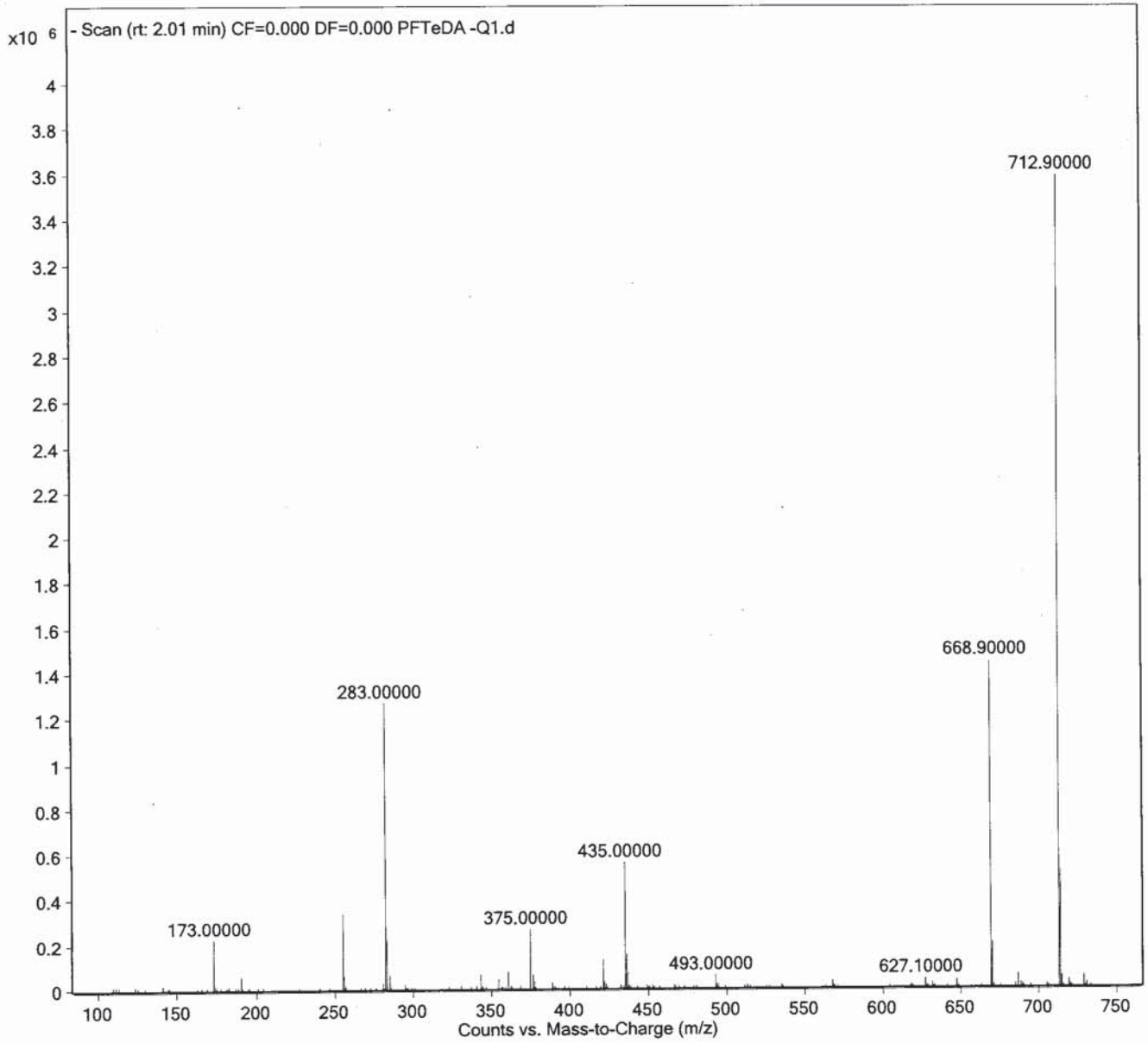
Alaxam Analytics

Sample Name	PFTrDA -Q1	**Position**	P1-B6	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFTrDA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 5:54:12 PM

Eurofins Lancaster Laboratories Environmental

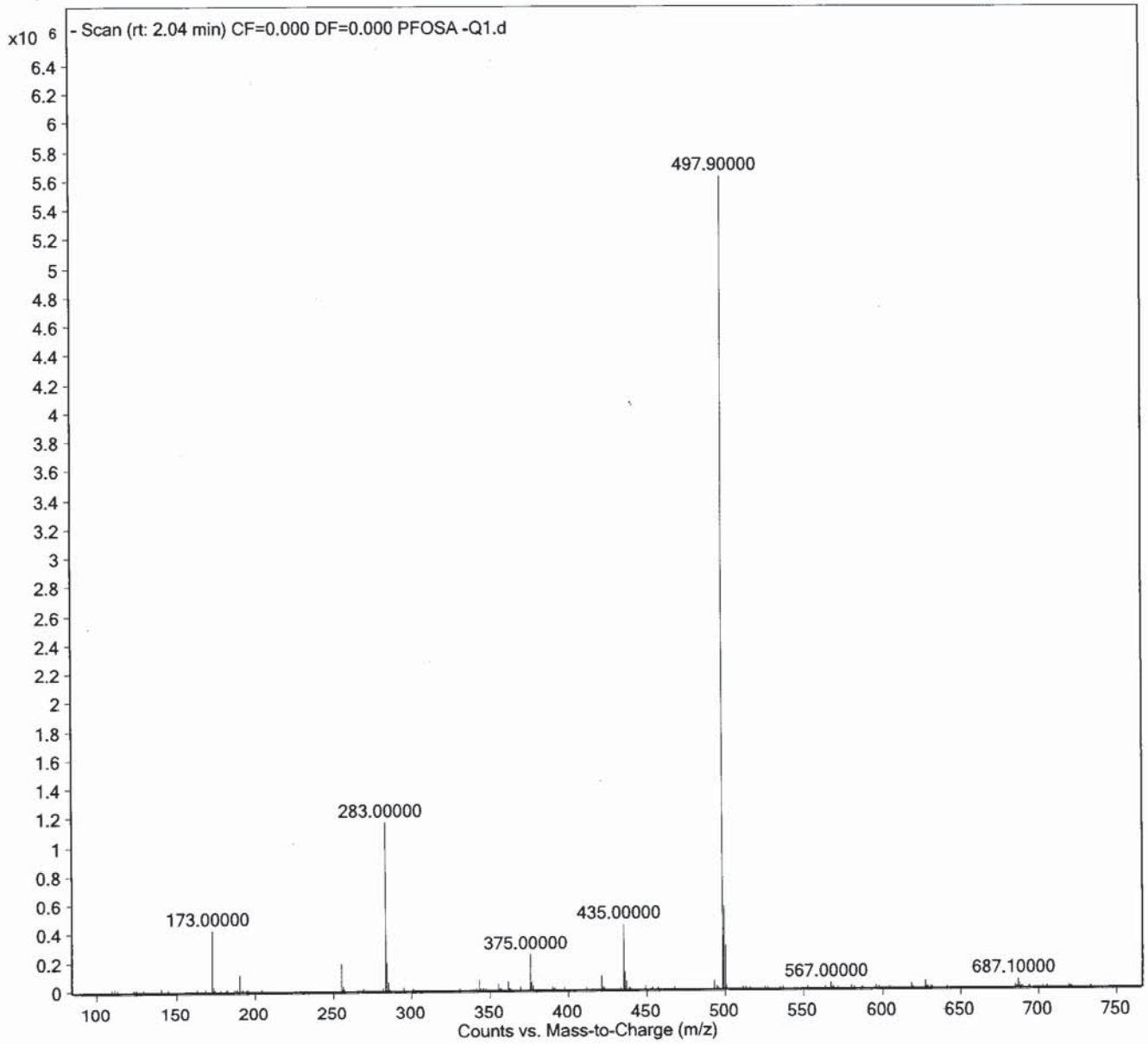


Sample Name	PFTeDA -Q1	**Position**	P1-B7	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFTeDA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 5:59:42 PM



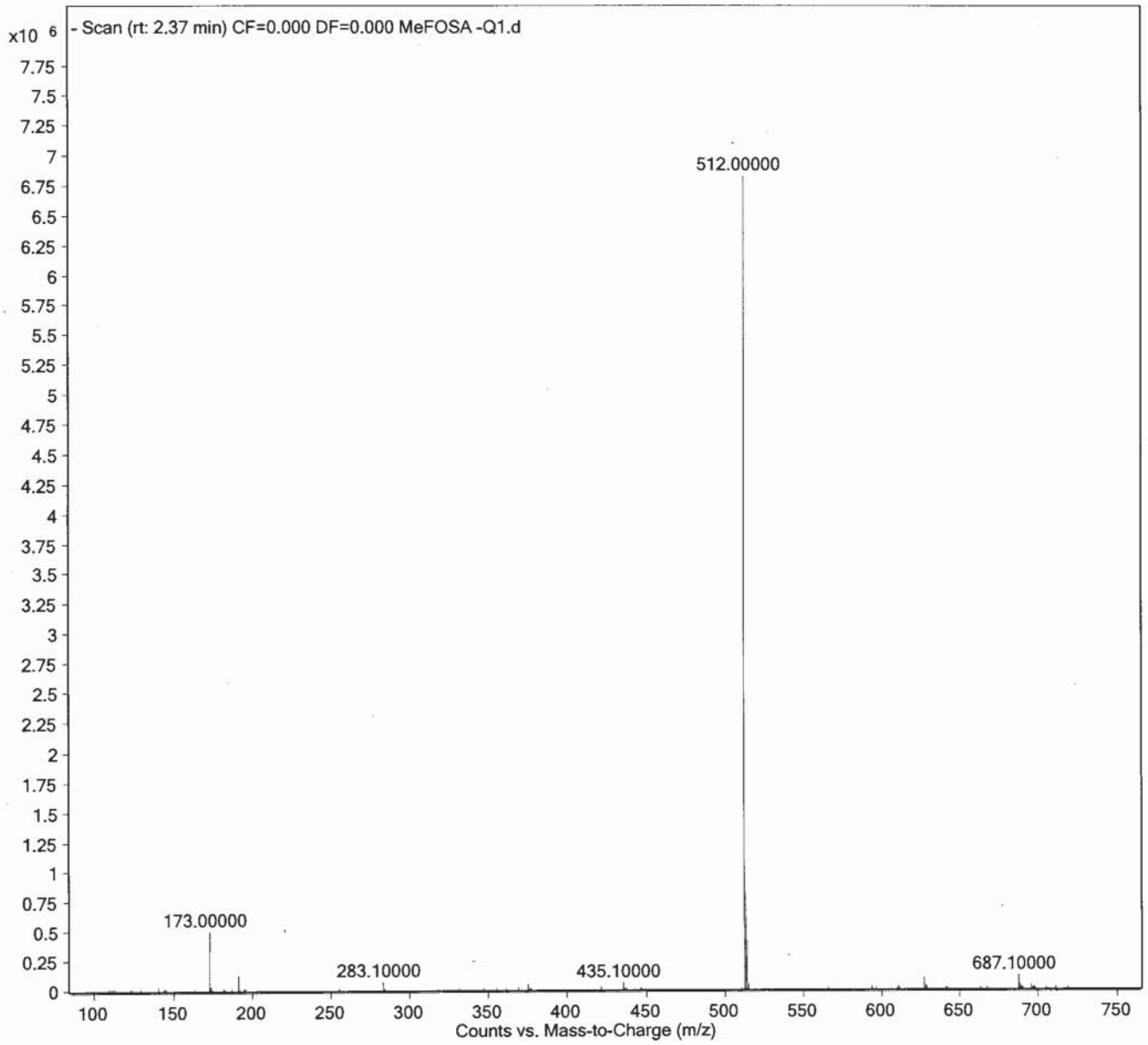
Saram Analytics

Sample Name	PFOSA -Q1	**Position**	P1-B8	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFOSA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 6:05:13 PM



SaxAm Analytics

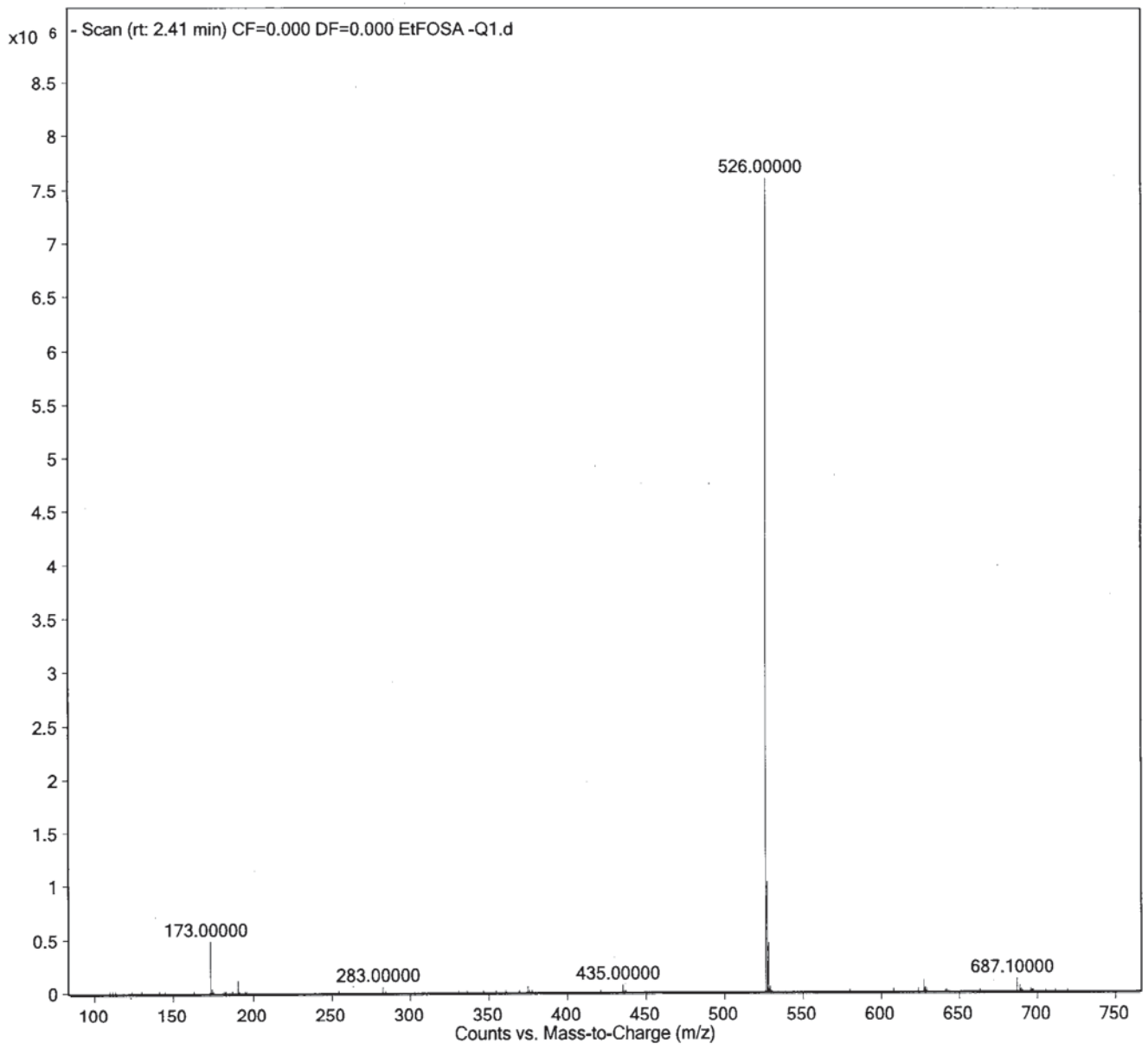
Sample Name	MeFOSA -Q1	**Position**	P1-B9	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MeFOSA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 6:10:45 PM



Maxxam Analytics

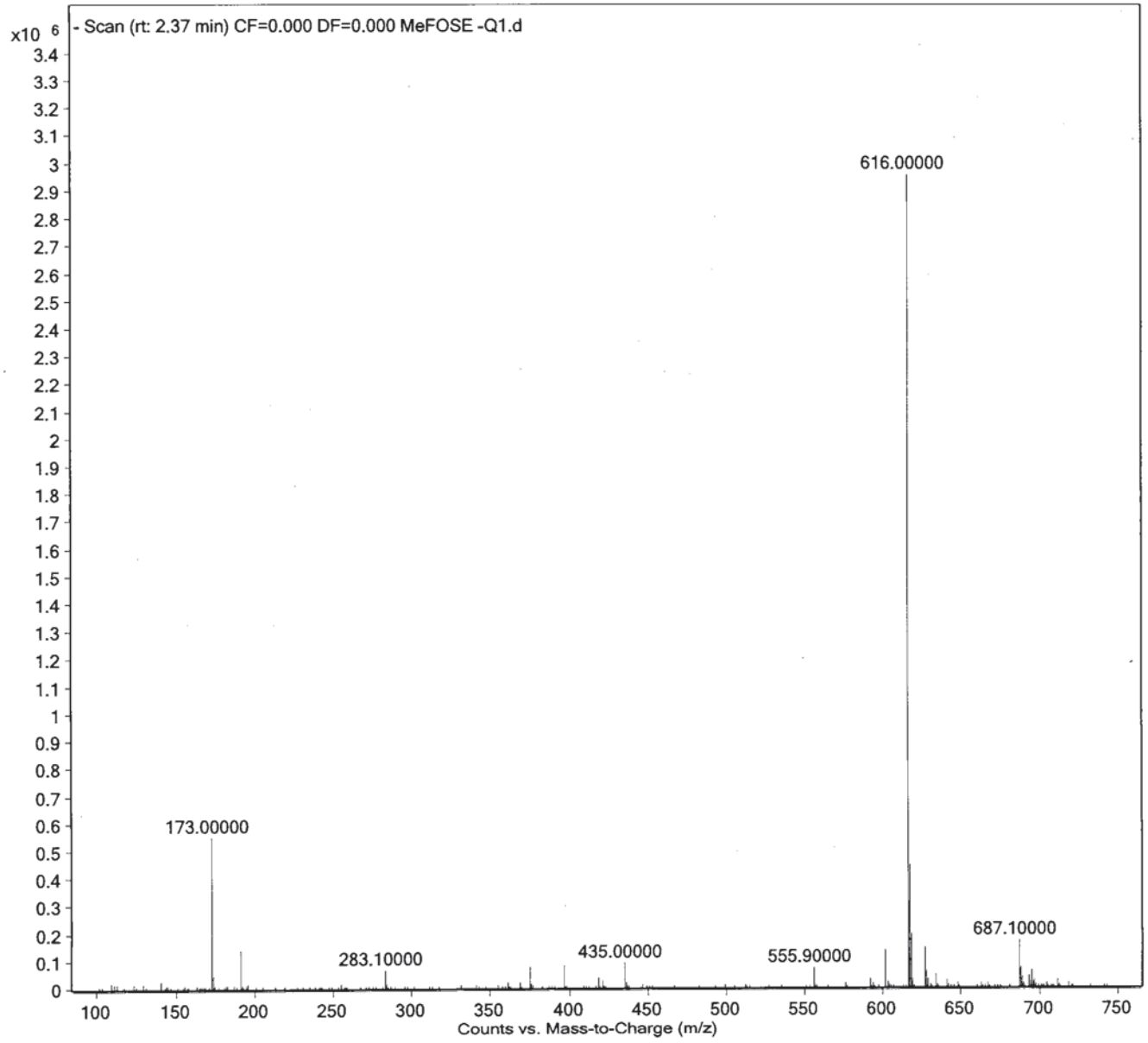
Sample Name	EtFOSA -Q1	**Position**	P1-C1	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	EtFOSA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 6:16:16 PM

Maxxam Analytics



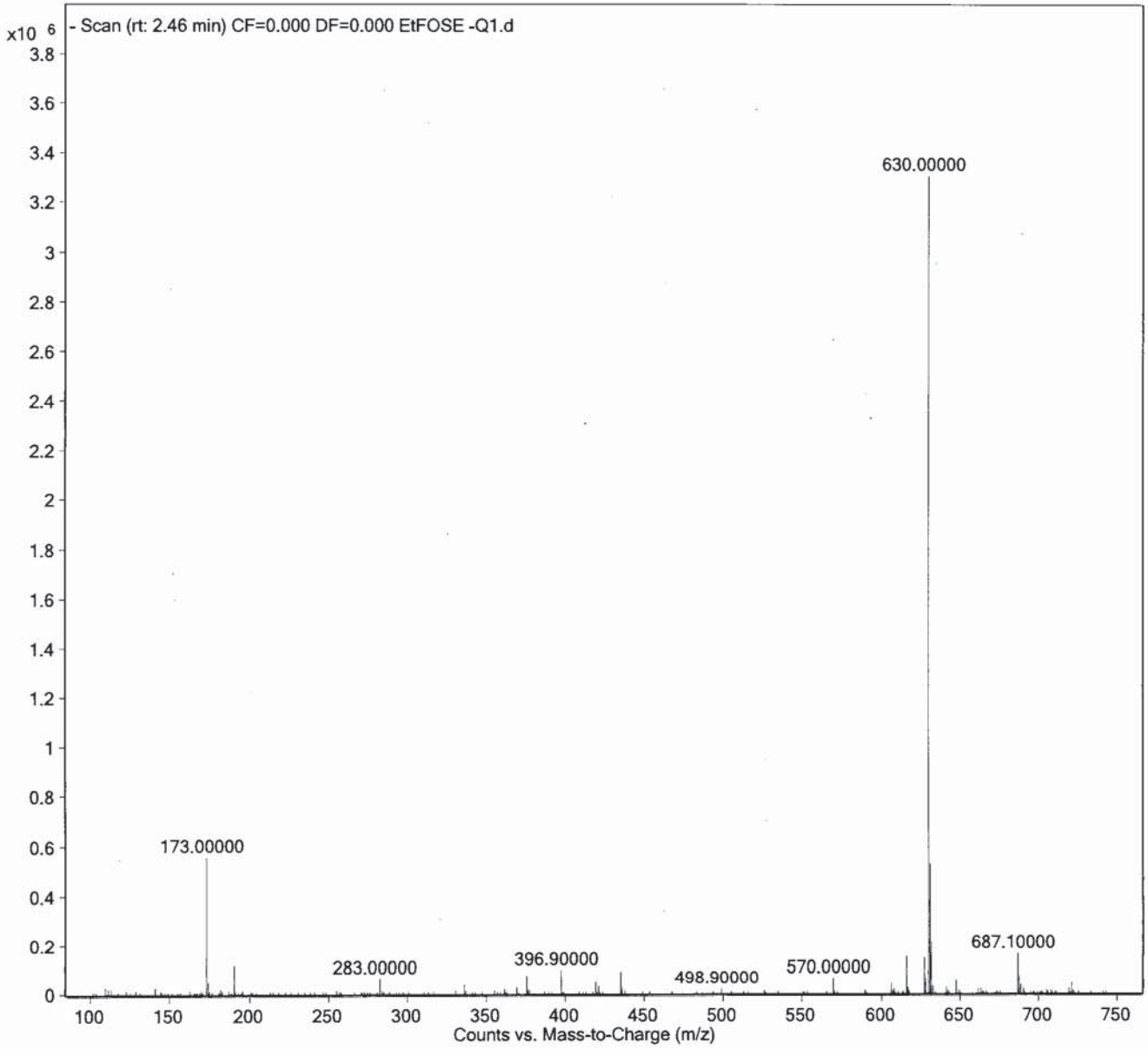
Sample Name	MeFOSE -Q1	**Position**	P1-C2	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MeFOSE -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 6:21:46 PM

Maxxam Analytics

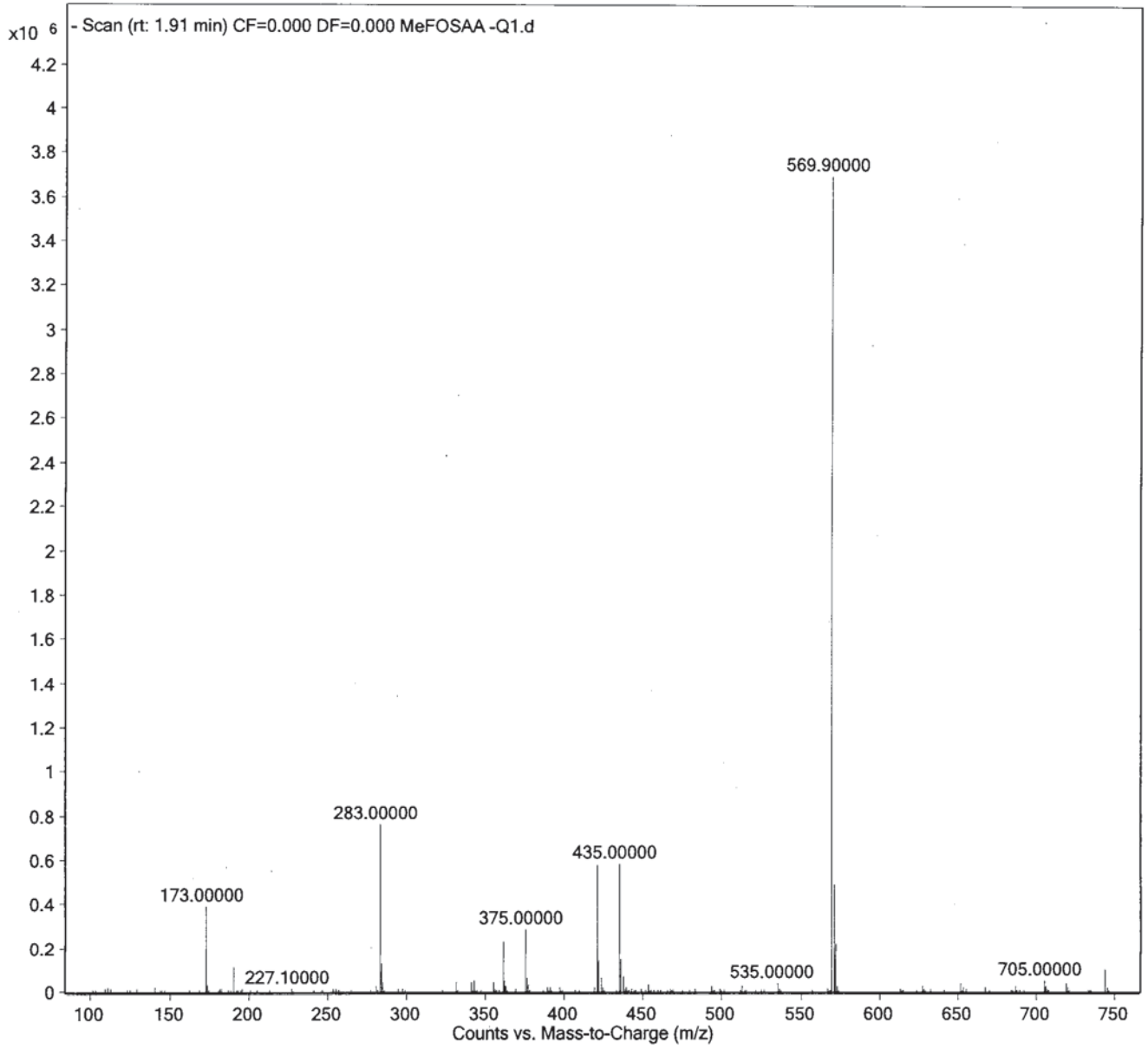


Sample Name	EtFOSE -Q1	**Position**	P1-C3	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	EtFOSE -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 6:27:16 PM

Maxxam Analytics

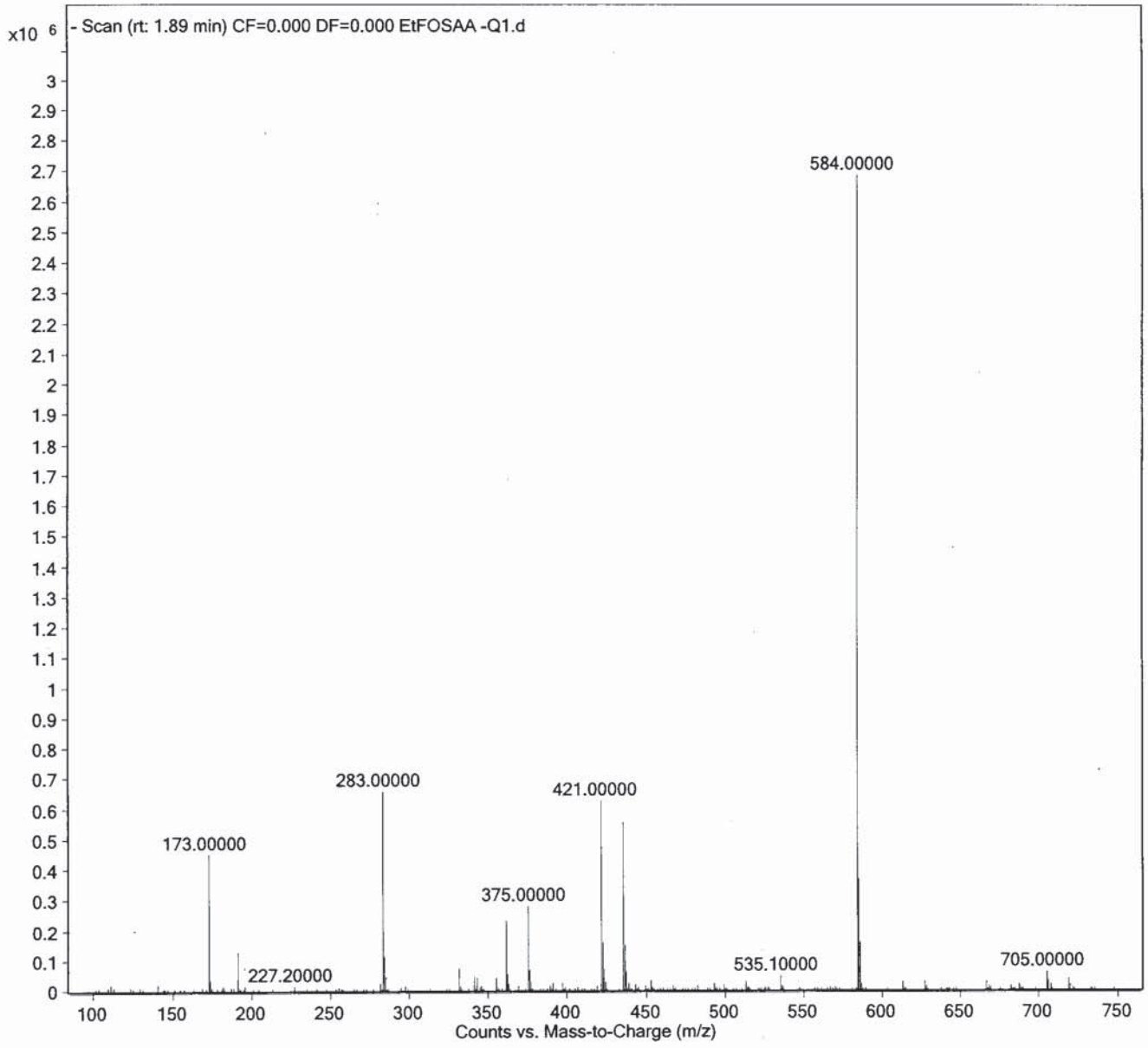


Sample Name	MeFOSAA -Q1	**Position**	P1-C4	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MeFOSAA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 6:32:46 PM



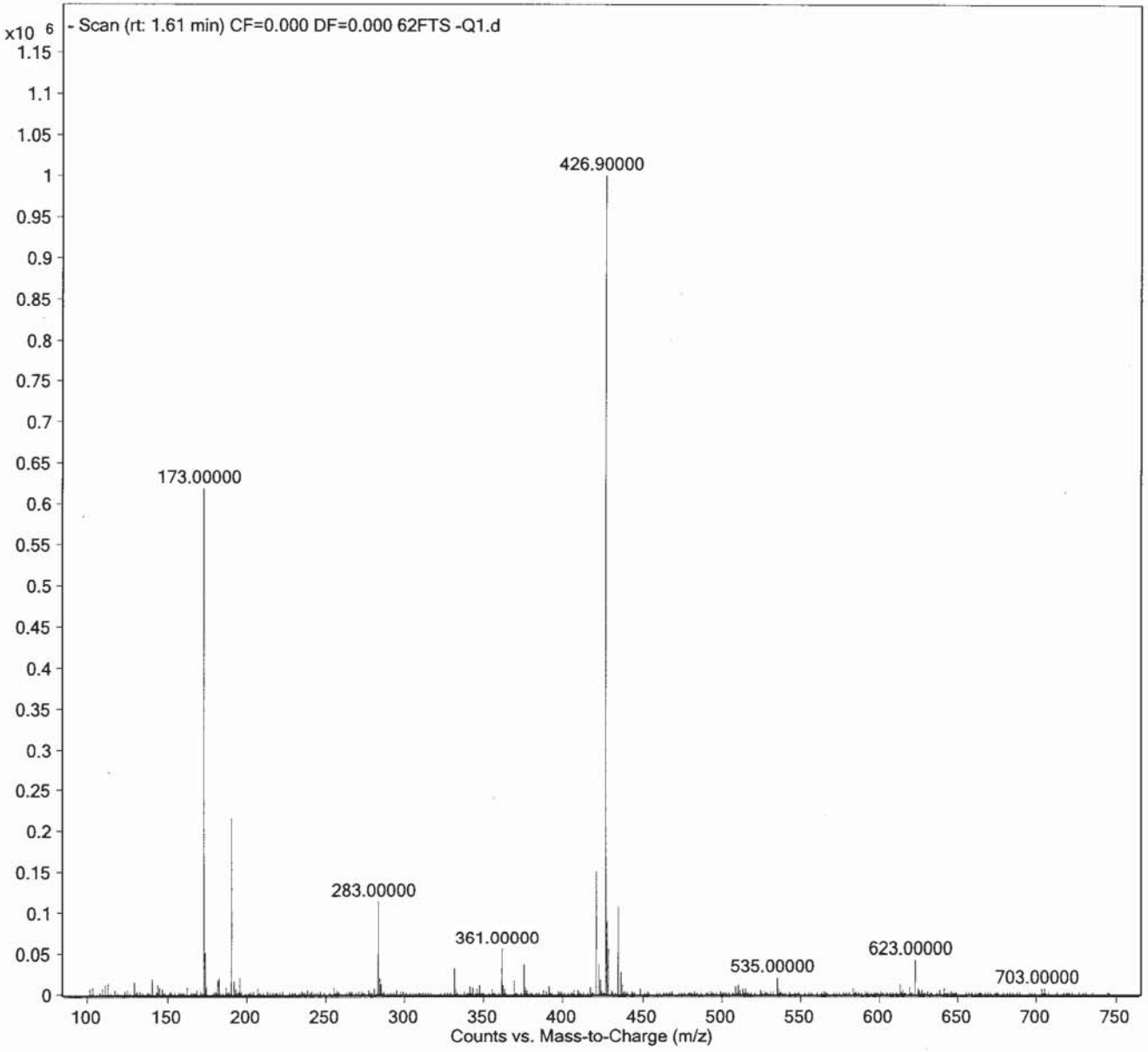
Maxxam Analytics

Sample Name	EtFOSAA -Q1	**Position**	P1-C5	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	EtFOSAA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 6:38:16 PM



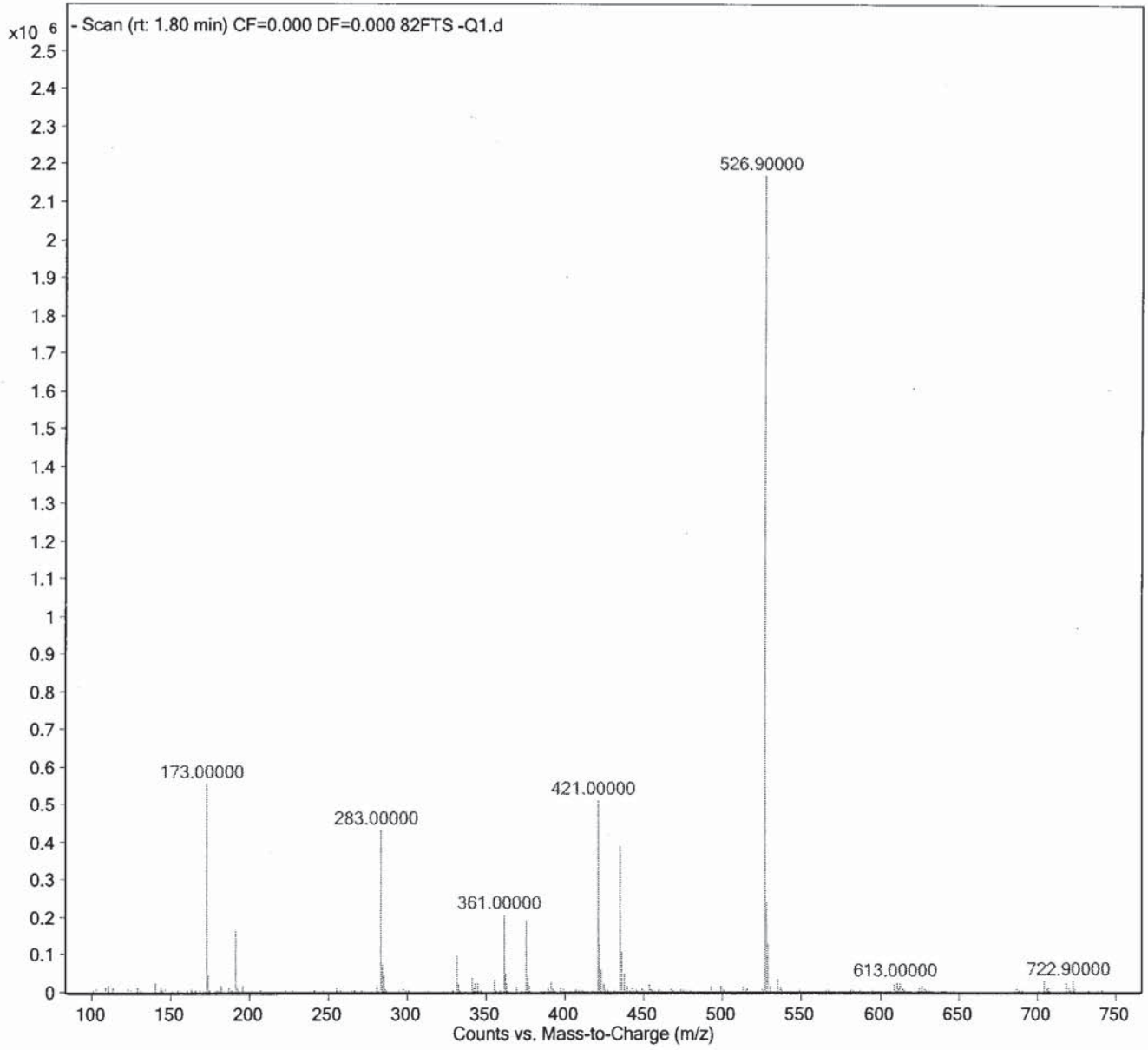
SGS AXYS Analytical

Sample Name	6:2FTS -Q1	**Position**	P1-C6	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	62FTS -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 6:43:46 PM



Maxxam Analytics

Sample Name	8:2FTS -Q1	**Position**	P1-C7	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	82FTS -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/10 6:49:16 PM



Maxxam Analytics

Worklist Report

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Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFAS_MASSVER_170710.wkl

Operator Name: M_G
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\data\Mass Verification\20170710
Pre-Worklist Script: ---
Post-Worklist Script: ---
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: ---
Plate Barcode: None

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
1	PFBA -Q1	P1-A1	PFC_MassVerification-Q1.m	PFBA -Q1.d	Sample	As Method	PFAS-Q1
2	PFBS -Q1	P1-A2	PFC_MassVerification-Q1.m	PFBS -Q1.d	Sample	As Method	PFAS-Q1
3	PFPeA -Q1	P1-A3	PFC_MassVerification-Q1.m	PFPeA -Q1.d	Sample	As Method	PFAS-Q1
4	PFHxA -Q1	P1-A4	PFC_MassVerification-Q1.m	PFHxA -Q1.d	Sample	As Method	PFAS-Q1
5	PFHxS -Q1	P1-A5	PFC_MassVerification-Q1.m	PFHxS -Q1.d	Sample	As Method	PFAS-Q1
6	PFHpA-Q1	P1-A6	PFC_MassVerification-Q1.m	PFHpA-Q1.d	Sample	As Method	PFAS-Q1
7	PFHpS-Q1	P1-A7	PFC_MassVerification-Q1.m	PFHpS-Q1.d	Sample	As Method	PFAS-Q1
8	PFOA -Q1	P1-A8	PFC_MassVerification-Q1.m	PFOA -Q1.d	Sample	As Method	PFAS-Q1
9	PFOS -Q1	P1-A9	PFC_MassVerification-Q1.m	PFOS -Q1.d	Sample	As Method	PFAS-Q1

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Worklist Report

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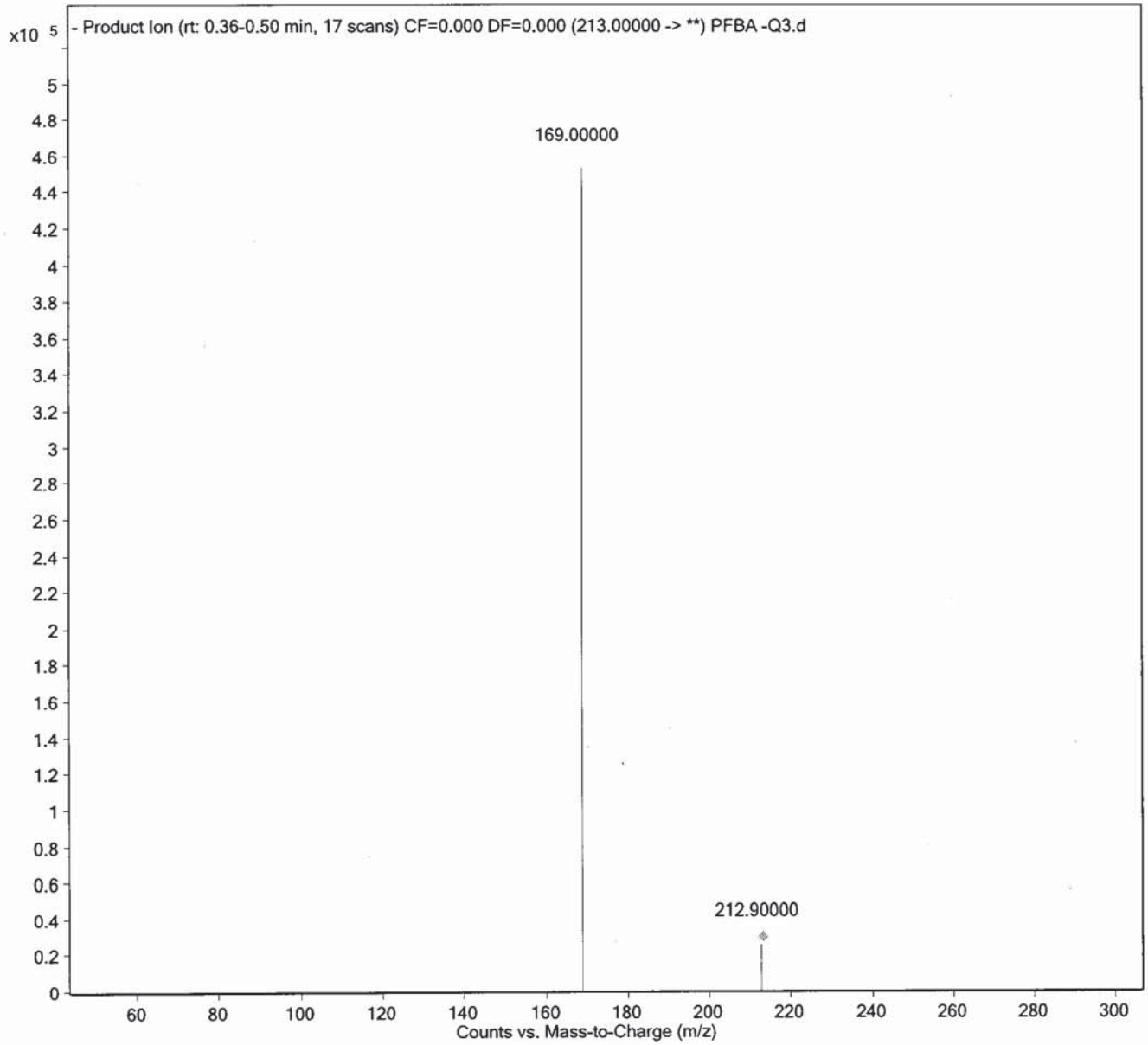
	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
10	PFNA -Q1	P1-B1	PFC_MassVerification-Q1.m	PFNA -Q1.d	Sample	As Method	PFAS-Q1
11	PFDA -Q1	P1-B2	PFC_MassVerification-Q1.m	PFDA -Q1.d	Sample	As Method	PFAS-Q1
12	PFDS -Q1	P1-B3	PFC_MassVerification-Q1.m	PFDS -Q1.d	Sample	As Method	PFAS-Q1
13	PFUnA -Q1	P1-B4	PFC_MassVerification-Q1.m	PFUnA -Q1.d	Sample	As Method	PFAS-Q1
14	PFDoA -Q1	P1-B5	PFC_MassVerification-Q1.m	PFDoA -Q1.d	Sample	As Method	PFAS-Q1
15	PFTrDA -Q1	P1-B6	PFC_MassVerification-Q1.m	PFTrDA -Q1.d	Sample	As Method	PFAS-Q1
16	PFTeDA -Q1	P1-B7	PFC_MassVerification-Q1.m	PFTeDA -Q1.d	Sample	As Method	PFAS-Q1
17	PFOSA -Q1	P1-B8	PFC_MassVerification-Q1.m	PFOSA -Q1.d	Sample	As Method	PFAS-Q1
18	MeFOSA -Q1	P1-B9	PFC_MassVerification-Q1.m	MeFOSA -Q1.d	Sample	As Method	PFAS-Q1
19	EtFOSA -Q1	P1-C1	PFC_MassVerification-Q1.m	EtFOSA -Q1.d	Sample	As Method	PFAS-Q1
20	MeFOSE -Q1	P1-C2	PFC_MassVerification-Q1.m	MeFOSE -Q1.d	Sample	As Method	PFAS-Q1
21	EtFOSE -Q1	P1-C3	PFC_MassVerification-Q1.m	EtFOSE -Q1.d	Sample	As Method	PFAS-Q1
22	MeFOSAA -Q1	P1-C4	PFC_MassVerification-Q1.m	MeFOSAA -Q1.d	Sample	As Method	PFAS-Q1
23	EtFOSAA -Q1	P1-C5	PFC_MassVerification-Q1.m	EtFOSAA -Q1.d	Sample	As Method	PFAS-Q1
24	6:2FTS -Q1	P1-C6	PFC_MassVerification-Q1.m	62FTS -Q1.d	Sample	As Method	PFAS-Q1
25	8:2FTS -Q1	P1-C7	PFC_MassVerification-Q1.m	82FTS -Q1.d	Sample	As Method	PFAS-Q1

Analyte Product Ion Verification

Sample Name	PFBA -Q3	**Position**	P1-A1	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFBA -Q3.d
ACQ Method	PFC_MassVerification-PFBA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 6:54:46 PM



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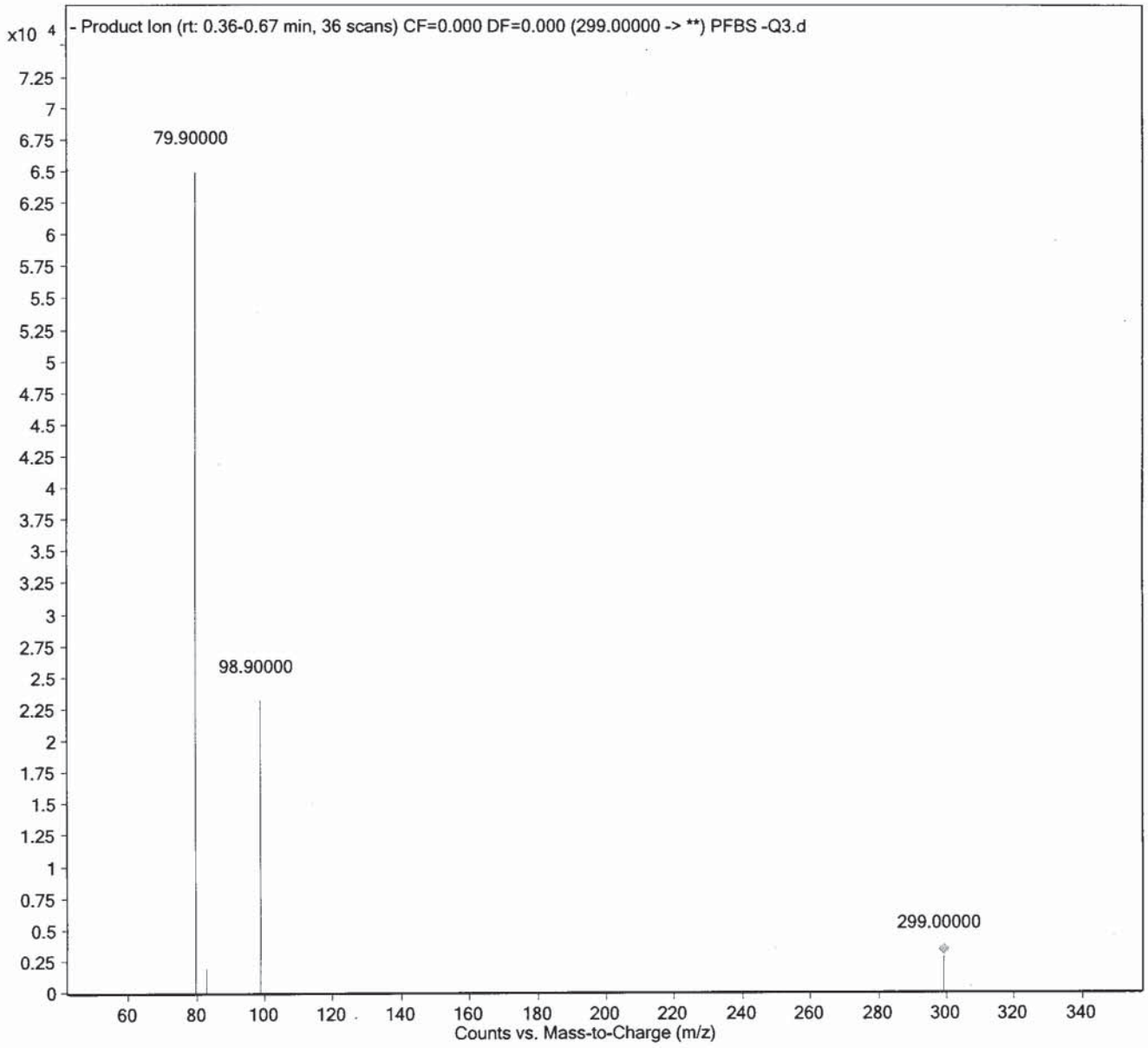
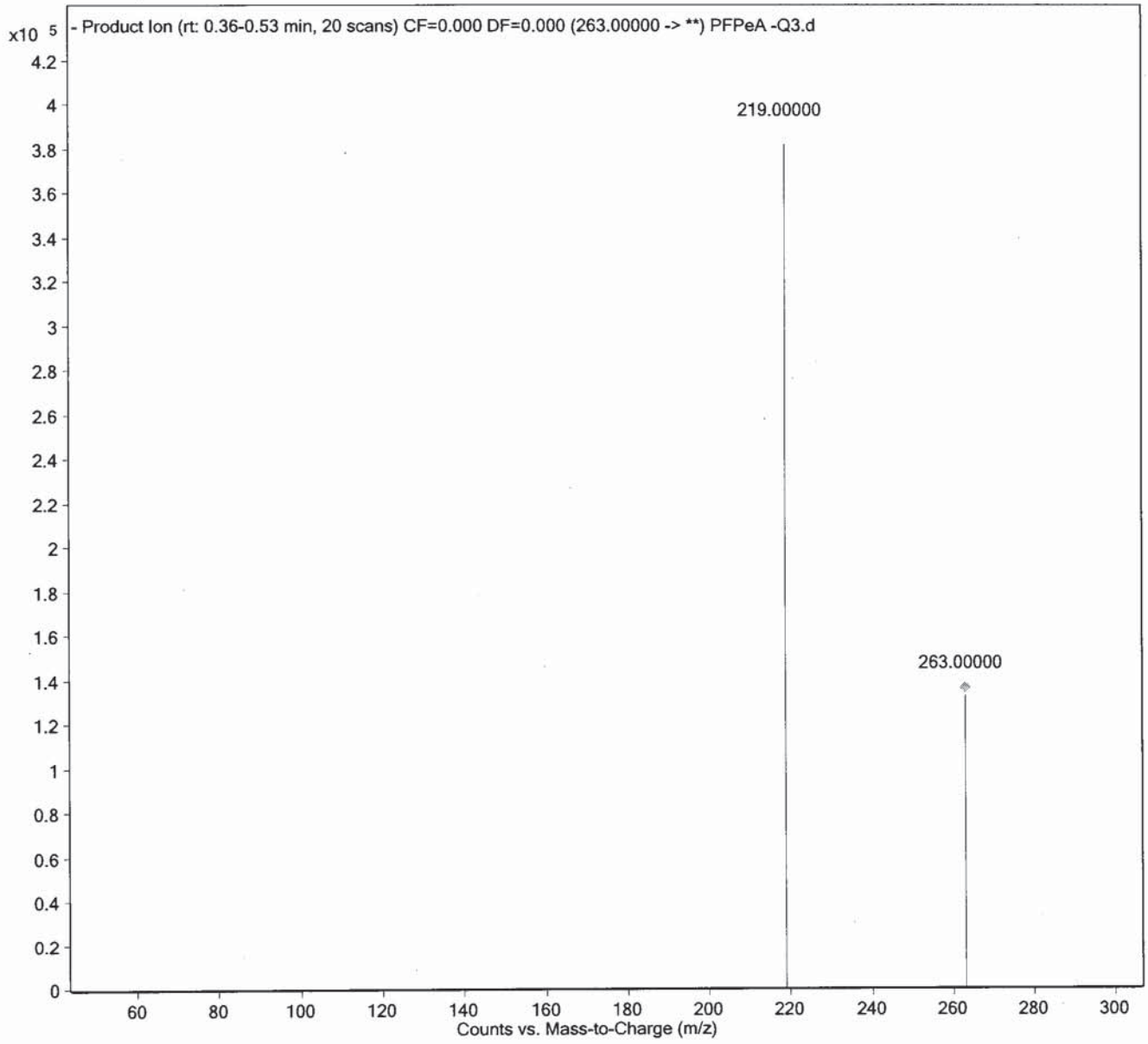
Sample Name	PFBS -Q3	**Position**	P1-A2	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFBS -Q3.d
ACQ Method	PFC_MassVerification-PFBS-Q3.m	**Comment**		**Acquired Time**	2017/07/10 7:00:16 PM

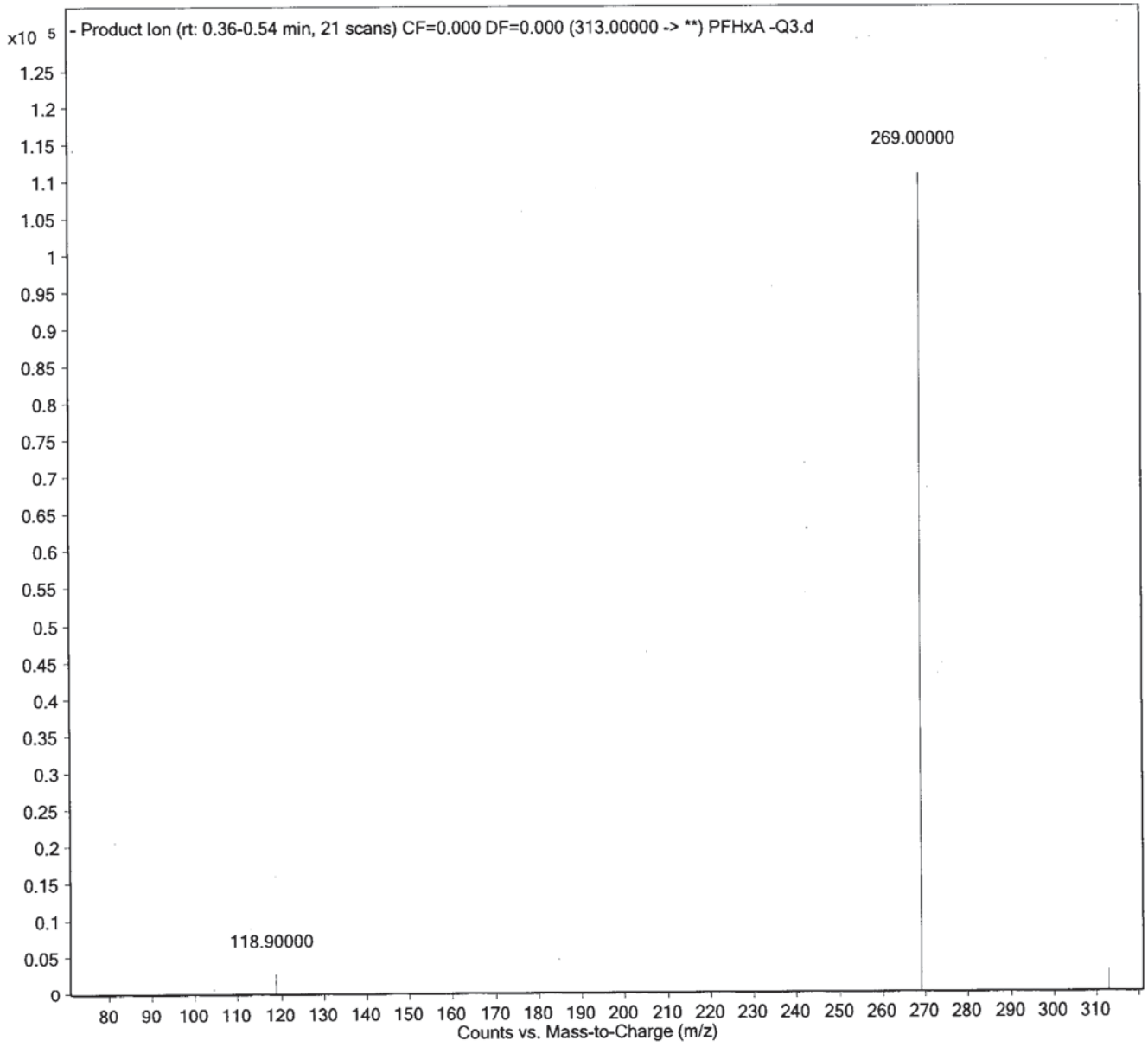


Sample Name	PFPeA -Q3	**Position**	P1-A3	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFPeA -Q3.d
ACQ Method	PFC_MassVerification-PFPeA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 7:05:46 PM



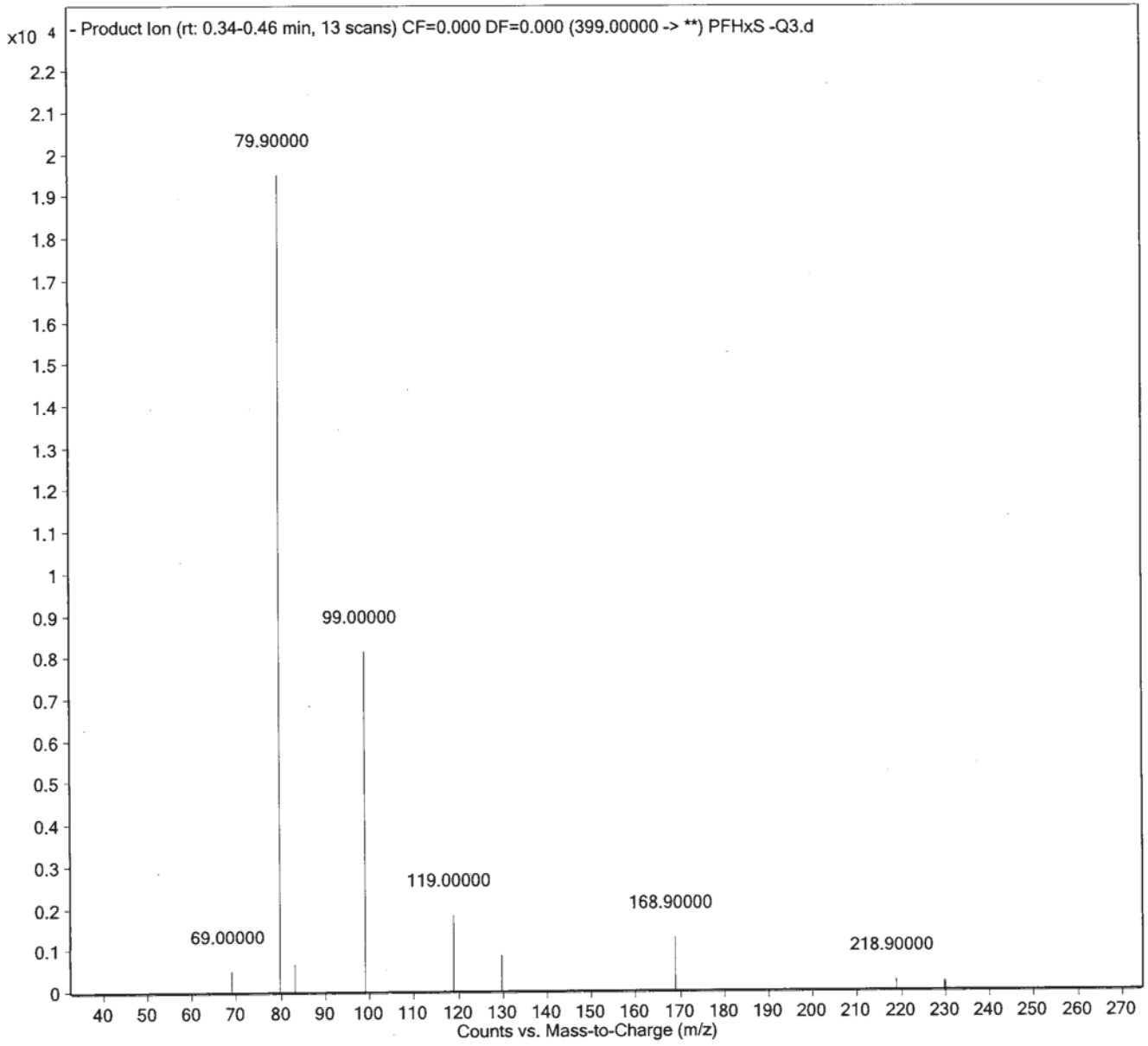
Eurofins Eaton Analytics

Sample Name	PFHxA -Q3	**Position**	P1-A4	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFHxA -Q3.d
ACQ Method	PFC_MassVerification-PFHxA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 7:11:16 PM

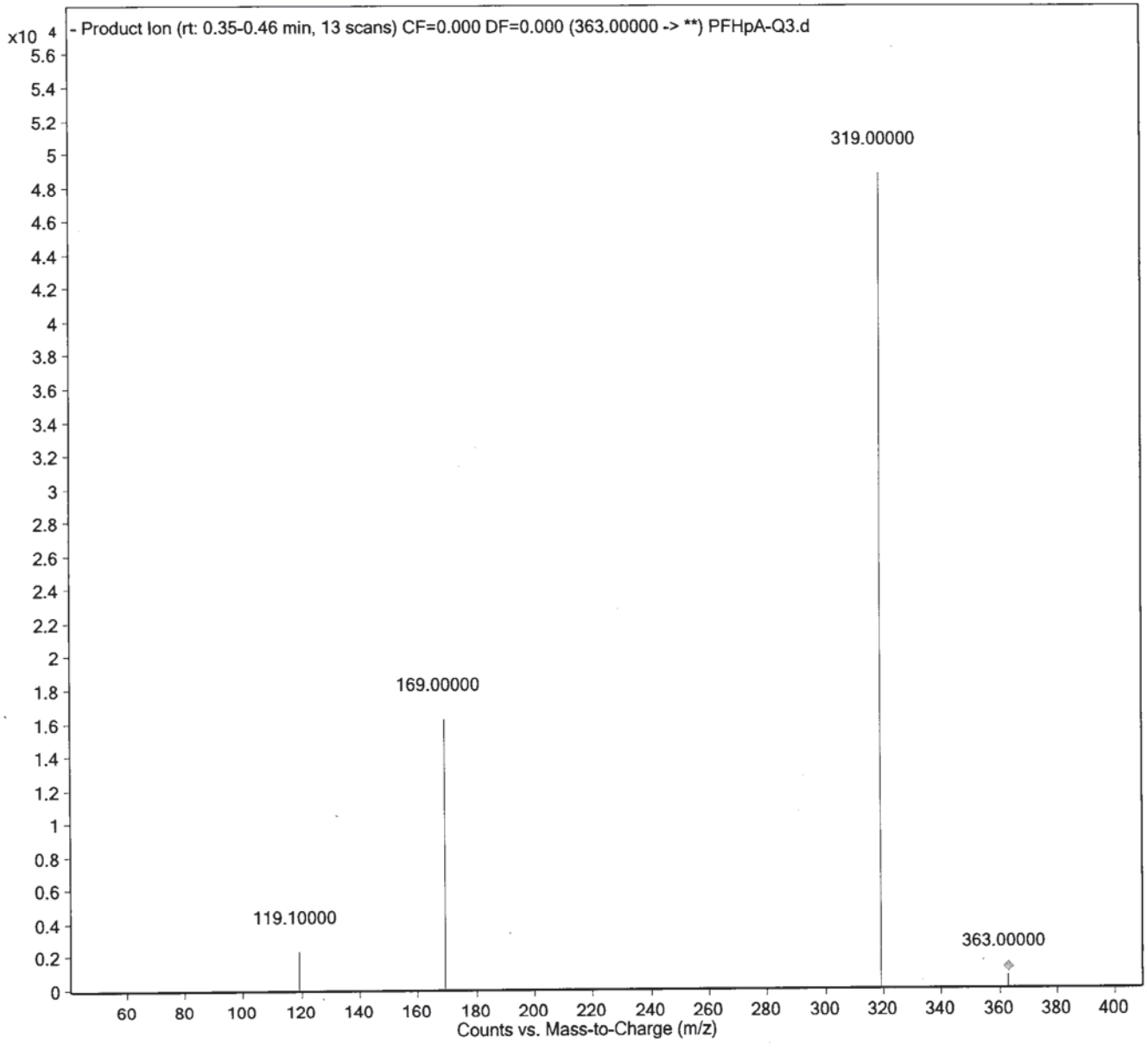


SanKam Analytics

Sample Name	PFHxS -Q3	**Position**	P1-A5	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFHxS -Q3.d
ACQ Method	PFC_MassVerification-PFHxS-Q3.m	**Comment**		**Acquired Time**	2017/07/10 7:16:46 PM

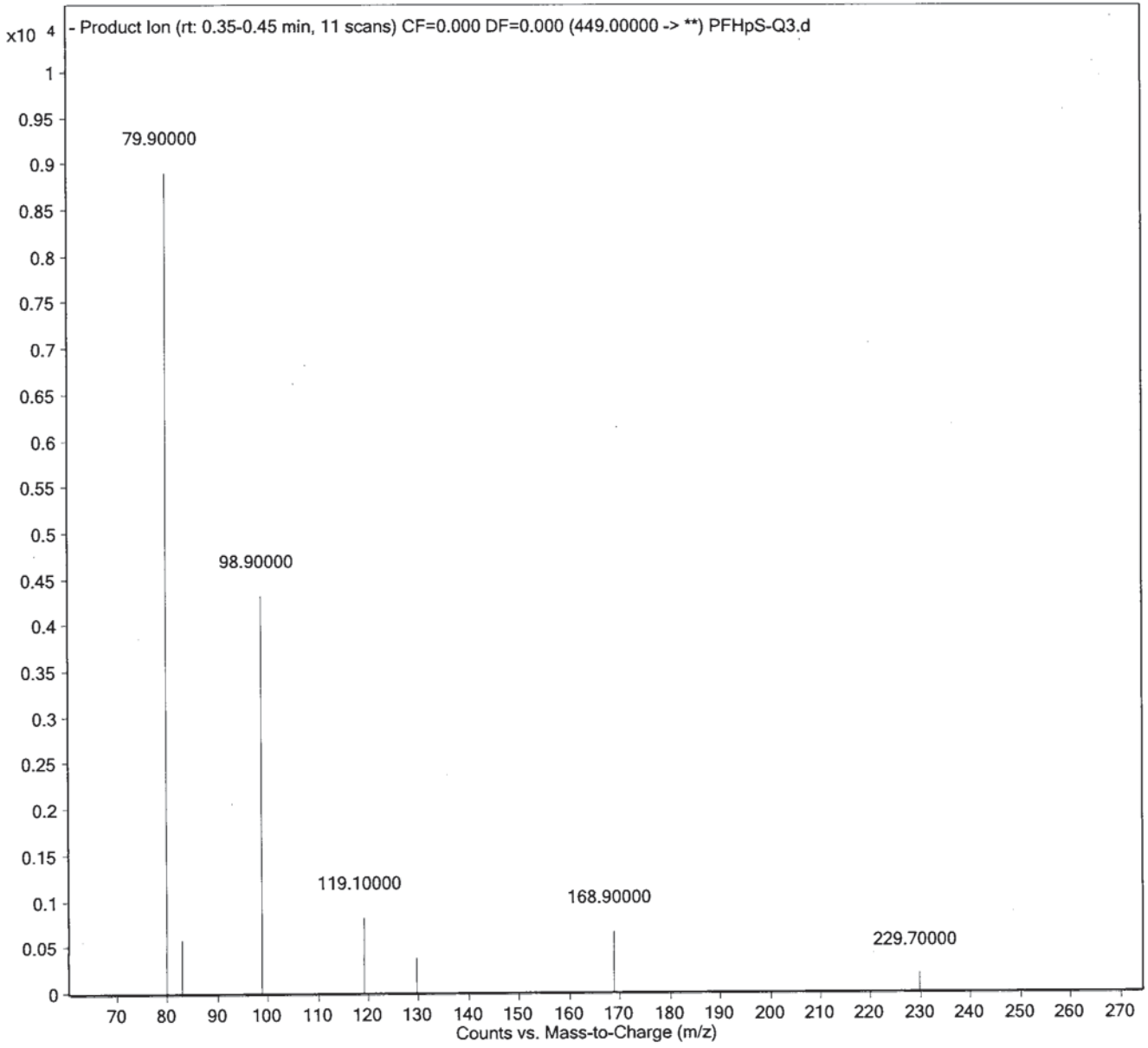


Sample Name	PFHpA-Q3	**Position**	P1-A6	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFHpA-Q3.d
ACQ Method	PFC_MassVerification-PFHpA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 7:22:16 PM



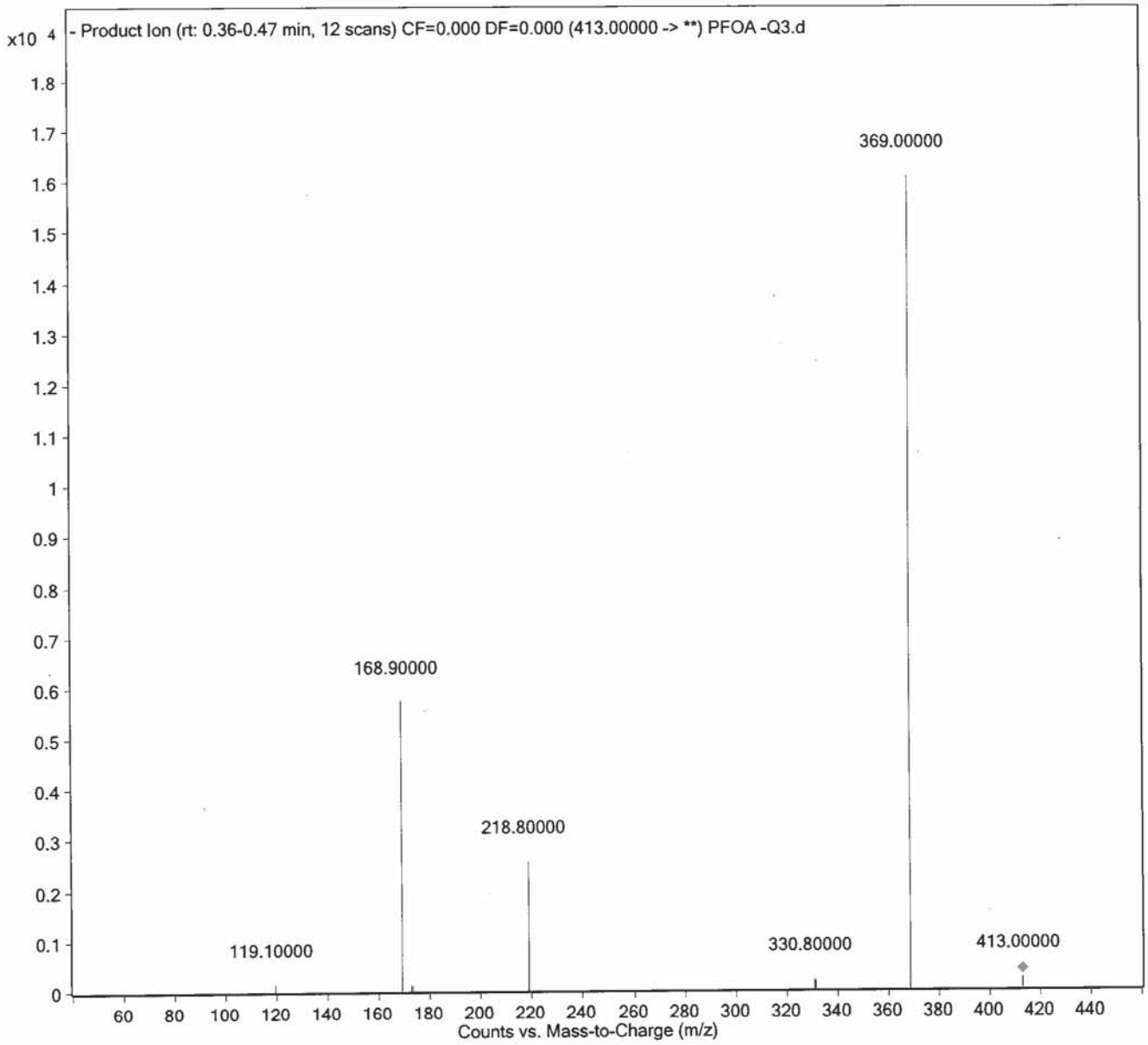
Maxxam Analytics

Sample Name	PFHpS-Q3	**Position**	P1-A7	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFHpS-Q3.d
ACQ Method	PFC_MassVerification-PFHpS-Q3.m	**Comment**		**Acquired Time**	2017/07/10 7:27:47 PM



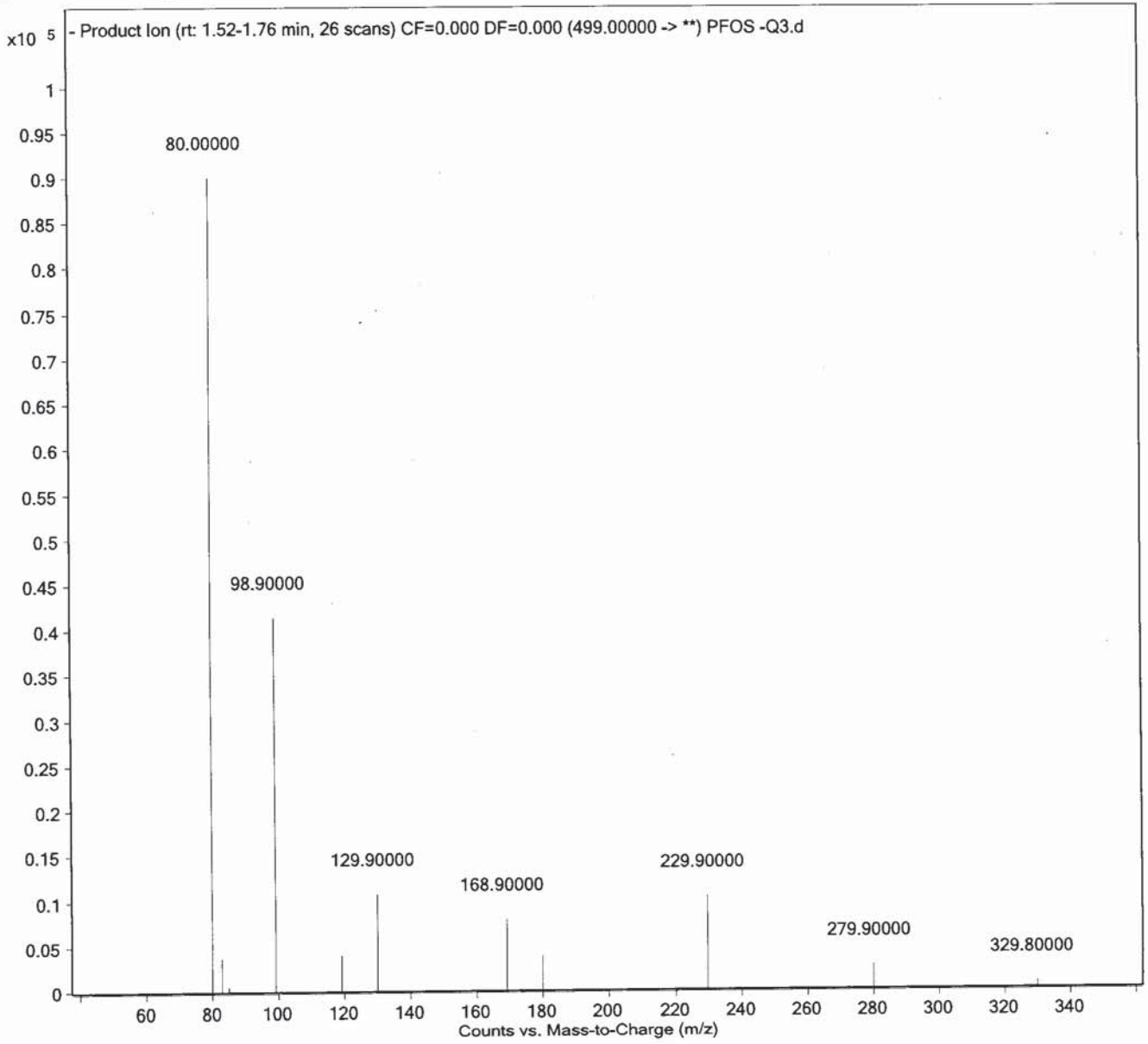
Eaton Analytics

Sample Name	PFOA -Q3	**Position**	P1-A8	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFOA -Q3.d
ACQ Method	PFC_MassVerification-PFOA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 7:33:19 PM



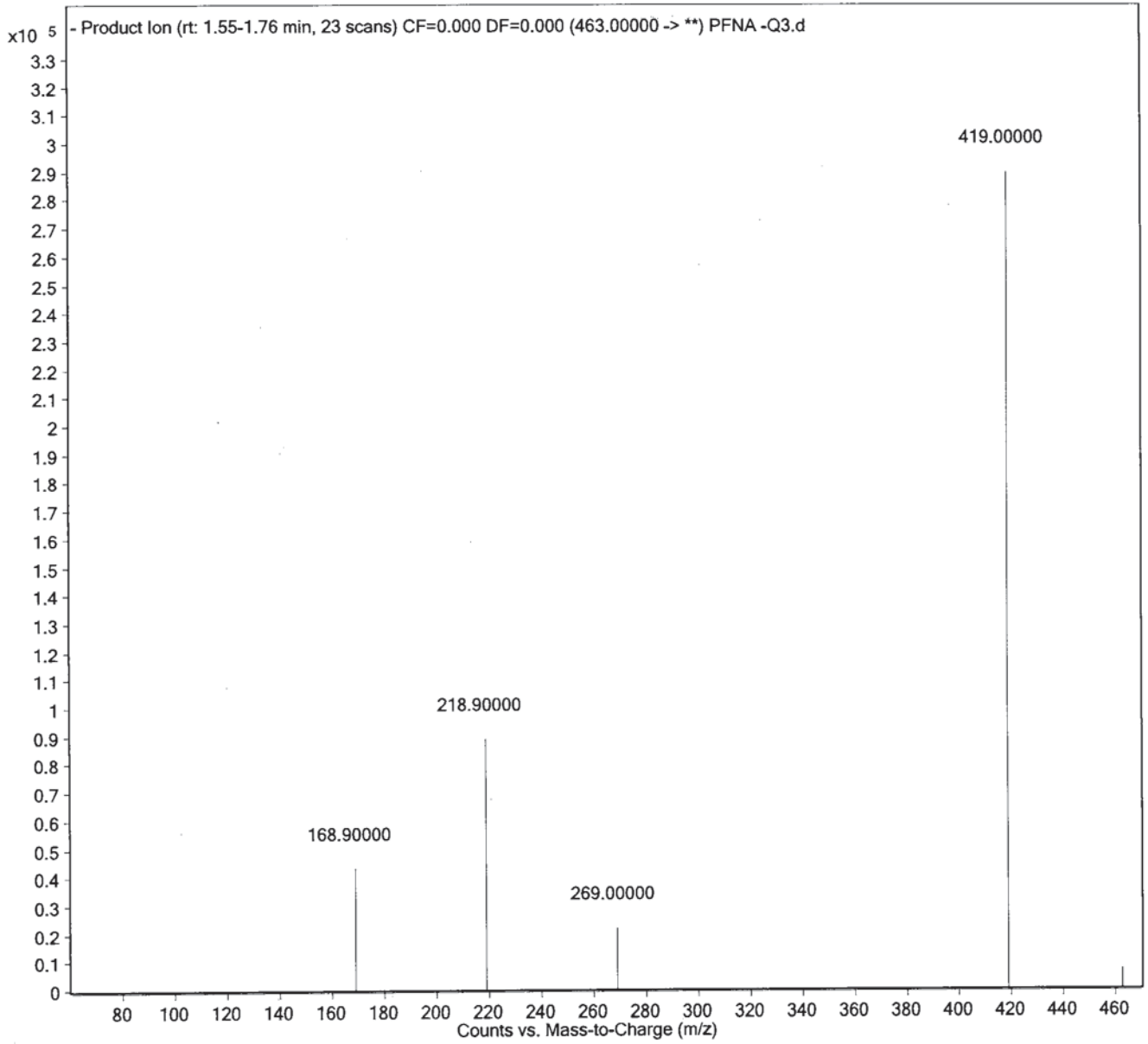
Sawkam Analytics

Sample Name	PFOS -Q3	**Position**	P1-A9	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFOS -Q3.d
CQ Method	PFC_MassVerification-PFOS-Q3.m	**Comment**		**Acquired Time**	2017/07/10 7:38:51 PM



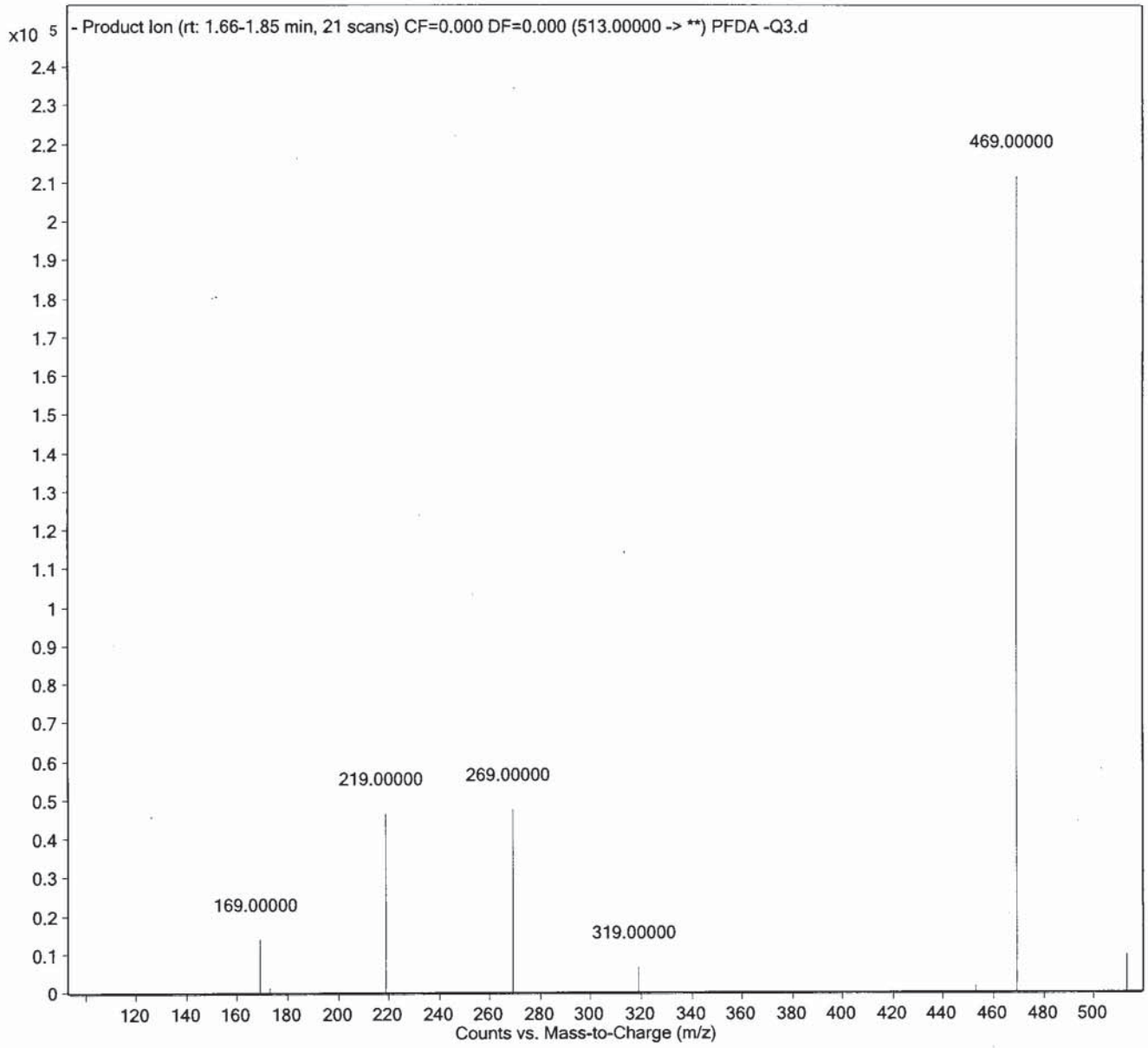
Maxxam Analytics

Sample Name	PFNA -Q3	**Position**	P1-B1	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFNA -Q3.d
CQ Method	PFC_MassVerification-PFNA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 7:44:22 PM



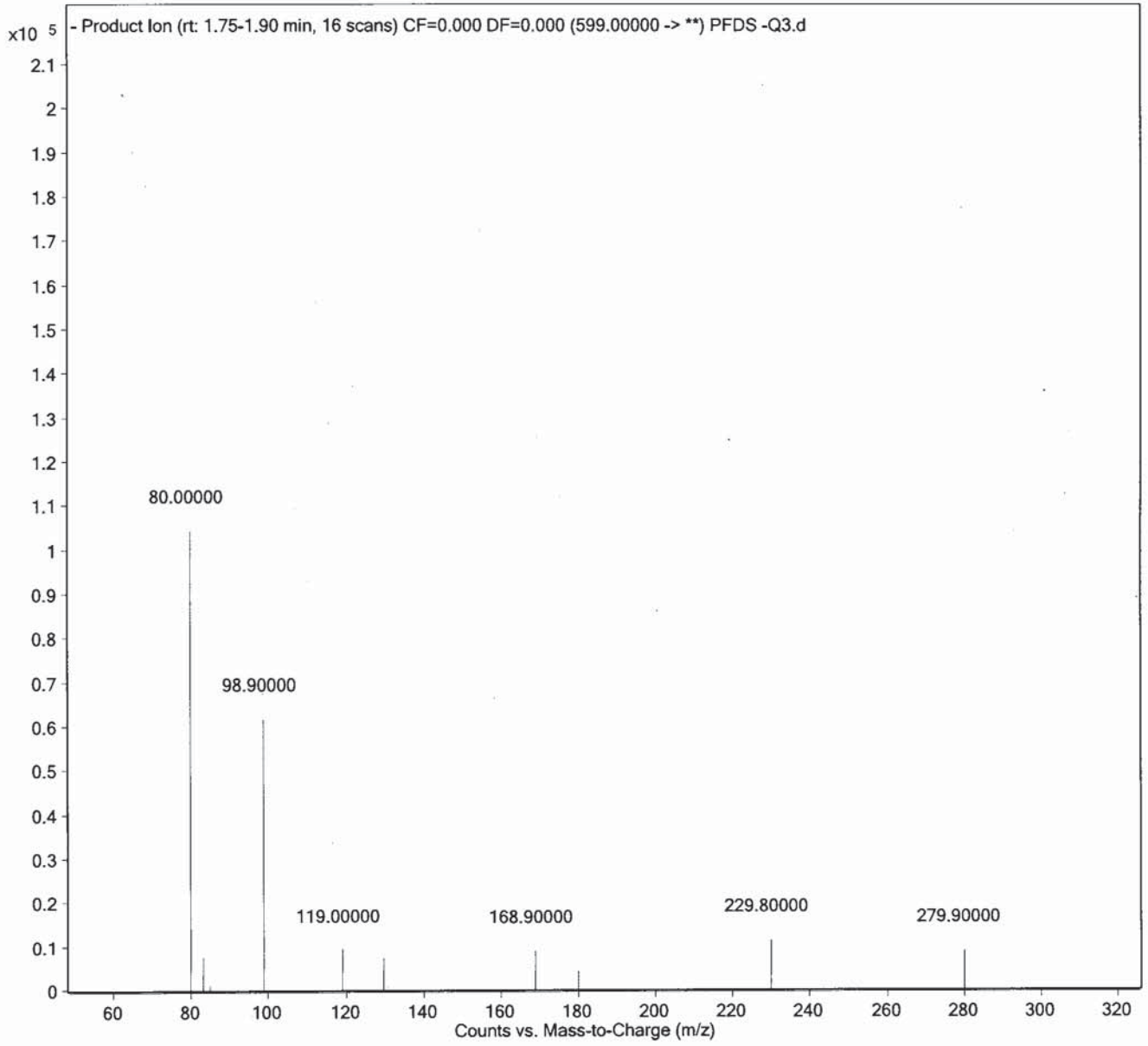
Saxam Analytics

Sample Name	PFDA -Q3	**Position**	P1-B2	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFDA -Q3.d
ACQ Method	PFC_MassVerification-PFDA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 7:49:52 PM



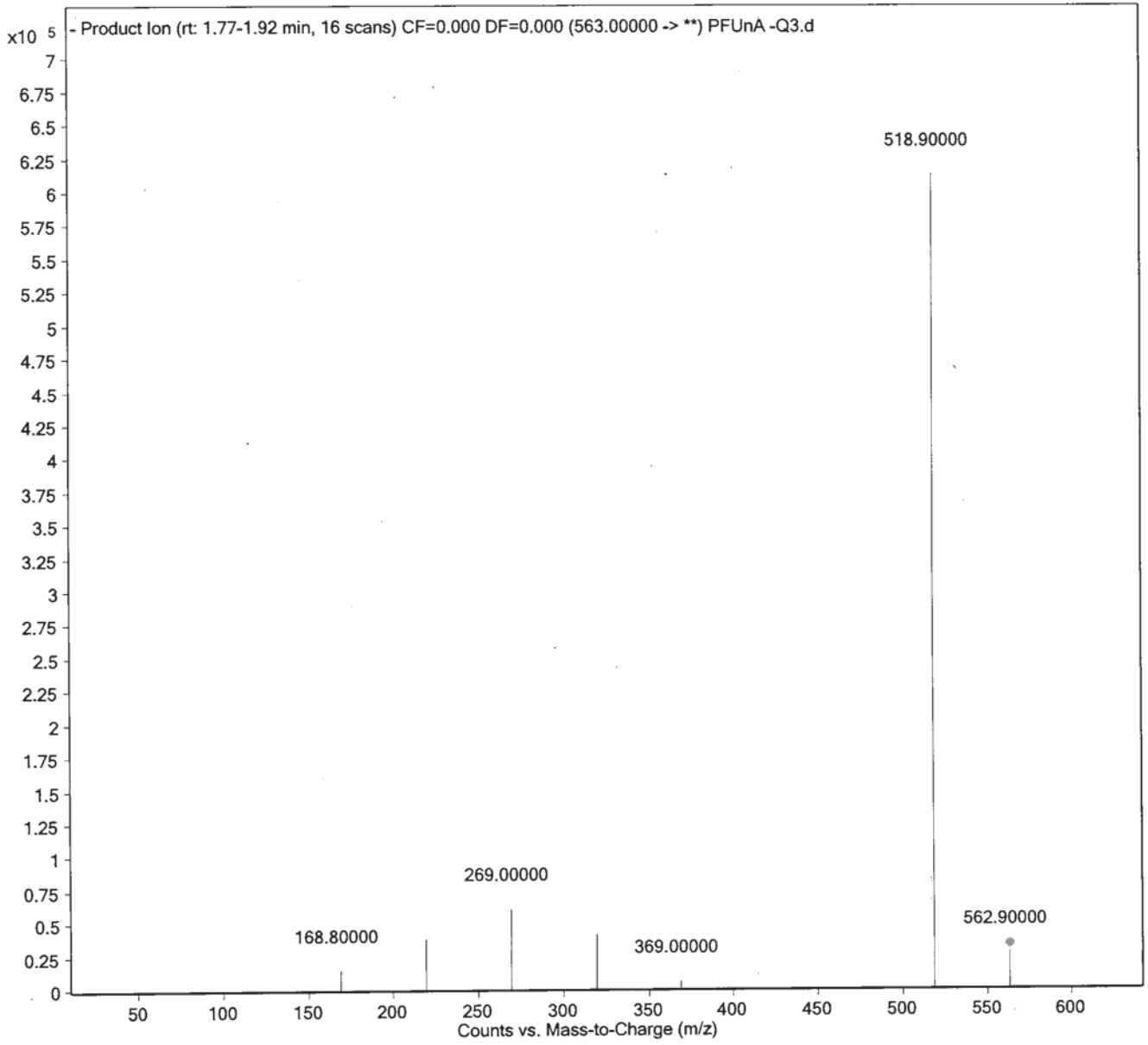
SAExam Analytics

Sample Name	PFDS -Q3	**Position**	P1-B3	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFDS -Q3.d
ACQ Method	PFC_MassVerification-PFDS-Q3.m	**Comment**		**Acquired Time**	2017/07/10 7:55:22 PM



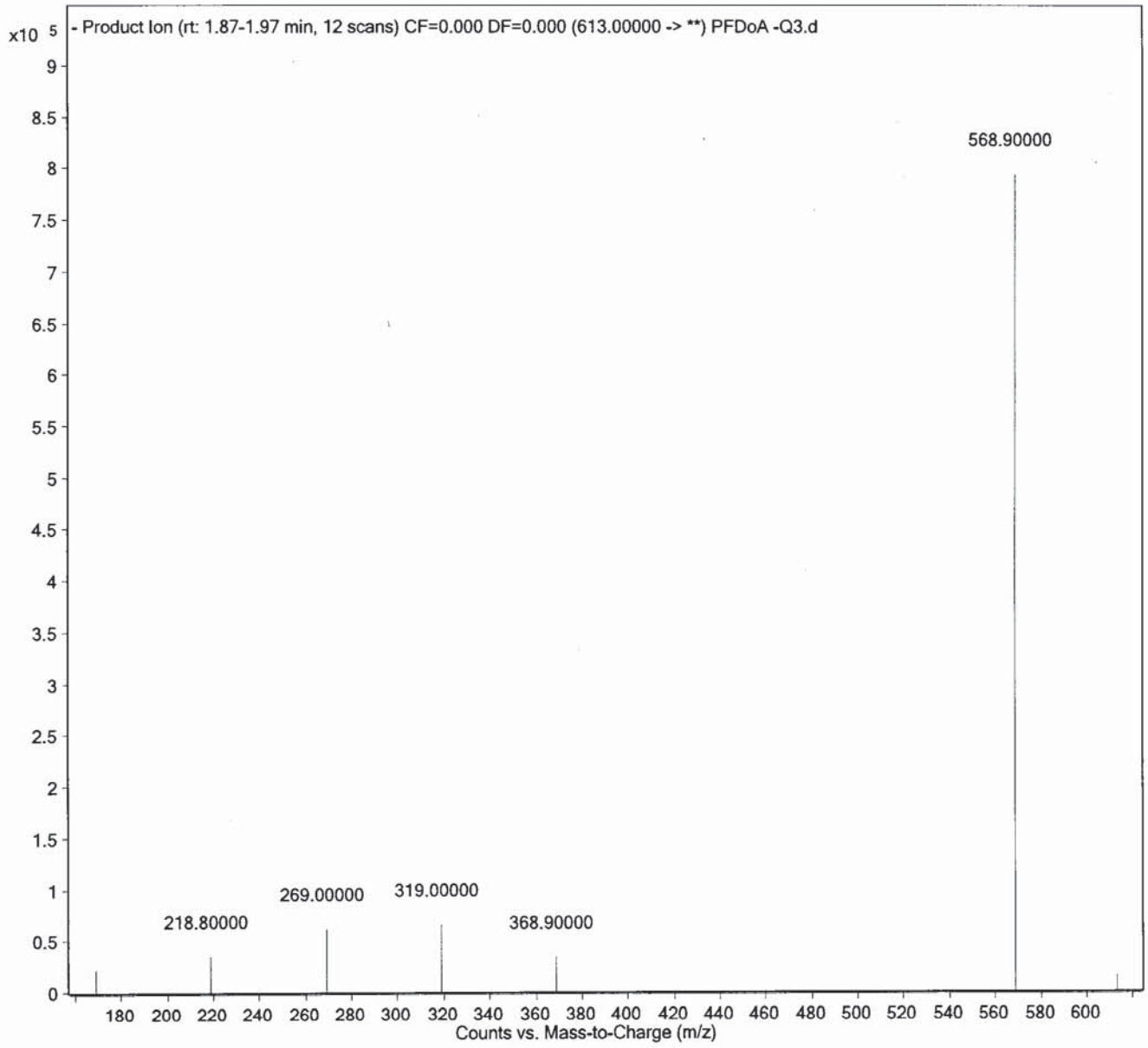
Alaskan Analytics

Sample Name	PFUnA -Q3	**Position**	P1-B4	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFUnA -Q3.d
ACQ Method	PFC_MassVerification-PFUnA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 8:00:52 PM



Maxxam Analytics

Sample Name	PFDoA -Q3	**Position**	P1-B5	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFDoA -Q3.d
ACQ Method	PFC_MassVerification-PFDoA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 8:06:23 PM



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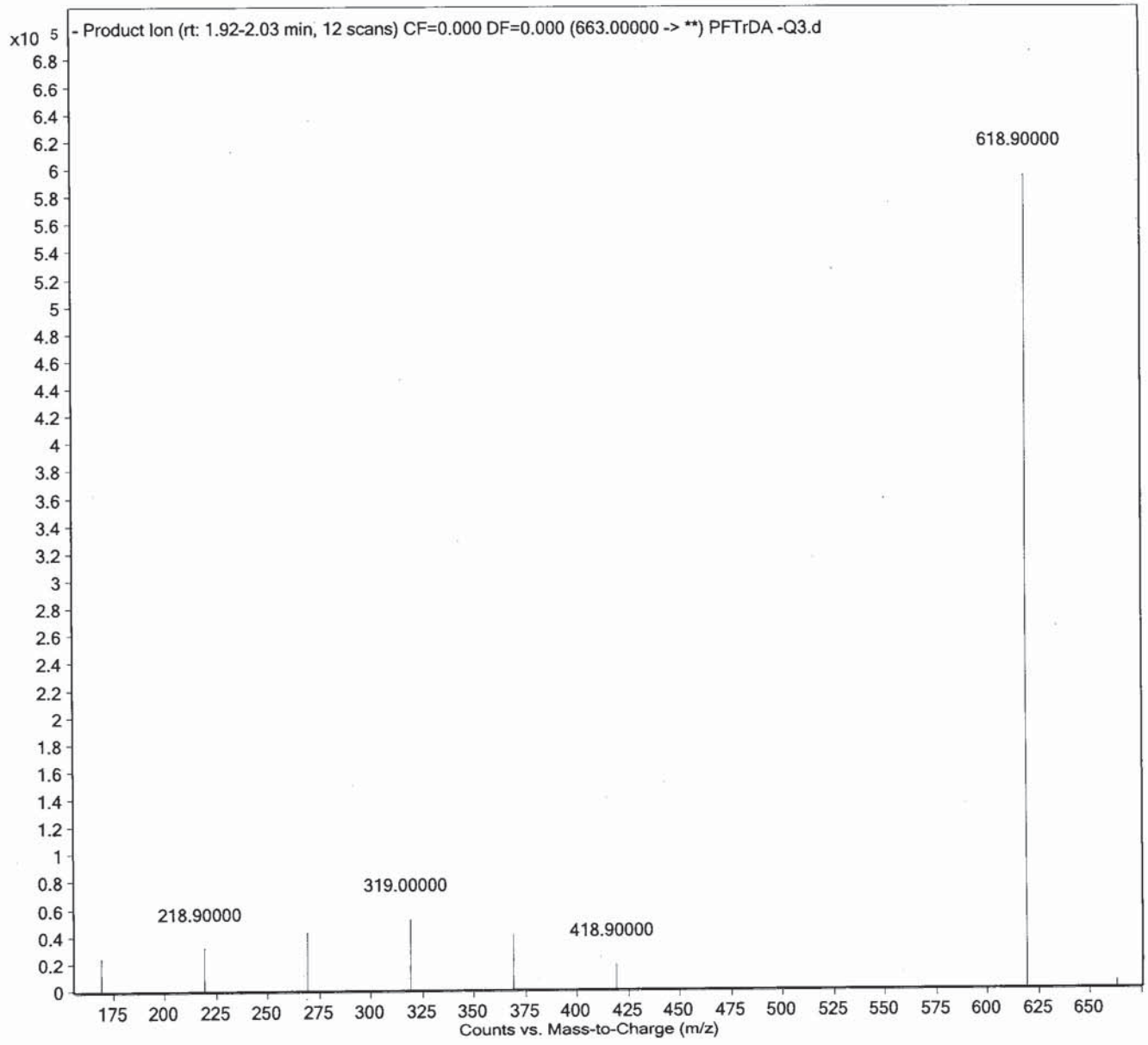
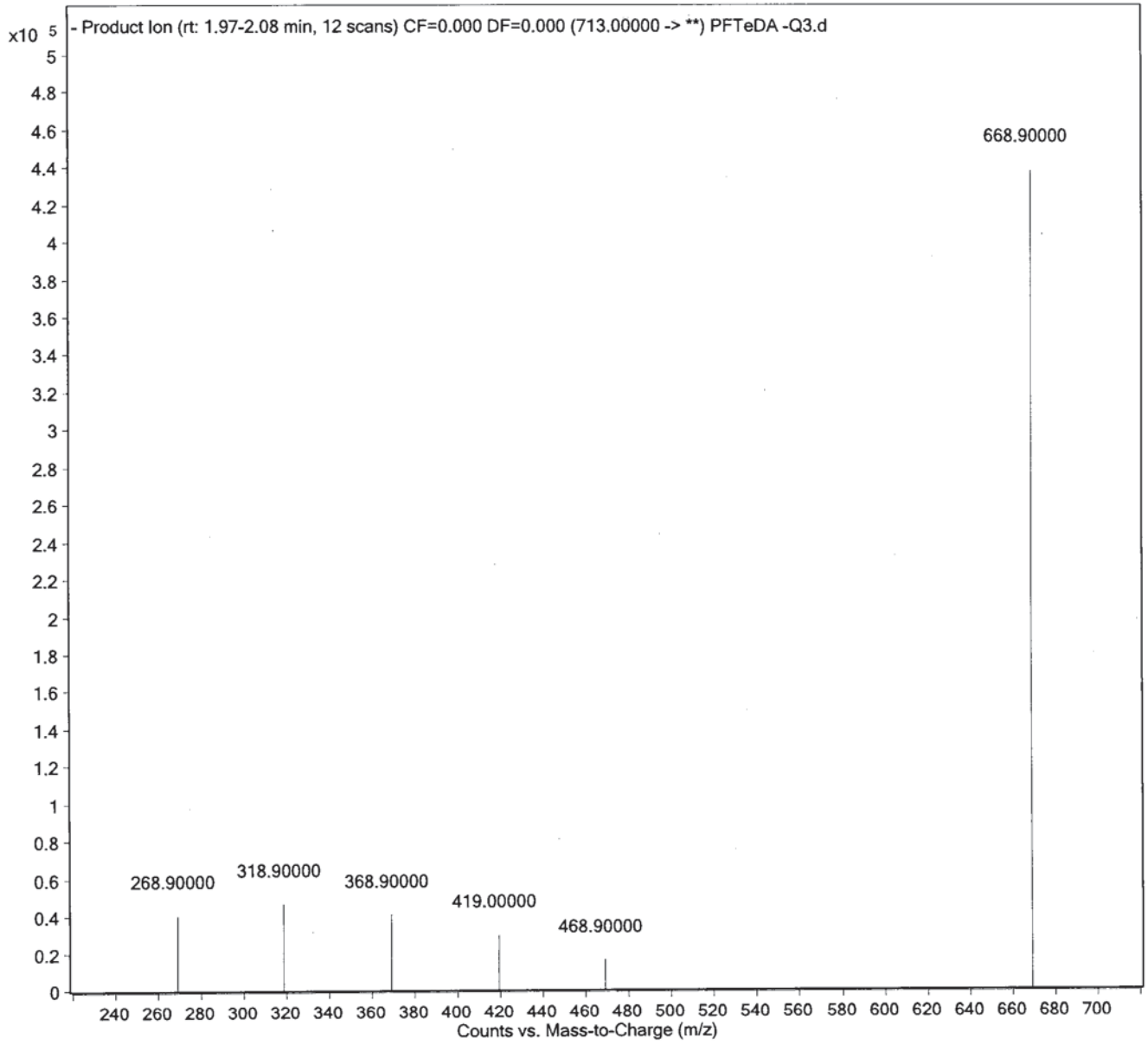
Sample Name	PFTrDA -Q3	**Position**	P1-B6	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFTrDA -Q3.d
ACQ Method	PFC_MassVerification-PFTrDA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 8:11:53 PM



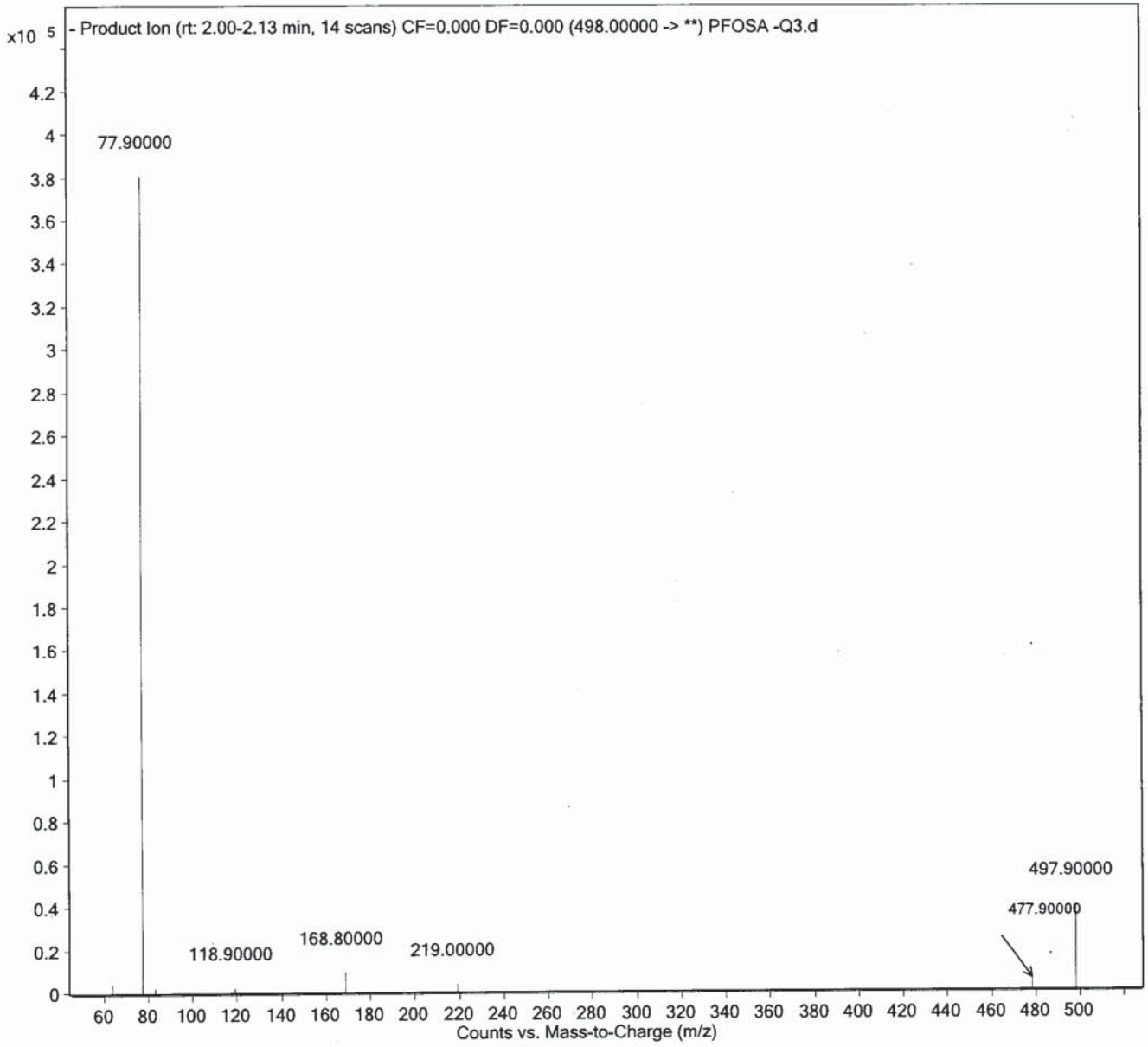
Maxxam Analytics

Sample Name	PFTeDA -Q3	**Position**	P1-B7	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFTeDA -Q3.d
ACQ Method	PFC_MassVerification-PFTeDA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 8:17:23 PM



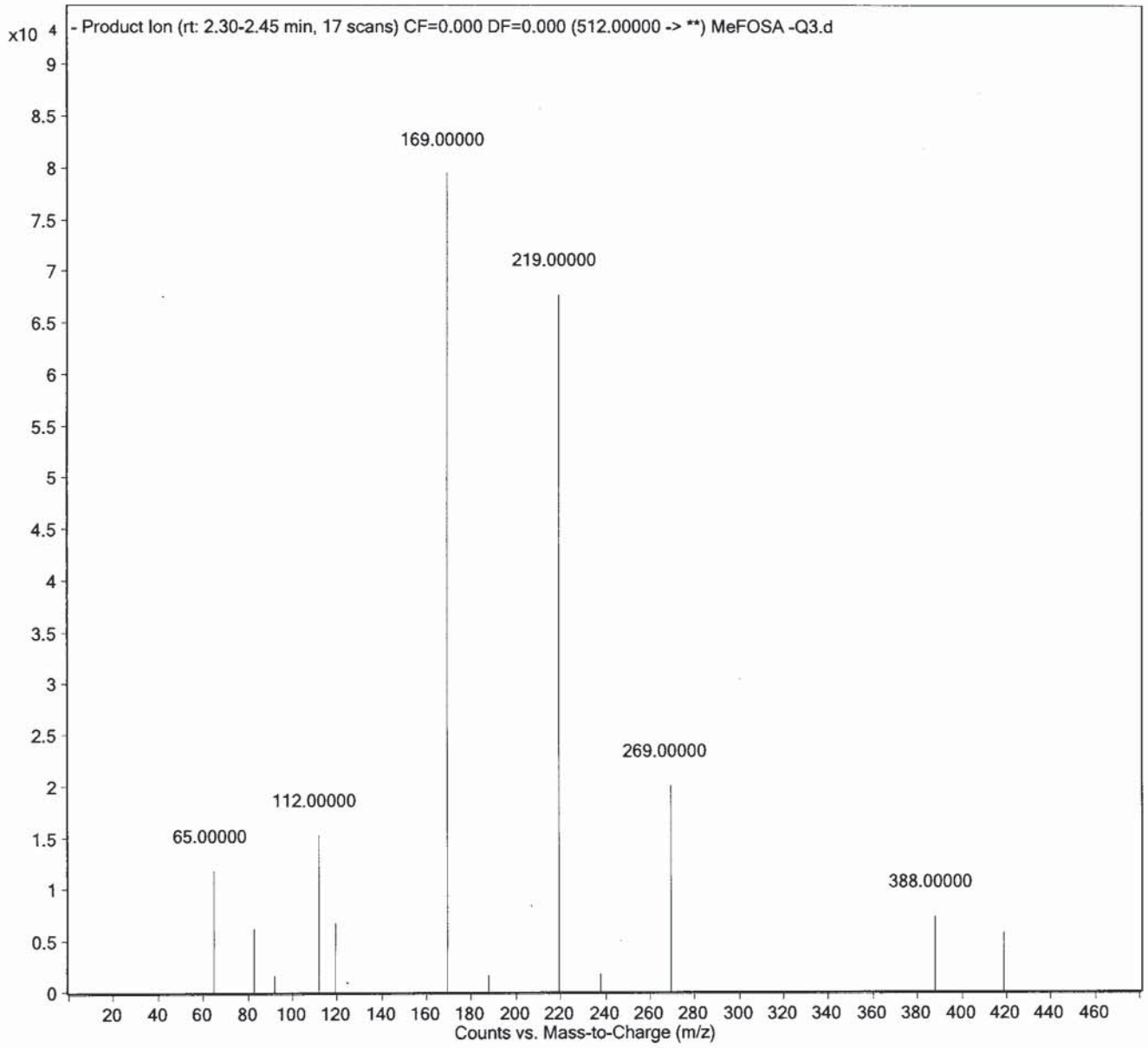
Maxxam Analytics

Sample Name	PFOSA -Q3	**Position**	P1-B8	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	PFOSA -Q3.d
ACQ Method	PFC_MassVerification-PFOSA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 8:22:55 PM



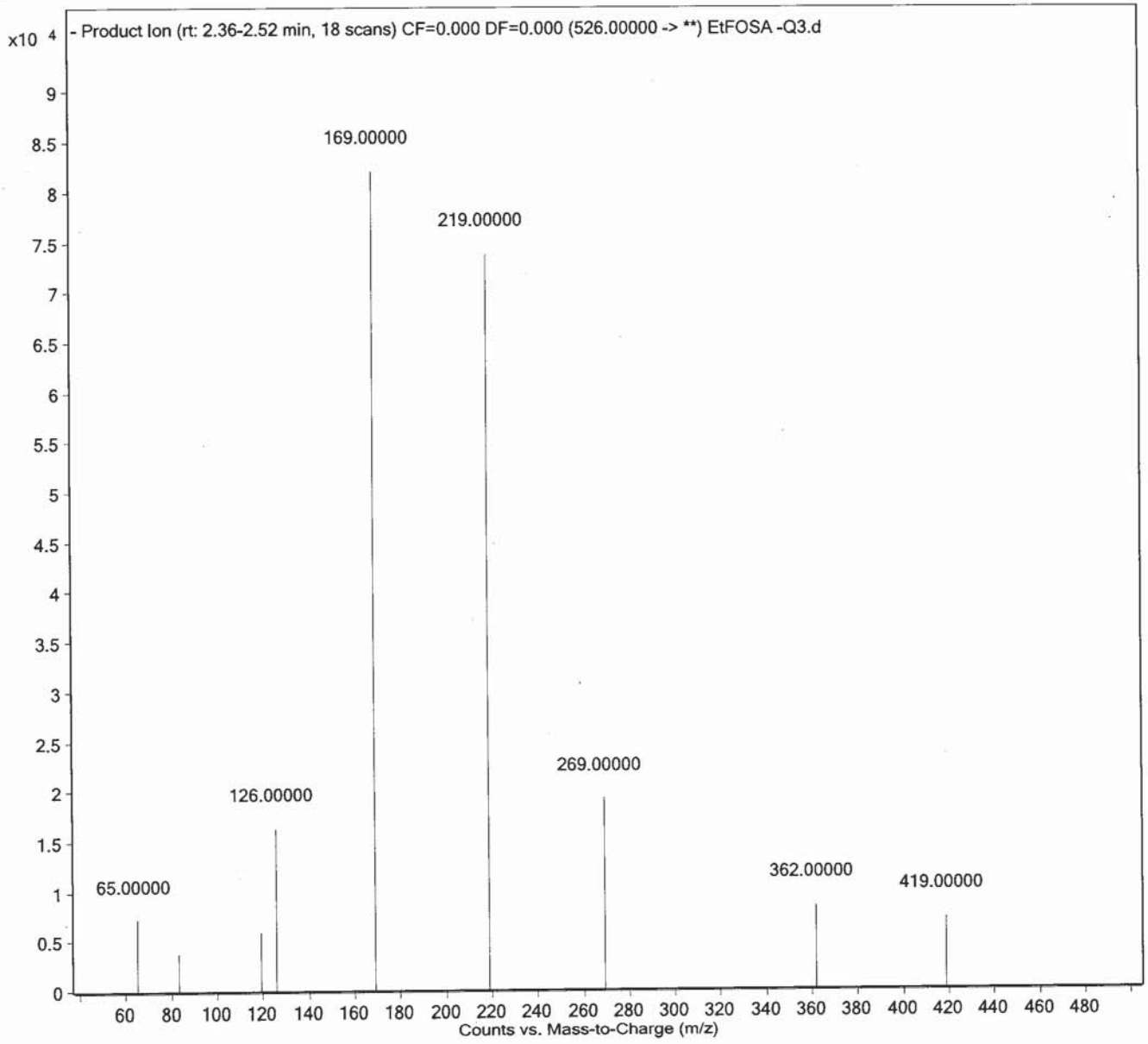
Maxxam Analytics

Sample Name	MeFOSA -Q3	**Position**	P1-B9	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MeFOSA -Q3.d
ACQ Method	PFC_MassVerification-MeFOSA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 8:28:25 PM



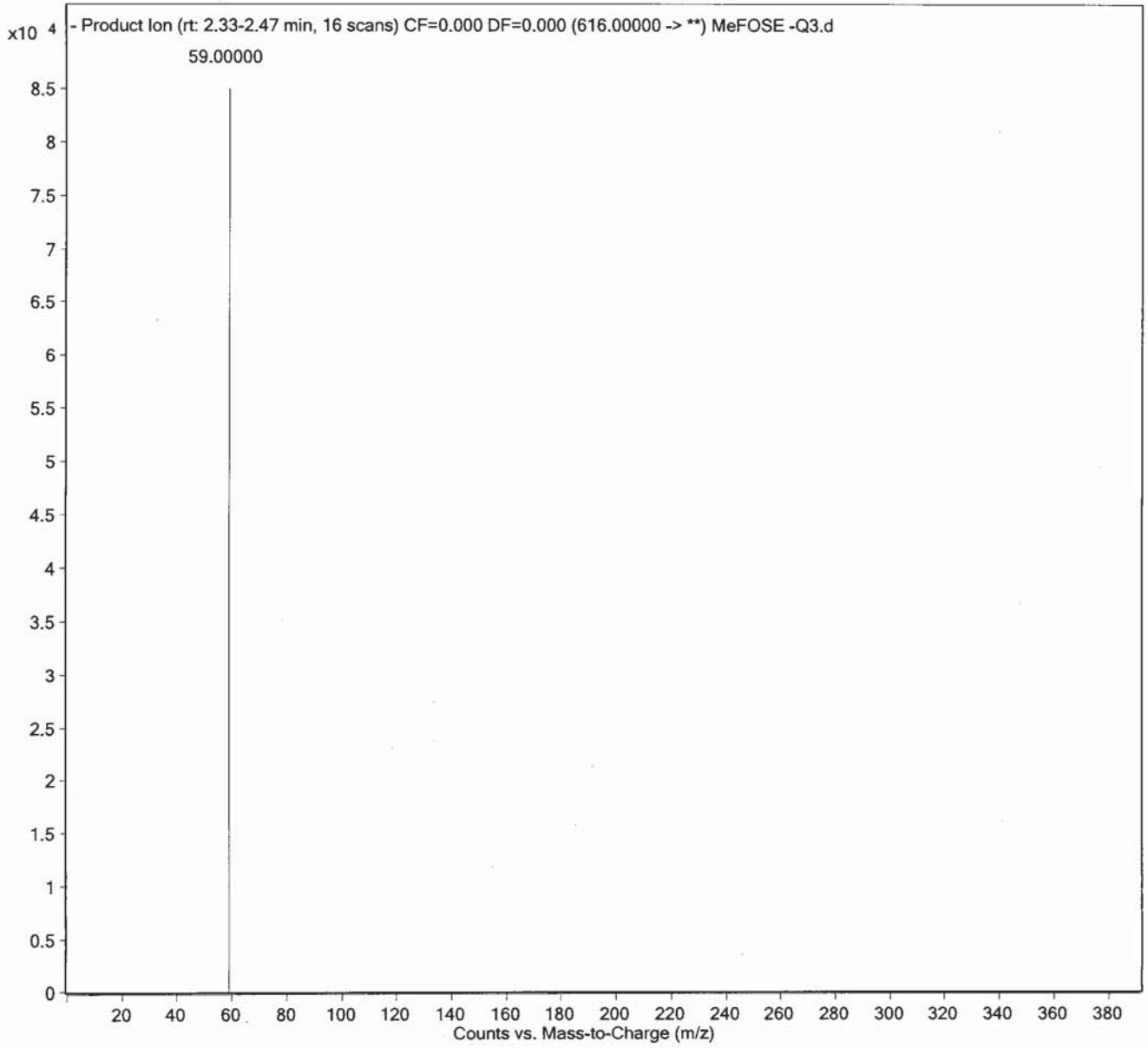
Alaska Analytics

Sample Name	EtFOSA -Q3	**Position**	P1-C1	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	EtFOSA -Q3.d
CQ Method	PFC_MassVerification-EtFOSA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 8:33:57 PM



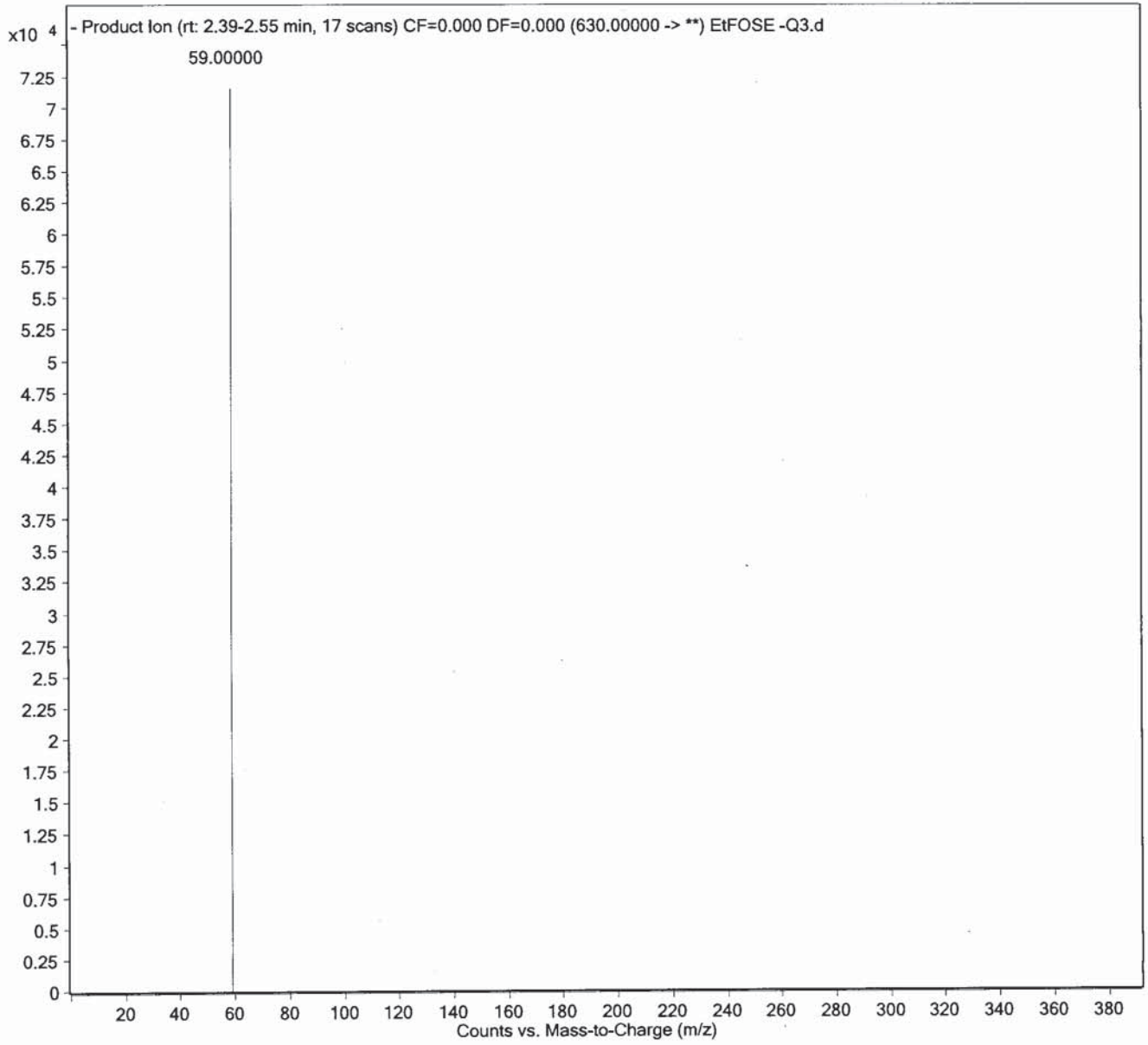
Maxxam Analytics

Sample Name	MeFOSE -Q3	**Position**	P1-C2	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MeFOSE -Q3.d
ACQ Method	PFC_MassVerification-MeFOSE-Q3.m	**Comment**		**Acquired Time**	2017/07/10 8:39:26 PM



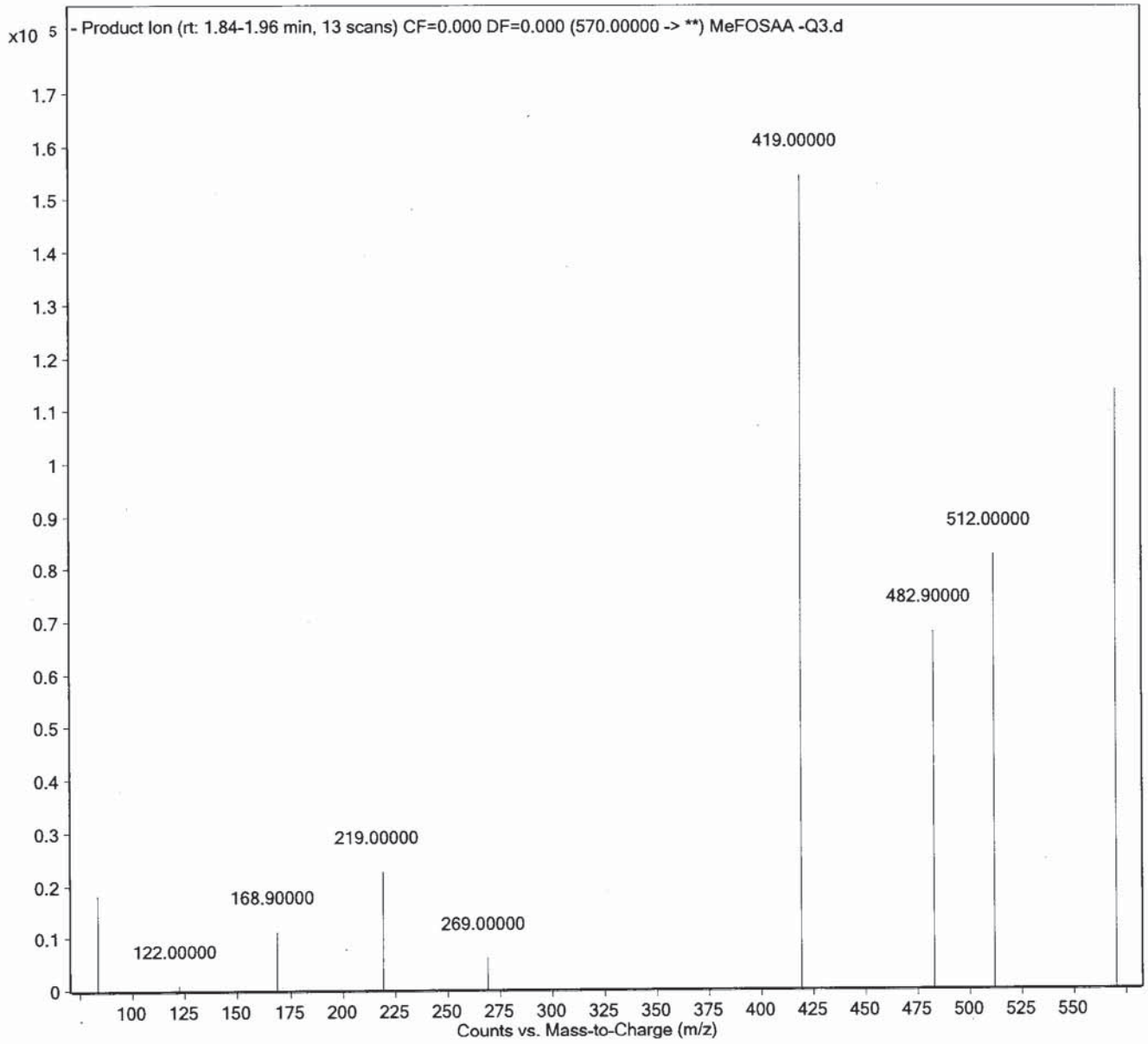
Maxxam Analytics

Sample Name	EtFOSE -Q3	**Position**	P1-C3	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	EtFOSE -Q3.d
ACQ Method	PFC_MassVerification-EtFOSE-Q3.m	**Comment**		**Acquired Time**	2017/07/10 8:44:57 PM

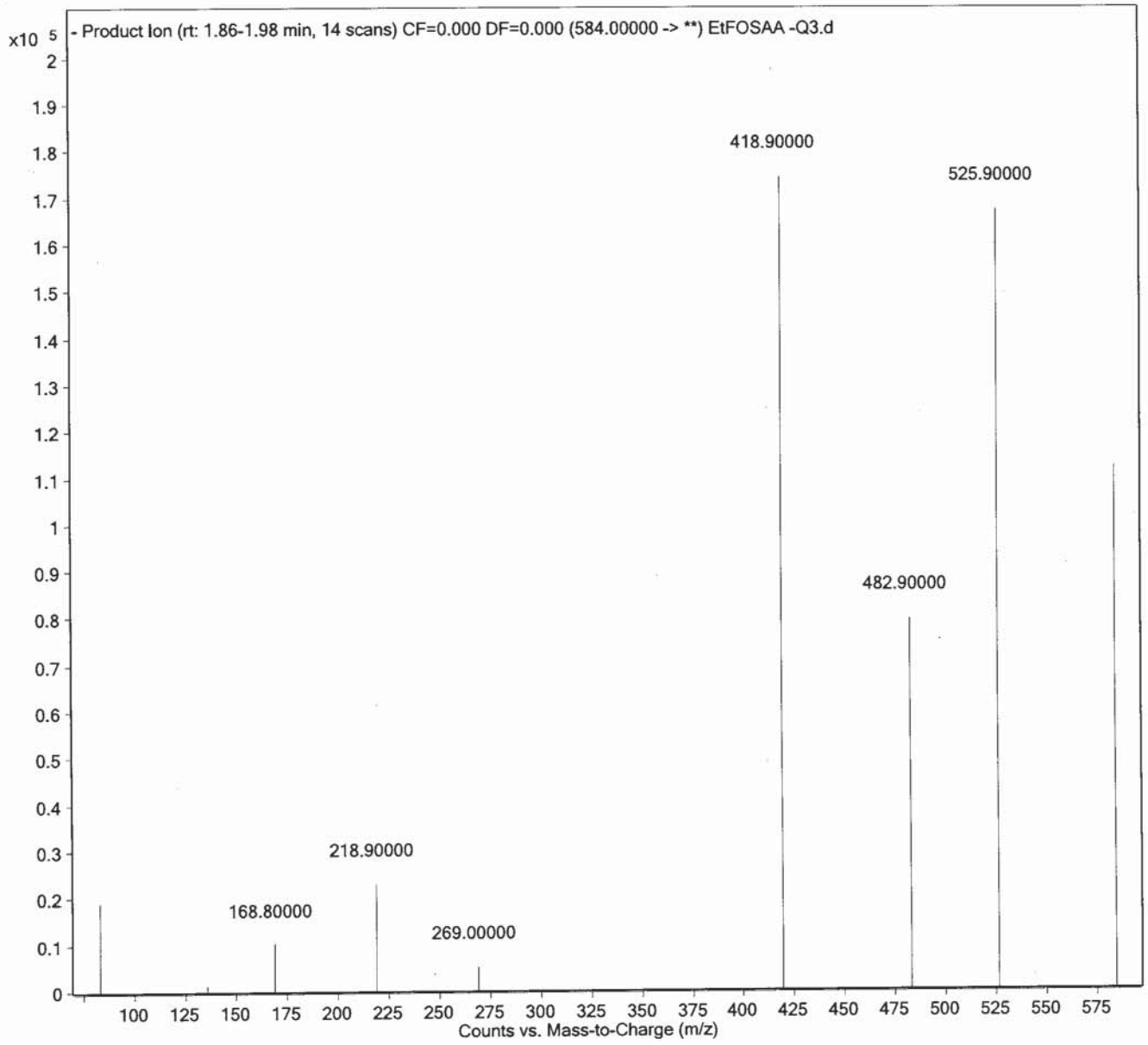


Eurofins Eaton Analytics

Sample Name	MeFOSAA -Q3	**Position**	P1-C4	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MeFOSAA -Q3.d
ACQ Method	PFC_MassVerification-MeFOSAA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 8:50:27 PM

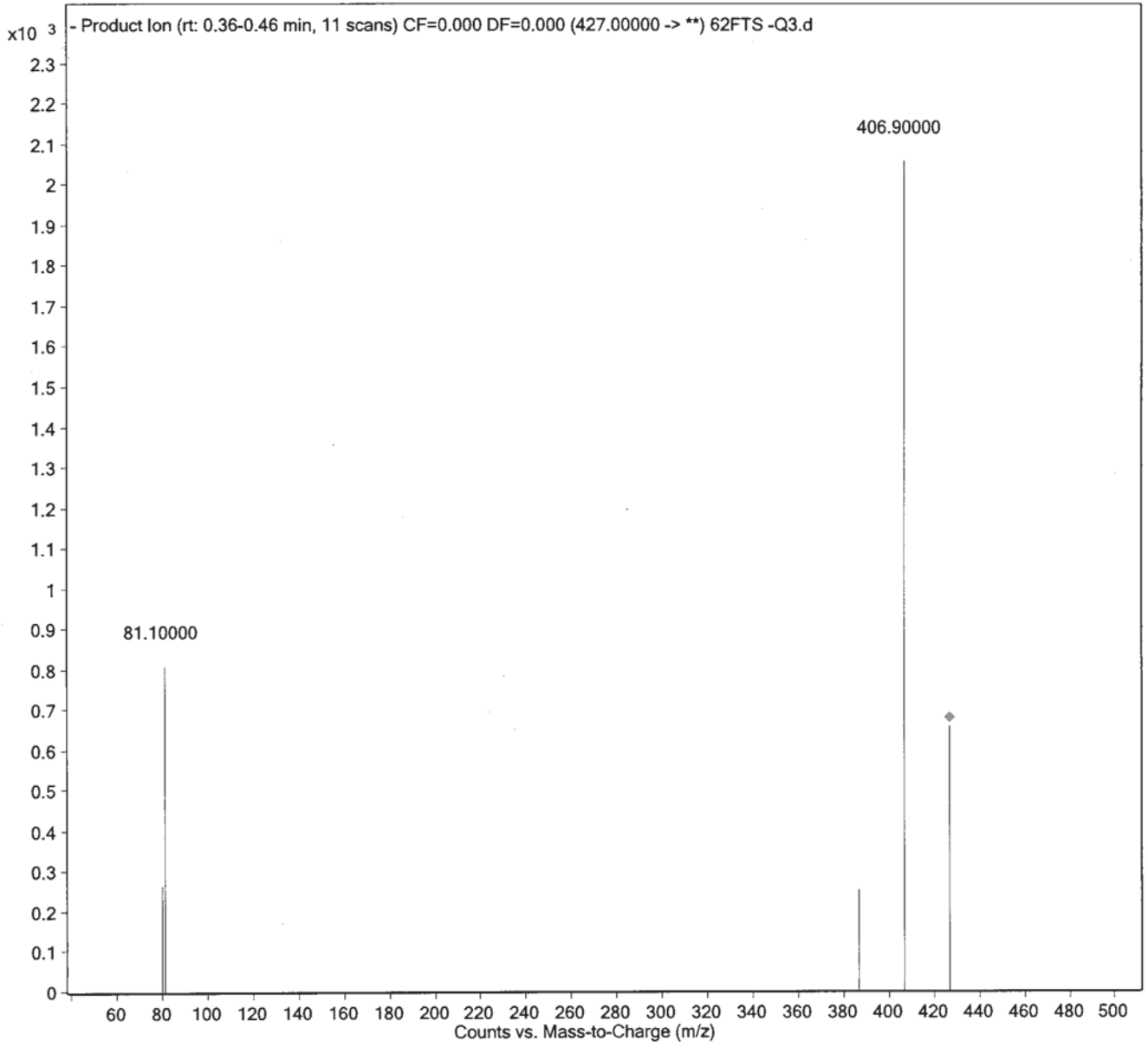


Sample Name	EtFOSAA -Q3	**Position**	P1-C5	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	EtFOSAA -Q3.d
ACQ Method	PFC_MassVerification-EtFOSAA-Q3.m	**Comment**		**Acquired Time**	2017/07/10 8:55:57 PM



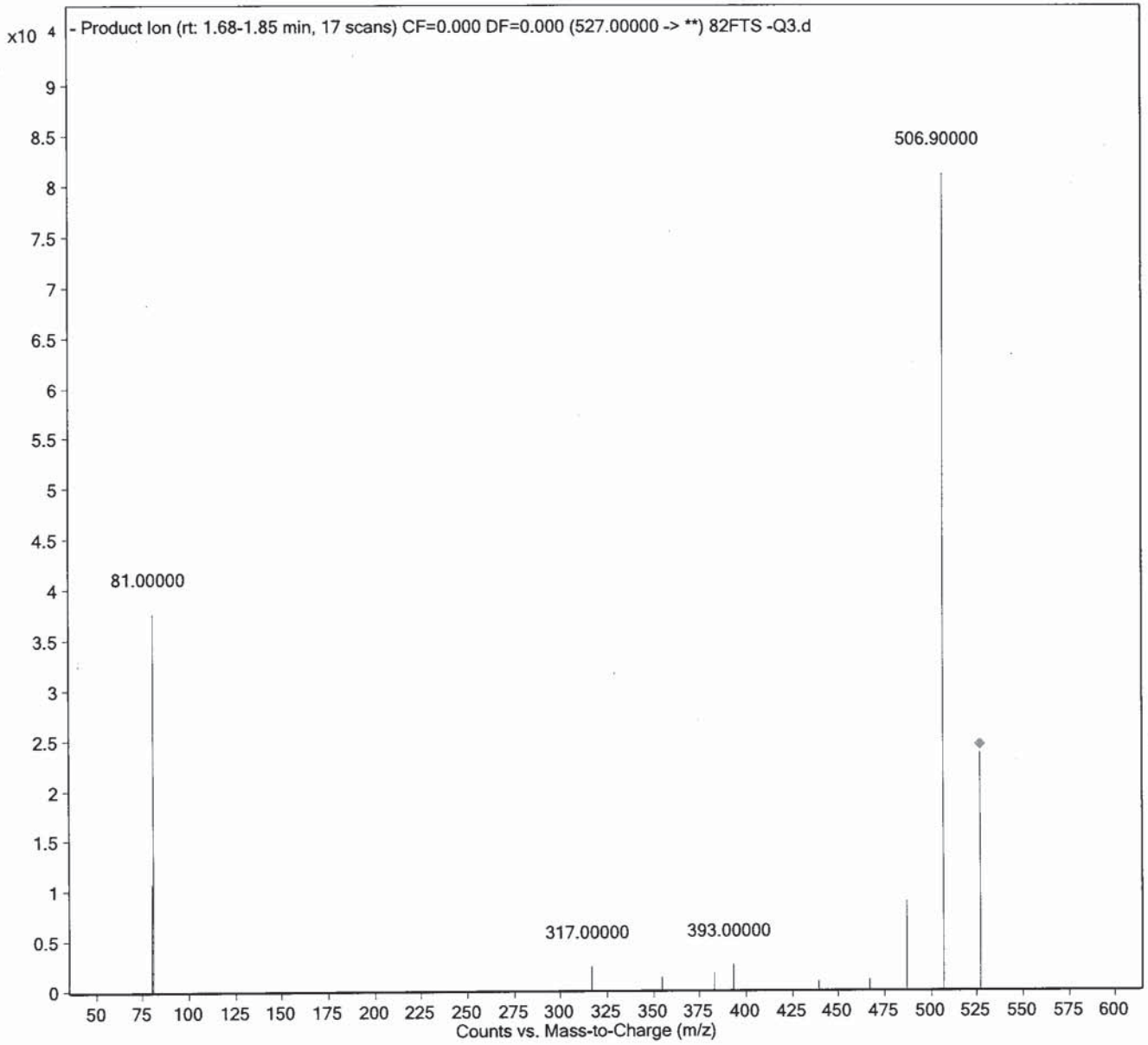
Maxxam Analytics

Sample Name	6:2FTS -Q3	**Position**	P1-C6	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	62FTS -Q3.d
ACQ Method	PFC_MassVerification-6-2FTS-Q3.m	**Comment**		**Acquired Time**	2017/07/10 9:01:27 PM



SGS AXYS Analytics

Sample Name	8:2FTS -Q3	**Position**	P1-C7	**Instrument Name**	LCMS04
User Name	M_G	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	82FTS -Q3.d
ACQ Method	PFC_MassVerification-8-2FTS-Q3.m	**Comment**		**Acquired Time**	2017/07/10 9:06:57 PM



Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFAS_MASSVER_170710_Q3.wkl

Operator Name: M_G
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\data\Mass Verification\20170710_Q3
Pre-Worklist Script: ---
Post-Worklist Script: ---
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: ---

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
1	PFBA -Q3	P1-A1	PFC_MassVerification-PFBA-Q3.m	PFBA -Q3.d	Sample	As Method	PFAS-Q3
2	PFBS -Q3	P1-A2	PFC_MassVerification-PFBS-Q3.m	PFBS -Q3.d	Sample	As Method	PFAS-Q3
3	PFPeA -Q3	P1-A3	PFC_MassVerification-PFPeA-Q3.m	PFPeA -Q3.d	Sample	As Method	PFAS-Q3
4	PFHxA -Q3	P1-A4	PFC_MassVerification-PFHxA-Q3.m	PFHxA -Q3.d	Sample	As Method	PFAS-Q3
5	PFHxS -Q3	P1-A5	PFC_MassVerification-PFHxS-Q3.m	PFHxS -Q3.d	Sample	As Method	PFAS-Q3
6	PFHpA-Q3	P1-A6	PFC_MassVerification-PFHpA-Q3.m	PFHpA-Q3.d	Sample	As Method	PFAS-Q3
7	PFHpS-Q3	P1-A7	PFC_MassVerification-PFHpS-Q3.m	PFHpS-Q3.d	Sample	As Method	PFAS-Q3
8	PFOA -Q3	P1-A8	PFC_MassVerification-PFOA-Q3.m	PFOA -Q3.d	Sample	As Method	PFAS-Q3
9	PFOS -Q3	P1-A9	PFC_MassVerification-PFOS-Q3.m	PFOS -Q3.d	Sample	As Method	PFAS-Q3

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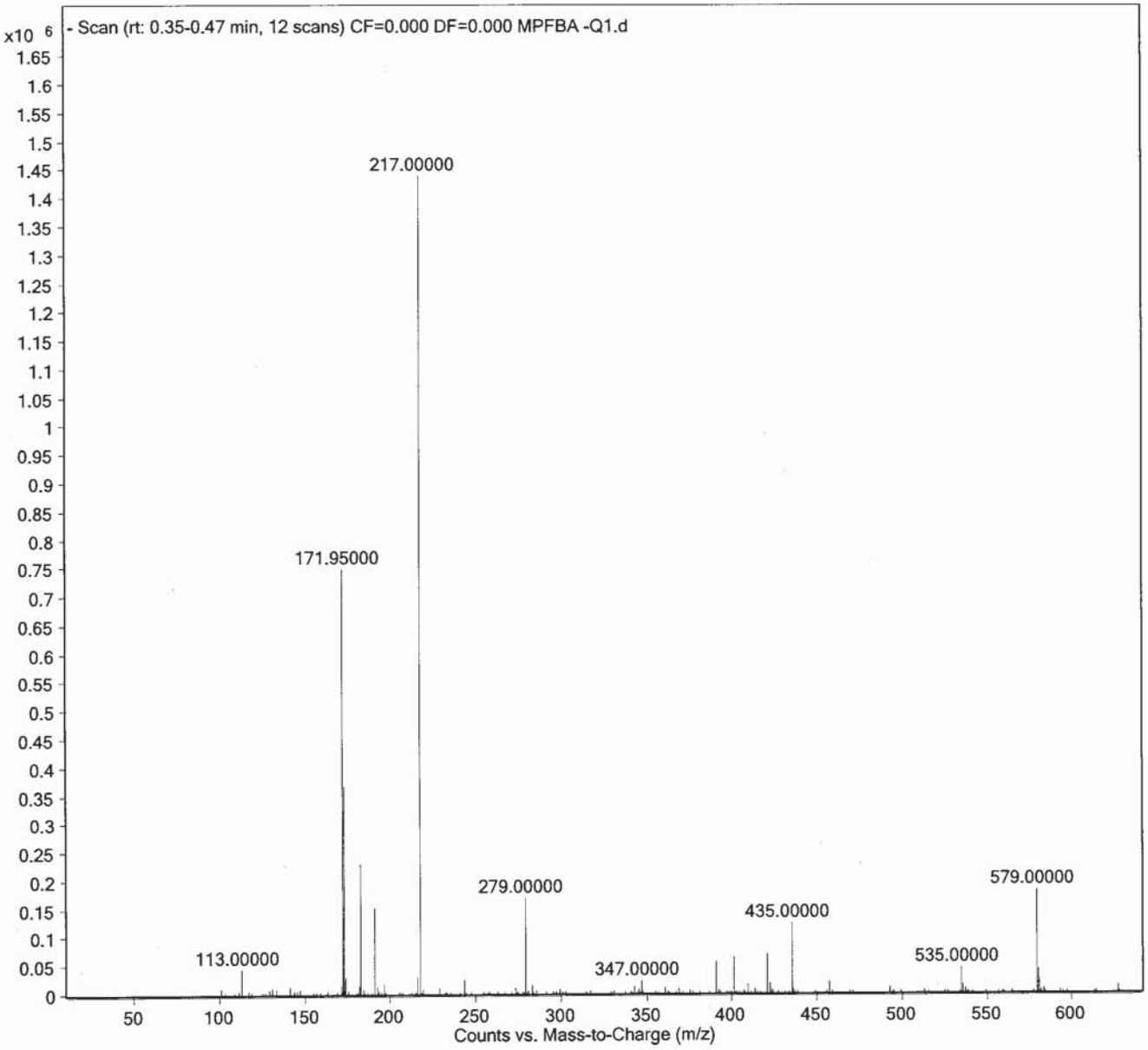
	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
10	PFNA -Q3	P1-B1	PFC_MassVerification-PFNA-Q3.m	PFNA -Q3.d	Sample	As Method	PFAS-Q3
11	PFDA -Q3	P1-B2	PFC_MassVerification-PFDA-Q3.m	PFDA -Q3.d	Sample	As Method	PFAS-Q3
12	PFDS -Q3	P1-B3	PFC_MassVerification-PFDS-Q3.m	PFDS -Q3.d	Sample	As Method	PFAS-Q3
13	PFUnA -Q3	P1-B4	PFC_MassVerification-PFUnA-Q3.m	PFUnA -Q3.d	Sample	As Method	PFAS-Q3
14	PFDoA -Q3	P1-B5	PFC_MassVerification-PFDoA-Q3.m	PFDoA -Q3.d	Sample	As Method	PFAS-Q3
15	PFTrDA -Q3	P1-B6	PFC_MassVerification-PFTrDA-Q3.m	PFTrDA -Q3.d	Sample	As Method	PFAS-Q3
16	PFTeDA -Q3	P1-B7	PFC_MassVerification-PFTeDA-Q3.m	PFTeDA -Q3.d	Sample	As Method	PFAS-Q3
17	PFOSA -Q3	P1-B8	PFC_MassVerification-PFOSA-Q3.m	PFOSA -Q3.d	Sample	As Method	PFAS-Q3
18	MeFOSA -Q3	P1-B9	PFC_MassVerification-MeFOSA-Q3.m	MeFOSA -Q3.d	Sample	As Method	PFAS-Q3
19	EtFOSA -Q3	P1-C1	PFC_MassVerification-EtFOSA-Q3.m	EtFOSA -Q3.d	Sample	As Method	PFAS-Q3
20	MeFOSE -Q3	P1-C2	PFC_MassVerification-MeFOSE-Q3.m	MeFOSE -Q3.d	Sample	As Method	PFAS-Q3
21	EtFOSE -Q3	P1-C3	PFC_MassVerification-EtFOSE-Q3.m	EtFOSE -Q3.d	Sample	As Method	PFAS-Q3
22	MeFOSAA -Q3	P1-C4	PFC_MassVerification-MeFOSAA-Q3.m	MeFOSAA -Q3.d	Sample	As Method	PFAS-Q3
23	EtFOSAA -Q3	P1-C5	PFC_MassVerification-EtFOSAA-Q3.m	EtFOSAA -Q3.d	Sample	As Method	PFAS-Q3
24	6:2FTS -Q3	P1-C6	PFC_MassVerification-6-2FTS-Q3.m	62FTS -Q3.d	Sample	As Method	PFAS-Q3
25	8:2FTS -Q3	P1-C7	PFC_MassVerification-8-2FTS-Q3.m	82FTS -Q3.d	Sample	As Method	PFAS-Q3

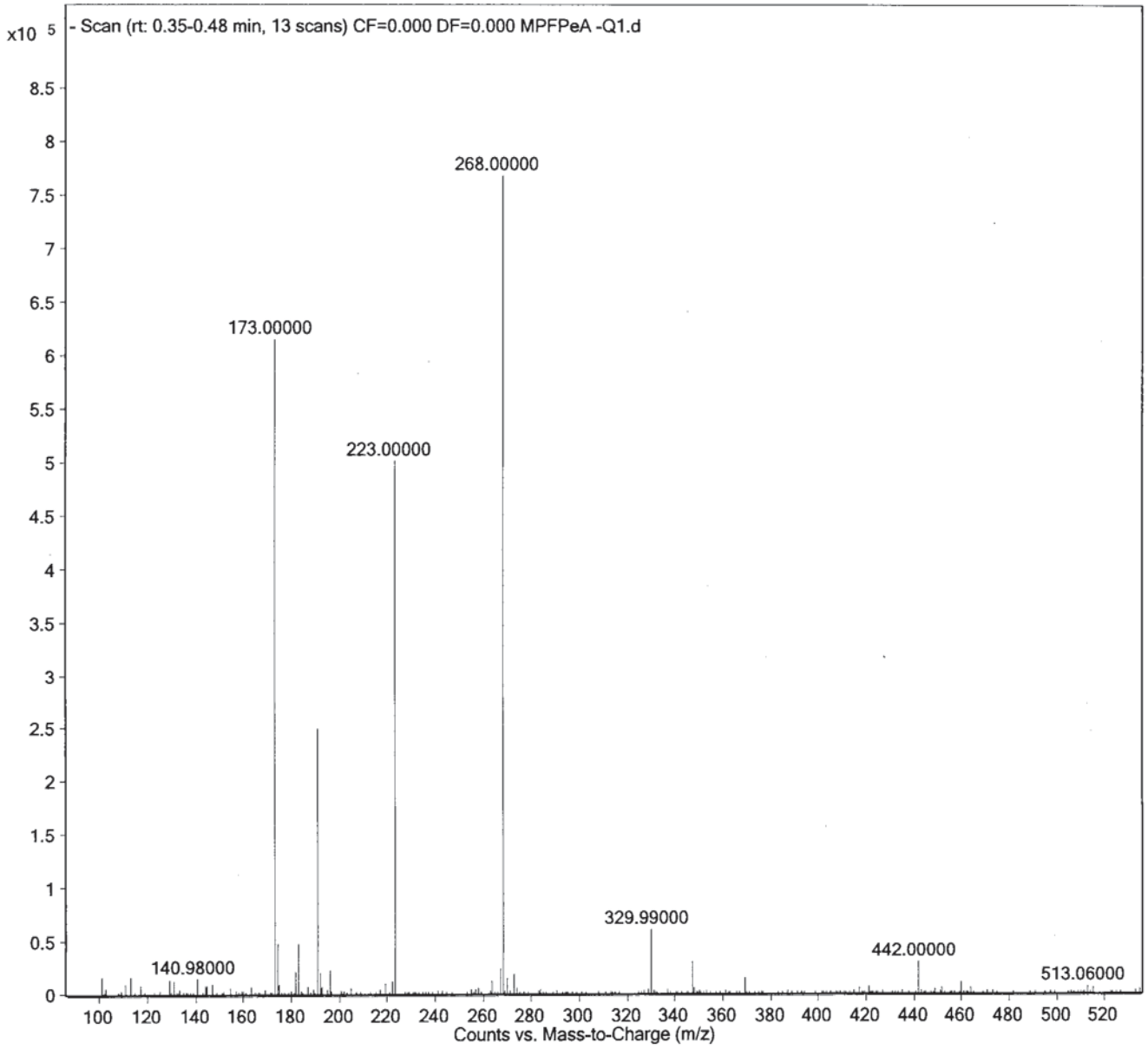
Extracted and Injection Internal Standard Precursor Ion Verification

Sample Name	MPFBA	**Position**	P2-A1	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFBA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 1:00:45 PM



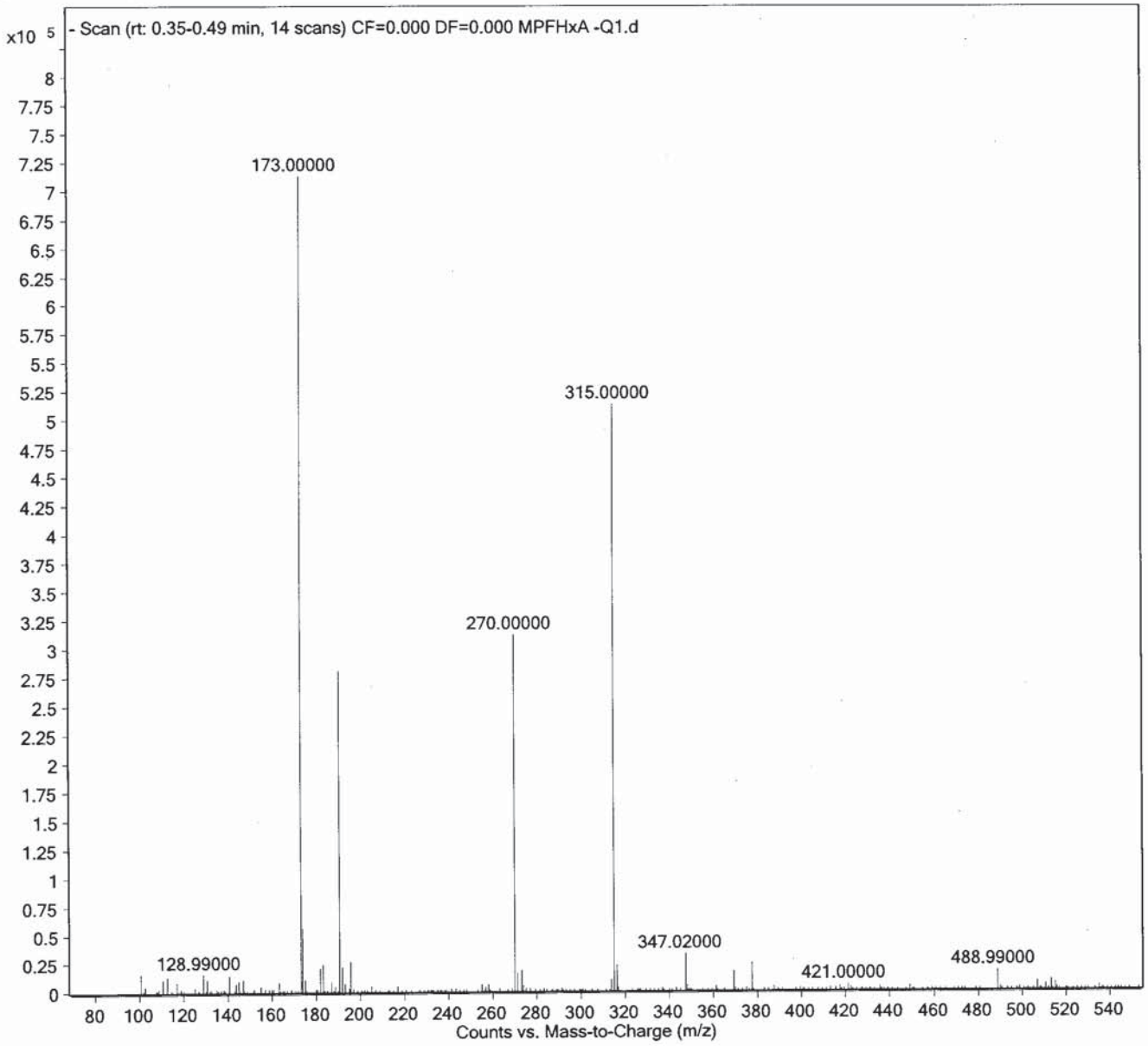
Sai Kam Analytics

Sample Name	MPFPeA	**Position**	P2-A2	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFPeA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 1:06:18 PM



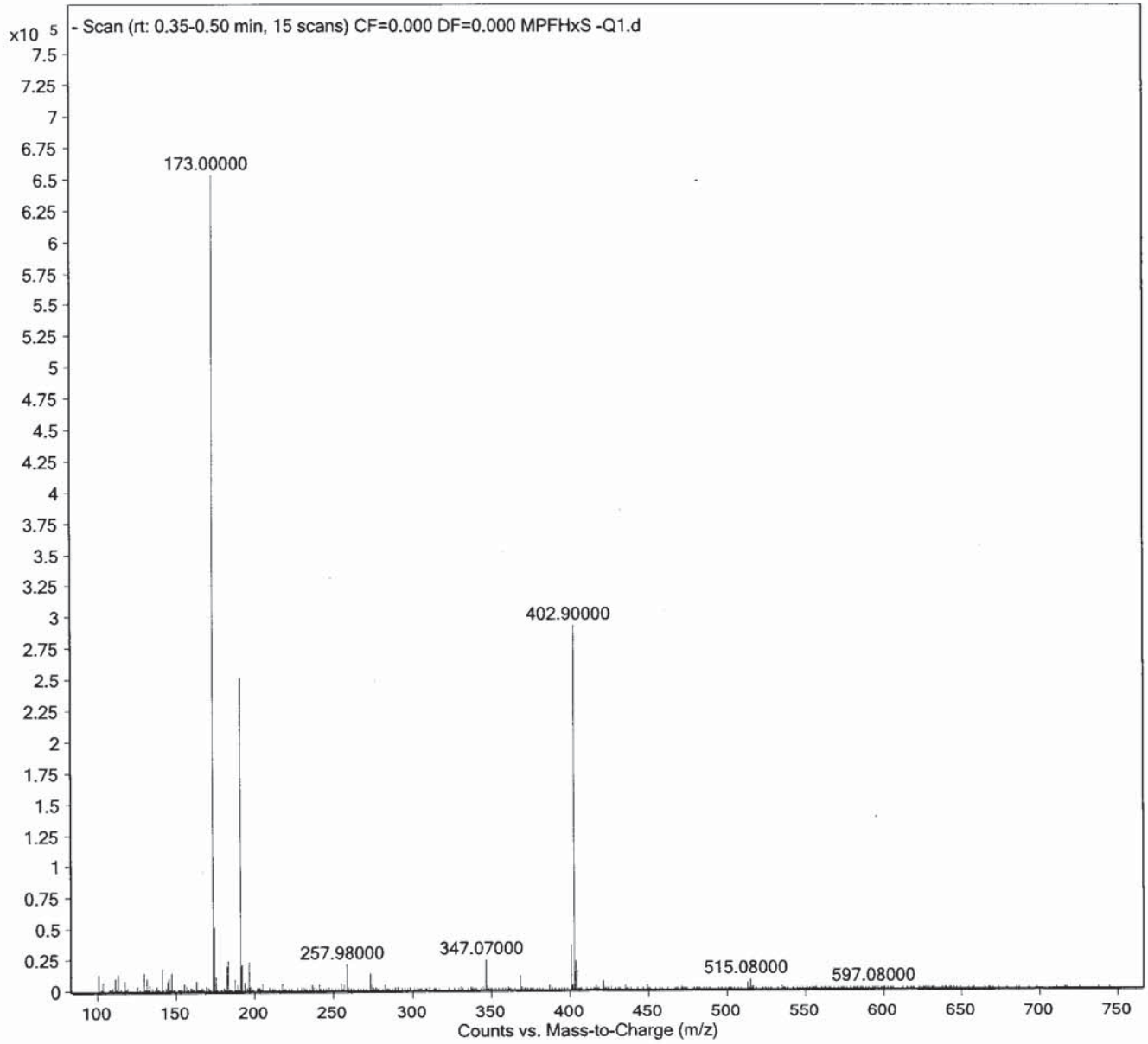
Alaskan Analytics

Sample Name	MPFHxA	**Position**	P2-A3	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFHxA -Q1.d
AcQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 1:11:48 PM

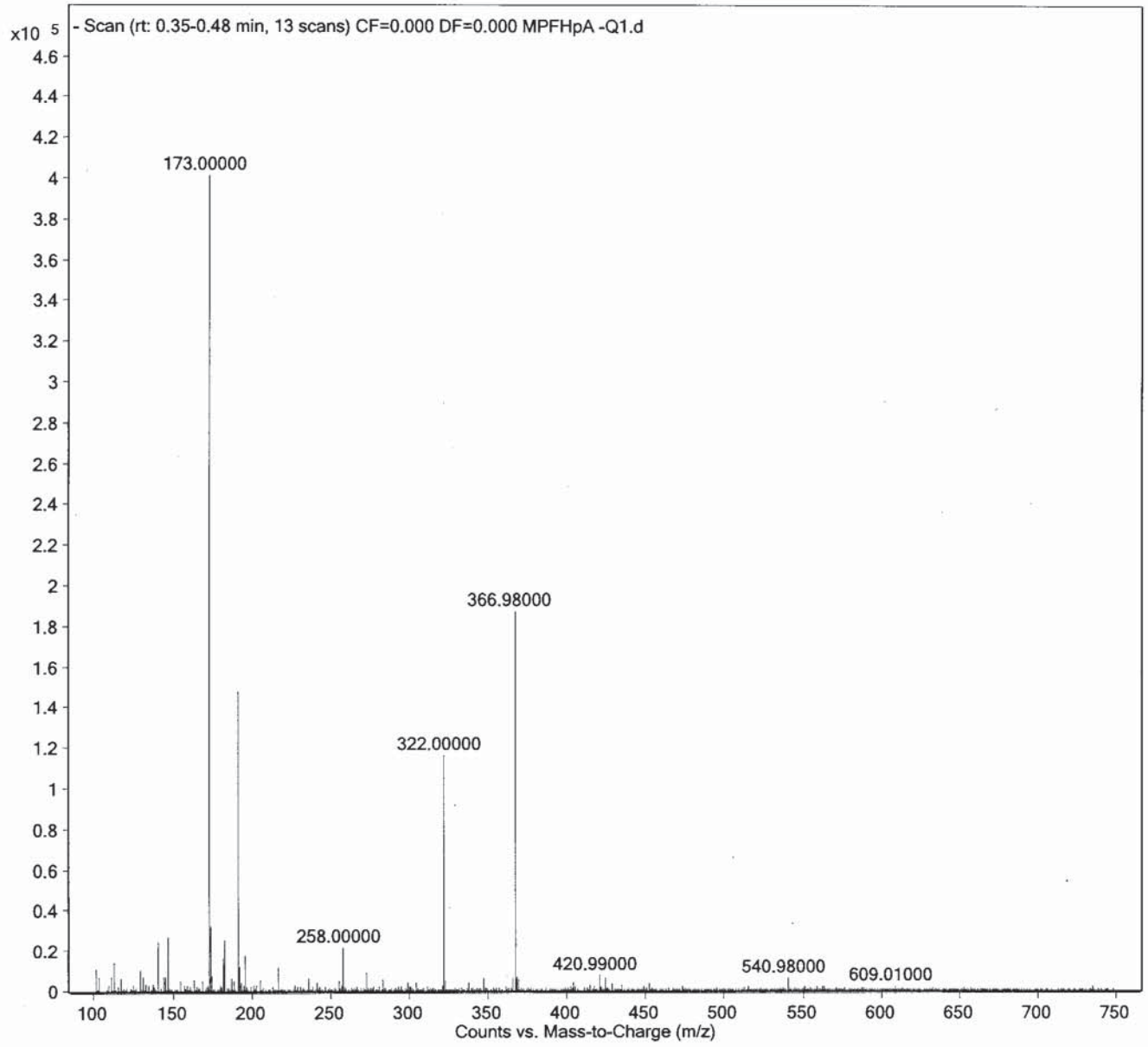


Maxxam Analytics

Sample Name	MPFHxS	**Position**	P2-A4	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFHxS -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 1:17:18 PM

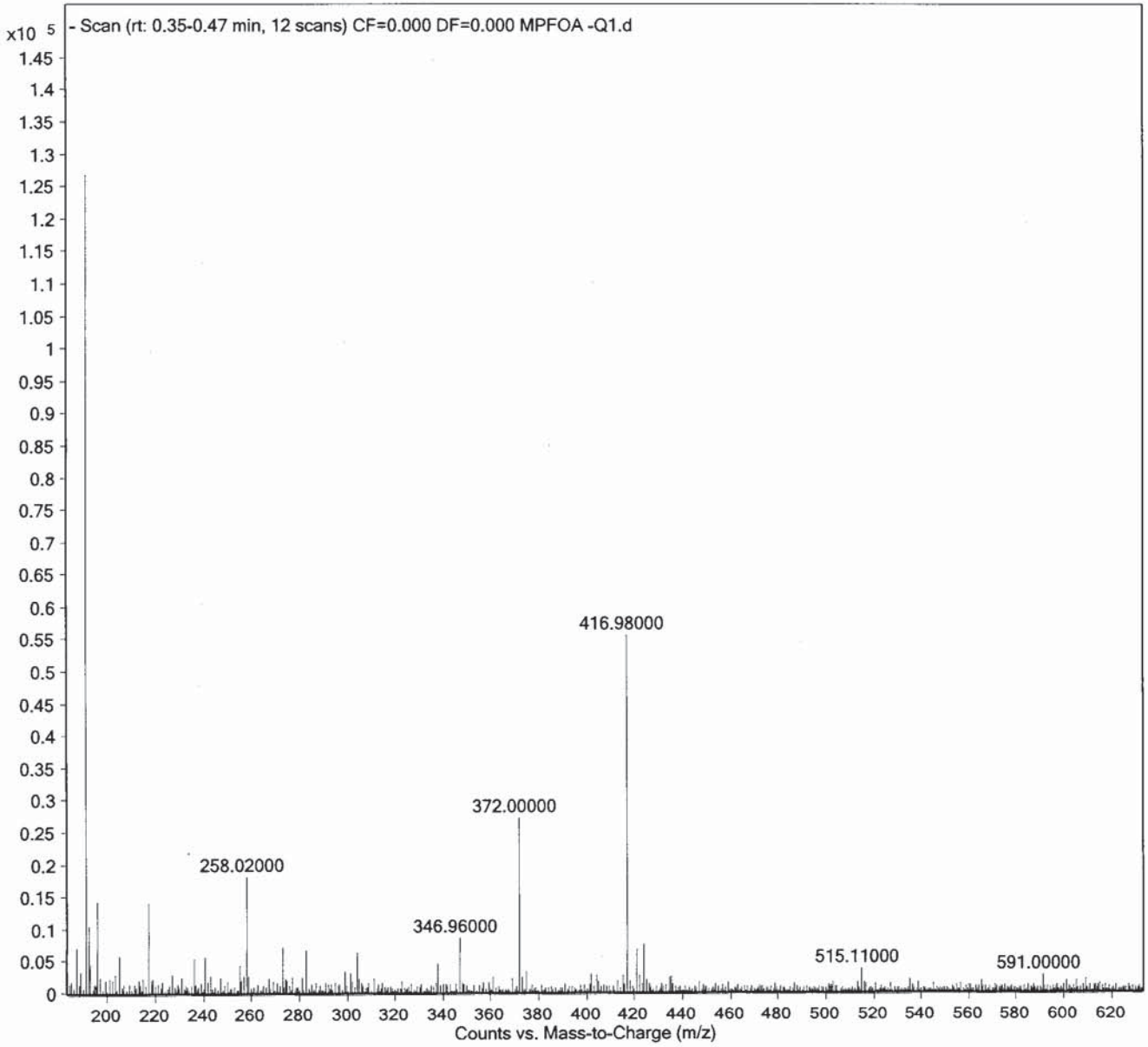


Sample Name	MPFHpA	**Position**	P2-A5	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFHpA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 1:22:48 PM



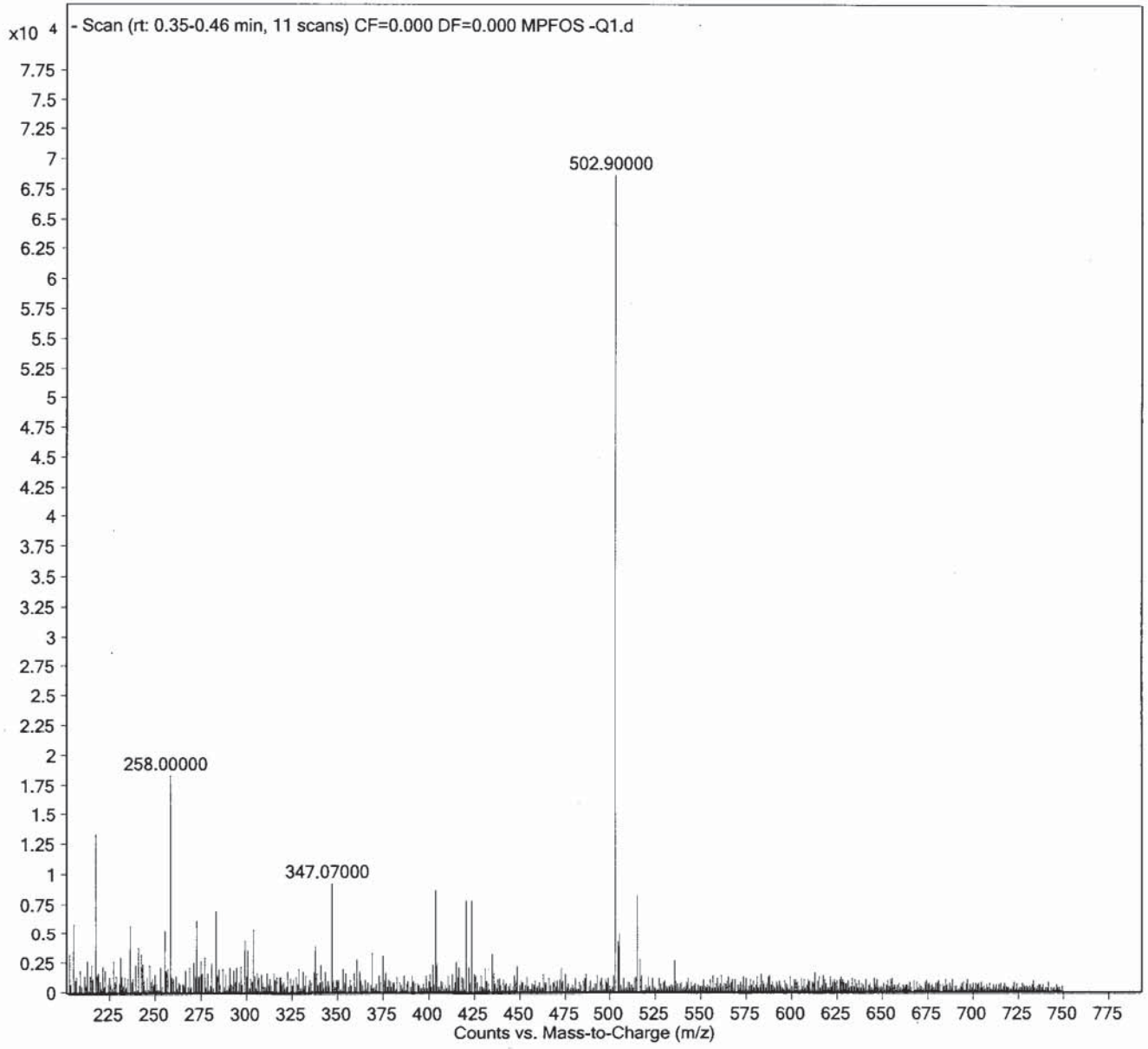
MaxXam Analytics

Sample Name	MPFOA	**Position**	P2-A6	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFOA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 1:28:18 PM



Sajam Analytics

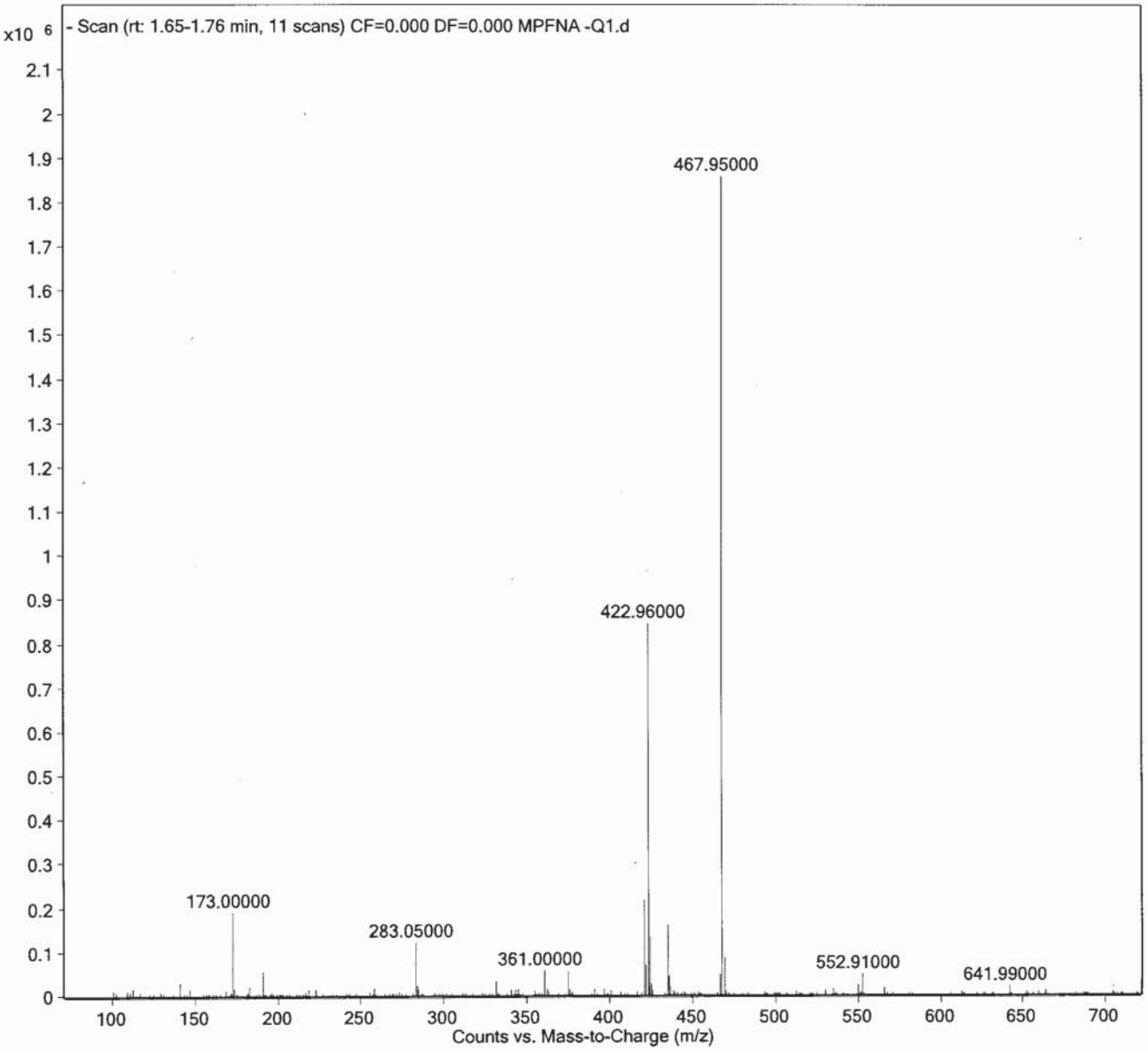
Sample Name	MPFOS	**Position**	P2-A7	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFOS -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 1:33:49 PM



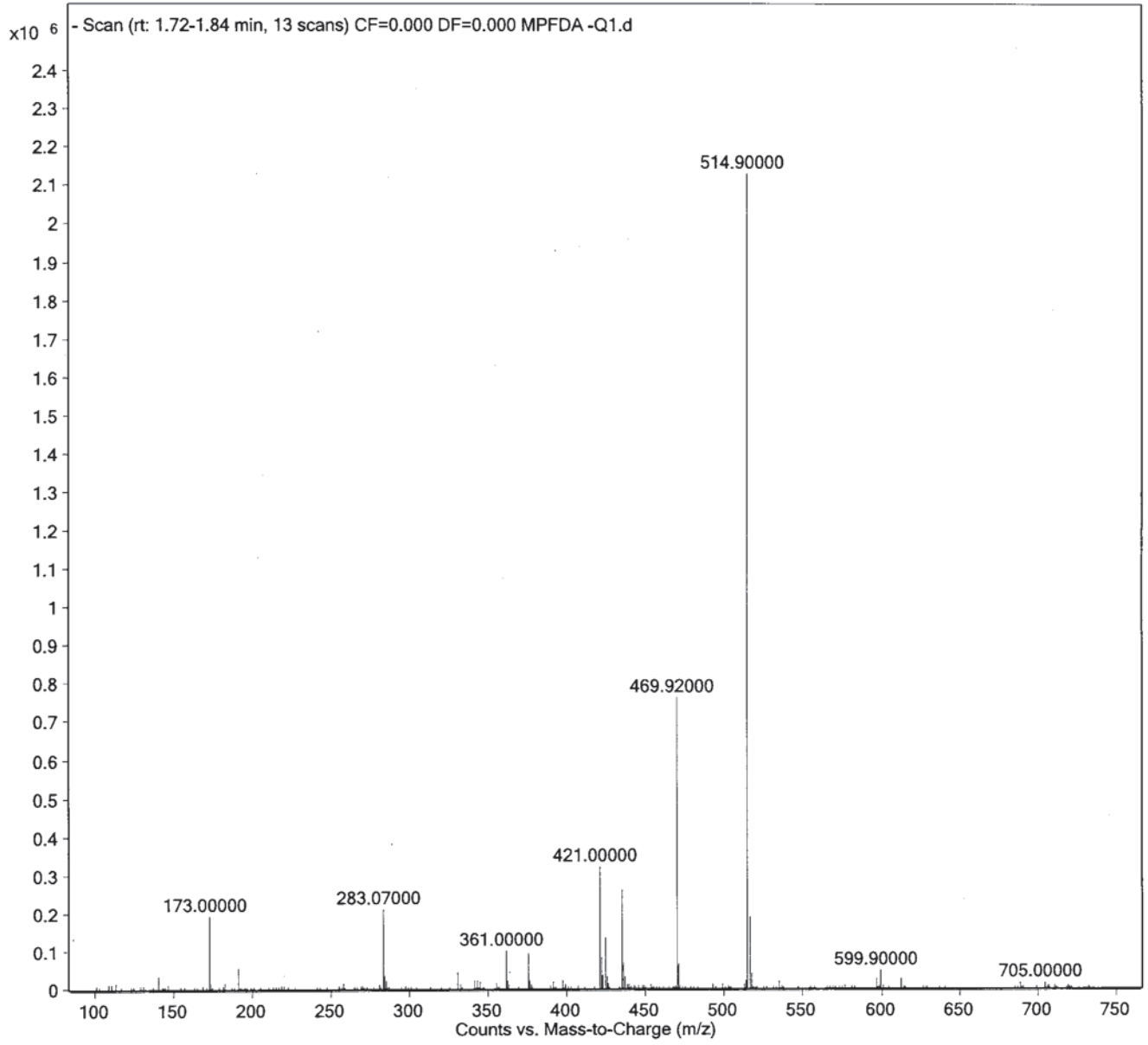
Maxxam Analytics

Sample Name	MPFNA	**Position**	P2-A8	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFNA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 1:39:21 PM

Alaxam Analytics

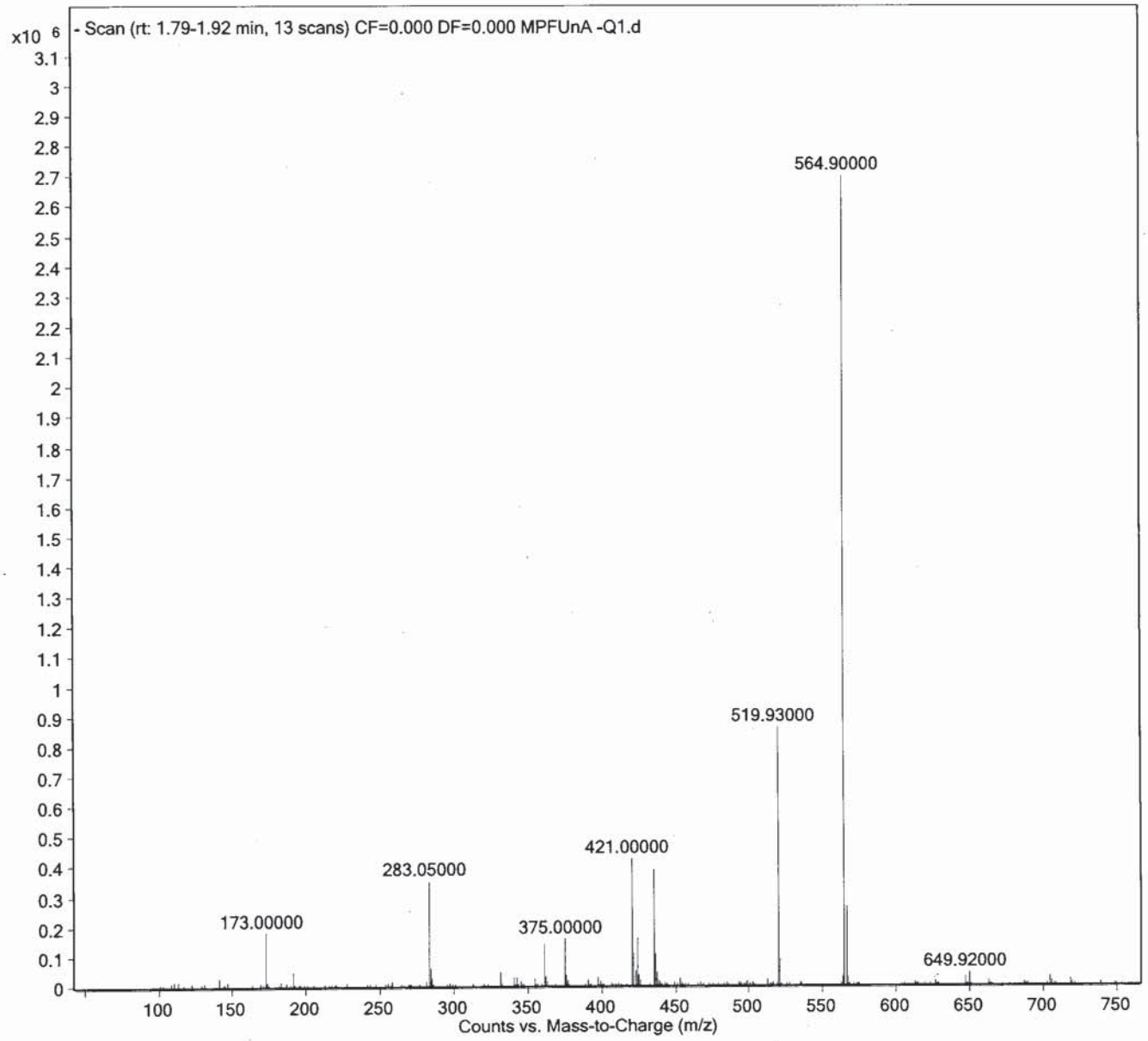


Sample Name	MPFDA	**Position**	P2-A9	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFDA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 1:44:52 PM

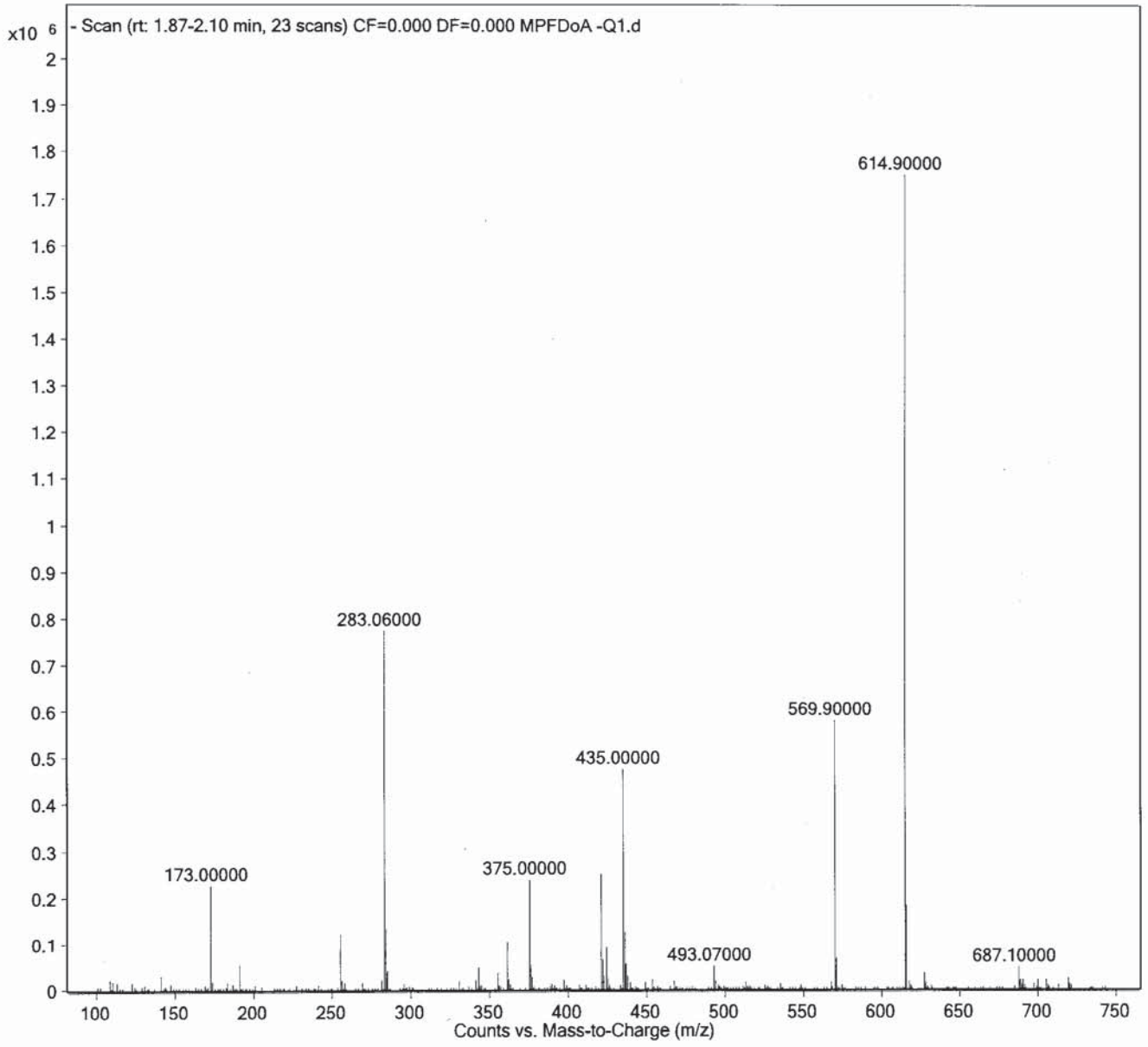


Alaskan Analytics

Sample Name	MPFUnA	**Position**	P2-B1	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFUnA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 1:50:23 PM

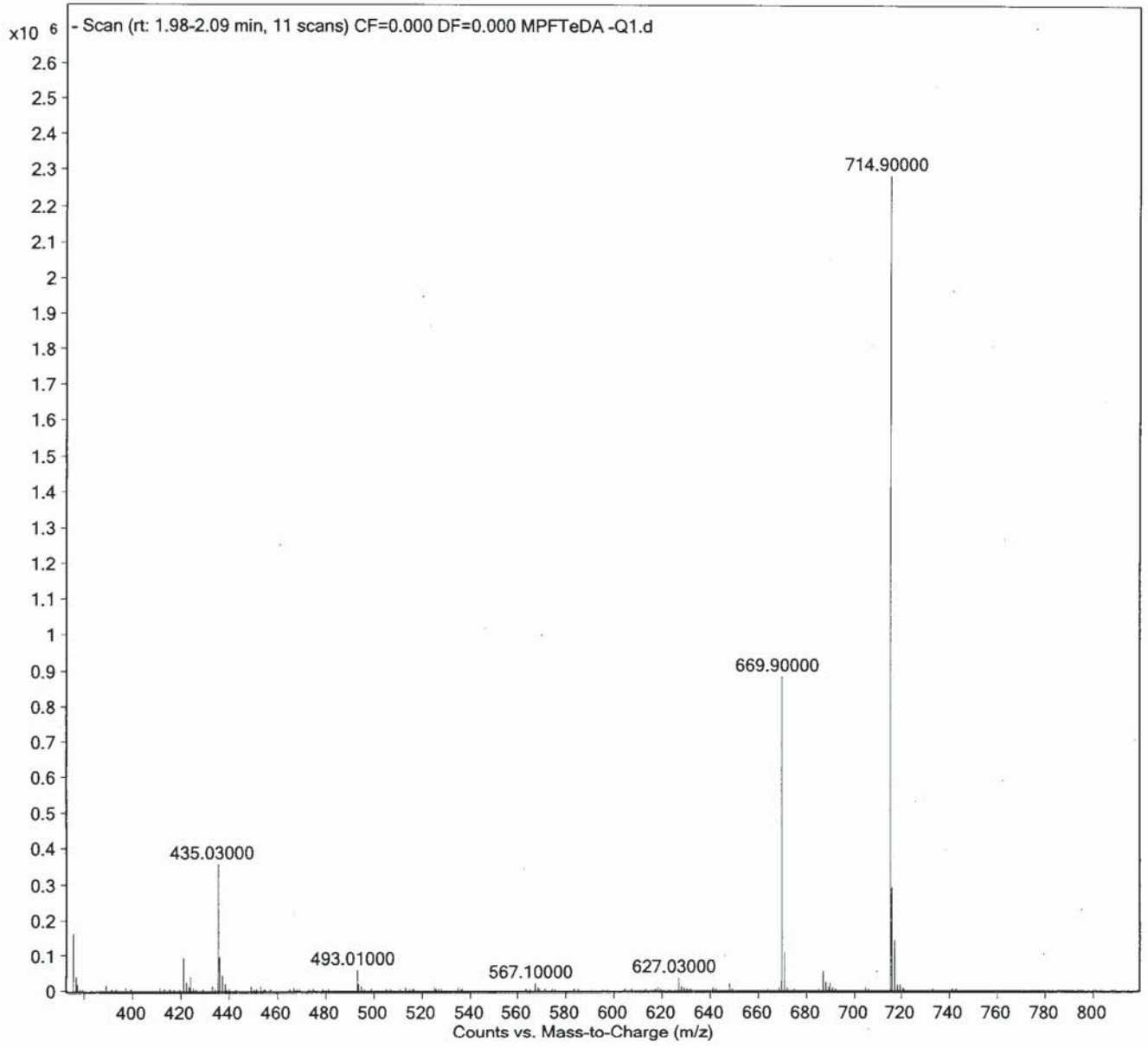


Sample Name	MPFDoA	**Position**	P2-B2	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFDoA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 1:55:53 PM



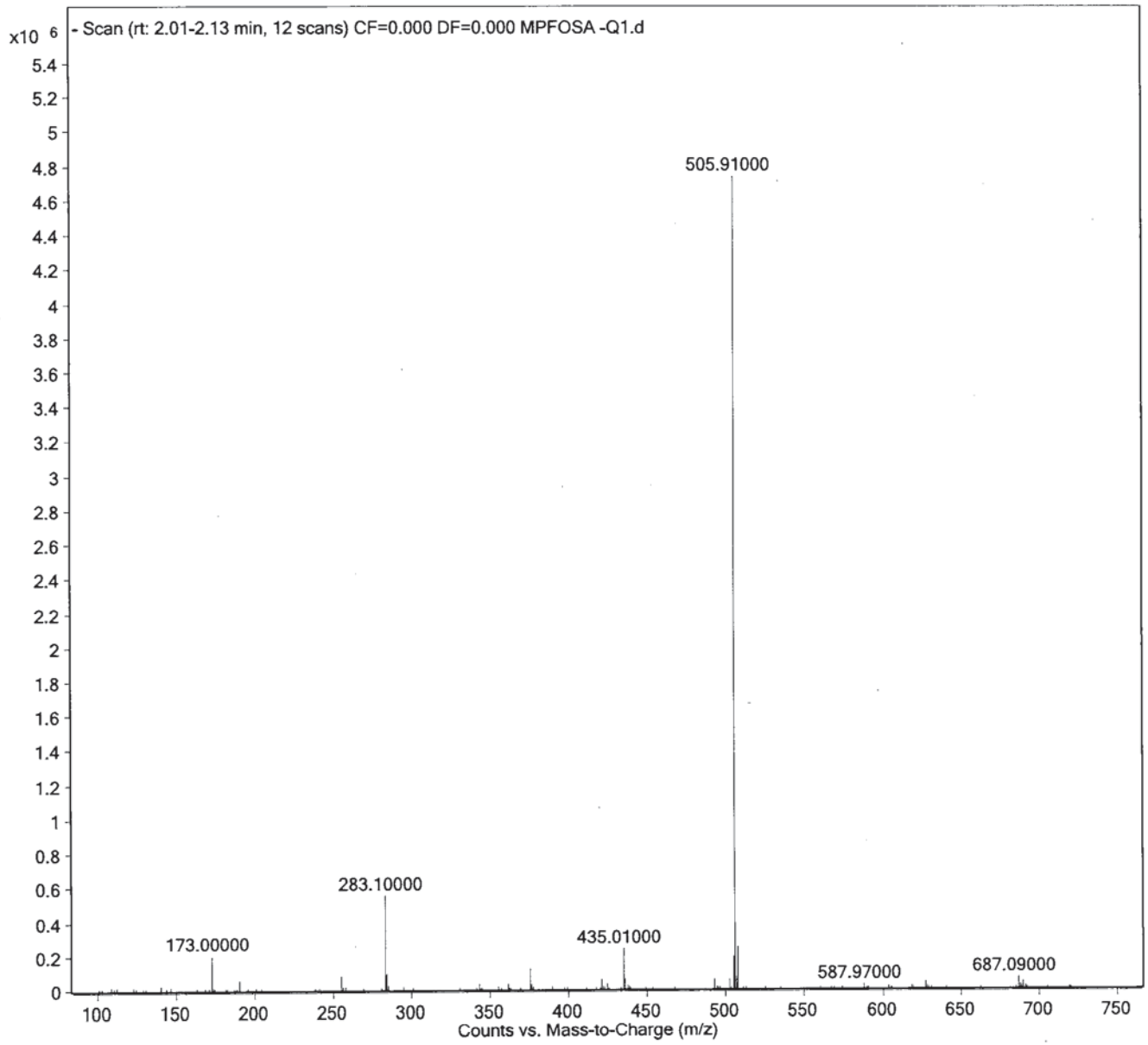
Alkam Analytics

Sample Name	MPFTeDA	**Position**	P2-B3	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFTeDA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 2:01:23 PM



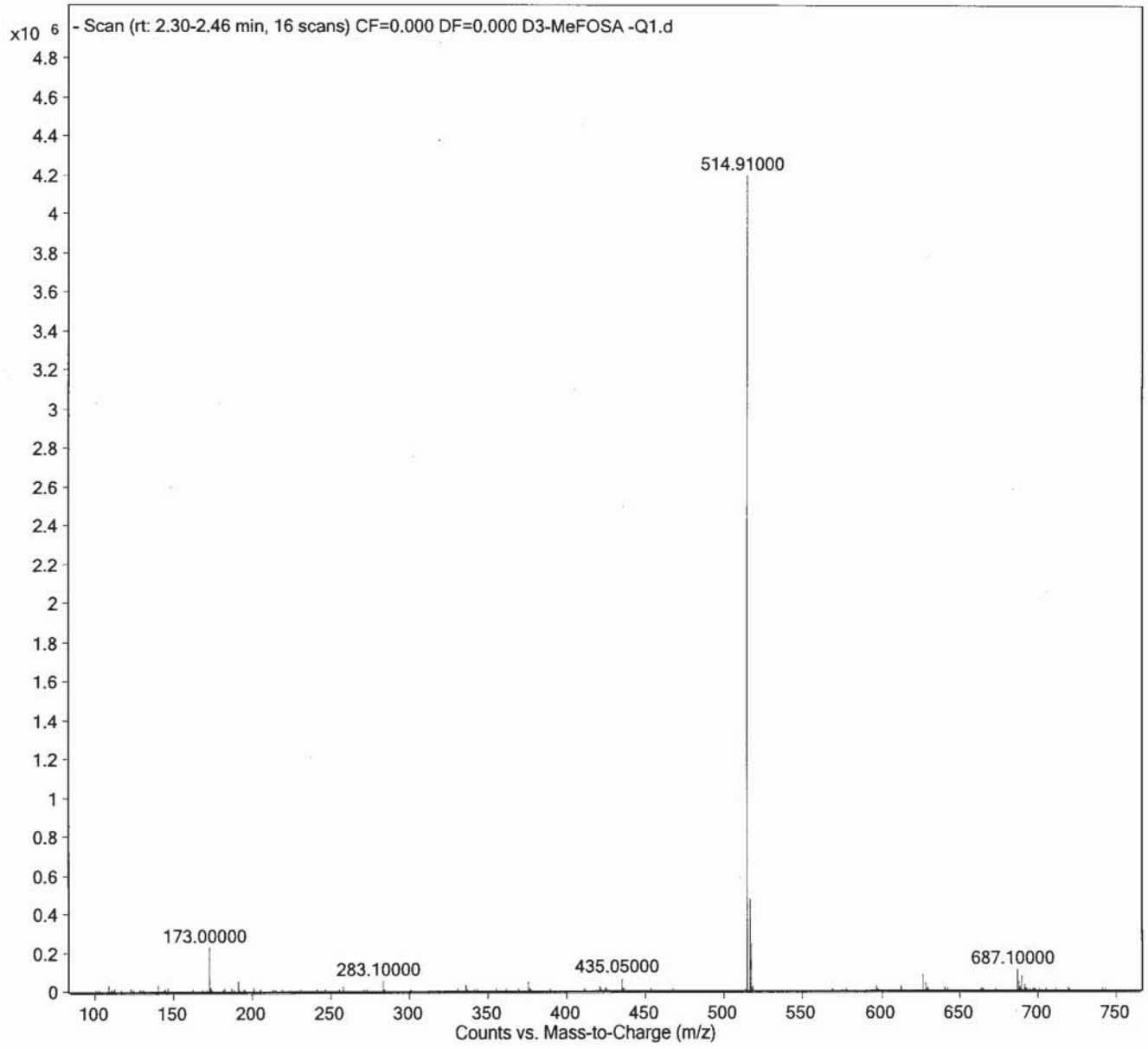
Alaxam Analytics

Sample Name	MPFOSA	**Position**	P2-B4	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFOSA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 2:06:53 PM



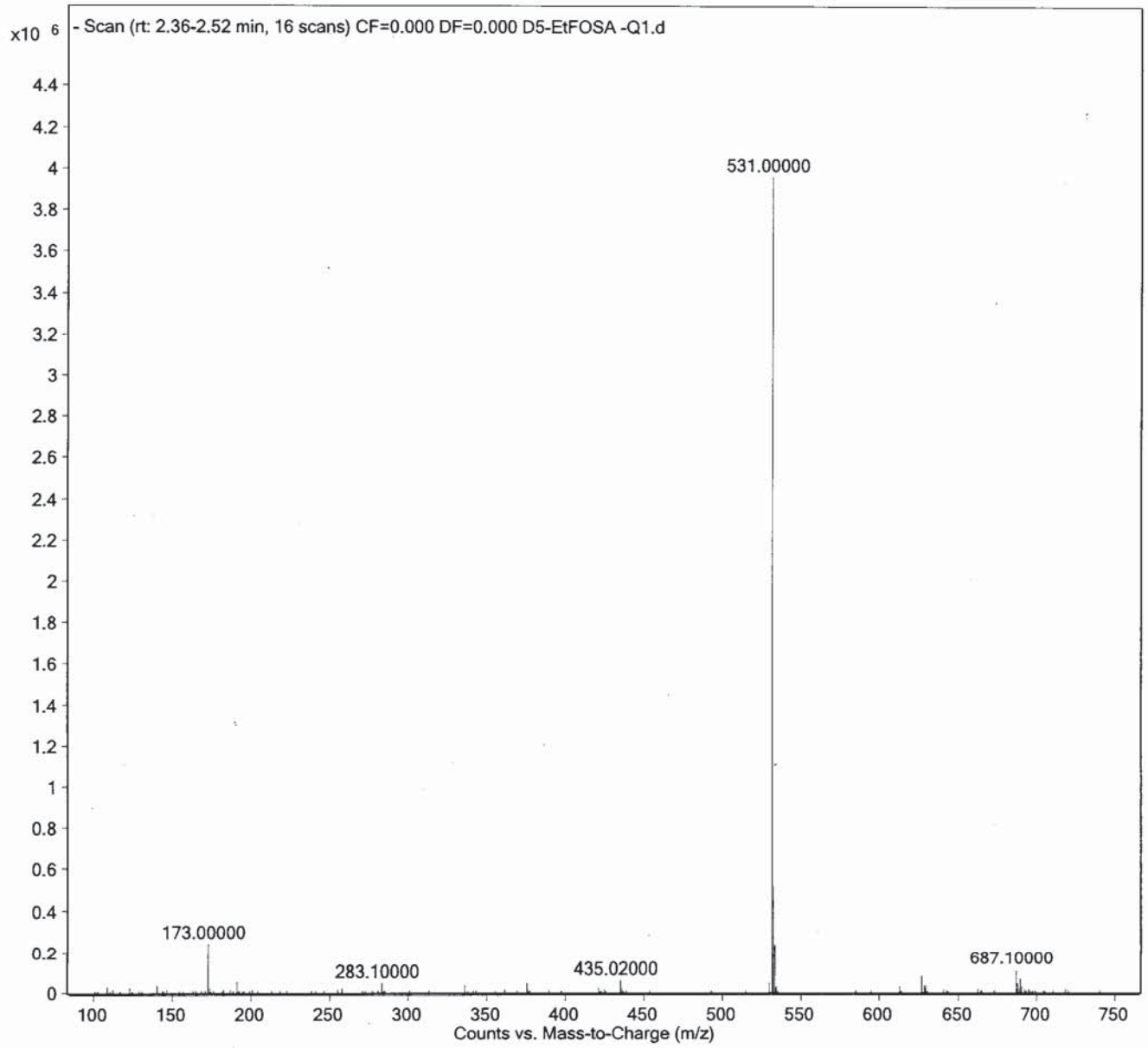
SanKam Analytics

Sample Name	D3-MeFOSA	**Position**	P2-B5	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	D3-MeFOSA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 2:12:24 PM



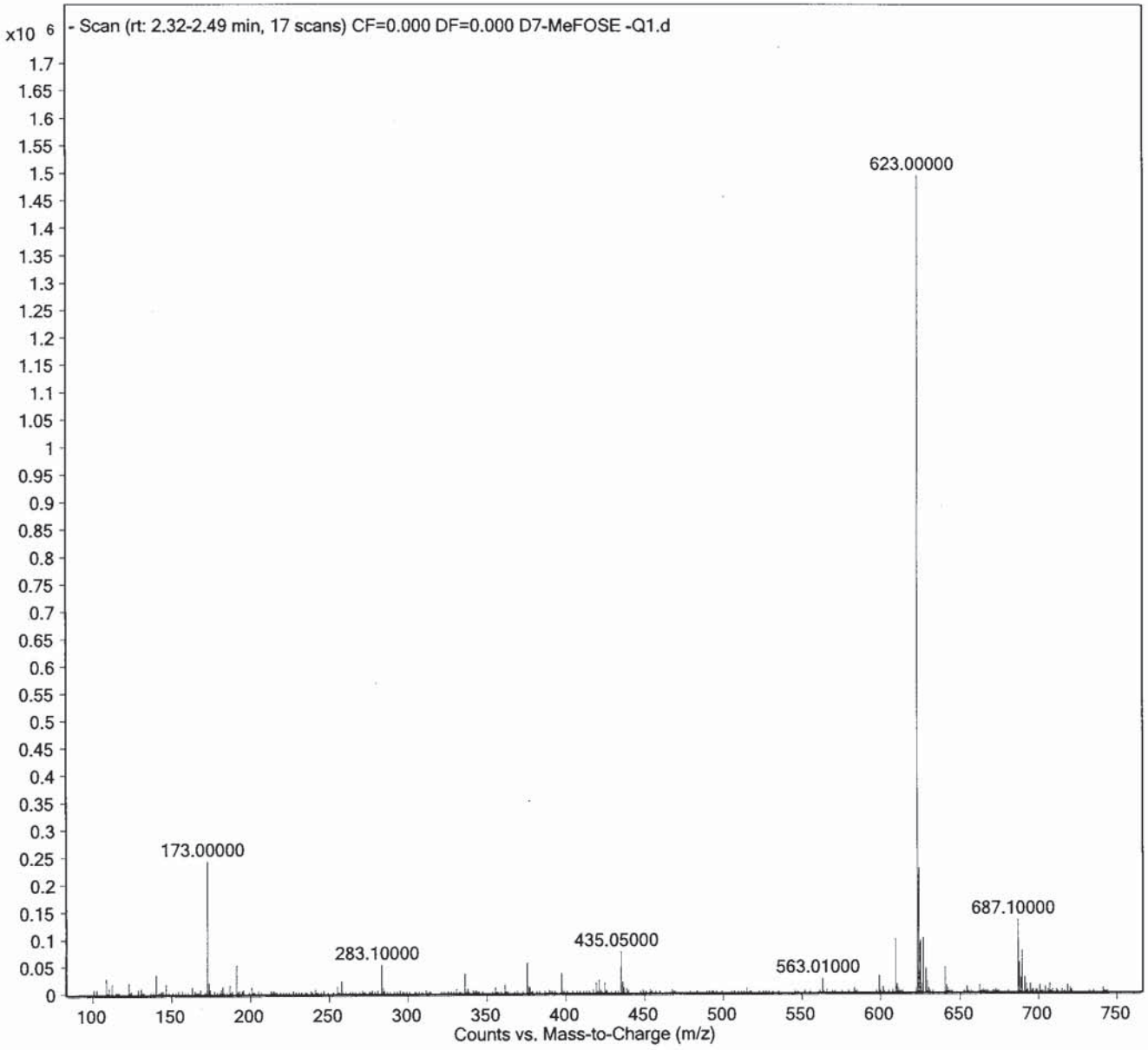
SGS AXAM Analytics

Sample Name	D5-EtFOSA	**Position**	P2-B6	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	D5-EtFOSA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 2:17:53 PM

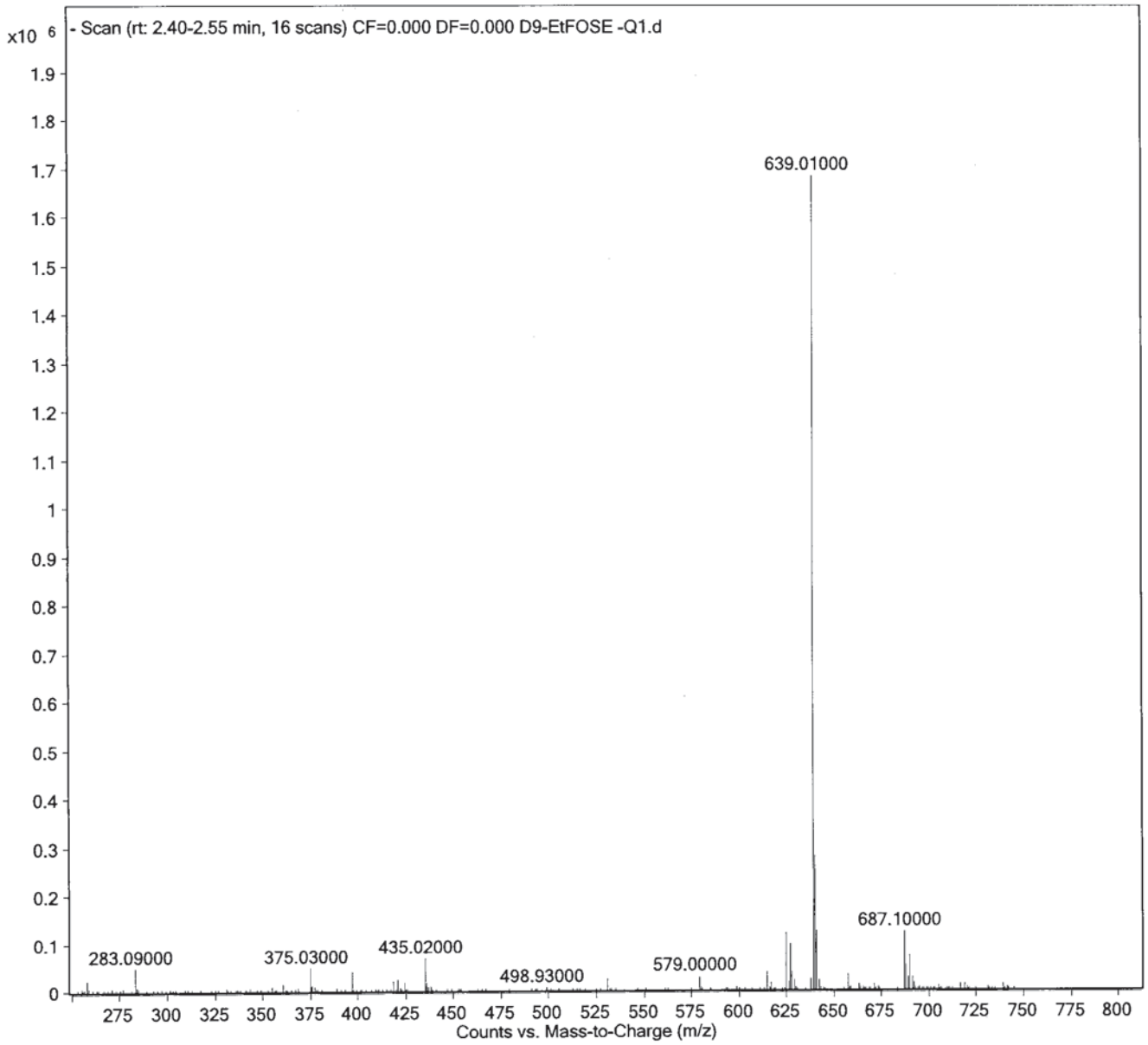


Maxam Analytics

Sample Name	D7-MeFOSE	**Position**	P2-B7	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	D7-MeFOSE -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 2:23:24 PM

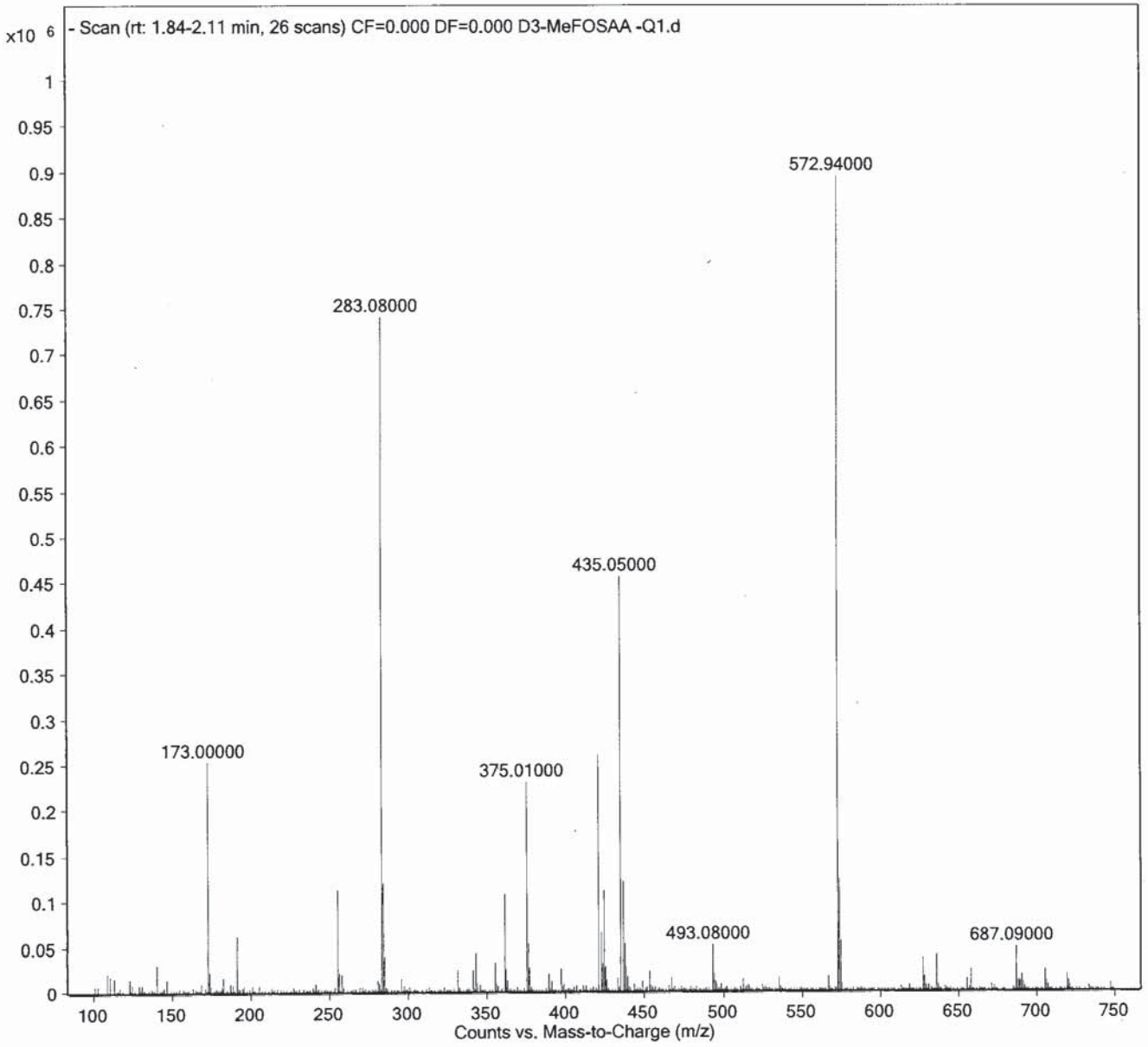


Sample Name	D9-EtFOSE	**Position**	P2-B8	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	D9-EtFOSE -Q1.d
AcQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 2:28:56 PM



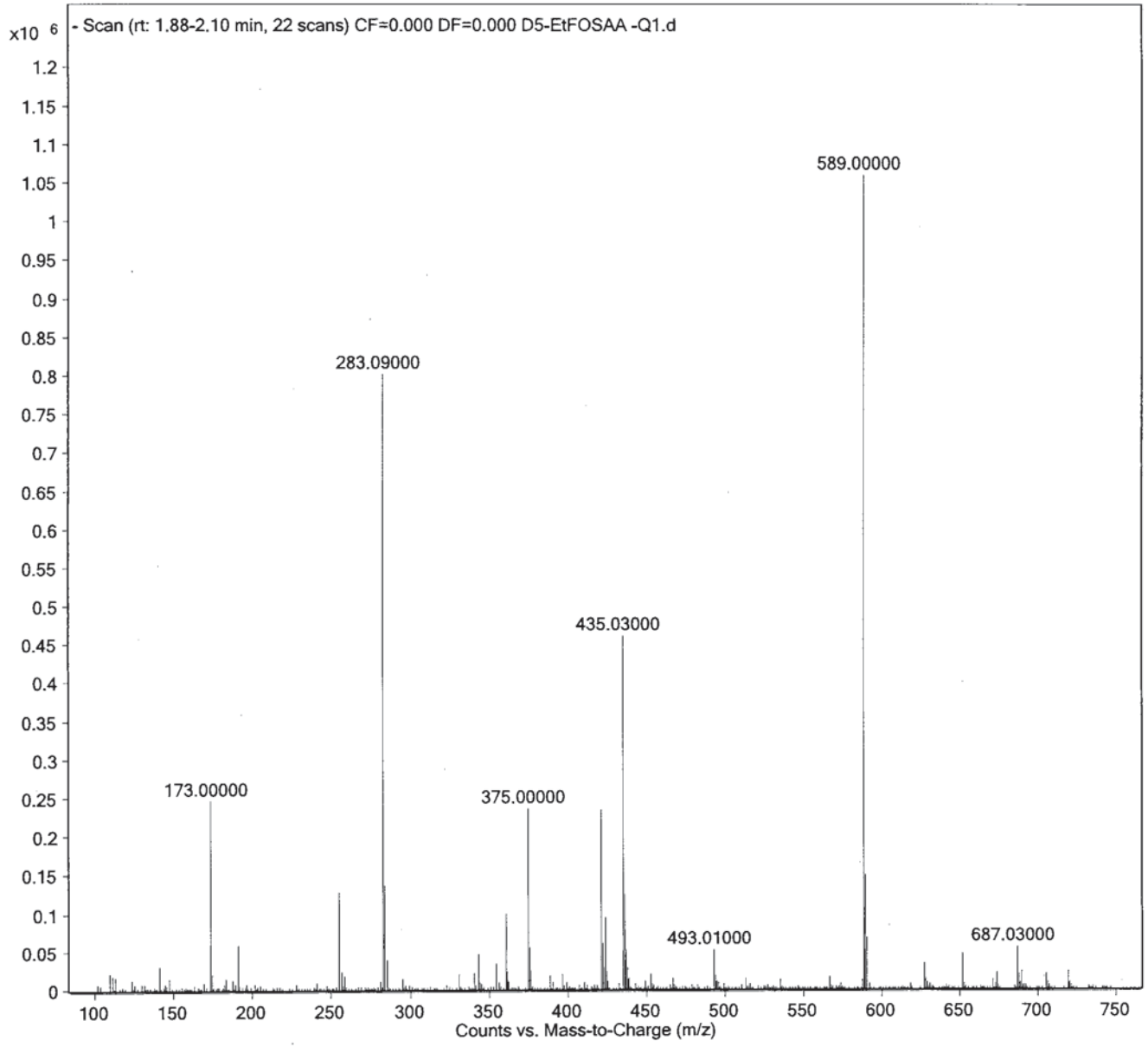
SanAm Analytics

Sample Name	D3-MeFOSAA	**Position**	P2-B9	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	D3-MeFOSAA -Q1.d
AcQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 2:34:28 PM



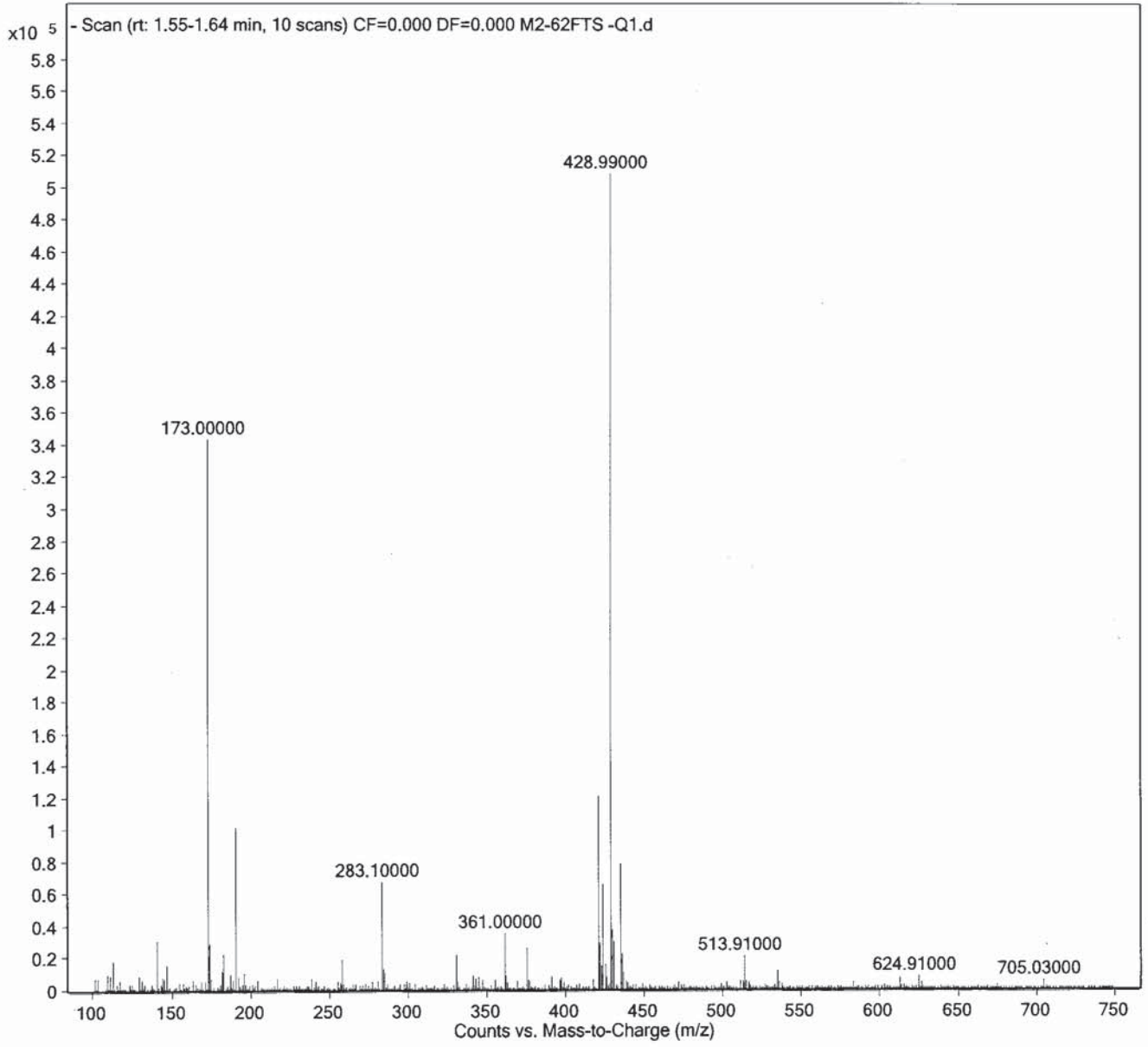
SGS AXYS Analytics

Sample Name	D5-EtFOSAA	**Position**	P2-C1	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	D5-EtFOSAA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 2:39:59 PM



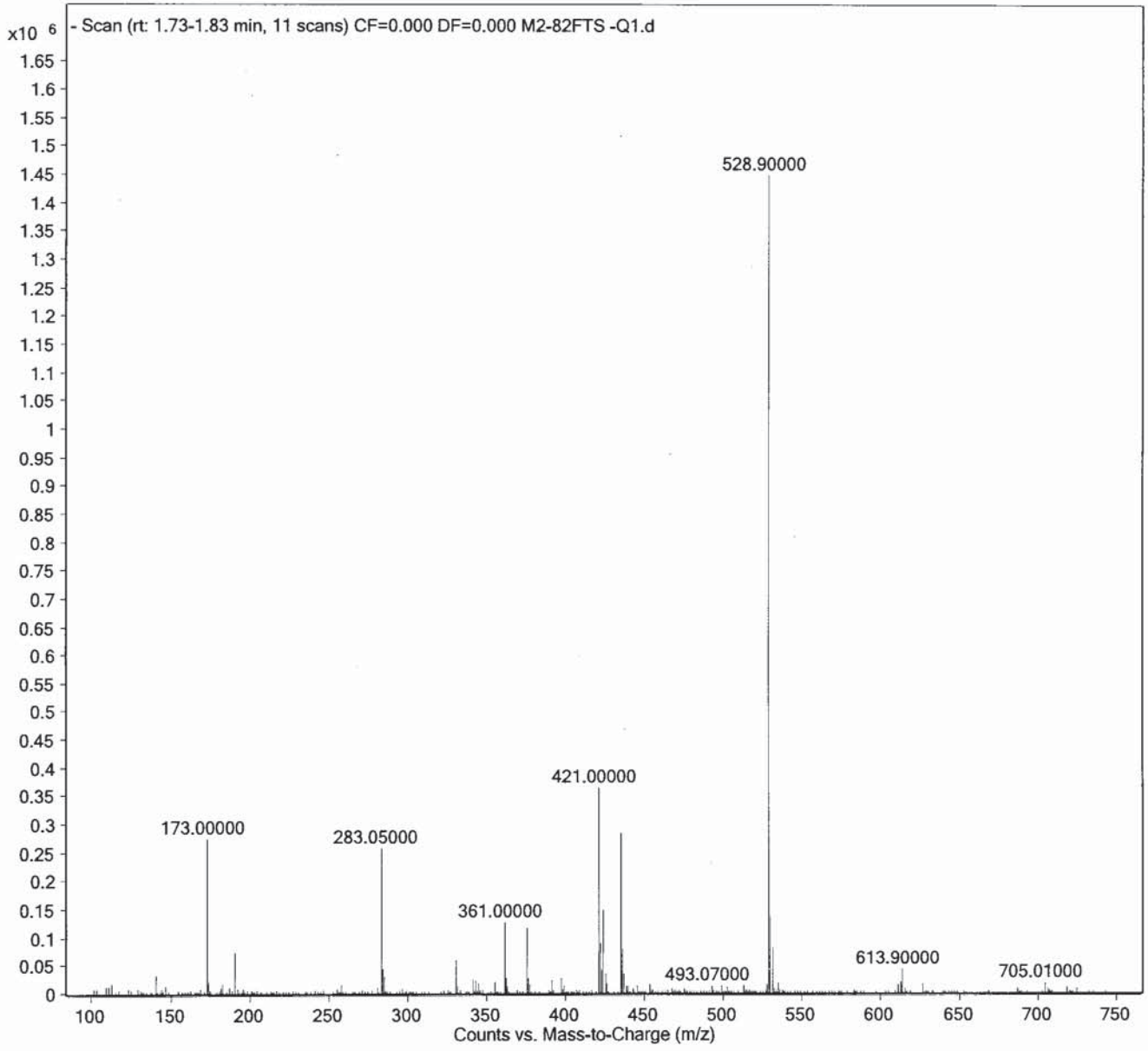
Alpha Analytics

Sample Name	M2-6:2FTS	**Position**	P2-C2	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	M2-62FTS -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 2:45:29 PM



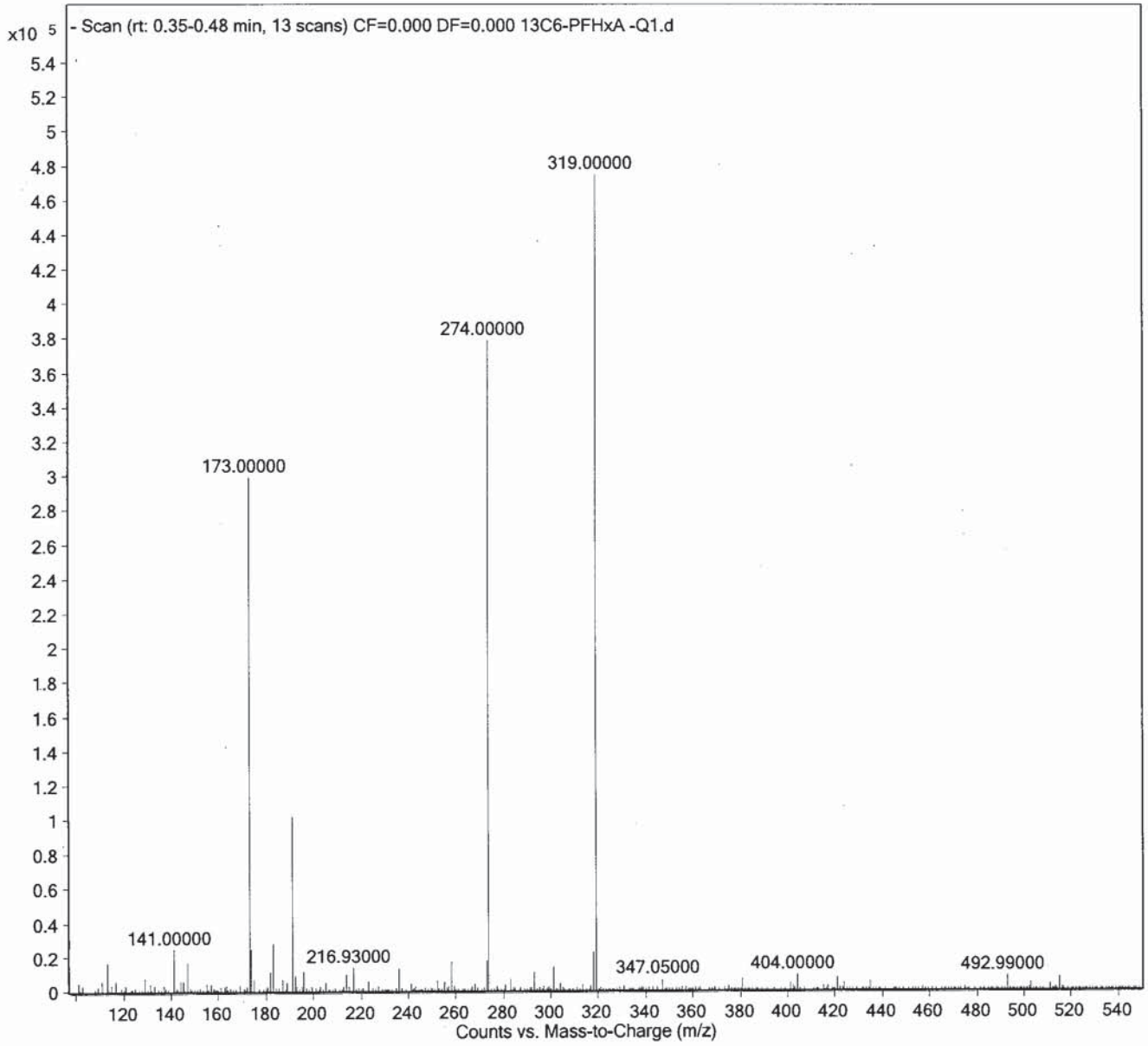
SGS AXYS Analytics

Sample Name	M2-8:2FTS	**Position**	P2-C3	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	M2-82FTS -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 2:50:59 PM



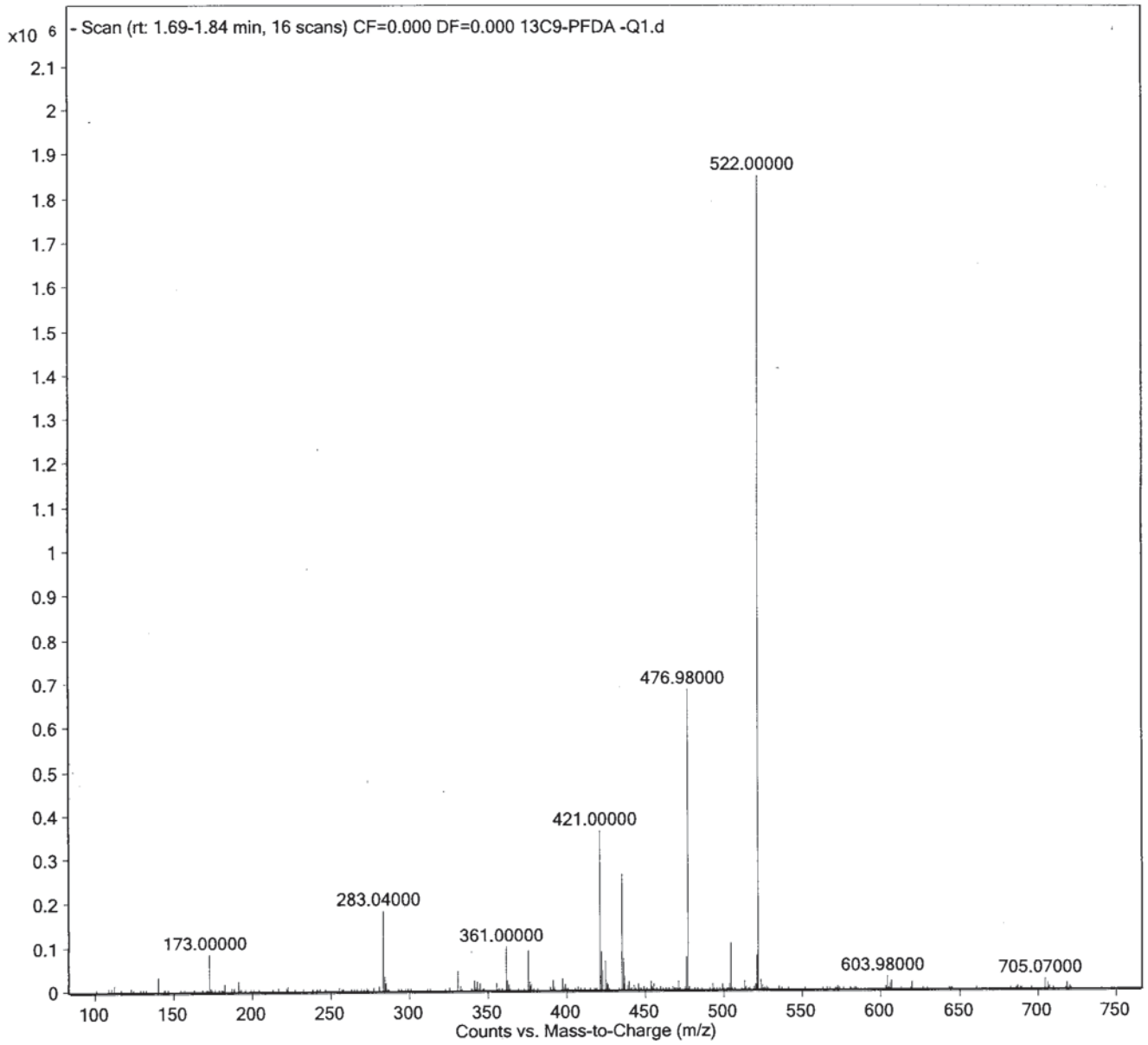
Maxxam Analytics

Sample Name	13C6-PFHxA	**Position**	P2-C4	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	13C6-PFHxA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 2:56:30 PM



SiaAm Analytics

Sample Name	13C9-PFDA	**Position**	P2-C5	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	13C9-PFDA -Q1.d
ACQ Method	PFC_MassVerification-Q1.m	**Comment**		**Acquired Time**	2017/07/11 3:01:59 PM



Maxxam
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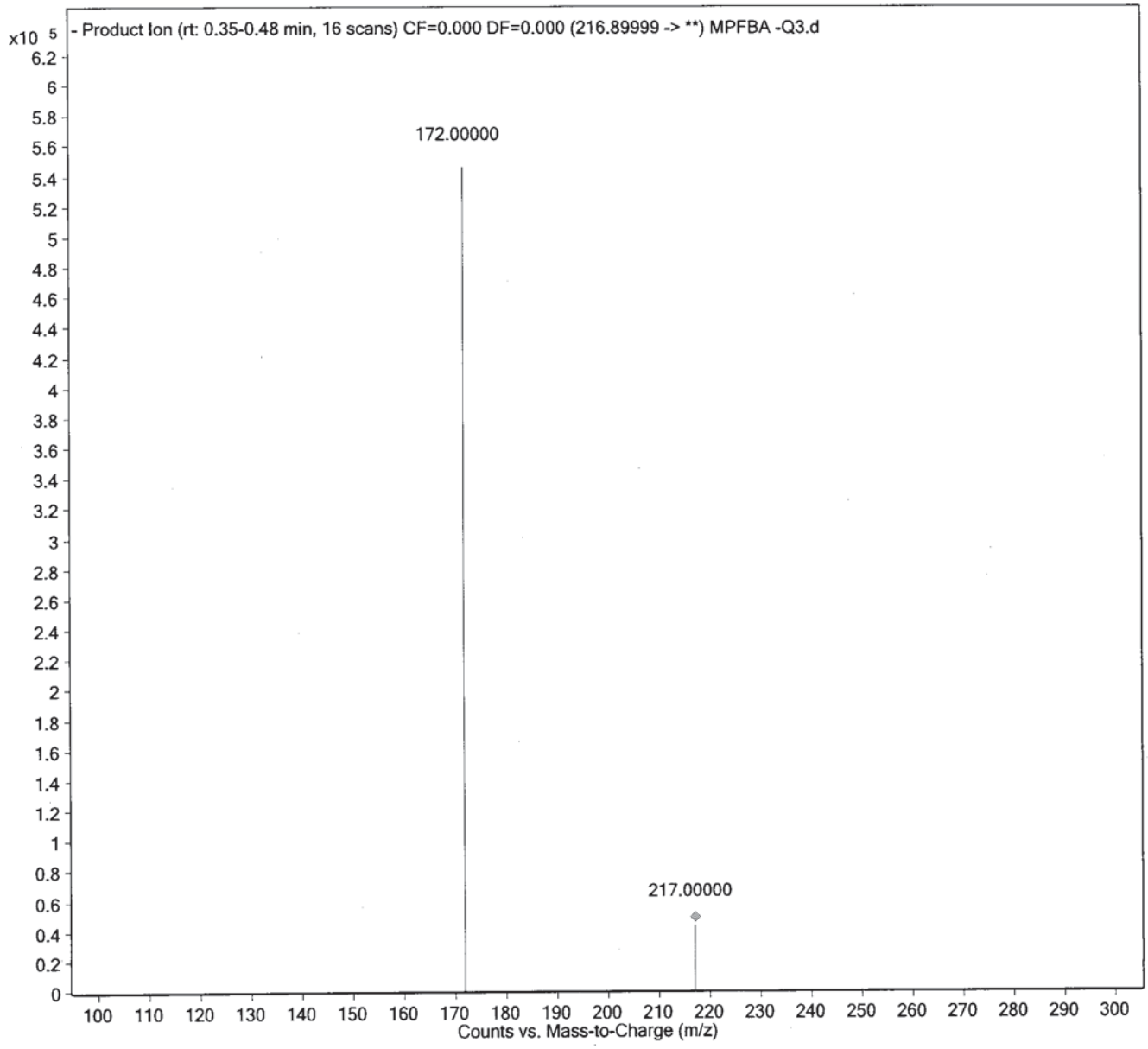
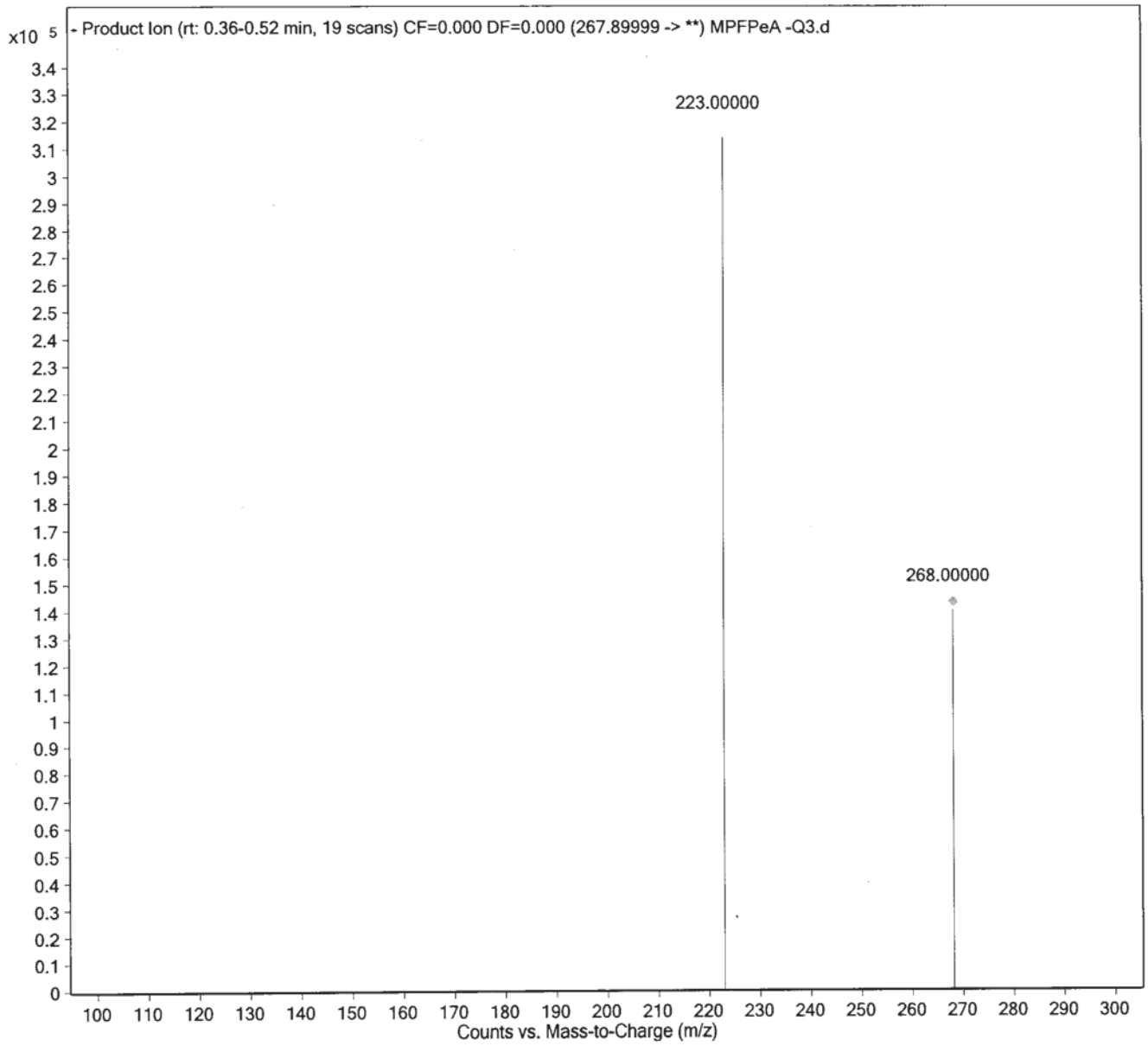
Extracted and Injection Internal Standard Product Ion Verification

Sample Name	MPFBA -Q3	**Position**	P2-A1	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFBA -Q3.d
ACQ Method	PFC_MassVerification-MPFBA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 3:07:29 PM



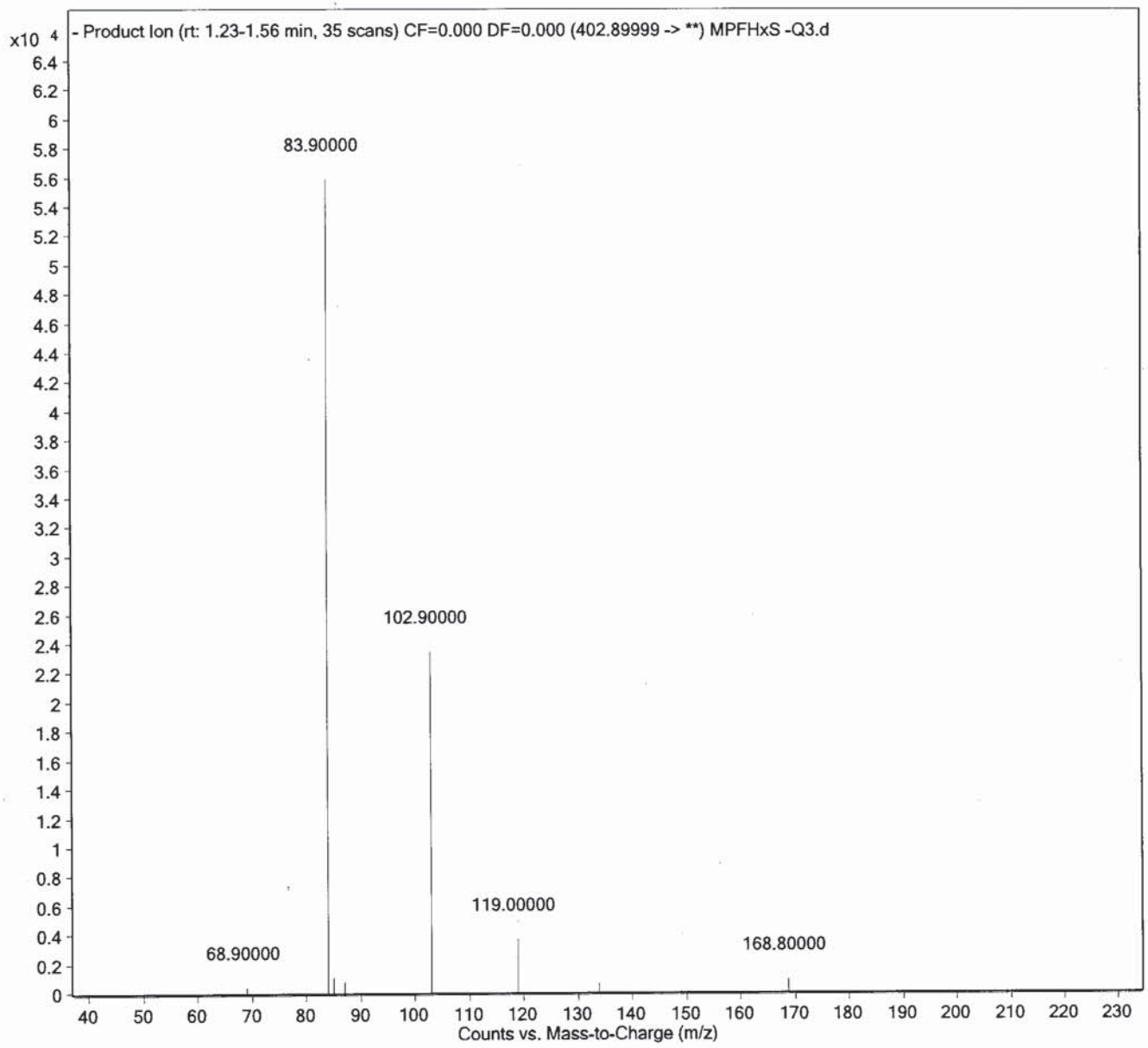
Saram Analytics

Sample Name	MPFPeA -Q3	**Position**	P2-A2	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFPeA -Q3.d
ACQ Method	PFC_MassVerification-MPFPeA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 3:12:59 PM



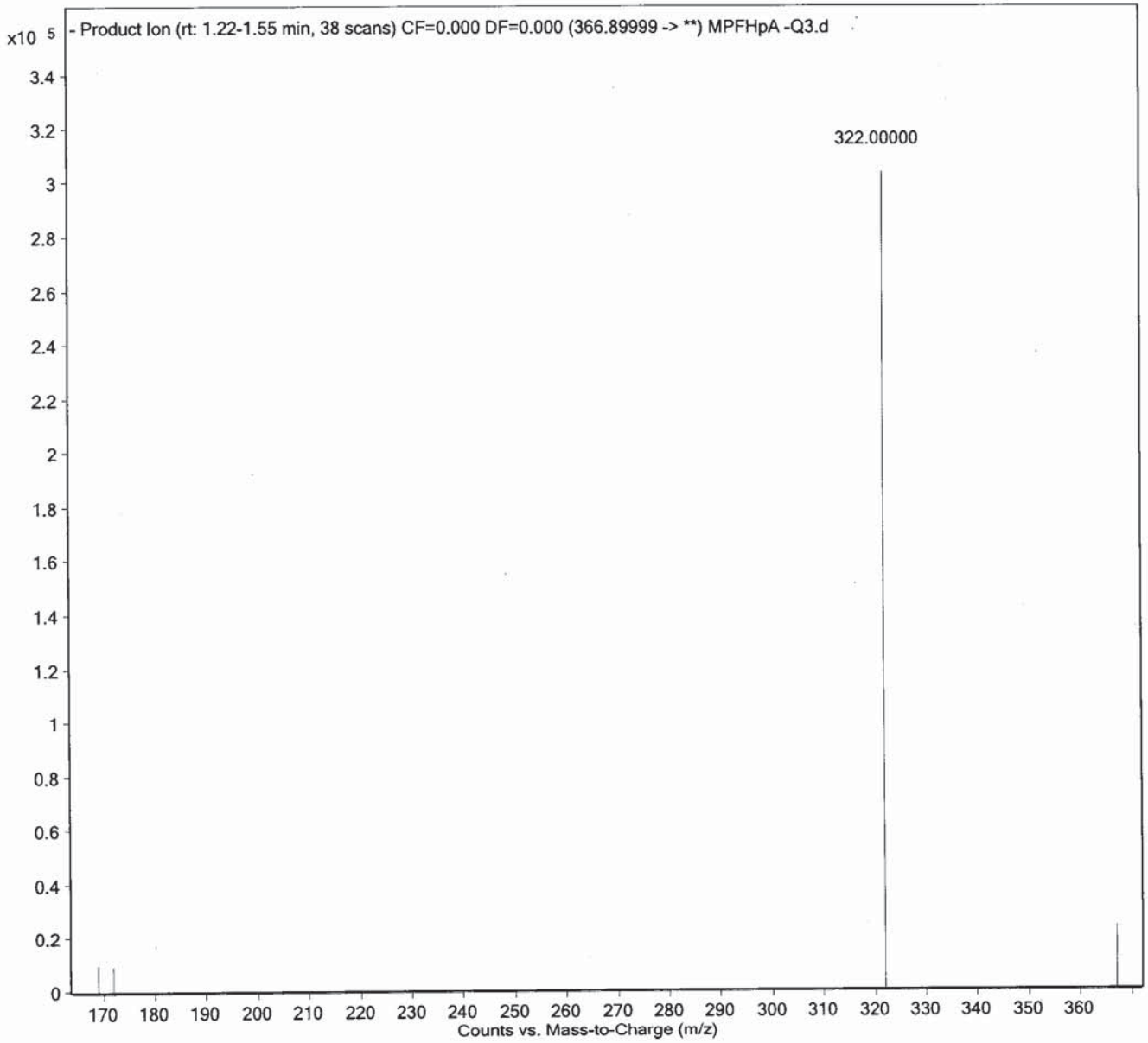
Maxxam Analytics

Sample Name	MPFHxS -Q3	**Position**	P2-A4	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFHxS -Q3.d
ACQ Method	PFC_MassVerification-MPFHxS-Q3.m	**Comment**		**Acquired Time**	2017/07/11 3:24:00 PM



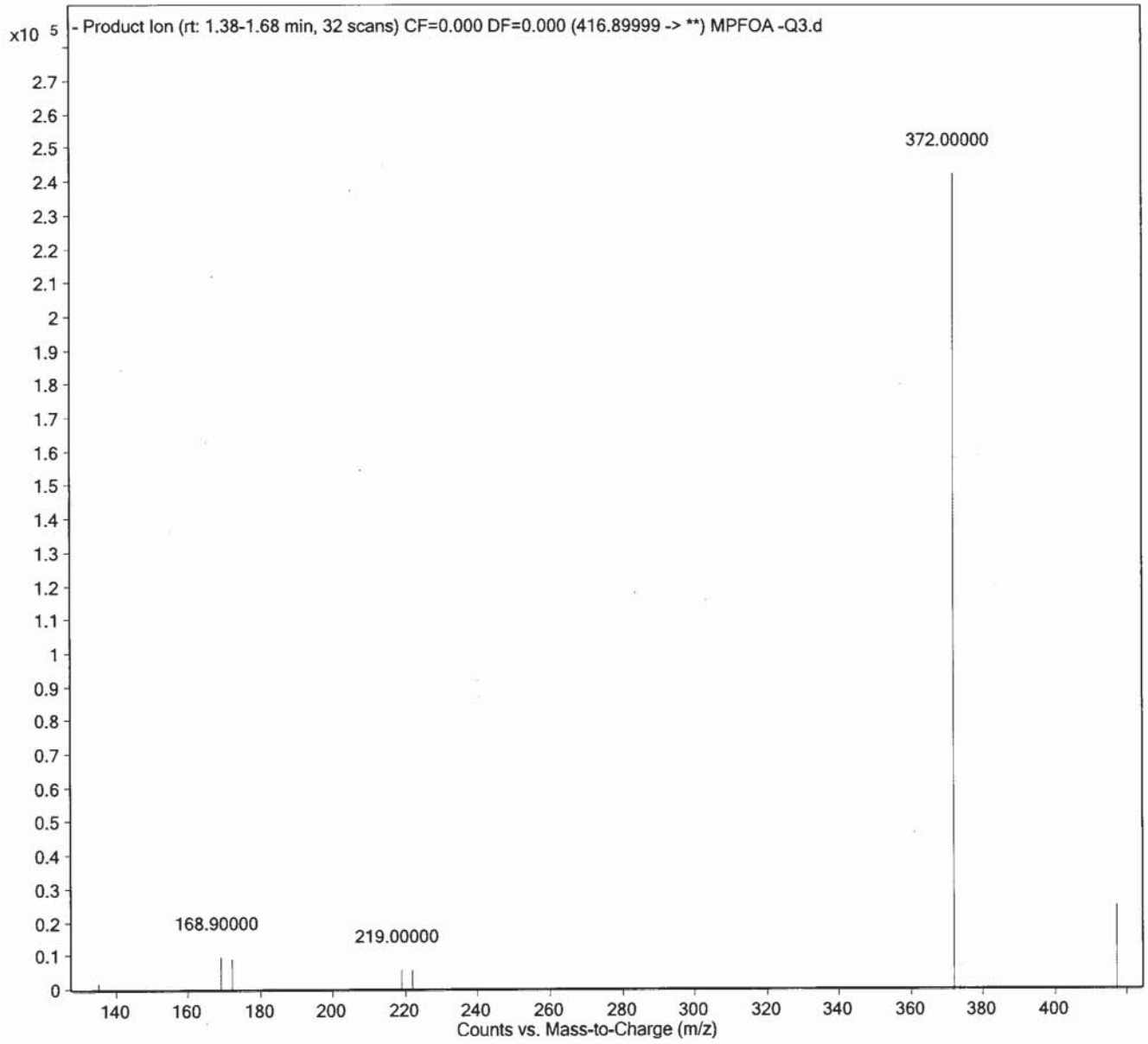
SanAm Analytics

Sample Name	MPFHpA -Q3	**Position**	P2-A5	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFHpA -Q3.d
ACQ Method	PFC_MassVerification-MPFHpA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 3:29:30 PM

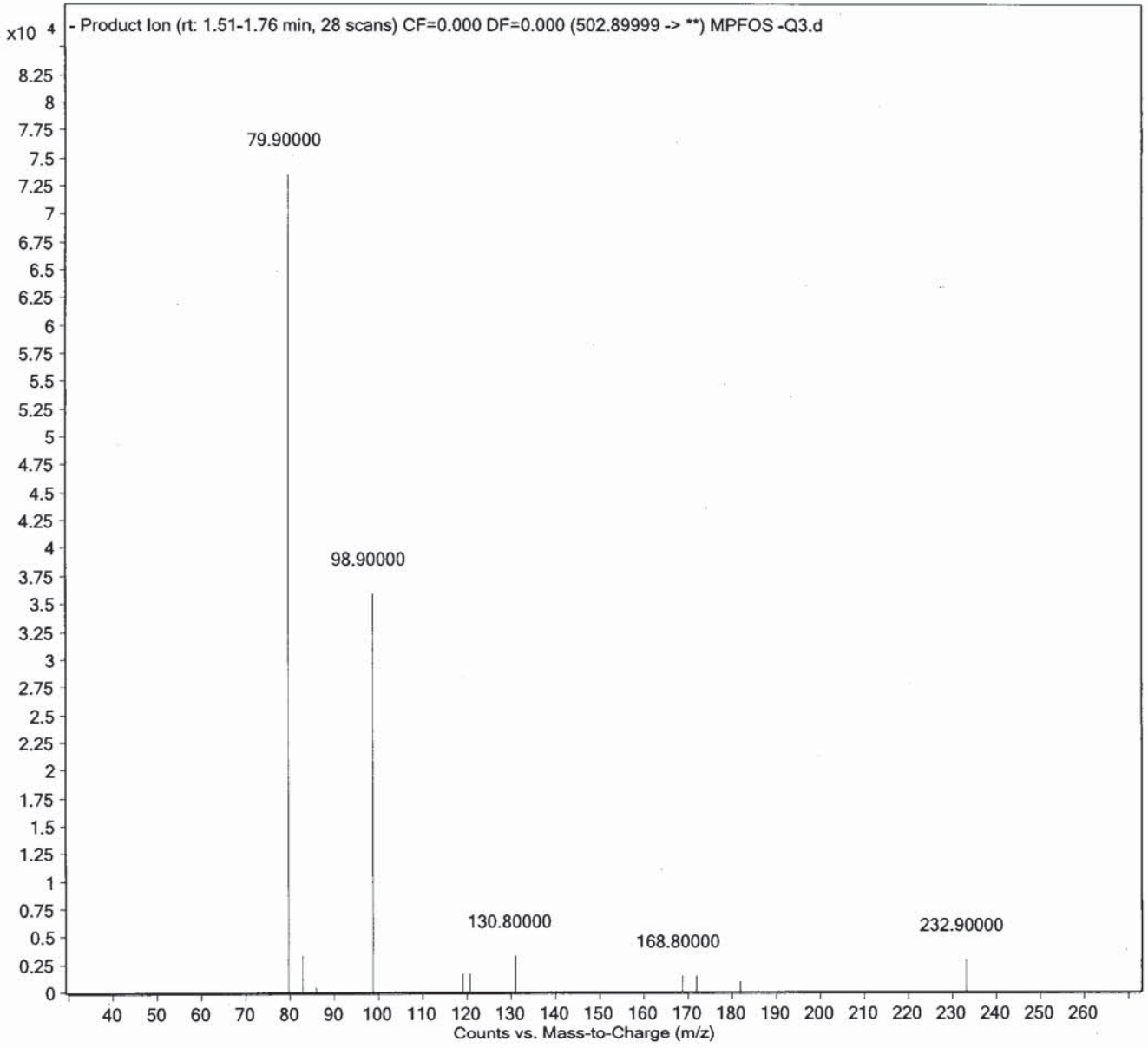


SGS AXYS Analytics

Sample Name	MPFOA -Q3	**Position**	P2-A6	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFOA -Q3.d
ACQ Method	PFC_MassVerification-MPFOA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 3:35:00 PM

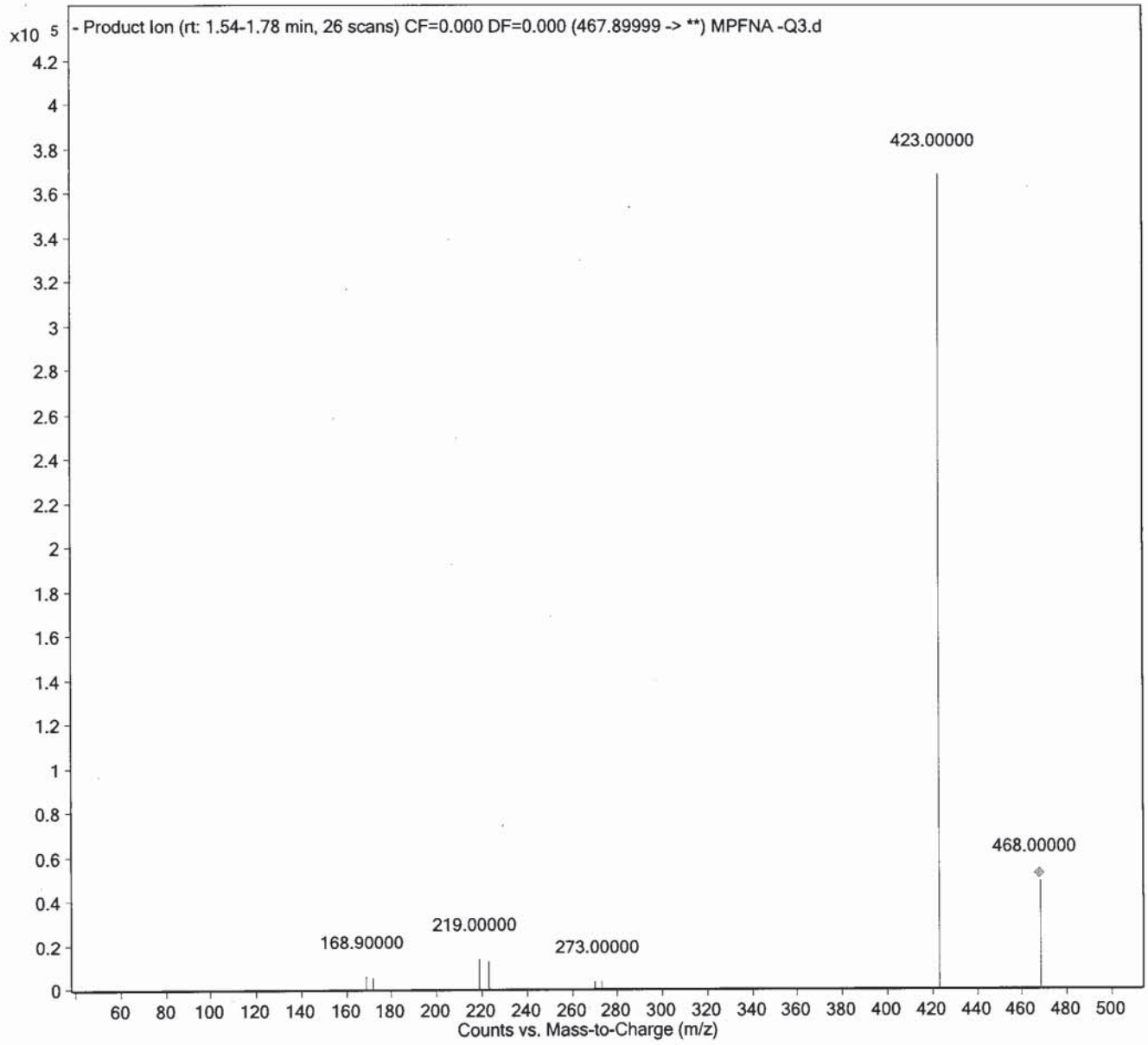


Sample Name	MPFOS -Q3	**Position**	P2-A7	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFOS -Q3.d
ACQ Method	PFC_MassVerification-MPFOS-Q3.m	**Comment**		**Acquired Time**	2017/07/11 3:40:32 PM



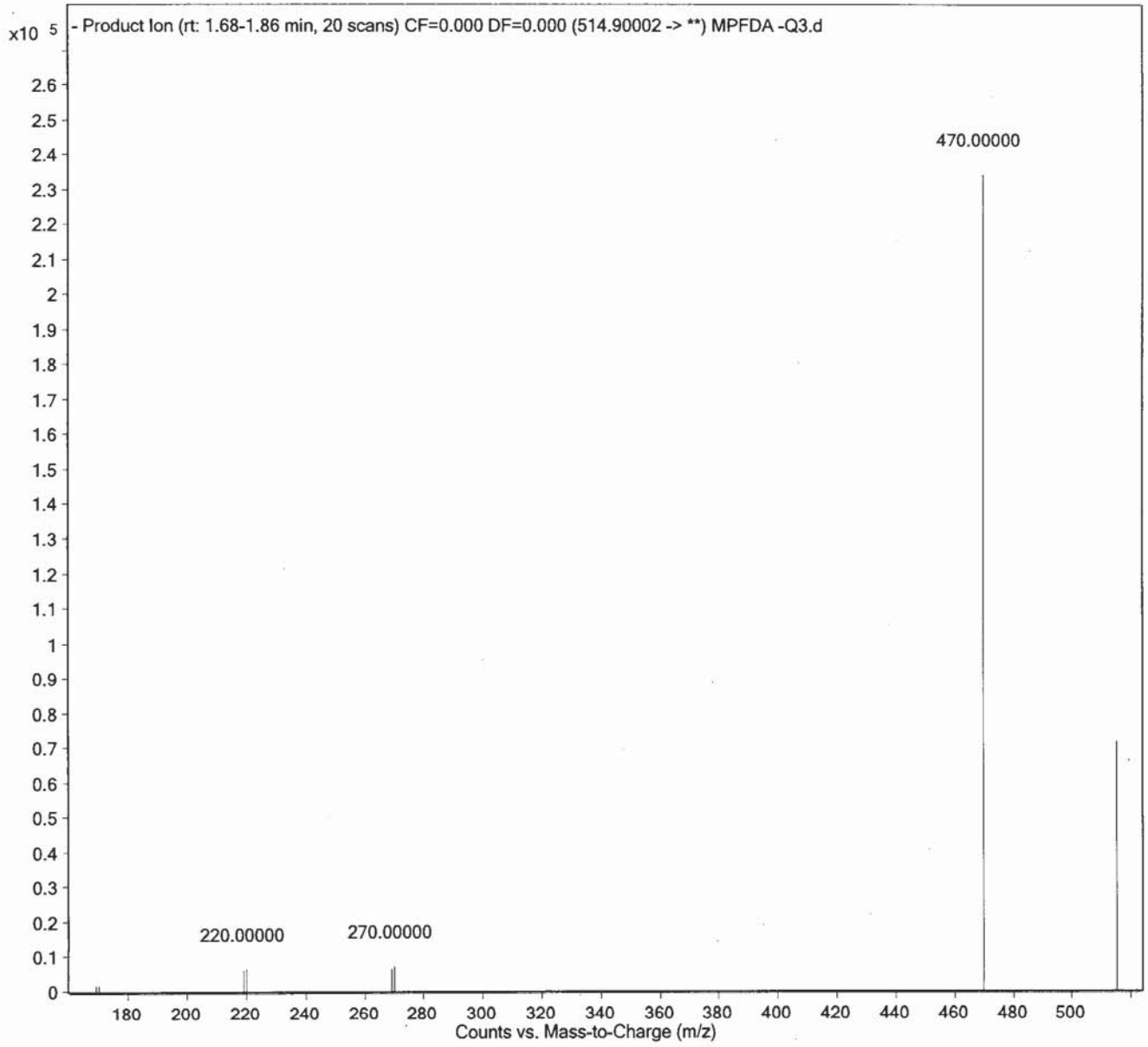
SGS AXYS Analytics

Sample Name	MPFNA -Q3	**Position**	P2-A8	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFNA -Q3.d
ACQ Method	PFC_MassVerification-MPFNA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 3:46:04 PM



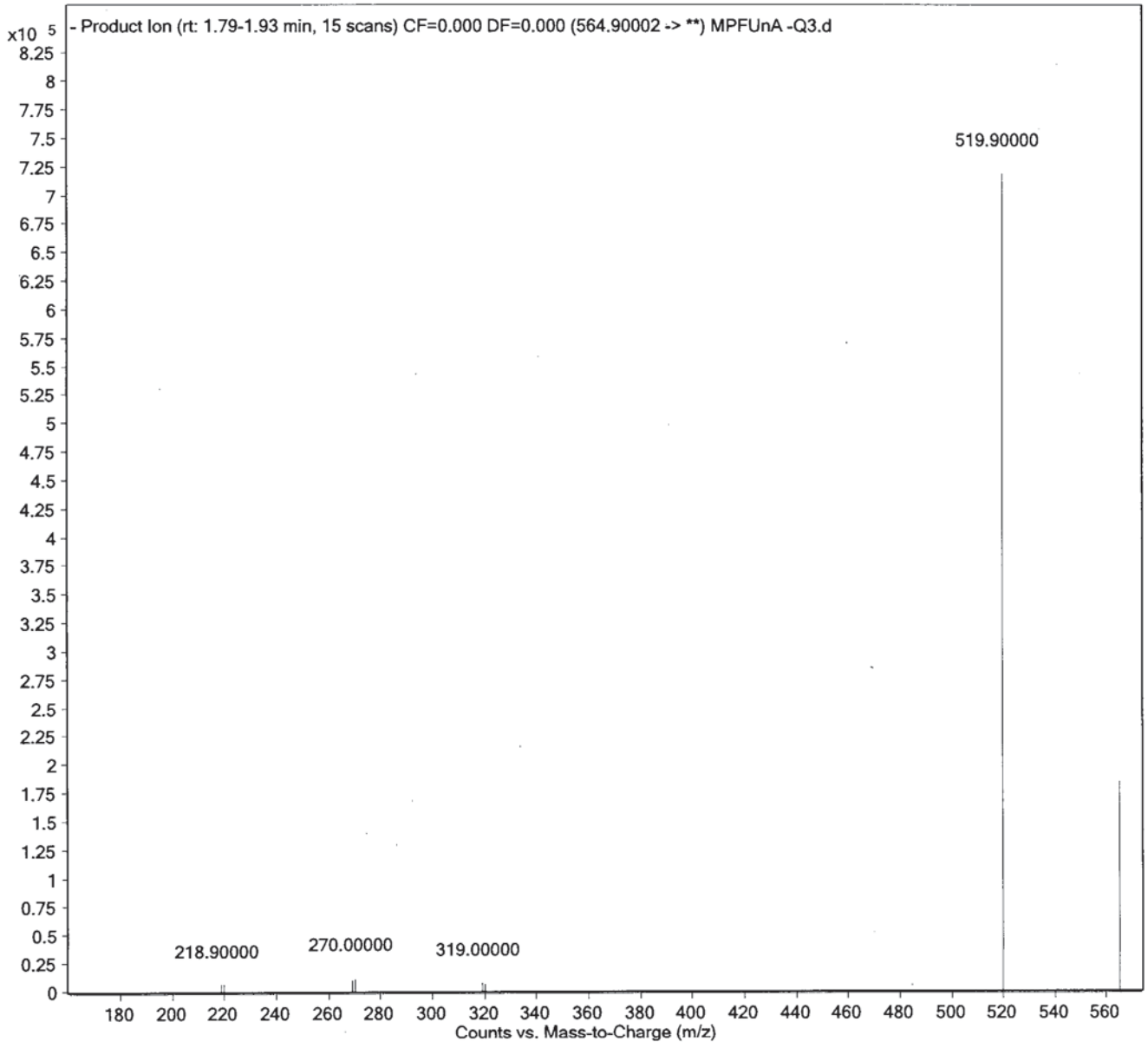
Sanam Analytics

Sample Name	MPFDA -Q3	**Position**	P2-A9	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFDA -Q3.d
ACQ Method	PFC_MassVerification-MPFDA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 3:51:36 PM



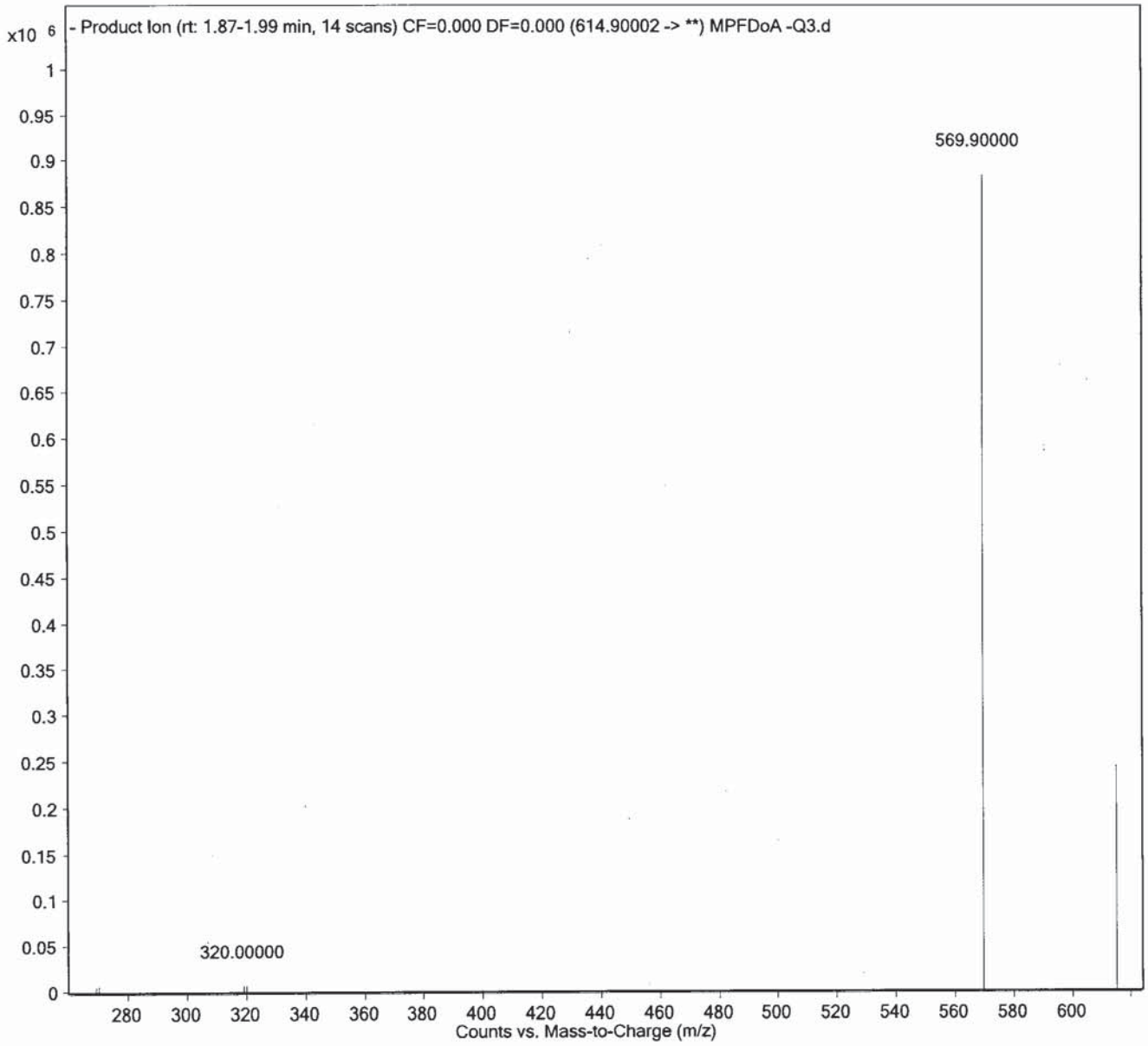
Saram Analytics

Sample Name	MPFUnA -Q3	**Position**	P2-B1	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFUnA -Q3.d
ACQ Method	PFC_MassVerification-MPFUnA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 3:57:07 PM



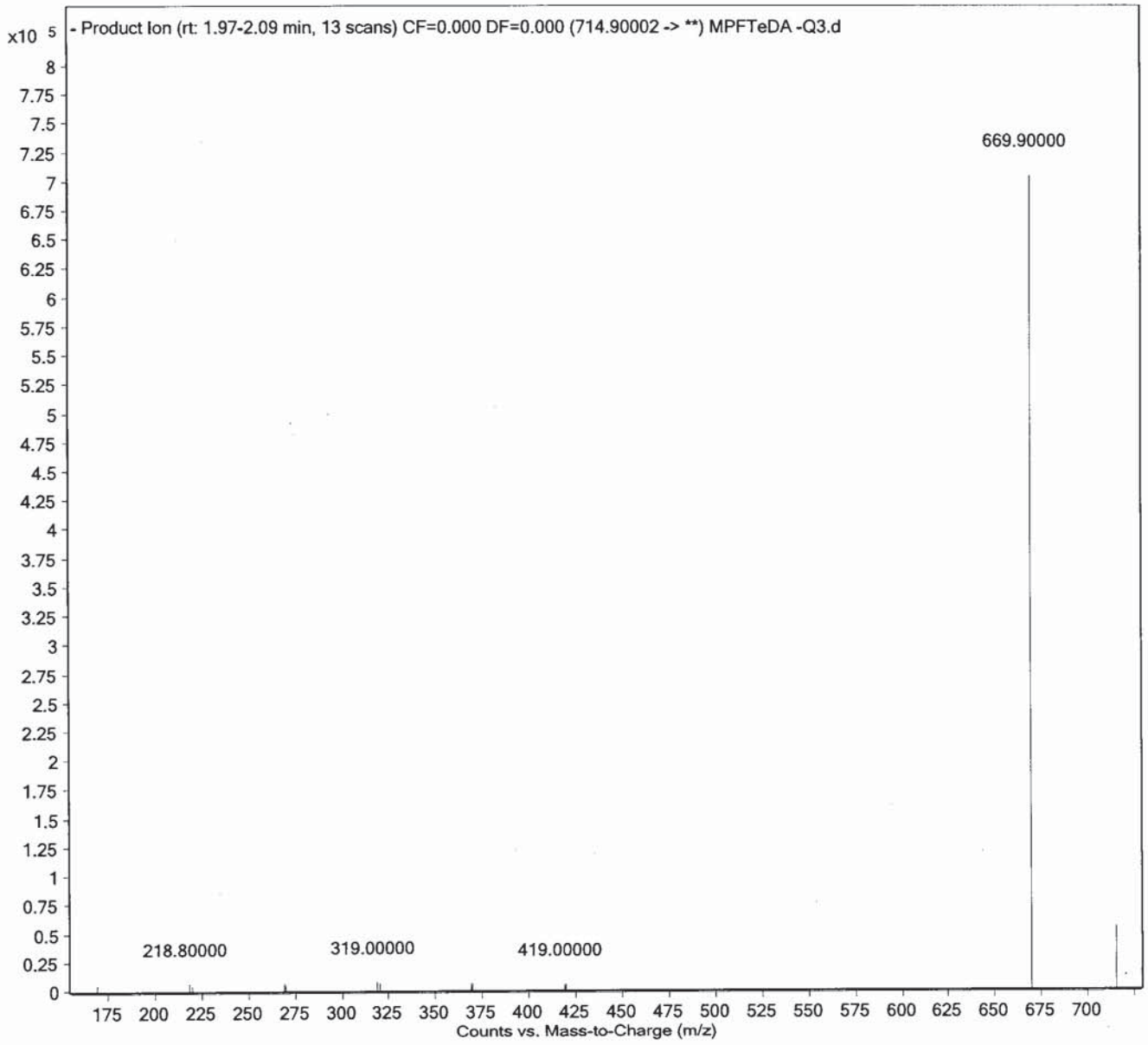
SAExam Analytics

Sample Name	MPFDoA -Q3	**Position**	P2-B2	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFDoA -Q3.d
ACQ Method	PFC_MassVerification-MPFDoA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 4:02:38 PM



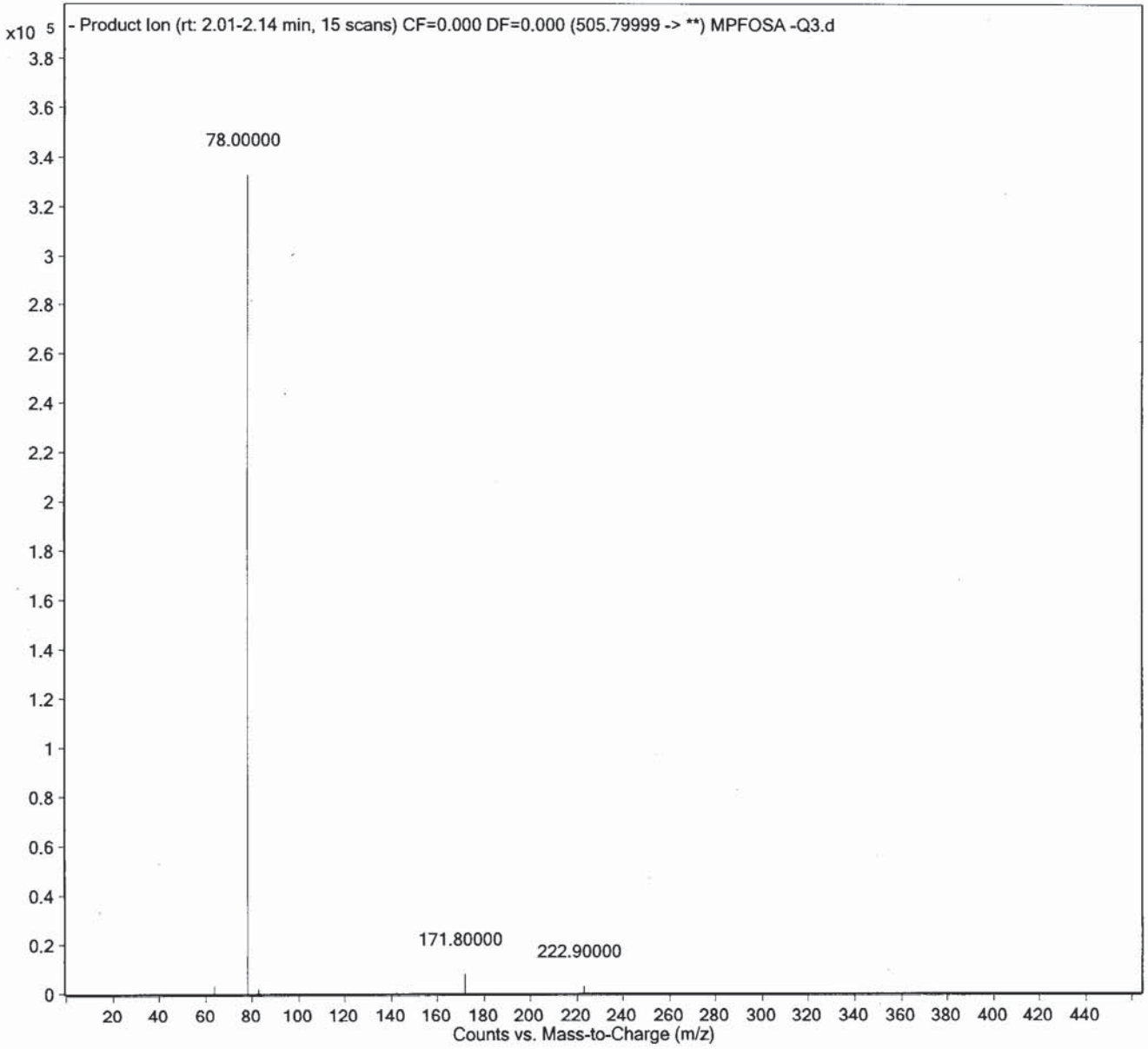
Saram Analytics

Sample Name	MPFTeDA -Q3	**Position**	P2-B3	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFTeDA -Q3.d
ACQ Method	PFC_MassVerification-MPFTeDA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 4:08:08 PM



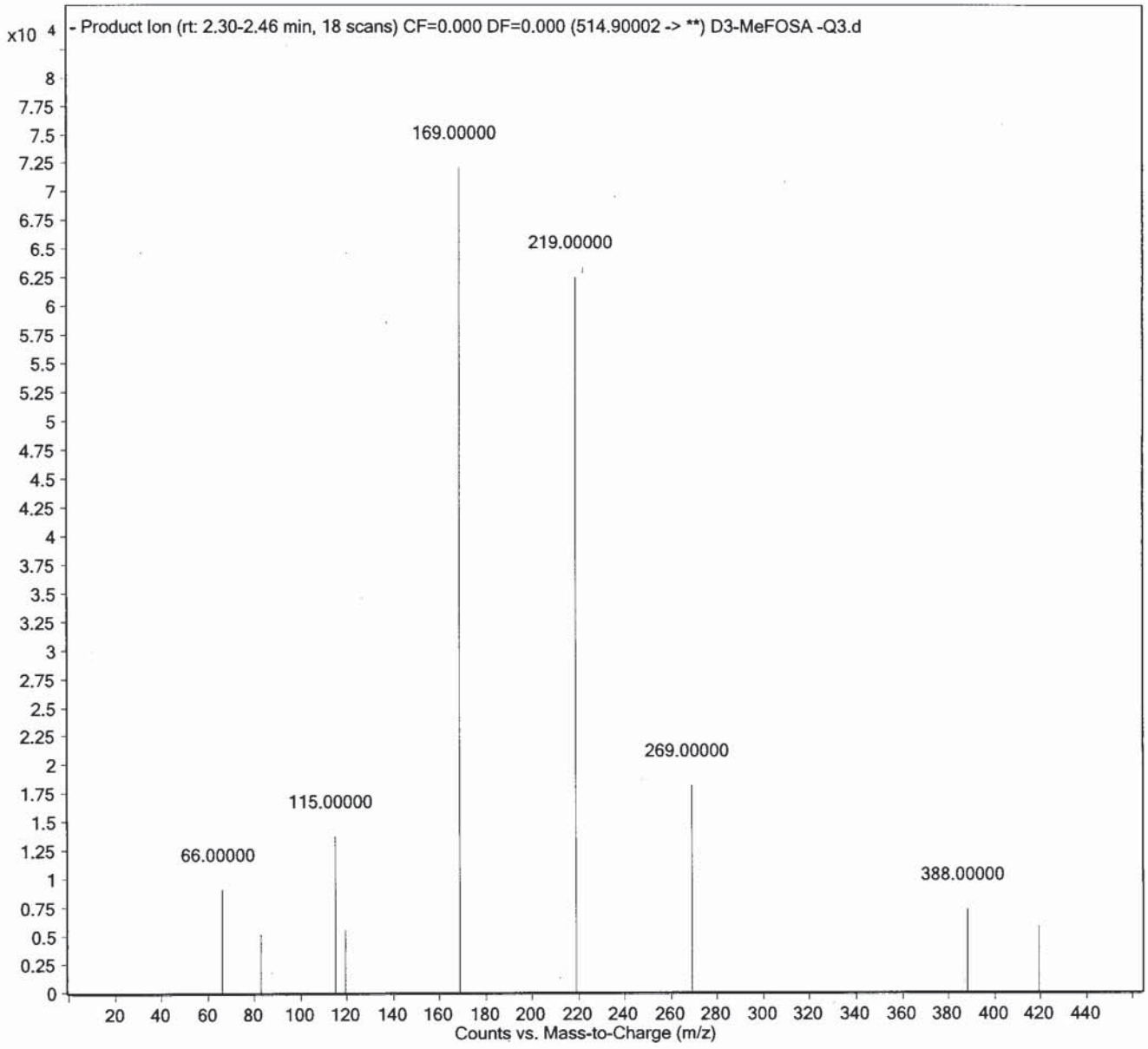
SaraAm Analytics

Sample Name	MPFOSA -Q3	**Position**	P2-B4	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	MPFOSA -Q3.d
ACQ Method	PFC_MassVerification-MPFOSA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 4:13:38 PM



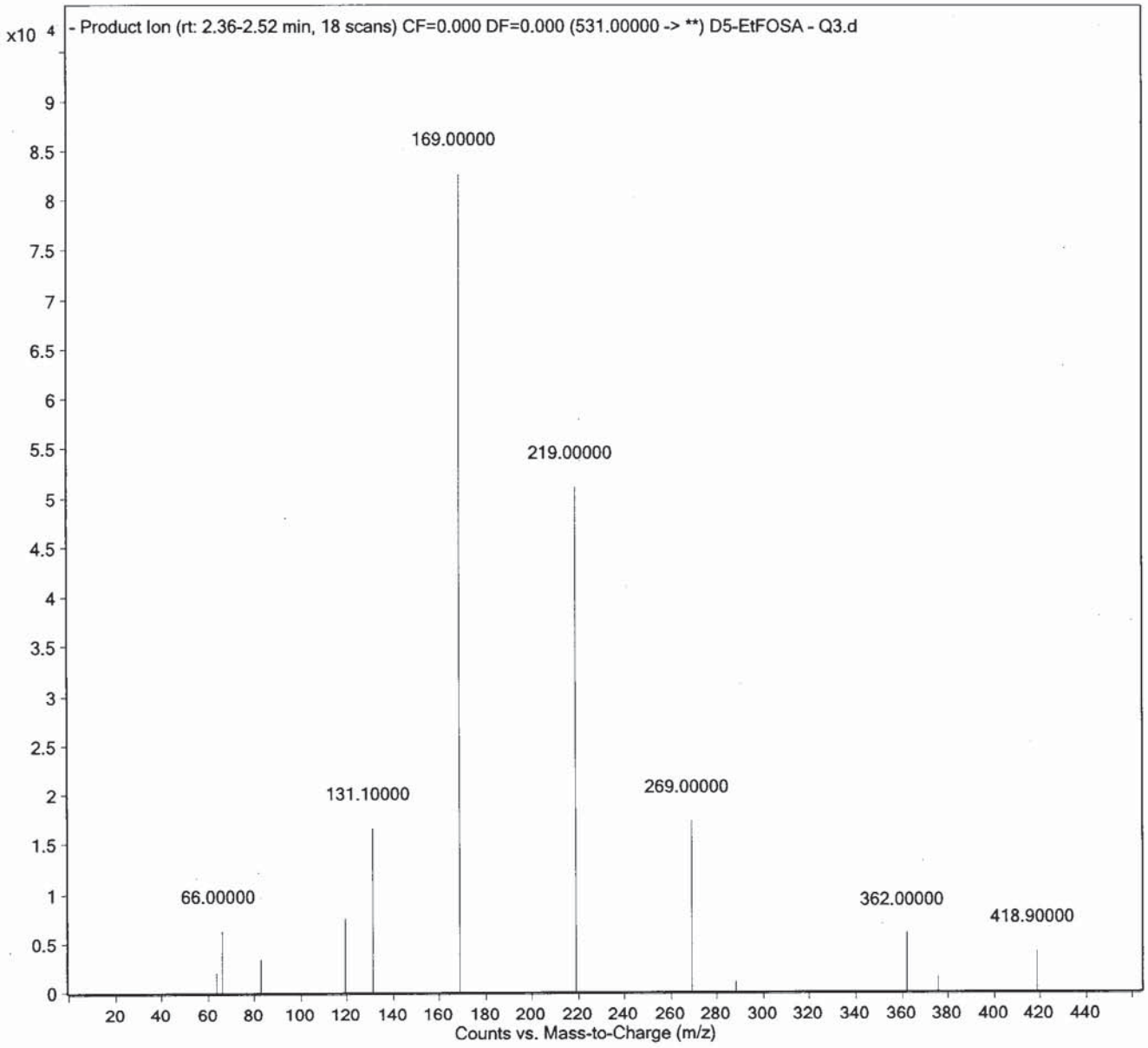
Maxam Analytics

Sample Name	D3-MeFOSA -Q3	**Position**	P2-B5	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	D3-MeFOSA -Q3.d
ACQ Method	PFC_MassVerification-D3-MeFOSA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 4:19:08 PM



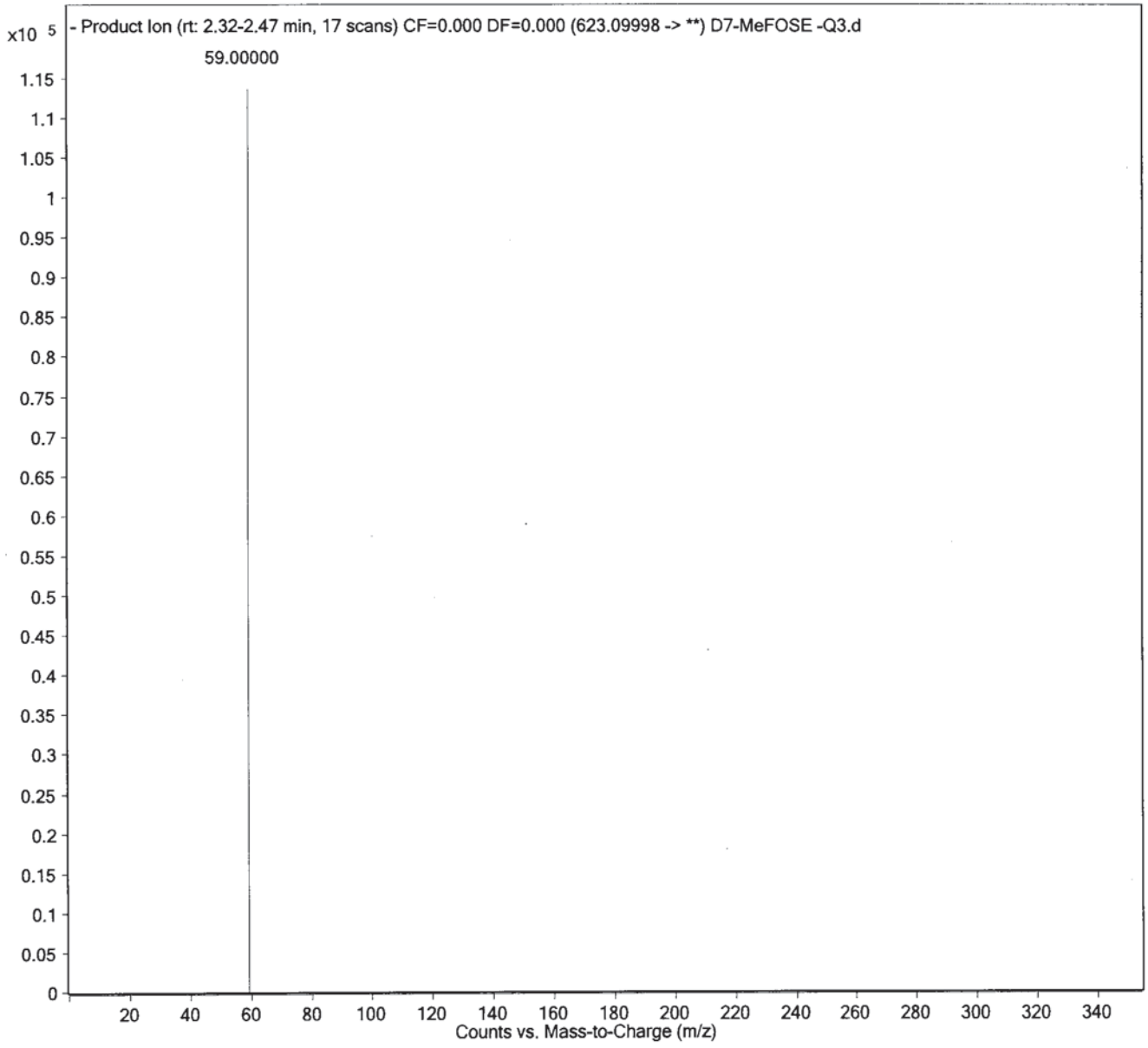
SaiKam Analytics

Sample Name	D5-EtFOSA -Q3	**Position**	P2-B6	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	D5-EtFOSA - Q3.d
ACQ Method	PFC_MassVerification-D5-EtFOSA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 4:24:38 PM



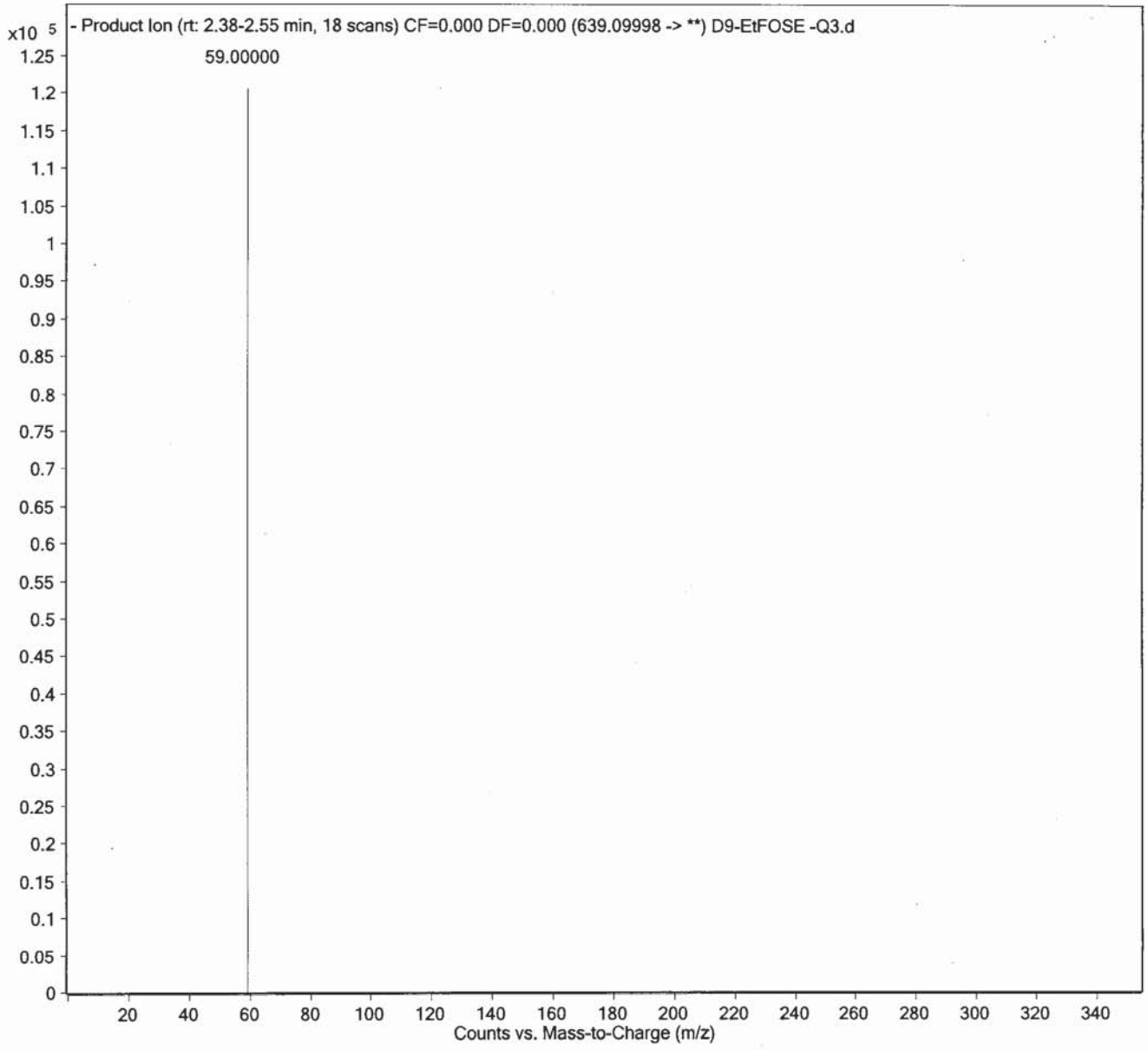
SaiKam Analytics

Sample Name	D7-MeFOSE -Q3	**Position**	P2-B7	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	D7-MeFOSE -Q3.d
ACQ Method	PFC_MassVerification-D7-MeFOSE-Q3.m	**Comment**		**Acquired Time**	2017/07/11 4:30:08 PM



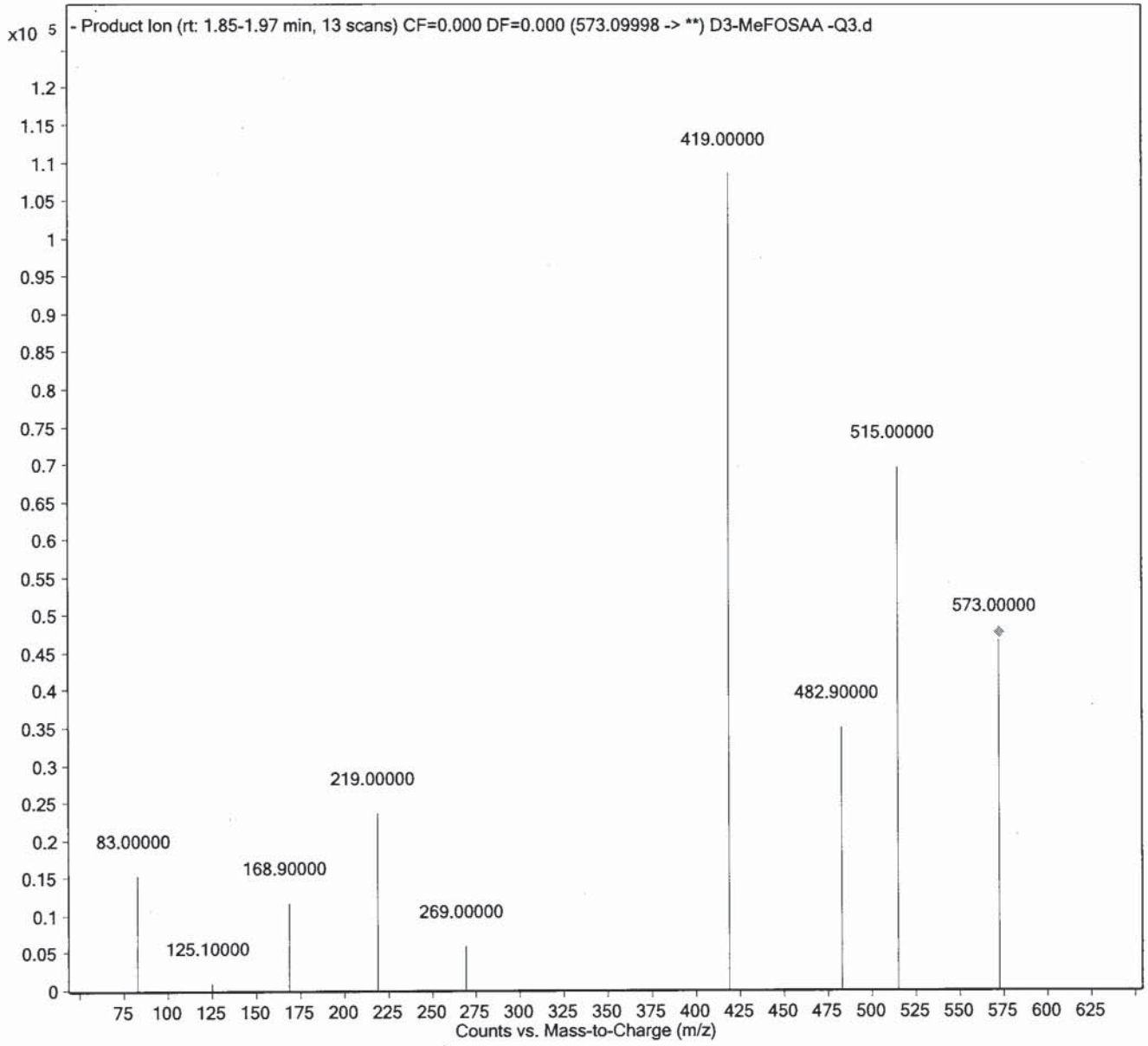
Alaska Analytics

Sample Name	D9-EtFOSE -Q3	**Position**	P2-B8	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	D9-EtFOSE -Q3.d
ACQ Method	PFC_MassVerification-D9-EtFOSE-Q3.m	**Comment**		**Acquired Time**	2017/07/11 4:35:38 PM



Alaska Analytics

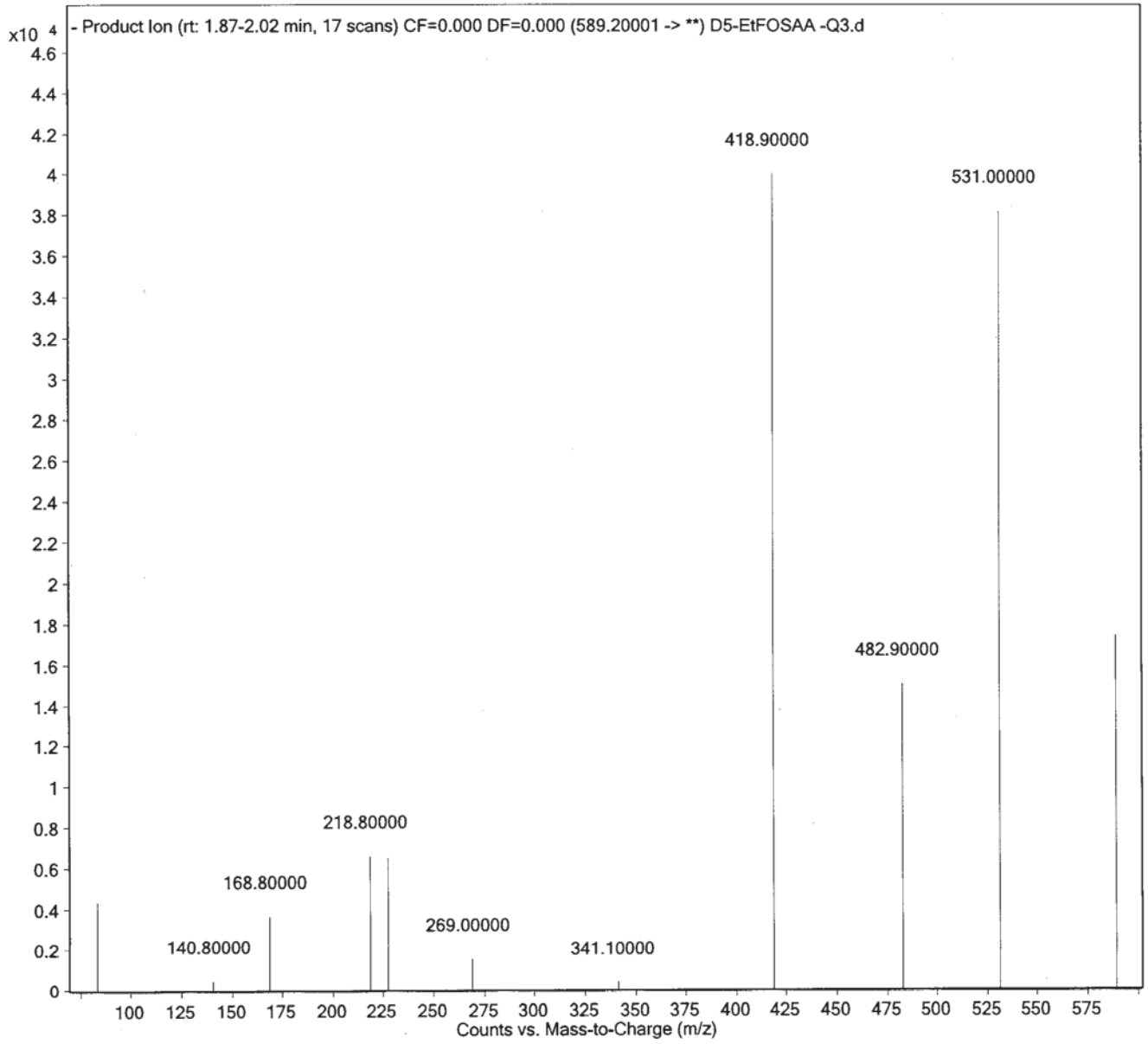
Sample Name	D3-MeFOSAA -Q3	**Position**	P2-B9	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	D3-MeFOSAA -Q3.d
ACQ Method	PFC_MassVerification-D3-MeFOSAA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 4:41:10 PM



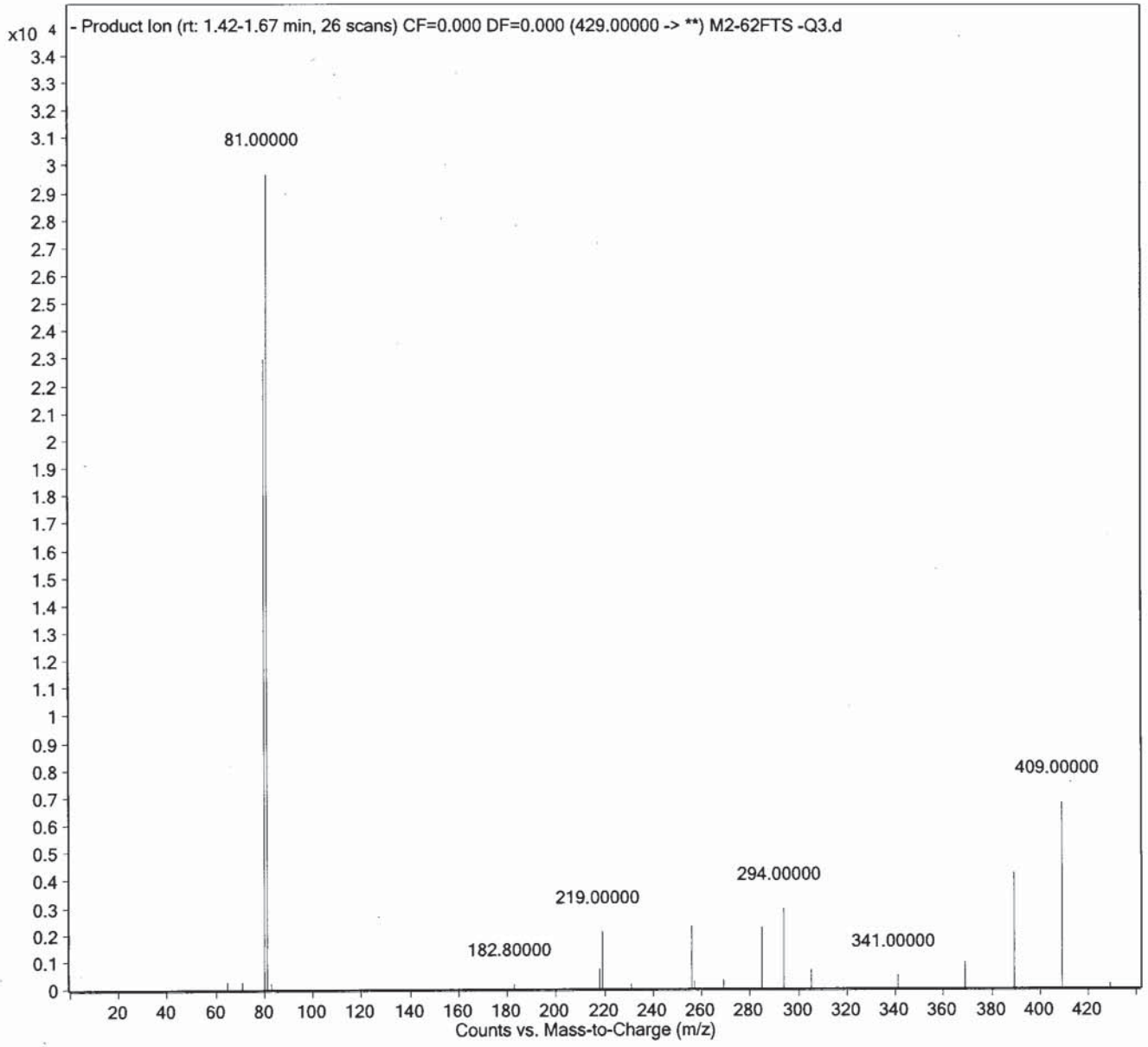
SGS AXYS Analytics

Sample Name	D5-EtFOSAA -Q3	**Position**	P2-C1	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	D5-EtFOSAA -Q3.d
ACQ Method	PFC_MassVerification-D5-EtFOSAA-Q3.m	**Comment**		**Acquired Time**	2017/07/12 8:41:07 AM

SGS AXYS Analytics

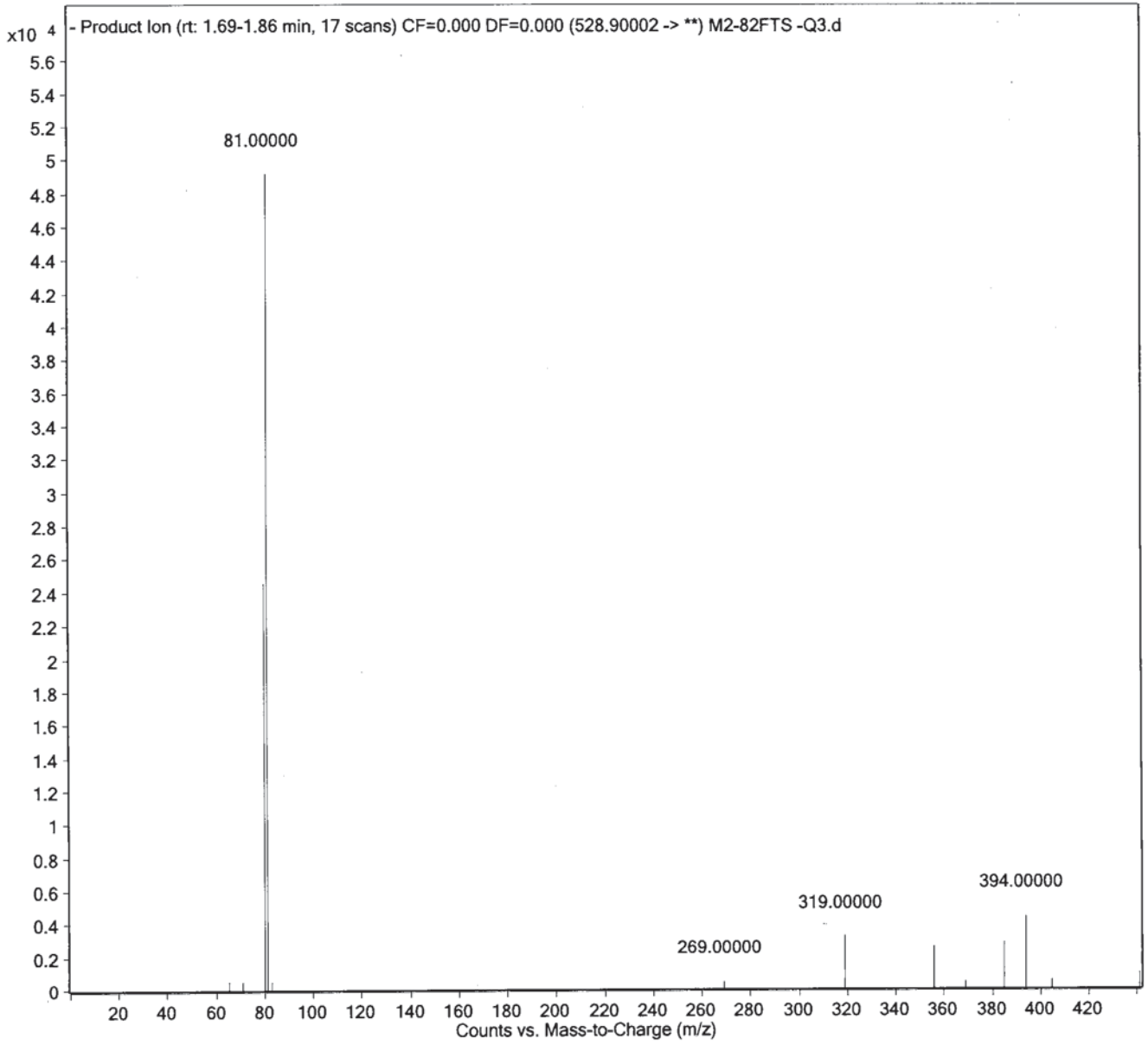


Sample Name	M2-6:2FTS -Q3	**Position**	P2-C2	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	M2-62FTS -Q3.d
ACQ Method	PFC_MassVerification-M26-2FTS-Q3.m	**Comment**		**Acquired Time**	2017/07/11 4:52:12 PM



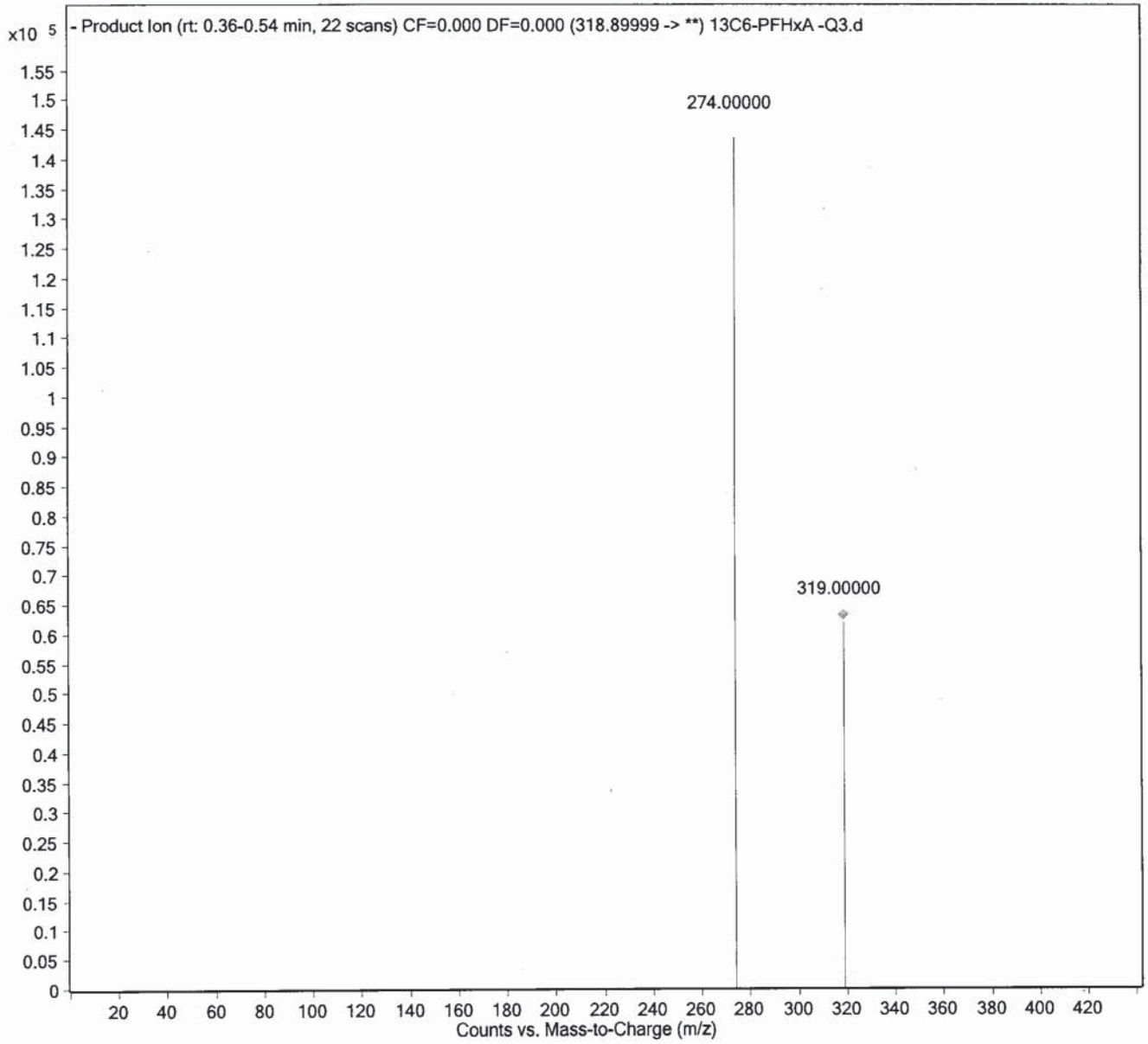
Alaskan Analytics

Sample Name	M2-8:2FTS -Q3	**Position**	P2-C3	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	M2-82FTS -Q3.d
ACQ Method	PFC_MassVerification-M2-8-2FTS-Q3.m	**Comment**		**Acquired Time**	2017/07/11 4:57:42 PM



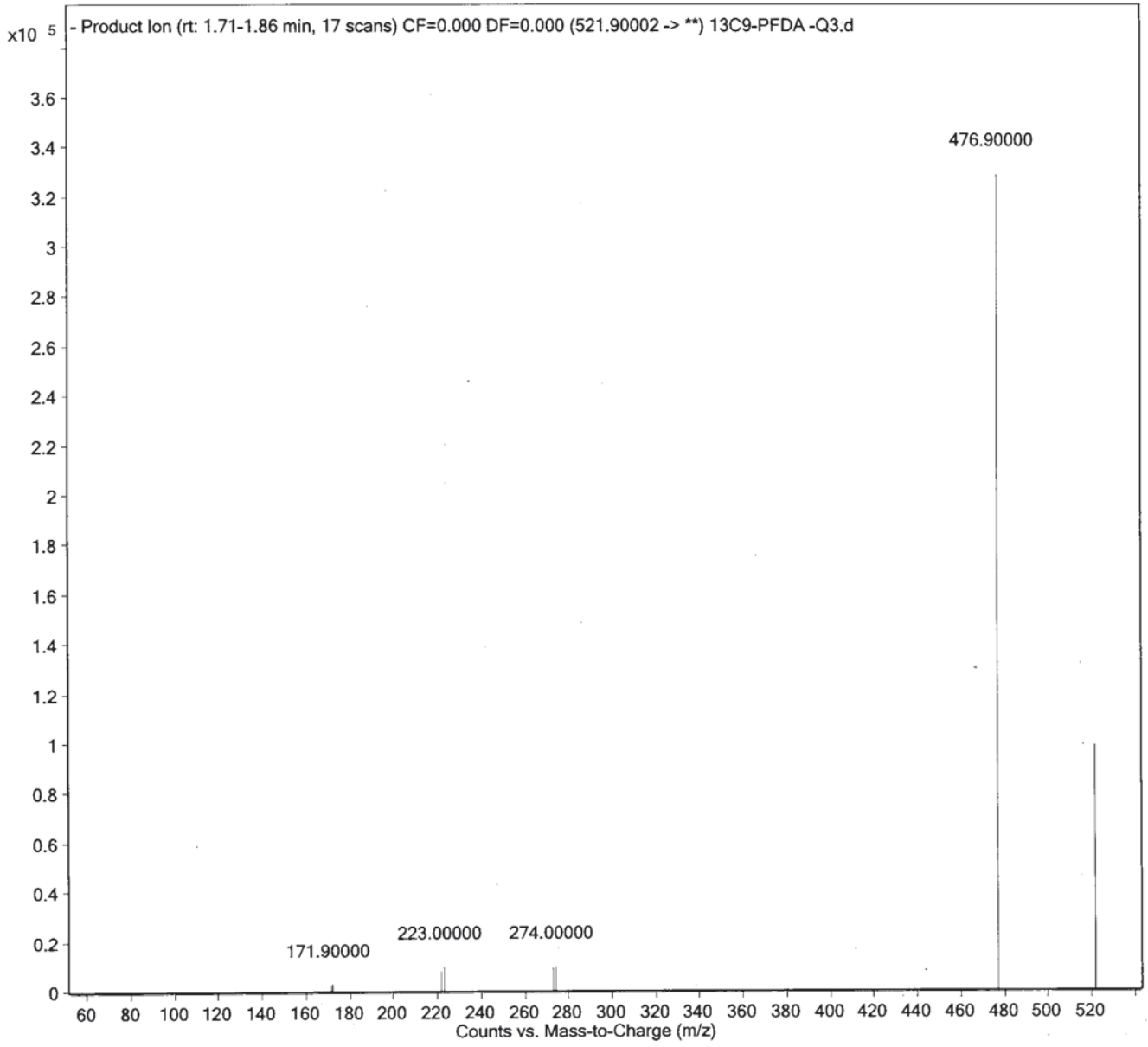
SaanAm Analytics

Sample Name	13C6-PFHxA -Q3	**Position**	P2-C4	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	13C6-PFHxA -Q3.d
ACQ Method	PFC_MassVerification-13C6-PFHxA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 5:03:12 PM



Maxxam Analytics

Sample Name	13C9-PFDA -Q3	**Position**	P2-C5	**Instrument Name**	LCMS04
User Name	AD	**Inj Vol**	10	**InjPosition**	
Sample Type	Sample	**IRM Calibration Status**	Not Applicable	**Data Filename**	13C9-PFDA -Q3.d
ACQ Method	PFC_MassVerification-13C9-PFDA-Q3.m	**Comment**		**Acquired Time**	2017/07/11 5:08:42 PM



SaxCam Analytics

Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFAS_MASSVER_IS_170711.wkl

Operator Name: AD
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\data\Mass Verification\20170711_IS
Pre-Worklist Script: ---
Post-Worklist Script: ---
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: ---

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
1	MPFBA	P2-A1	PFC_MassVerification-Q1.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFBA -Q1.d	Sample	As Method	PFAS-Q1
2	MPFPeA	P2-A2	PFC_MassVerification-Q1.m	MPFPeA -Q1.d	Sample	As Method	PFAS-Q1
3	MPFHxA	P2-A3	PFC_MassVerification-Q1.m	MPFHxA -Q1.d	Sample	As Method	PFAS-Q1
4	MPFHxS	P2-A4	PFC_MassVerification-Q1.m	MPFHxS -Q1.d	Sample	As Method	PFAS-Q1
5	MPFHpA	P2-A5	PFC_MassVerification-Q1.m	MPFHpA -Q1.d	Sample	As Method	PFAS-Q1
6	MPFOA	P2-A6	PFC_MassVerification-Q1.m	MPFOA -Q1.d	Sample	As Method	PFAS-Q1
7	MPFOS	P2-A7	PFC_MassVerification-Q1.m	MPFOS -Q1.d	Sample	As Method	PFAS-Q1
8	MPFNA	P2-A8	PFC_MassVerification-Q1.m	MPFNA -Q1.d	Sample	As Method	PFAS-Q1

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
9	MPFDA	P2-A9	PFC_MassVerification-Q1.m	MPFDA -Q1.d	Sample	As Method	PFAS-Q1
10	MPFUnA	P2-B1	PFC_MassVerification-Q1.m	MPFUnA -Q1.d	Sample	As Method	PFAS-Q1
11	MPFDoA	P2-B2	PFC_MassVerification-Q1.m	MPFDoA -Q1.d	Sample	As Method	PFAS-Q1
12	MPFTeDA	P2-B3	PFC_MassVerification-Q1.m	MPFTeDA -Q1.d	Sample	As Method	PFAS-Q1
13	MPFOSA	P2-B4	PFC_MassVerification-Q1.m	MPFOSA -Q1.d	Sample	As Method	PFAS-Q1
14	D3-MeFOSA	P2-B5	PFC_MassVerification-Q1.m	D3-MeFOSA -Q1.d	Sample	As Method	PFAS-Q1
15	D5-EtFOSA	P2-B6	PFC_MassVerification-Q1.m	D5-EtFOSA -Q1.d	Sample	As Method	PFAS-Q1
16	D7-MeFOSE	P2-B7	PFC_MassVerification-Q1.m	D7-MeFOSE -Q1.d	Sample	As Method	PFAS-Q1
17	D9-EtFOSE	P2-B8	PFC_MassVerification-Q1.m	D9-EtFOSE -Q1.d	Sample	As Method	PFAS-Q1
18	D3-MeFOSAA	P2-B9	PFC_MassVerification-Q1.m	D3-MeFOSAA -Q1.d	Sample	As Method	PFAS-Q1
19	D5-EtFOSAA	P2-C1	PFC_MassVerification-Q1.m	D5-EtFOSAA -Q1.d	Sample	As Method	PFAS-Q1
20	M2-6:2FTS	P2-C2	PFC_MassVerification-Q1.m	M2-62FTS -Q1.d	Sample	As Method	PFAS-Q1
21	M2-8:2FTS	P2-C3	PFC_MassVerification-Q1.m	M2-82FTS -Q1.d	Sample	As Method	PFAS-Q1
22	13C6-PFHxA	P2-C4	PFC_MassVerification-Q1.m	13C6-PFHxA -Q1.d	Sample	As Method	PFAS-Q1
23	13C9-PFDA	P2-C5	PFC_MassVerification-Q1.m	13C9-PFDA -Q1.d	Sample	As Method	PFAS-Q1
24	MPFBA -Q3	P2-A1	PFC_MassVerification-MPFBA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFBA -Q3.d	Sample	As Method	PFAS-Q3
25	MPFPeA -Q3	P2-A2	PFC_MassVerification-MPFPeA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFPeA -Q3.d	Sample	As Method	PFAS-Q3
26	MPFHxA -Q3	P2-A3	PFC_MassVerification-MPFHxA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFHxA -Q3.d	Sample	As Method	PFAS-Q3
27	MPFHxS -Q3	P2-A4	PFC_MassVerification-MPFHxS-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFHxS -Q3.d	Sample	As Method	PFAS-Q3
28	MPFHpA -Q3	P2-A5	PFC_MassVerification-MPFHpA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFHpA -Q3.d	Sample	As Method	PFAS-Q3

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
29	MPFOA -Q3	P2-A6	PFC_MassVerification-MPFOA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFOA -Q3.d	Sample	As Method	PFAS-Q3
30	MPFOS -Q3	P2-A7	PFC_MassVerification-MPFOS-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFOS -Q3.d	Sample	As Method	PFAS-Q3
31	MPFNA -Q3	P2-A8	PFC_MassVerification-MPFNA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFNA -Q3.d	Sample	As Method	PFAS-Q3
32	MPFDA -Q3	P2-A9	PFC_MassVerification-MPFDA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFDA -Q3.d	Sample	As Method	PFAS-Q3
33	MPFUnA -Q3	P2-B1	PFC_MassVerification-MPFUnA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFUnA -Q3.d	Sample	As Method	PFAS-Q3
34	MPFDoA -Q3	P2-B2	PFC_MassVerification-MPFDoA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFDoA -Q3.d	Sample	As Method	PFAS-Q3
35	MPFTeDA -Q3	P2-B3	PFC_MassVerification-MPFTeDA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFTeDA -Q3.d	Sample	As Method	PFAS-Q3
36	MPFOSA -Q3	P2-B4	PFC_MassVerification-MPFOSA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\MPFOSA -Q3.d	Sample	As Method	PFAS-Q3
37	D3-MeFOSA -Q3	P2-B5	PFC_MassVerification-D3-MeFOSA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\D3-MeFOSA -Q3.d	Sample	As Method	PFAS-Q3
38	D5-EtFOSA -Q3	P2-B6	PFC_MassVerification-D5-EtFOSA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\D5-EtFOSA -Q3.d	Sample	As Method	PFAS-Q3
39	D7-MeFOSE -Q3	P2-B7	PFC_MassVerification-D7-MeFOSE-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\D7-MeFOSE -Q3.d	Sample	As Method	PFAS-Q3
40	D9-EtFOSE -Q3	P2-B8	PFC_MassVerification-D9-EtFOSE-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\D9-EtFOSE -Q3.d	Sample	As Method	PFAS-Q3
41	D3-MeFOSAA -Q3	P2-B9	PFC_MassVerification-D3-MeFOSAA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\D3-MeFOSAA -Q3.d	Sample	As Method	PFAS-Q3

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Inj Vol (µl)	Sample Group
42	D5-EtFOSA -Q3	P2-C1	PFC_MassVerification-D5-EtFOSA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\D5-EtFOSA -Q3.d	Sample	As Method	PFAS-Q3
43	M2-6:2FTS -Q3	P2-C2	PFC_MassVerification-M26-2FTS-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\M2-62FTS -Q3.d	Sample	As Method	PFAS-Q3
44	M2-8:2FTS -Q3	P2-C3	PFC_MassVerification-M2-8-2FTS-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\M2-82FTS -Q3.d	Sample	As Method	PFAS-Q3
45	13C6-PFHxA -Q3	P2-C4	PFC_MassVerification-13C6-PFHxA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\13C6-PFHxA -Q3.d	Sample	As Method	PFAS-Q3
46	13C9-PFDA -Q3	P2-C5	PFC_MassVerification-13C9-PFDA-Q3.m	D:\MassHunter\Data\Mass Verification\20170711_IS\13C9-PFDA -Q3.d	Sample	As Method	PFAS-Q3
47	SCP_InstrumentStandby() {MH_Acq_Scripts.exe}						



5. Initial Calibration

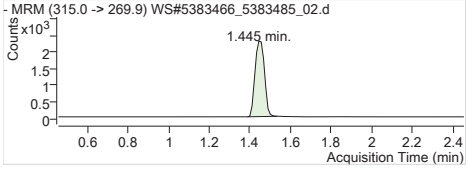
Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

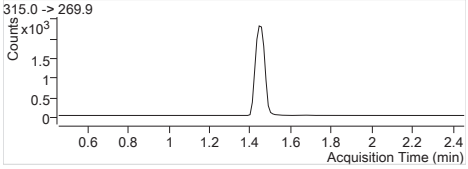
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_ETOxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/06 6:11:47 PM	**Injection Volume**	Per Method
Sample Annotation	-		

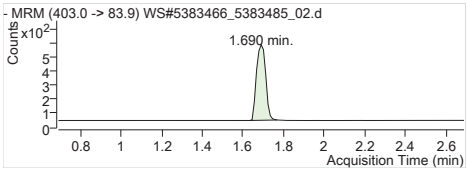
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7360	1.44	1 µg/L		
MPFHxS	1709	1.69	1 µg/L		
MPFHpA	8555	1.71	1 µg/L		
MPFOA	9294	1.89	1 µg/L		
MPFOS	1880	1.99	1 µg/L		
MPFNA	8823	2.04	1 µg/L		
MPFDA	7393	2.15	1 µg/L		
MPFUnA	8613	2.25	1 µg/L		
MPFDoA	12307	2.33	1 µg/L		
MPFTeDA	13245	2.48	1 µg/L		
13C6-PFHxA IS	25741	1.44	1 µg/L		
13C9-PFDA IS	34399	2.15	1 µg/L		

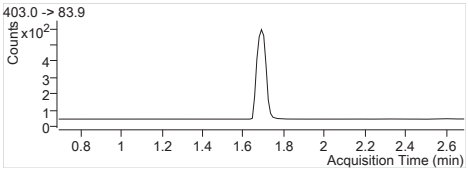
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	560	1.11	0.83	0.89 µg/L	107.07
PFHxA 1	1612	1.45	0.83	0.86 µg/L	104.02
PFHxS 1	524	1.69	0.83	0.94 µg/L	112.86
PFHpA 1	2769	1.71	0.83	0.96 µg/L	115.76
PFOA 1	2835	1.89	0.83	0.89 µg/L	107.76
PFOS 1	592	1.98	0.83	0.97 µg/L	117.23
PFNA 1	2562	2.04	0.83	0.88 µg/L	105.89
PFDA 1	2686	2.15	0.83	0.86 µg/L	103.25
PFUnA 1	3117	2.25	0.83	0.85 µg/L	102.10
PFDoA 1	3531	2.33	0.83	0.82 µg/L	98.99
PFTrDA 1	4399	2.41	0.83	0.84 µg/L	101.03
PFTeDA 1	3520	2.48	0.83	0.81 µg/L	97.97
13C2-PFHxA	7360	1.44	100.00	120.68 µg/L	120.68
18O2-PFHxS	1709	1.69	100.00	114.25 µg/L	114.25
13C4-PFHpA	8555	1.71	100.00	113.76 µg/L	113.76
13C4-PFOA	9294	1.89	100.00	115.02 µg/L	115.02
13C4-PFOS	1880	1.99	100.00	105.81 µg/L	105.81
13C5-PFNA	8749	2.04	100.00	109.89 µg/L	109.89
13C2-PFDA	7298	2.15	100.00	105.73 µg/L	105.73
13C2-PFUnA	8613	2.25	100.00	103.52 µg/L	103.52
13C2-PFDoA	12307	2.33	100.00	111.14 µg/L	111.14
13C2-PFTeDA	13325	2.48	100.00	105.61 µg/L	105.61
13C6-PFHxA	25741	1.44	100.00	90.54 µg/L	90.54
13C9-PFDA	34399	2.15	100.00	96.16 µg/L	96.16



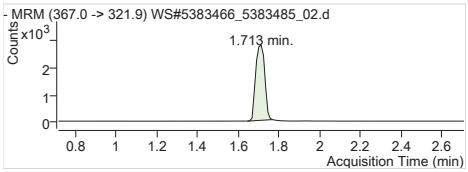


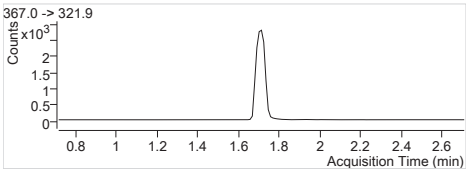
MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



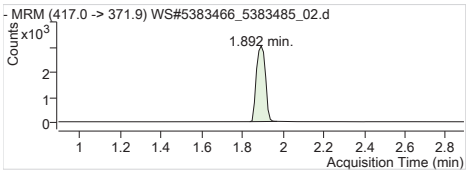


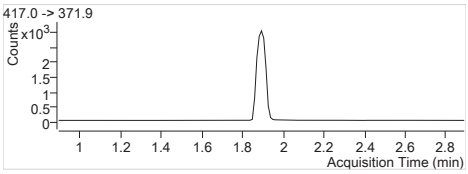
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



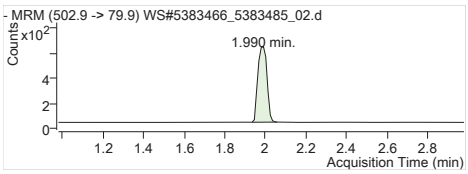


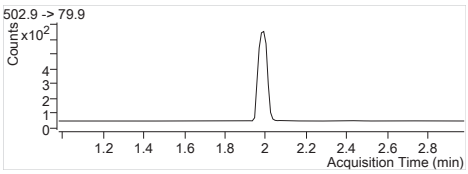
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



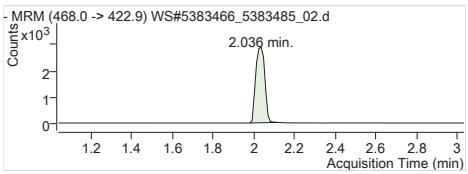


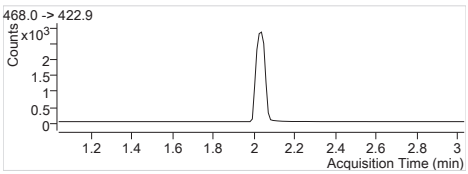
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



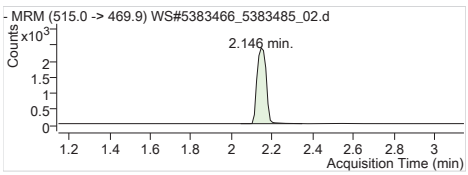


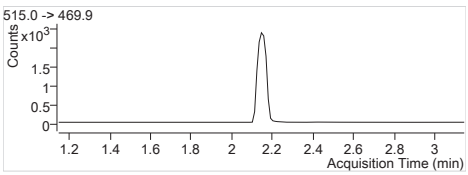
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



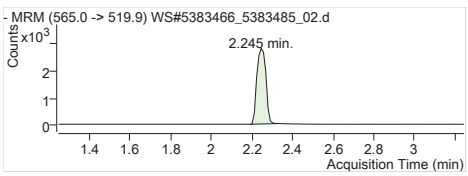


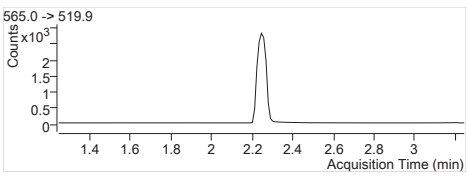
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



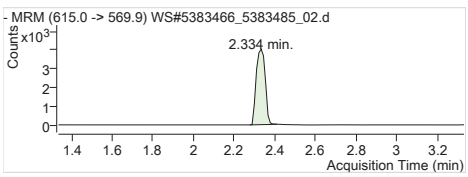


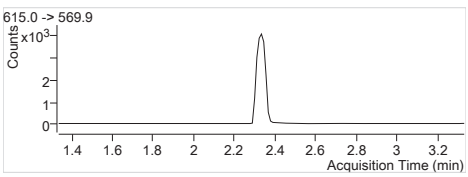
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



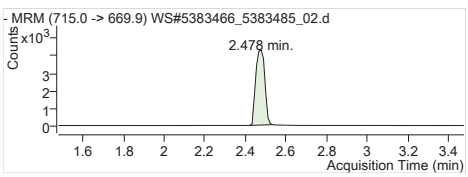


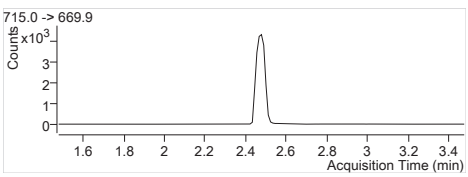
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



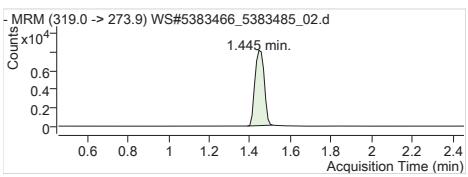


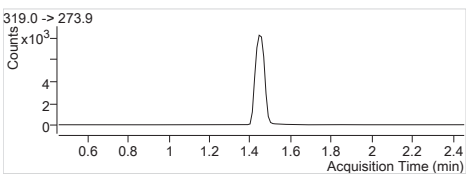
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Calibration



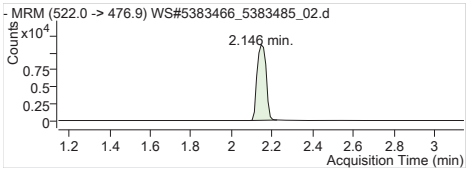


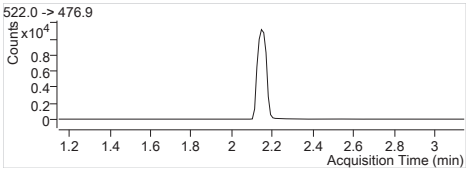
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



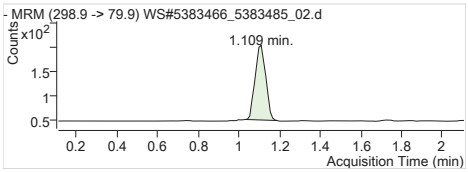


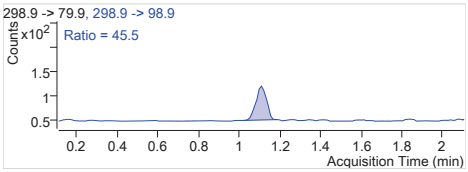
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



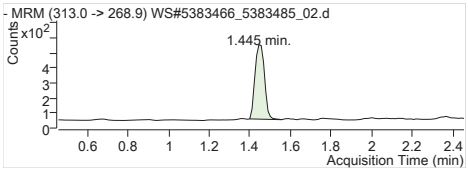


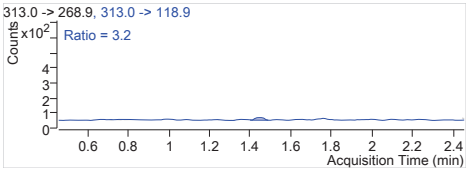
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



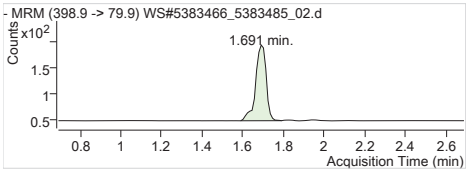


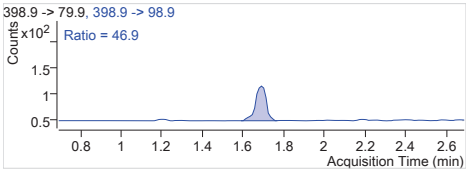
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 0.89 µg/L
Area ratio: 0.32768
Sample type: Calibration



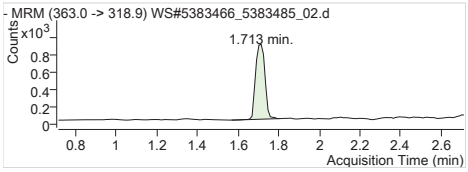


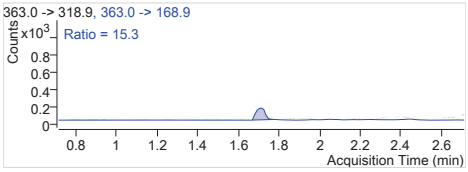
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 0.86 µg/L
Area ratio: 0.21902
Sample type: Calibration



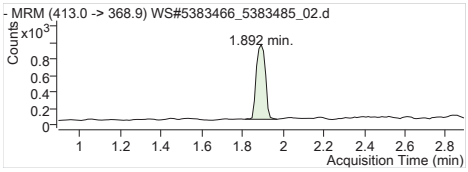


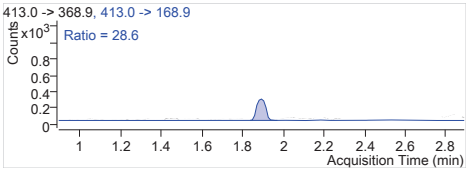
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.94 µg/L
Area ratio: 0.30661
Sample type: Calibration



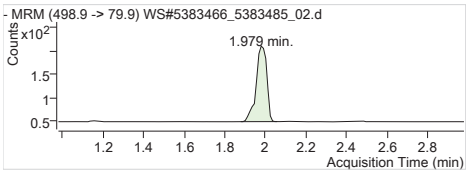


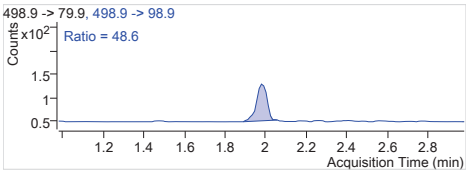
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 0.96 µg/L
Area ratio: 0.32367
Sample type: Calibration



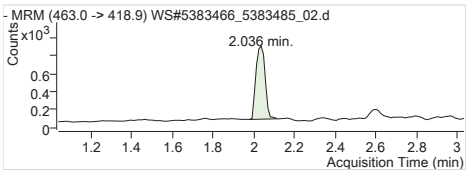


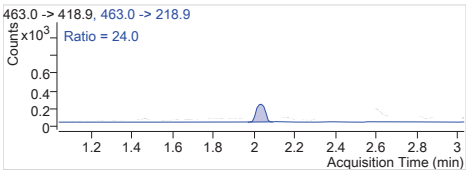
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 0.89 µg/L
Area ratio: 0.30504
Sample type: Calibration



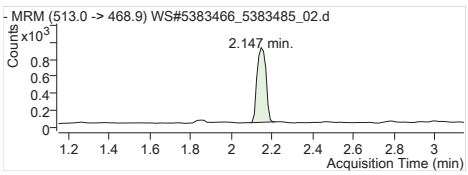


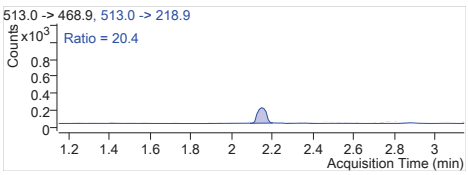
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.97 µg/L
Area ratio: 0.31489
Sample type: Calibration



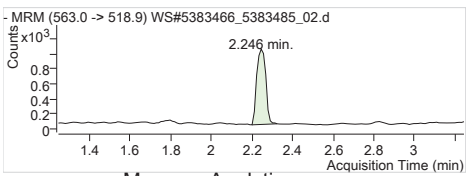


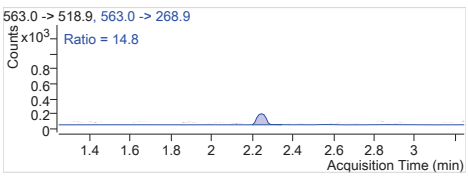
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.88 µg/L
Area ratio: 0.29038
Sample type: Calibration



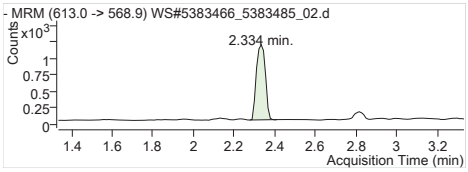


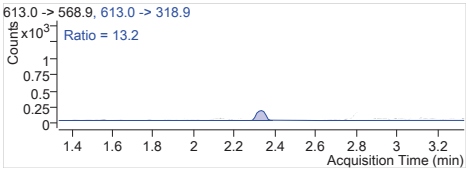
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 0.86 µg/L
Area ratio: 0.36332
Sample type: Calibration



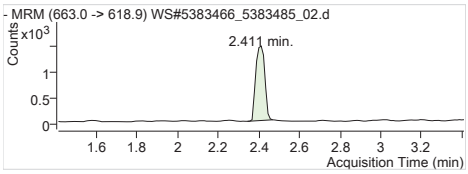


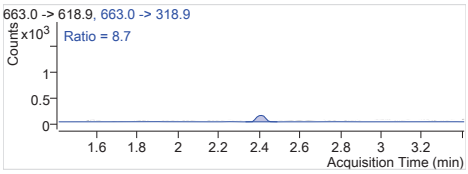
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.85 µg/L
Area ratio: 0.36189
Sample type: Calibration



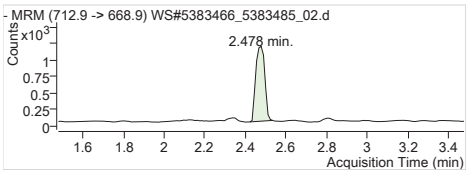


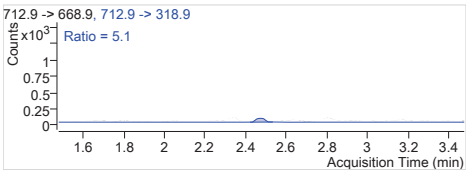
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 0.82 µg/L
Area ratio: 0.28691
Sample type: Calibration



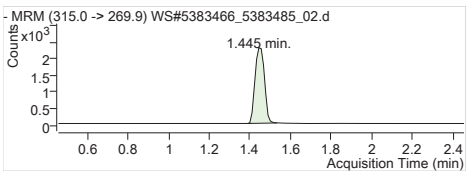


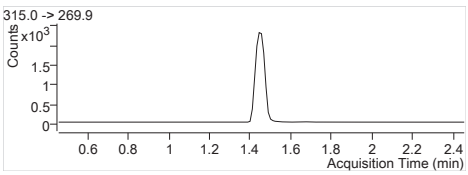
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 0.84 µg/L
Area ratio: 0.33213
Sample type: Calibration



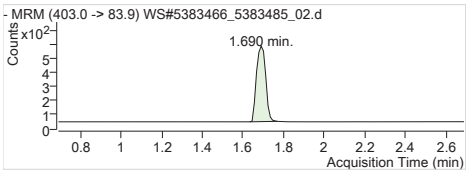


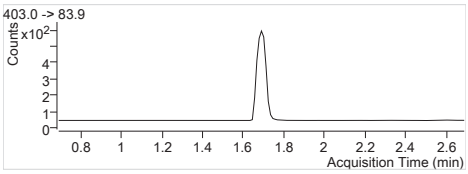
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 0.81 µg/L
Area ratio: 0.26576
Sample type: Calibration



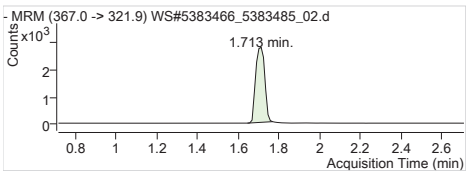


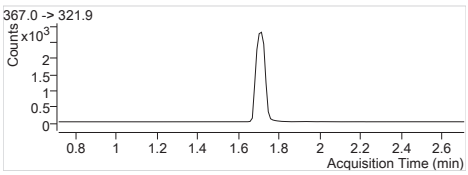
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 120.68 µg/L
Area ratio: 0.28593
Sample type: Calibration



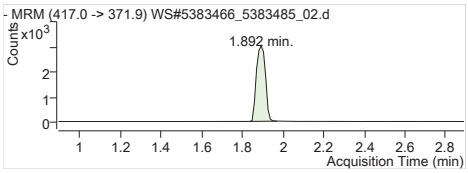


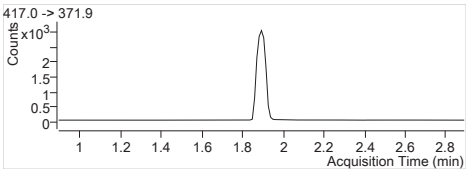
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 114.25 µg/L
Area ratio: 0.06639
Sample type: Calibration



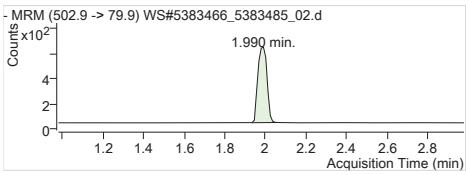


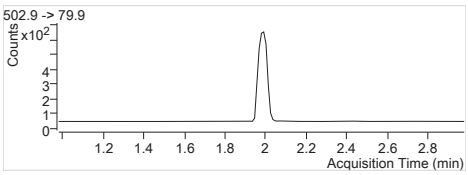
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 113.76 µg/L
Area ratio: 0.33235
Sample type: Calibration



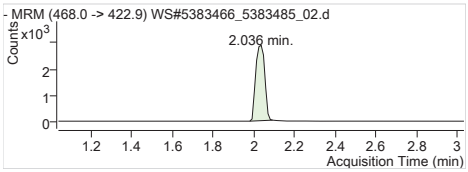


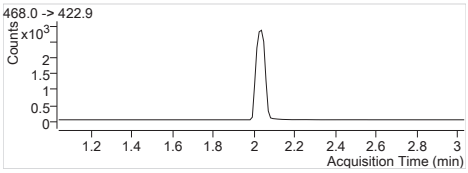
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 115.02 µg/L
Area ratio: 0.36106
Sample type: Calibration



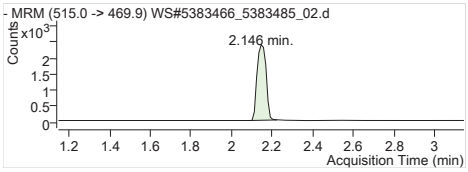


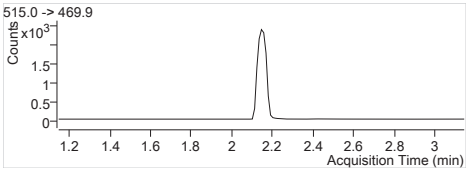
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 105.81 µg/L
Area ratio: 0.07304
Sample type: Calibration



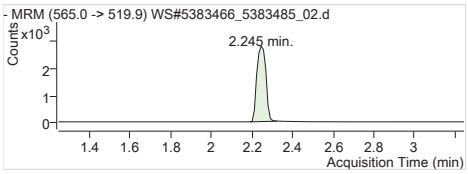


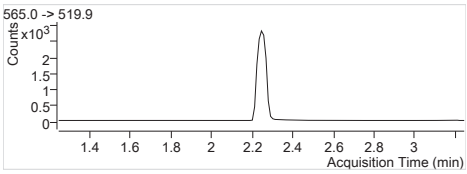
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 109.89 µg/L
Area ratio: 0.33989
Sample type: Calibration



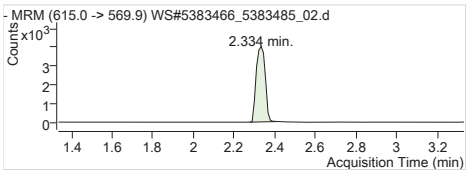


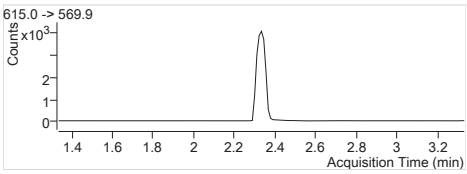
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 105.73 µg/L
Area ratio: 0.21216
Sample type: Calibration



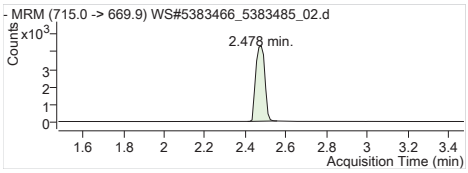


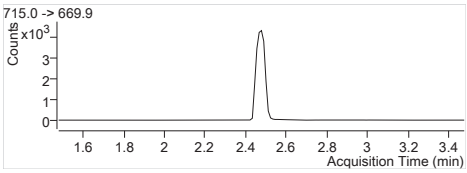
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 103.52 µg/L
Area ratio: 0.25039
Sample type: Calibration



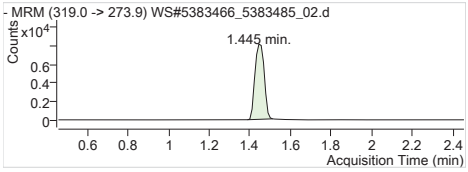


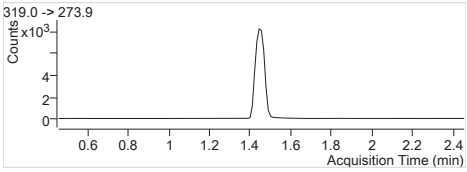
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 111.14 µg/L
Area ratio: 0.35777
Sample type: Calibration



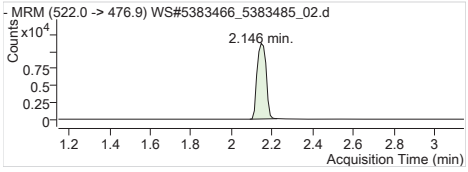


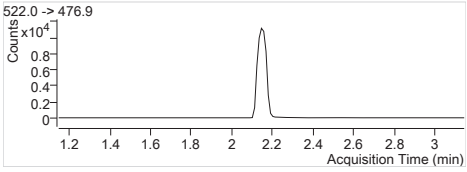
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 105.61 µg/L
Area ratio: 0.38737
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 90.54 µg/L
Area ratio: 0
Sample type: Calibration





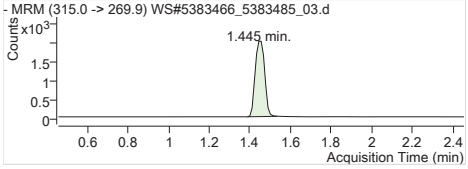
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 96.16 µg/L
Area ratio: 0
Sample type: Calibration

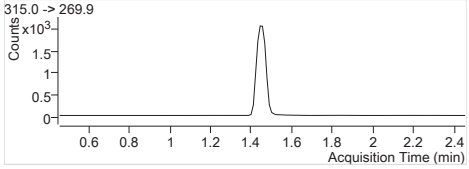
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A3
Acq. Date	2018/02/06 6:16:44 PM	**Injection Volume**	Per Method
Sample Annotation	-		

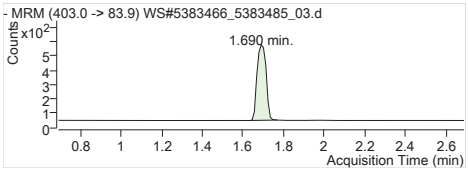
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6506	1.44	1 µg/L		
MPFHxS	1633	1.69	1 µg/L		
MPFHpA	8349	1.71	1 µg/L		
MPFOA	8736	1.89	1 µg/L		
MPFOS	1889	1.99	1 µg/L		
MPFNA	8809	2.04	1 µg/L		
MPFDA	7517	2.15	1 µg/L		
MPFUnA	8820	2.25	1 µg/L		
MPFDoA	11355	2.33	1 µg/L		
MPFTeDA	12272	2.48	1 µg/L		
13C6-PFHxA IS	27981	1.46	1 µg/L		
13C9-PFDA IS	35531	2.15	1 µg/L		

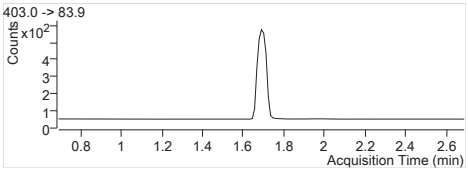
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1174	1.11	1.70	1.77 µg/L	104.35
PFHxA 1	4054	1.46	1.70	1.86 µg/L	109.45
PFHxS 1	1115	1.69	1.70	1.78 µg/L	104.59
PFHpA 1	5056	1.71	1.70	1.63 µg/L	95.86
PFOA 1	5942	1.89	1.70	1.77 µg/L	104.31
PFOS 1	961	1.98	1.70	1.54 µg/L	90.33
PFNA 1	5291	2.04	1.70	1.71 µg/L	100.36
PFDA 1	5351	2.15	1.70	1.60 µg/L	93.83
PFUnA 1	5994	2.25	1.70	1.60 µg/L	93.99
PFDoA 1	7517	2.33	1.70	1.73 µg/L	102.01
PFTrDA 1	8288	2.41	1.70	1.67 µg/L	98.07
PFTeDA 1	7406	2.48	1.70	1.79 µg/L	105.42
13C2-PFHxA	6506	1.44	100.00	98.14 µg/L	98.14
18O2-PFHxS	1633	1.69	100.00	100.43 µg/L	100.43
13C4-PFHpA	8349	1.71	100.00	102.13 µg/L	102.13
13C4-PFOA	8736	1.89	100.00	99.46 µg/L	99.46
13C4-PFOS	1889	1.99	100.00	97.81 µg/L	97.81
13C5-PFNA	8746	2.04	100.00	101.06 µg/L	101.06
13C2-PFDA	7451	2.15	100.00	104.50 µg/L	104.50
13C2-PFUnA	8820	2.25	100.00	102.63 µg/L	102.63
13C2-PFDoA	11355	2.33	100.00	99.27 µg/L	99.27
13C2-PFTeDA	12474	2.48	100.00	95.72 µg/L	95.72
13C6-PFHxA	27981	1.46	100.00	98.42 µg/L	98.42
13C9-PFDA	35531	2.15	100.00	99.32 µg/L	99.32



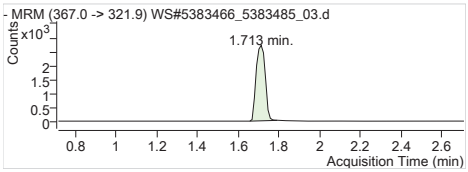


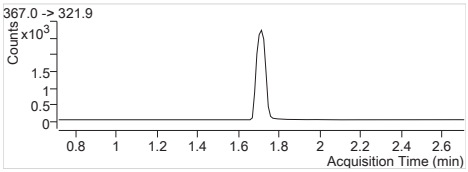
MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



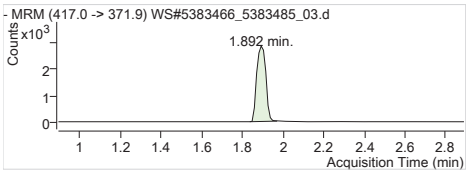


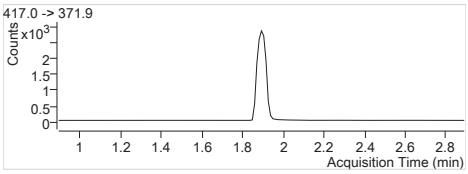
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



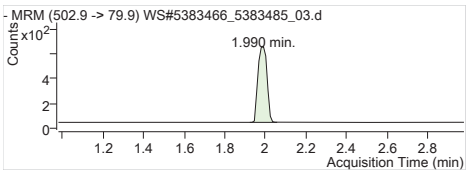


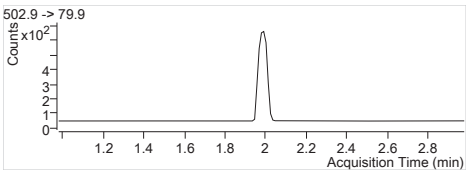
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



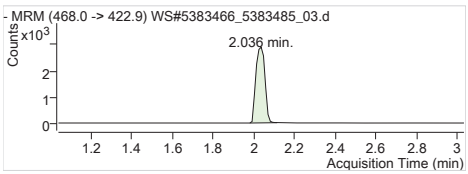


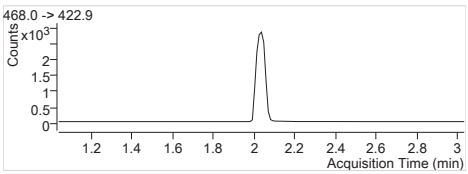
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



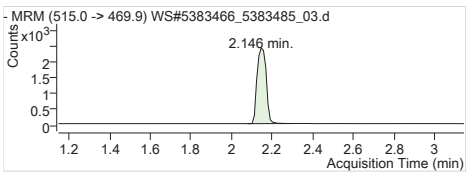


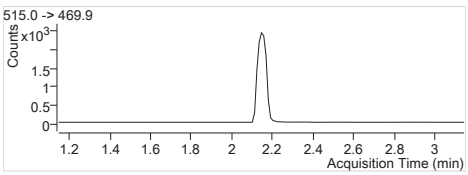
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



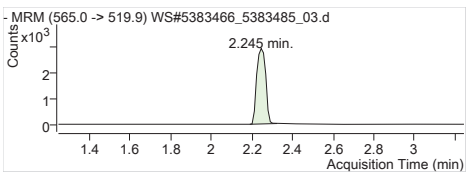


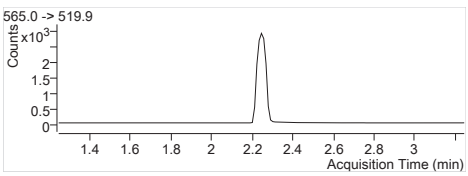
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



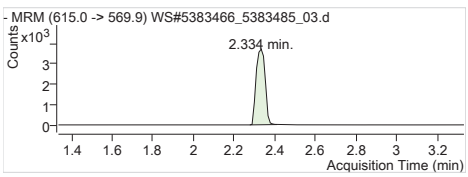


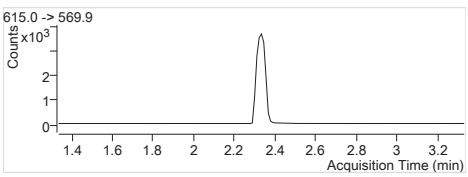
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



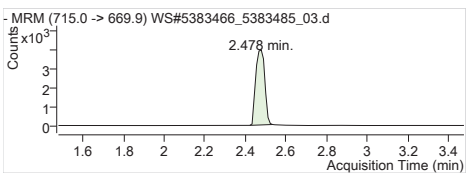


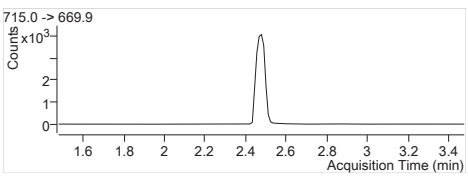
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



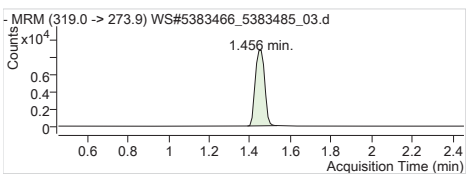


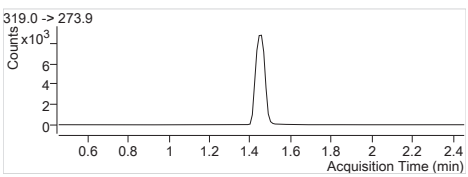
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Calibration



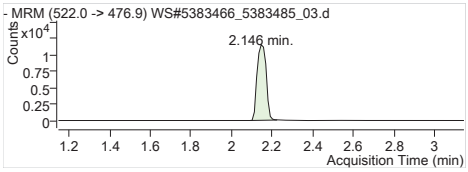


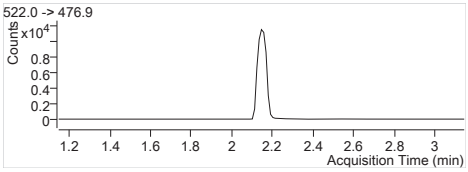
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



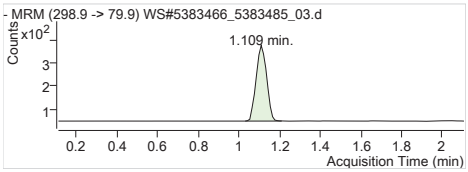


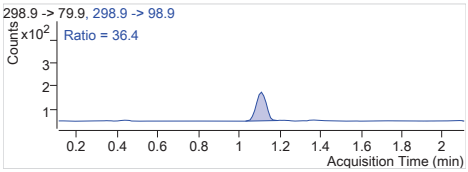
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



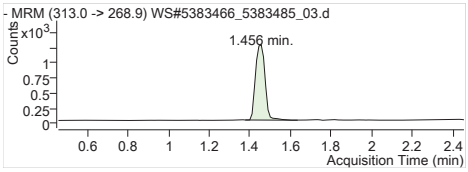


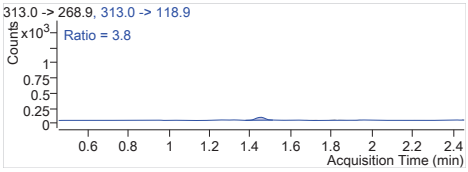
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



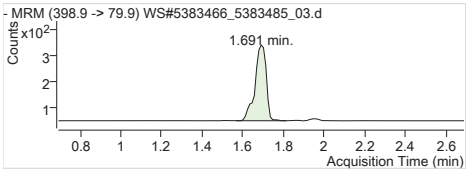


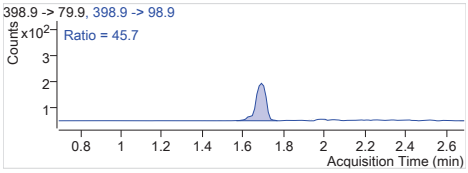
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 1.77 µg/L
Area ratio: 0.71892
Sample type: Calibration



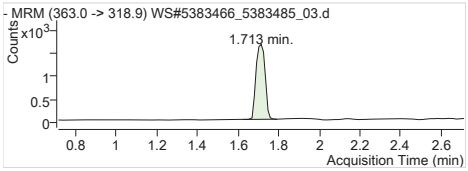


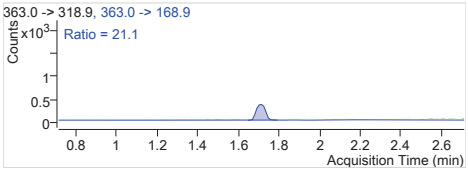
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 1.86 µg/L
Area ratio: 0.62312
Sample type: Calibration



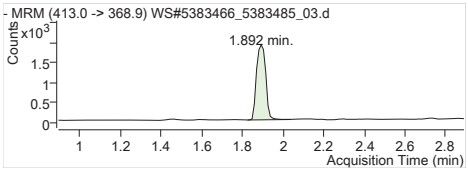


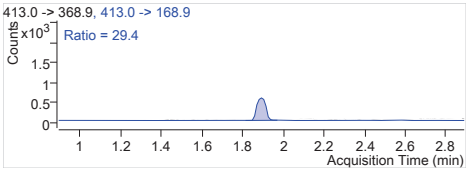
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 1.78 µg/L
Area ratio: 0.68279
Sample type: Calibration



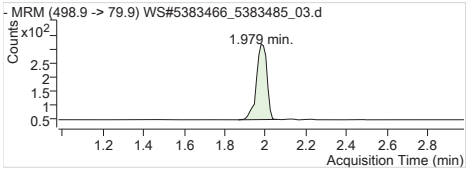


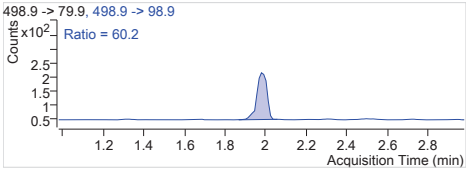
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 1.63 µg/L
Area ratio: 0.60558
Sample type: Calibration



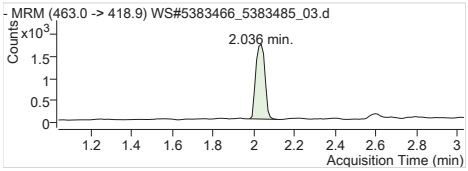


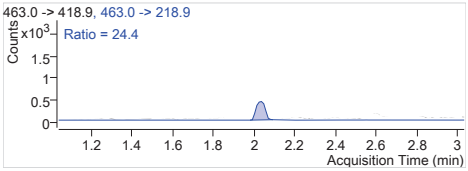
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 1.77 µg/L
Area ratio: 0.68017
Sample type: Calibration



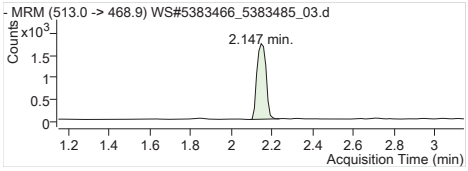


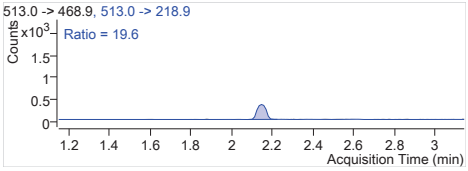
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 1.54 µg/L
Area ratio: 0.50873
Sample type: Calibration



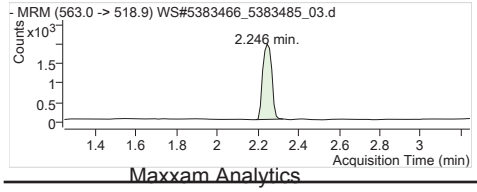


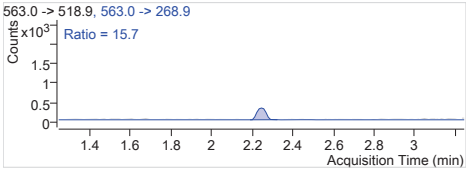
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 1.71 µg/L
Area ratio: 0.60064
Sample type: Calibration



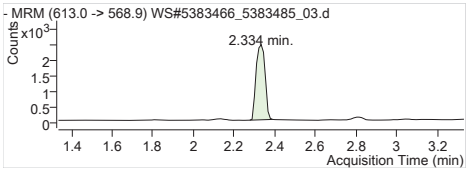


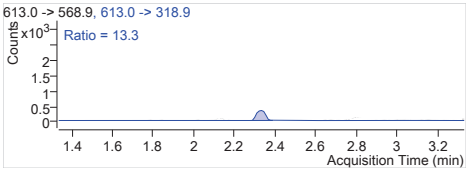
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 1.60 µg/L
Area ratio: 0.71185
Sample type: Calibration



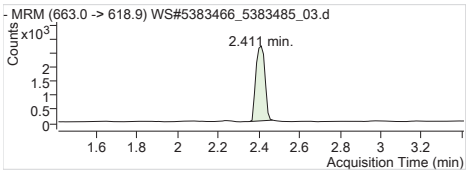


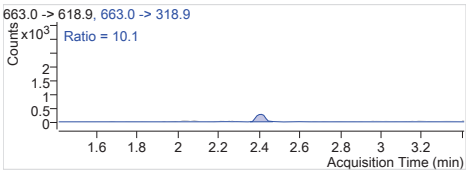
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 1.60 µg/L
Area ratio: 0.67959
Sample type: Calibration



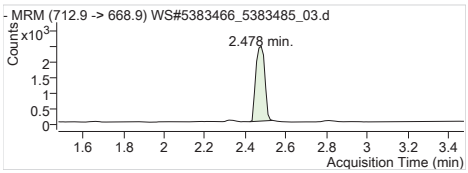


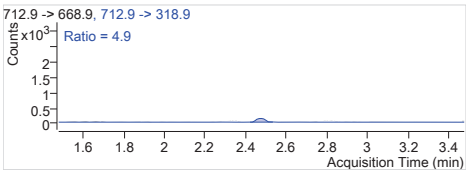
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 1.73 µg/L
Area ratio: 0.66200
Sample type: Calibration



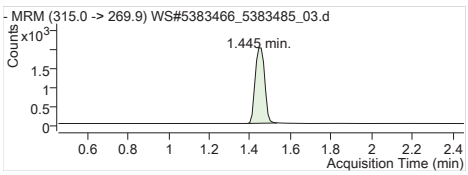


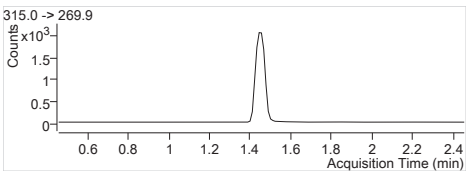
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 1.67 µg/L
Area ratio: 0.67536
Sample type: Calibration



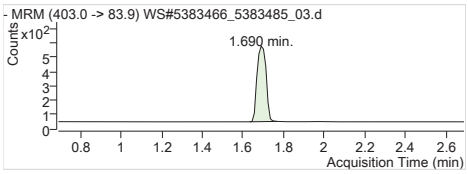


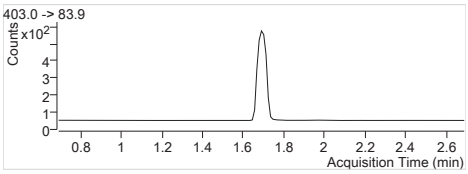
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 1.79 µg/L
Area ratio: 0.60349
Sample type: Calibration



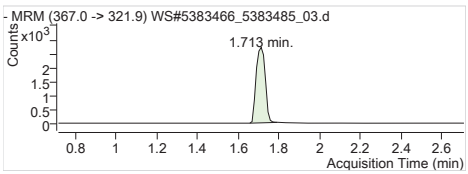


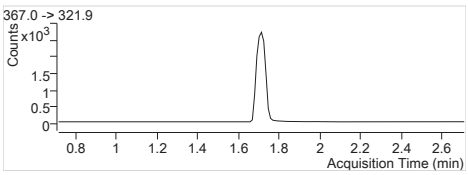
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 98.14 µg/L
Area ratio: 0.23251
Sample type: Calibration



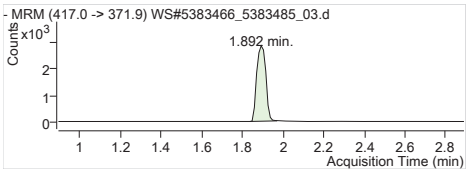


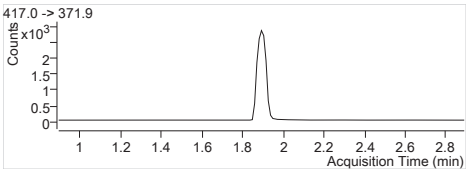
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 100.43 µg/L
Area ratio: 0.05836
Sample type: Calibration



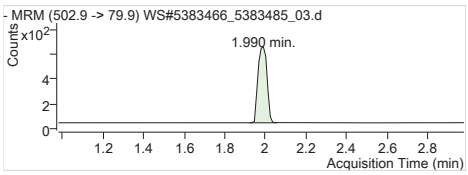


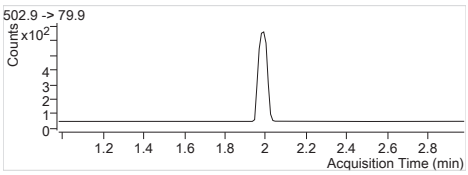
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 102.13 µg/L
Area ratio: 0.29838
Sample type: Calibration



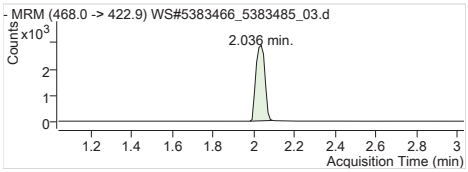


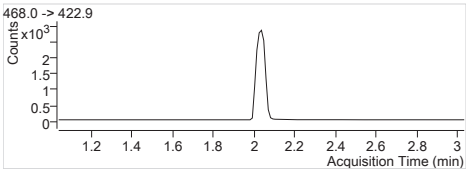
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 99.46 µg/L
Area ratio: 0.31221
Sample type: Calibration



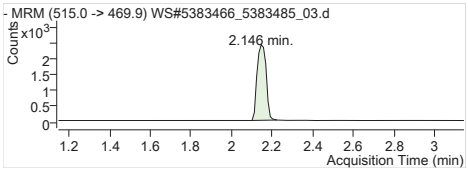


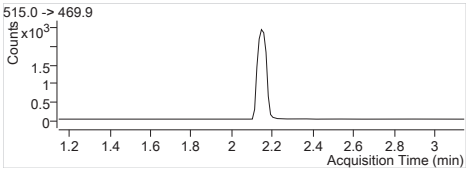
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 97.81 µg/L
Area ratio: 0.06751
Sample type: Calibration



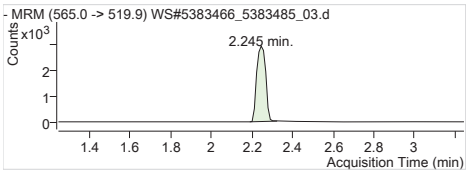


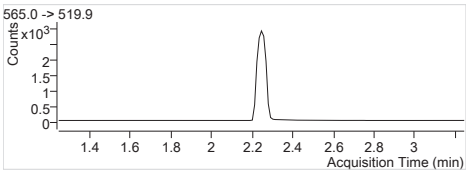
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 101.06 µg/L
Area ratio: 0.31257
Sample type: Calibration



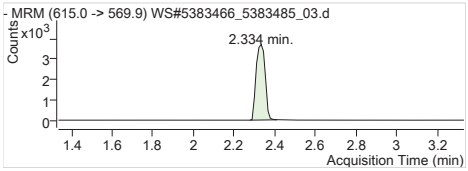


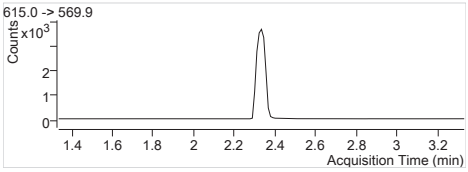
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 104.50 µg/L
Area ratio: 0.20970
Sample type: Calibration



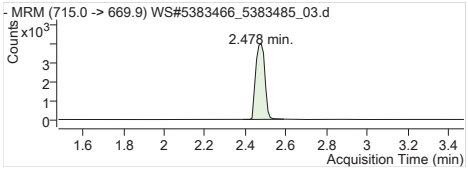


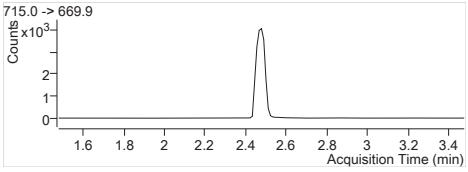
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 102.63 µg/L
Area ratio: 0.24823
Sample type: Calibration



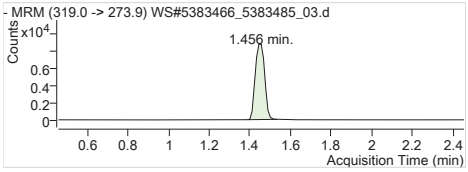


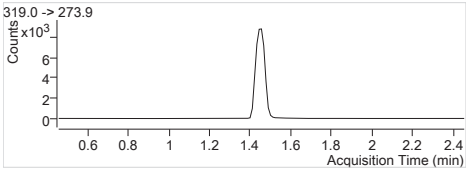
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 99.27 µg/L
Area ratio: 0.31958
Sample type: Calibration



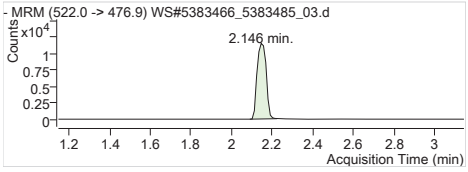


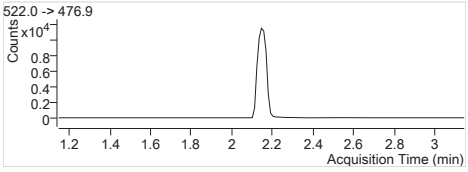
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 95.72 µg/L
Area ratio: 0.35107
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 98.42 µg/L
Area ratio: 0
Sample type: Calibration





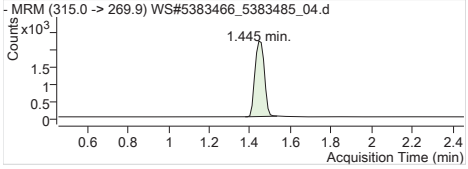
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 99.32 µg/L
Area ratio: 0
Sample type: Calibration

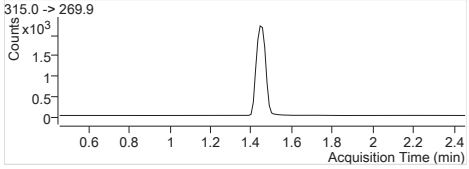
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A4
Acq. Date	2018/02/06 6:21:40 PM	**Injection Volume**	Per Method
Sample Annotation	-		

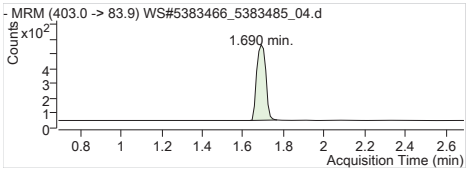
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6984	1.44	1 µg/L		
MPFHxS	1605	1.69	1 µg/L		
MPFHpA	8574	1.71	1 µg/L		
MPFOA	8745	1.89	1 µg/L		
MPFOS	1995	1.99	1 µg/L		
MPFNA	8917	2.04	1 µg/L		
MPFDA	7363	2.15	1 µg/L		
MPFUnA	8486	2.25	1 µg/L		
MPFDoA	11366	2.33	1 µg/L		
MPFTeDA	13162	2.48	1 µg/L		
13C6-PFHxA IS	29424	1.44	1 µg/L		
13C9-PFDA IS	36955	2.15	1 µg/L		

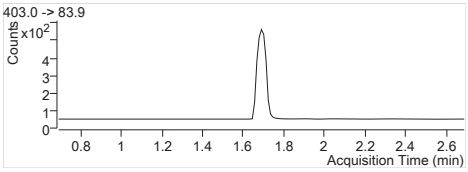
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	3442	1.11	5.00	5.00 µg/L	99.99
PFHxA 1	11982	1.45	5.00	4.56 µg/L	91.14
PFHxS 1	3214	1.69	5.00	4.73 µg/L	94.59
PFHpA 1	15761	1.71	5.00	4.55 µg/L	91.08
PFOA 1	17315	1.89	5.00	4.82 µg/L	96.38
PFOS 1	3310	1.98	5.00	4.87 µg/L	97.49
PFNA 1	16213	2.04	5.00	4.95 µg/L	99.04
PFDA 1	16796	2.15	5.00	4.92 µg/L	98.37
PFUnA 1	19129	2.25	5.00	5.32 µg/L	106.35
PFDoA 1	23281	2.33	5.00	5.11 µg/L	102.13
PFTrDA 1	27306	2.41	5.00	5.05 µg/L	100.91
PFTeDA 1	22027	2.48	5.00	4.89 µg/L	97.88
13C2-PFHxA	6984	1.44	100.00	100.18 µg/L	100.18
18O2-PFHxS	1605	1.69	100.00	93.87 µg/L	93.87
13C4-PFHpA	8574	1.71	100.00	99.74 µg/L	99.74
13C4-PFOA	8745	1.89	100.00	94.68 µg/L	94.68
13C4-PFOS	1995	1.99	100.00	98.23 µg/L	98.23
13C5-PFNA	8855	2.04	100.00	97.30 µg/L	97.30
13C2-PFDA	7249	2.15	100.00	97.75 µg/L	97.75
13C2-PFUnA	8486	2.25	100.00	94.94 µg/L	94.94
13C2-PFDoA	11366	2.33	100.00	95.54 µg/L	95.54
13C2-PFTeDA	13397	2.48	100.00	98.84 µg/L	98.84
13C6-PFHxA	29424	1.44	100.00	103.50 µg/L	103.50
13C9-PFDA	36955	2.15	100.00	103.30 µg/L	103.30



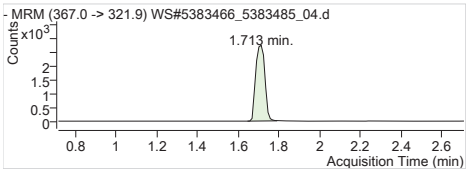


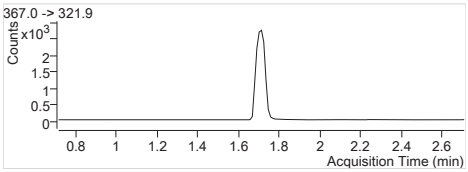
MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



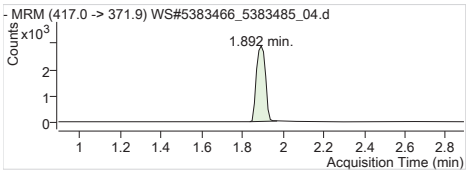


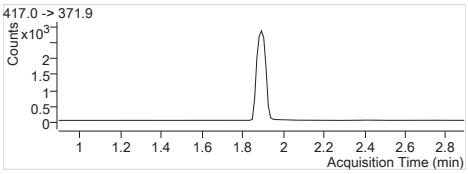
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



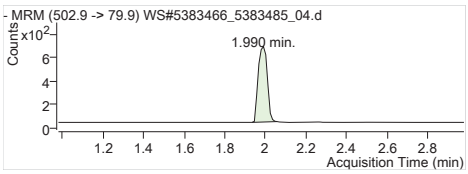


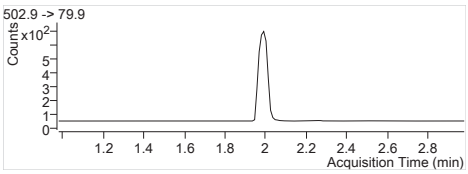
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



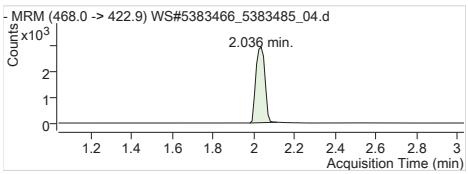


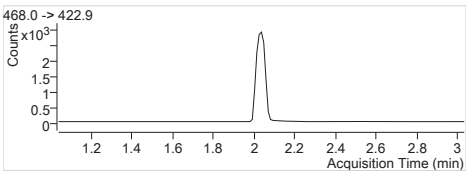
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



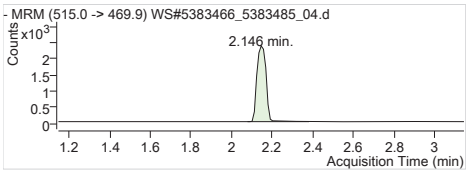


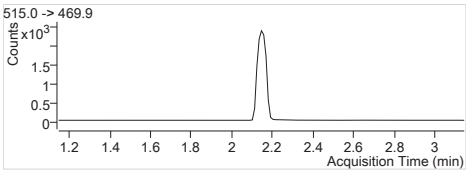
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



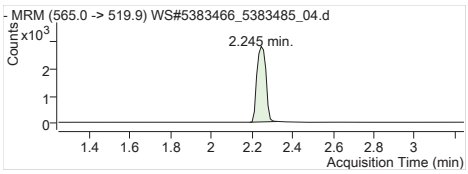


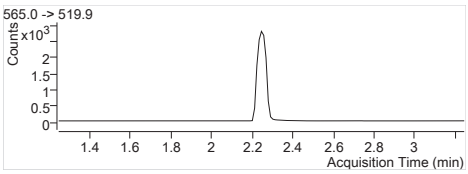
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



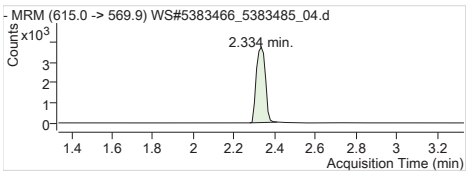


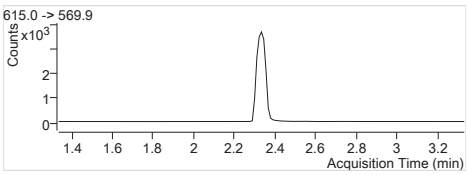
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



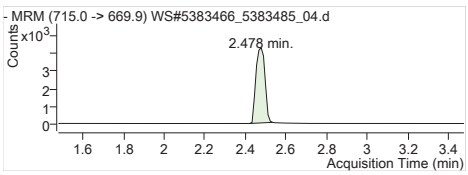


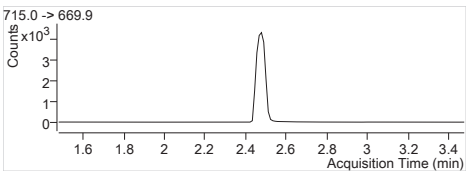
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



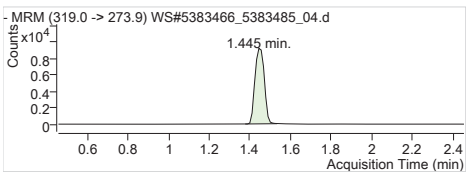


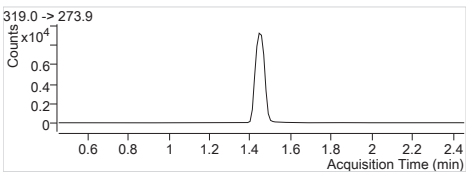
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Calibration



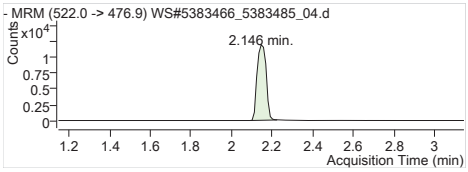


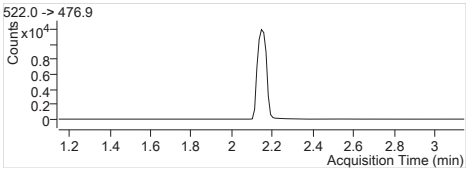
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



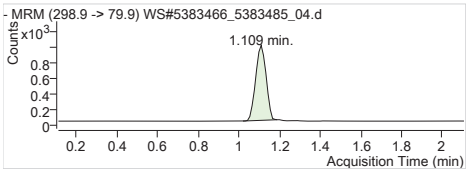


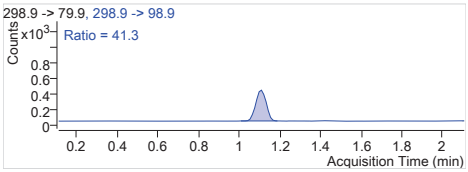
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



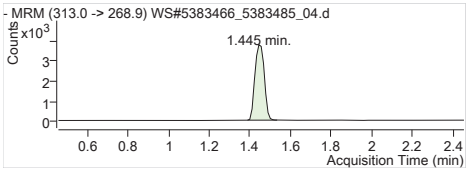


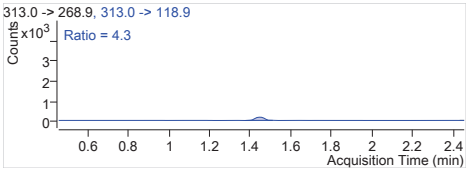
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



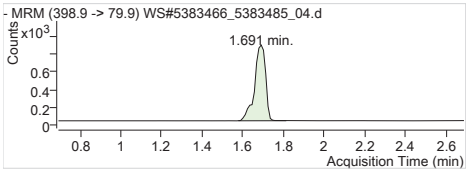


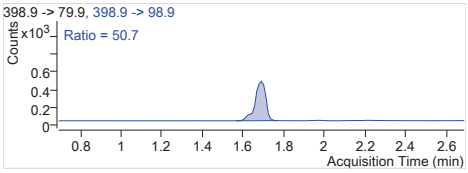
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 5.00 µg/L
Area ratio: 2.14455
Sample type: Calibration



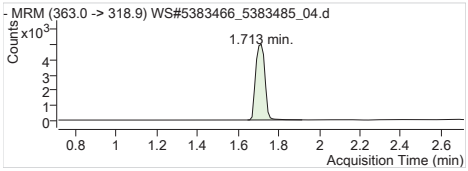


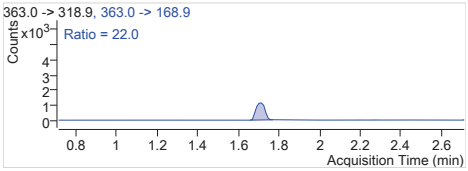
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 4.56 µg/L
Area ratio: 1.71564
Sample type: Calibration



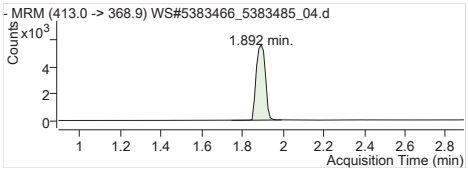


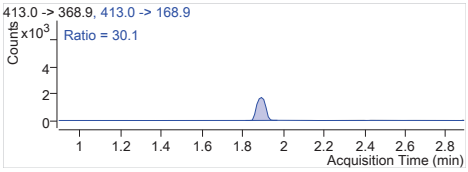
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 4.73 µg/L
Area ratio: 2.00249
Sample type: Calibration



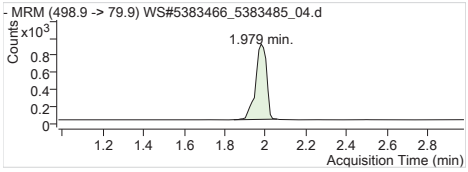


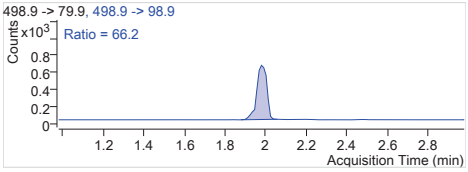
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 4.55 µg/L
Area ratio: 1.83823
Sample type: Calibration



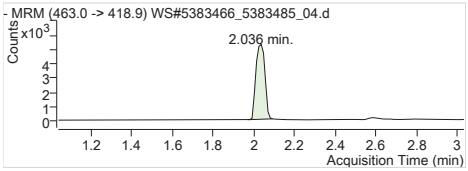


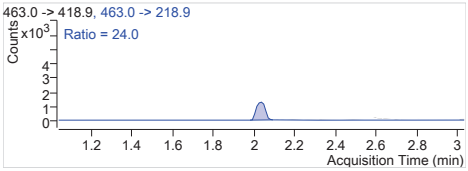
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 4.82 µg/L
Area ratio: 1.97999
Sample type: Calibration



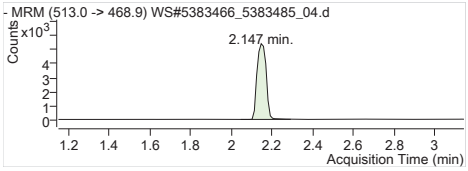


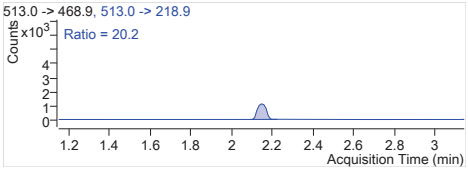
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 4.87 µg/L
Area ratio: 1.65915
Sample type: Calibration



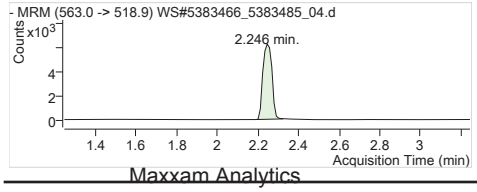


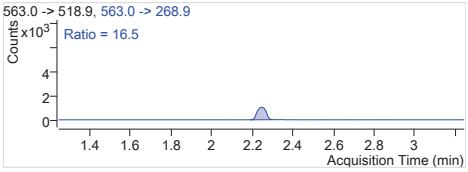
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 4.95 µg/L
Area ratio: 1.81821
Sample type: Calibration



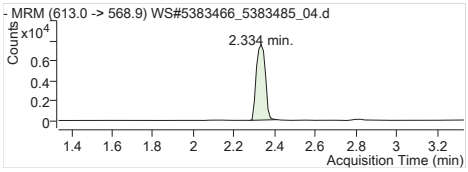


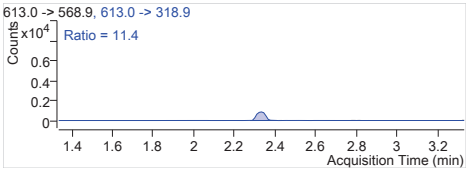
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 4.92 µg/L
Area ratio: 2.28114
Sample type: Calibration



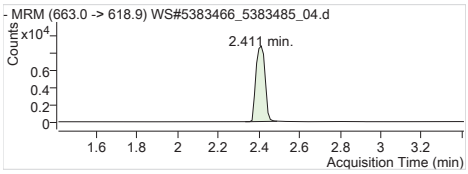


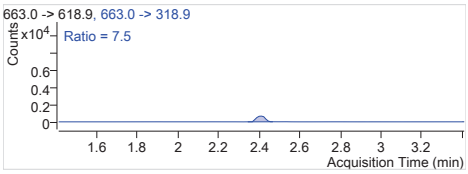
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 5.32 µg/L
Area ratio: 2.25418
Sample type: Calibration



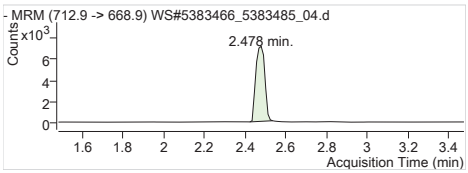


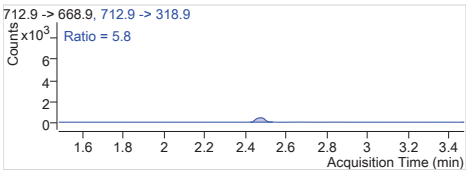
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 5.11 µg/L
Area ratio: 2.04830
Sample type: Calibration



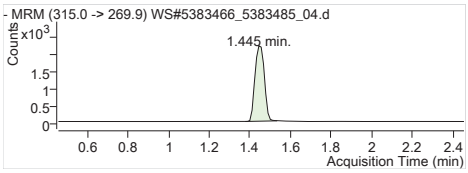


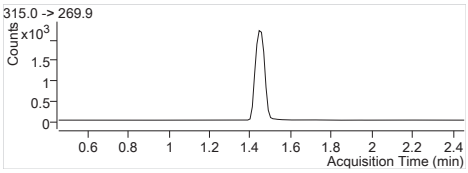
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 5.05 µg/L
Area ratio: 2.07461
Sample type: Calibration



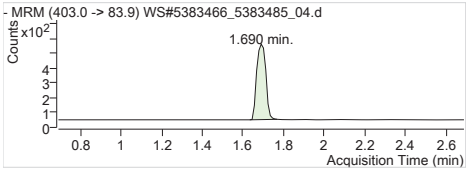


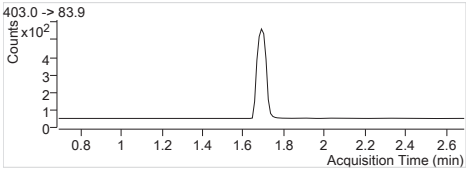
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 4.89 µg/L
Area ratio: 1.67353
Sample type: Calibration



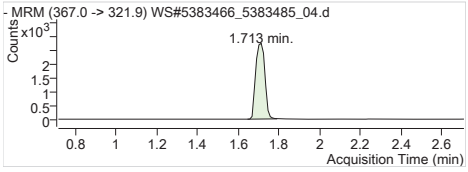


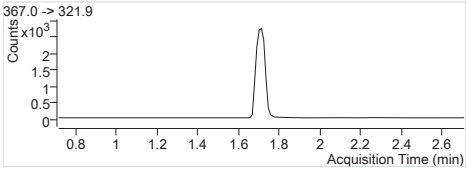
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 100.18 µg/L
Area ratio: 0.23736
Sample type: Calibration



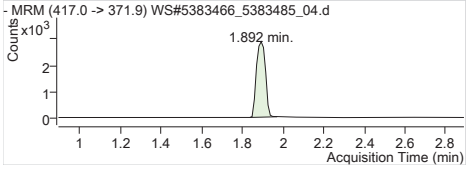


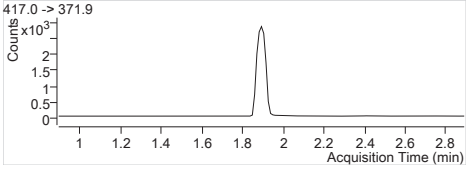
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 93.87 µg/L
Area ratio: 0.05455
Sample type: Calibration



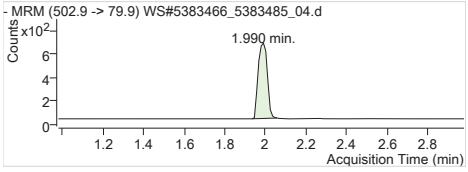


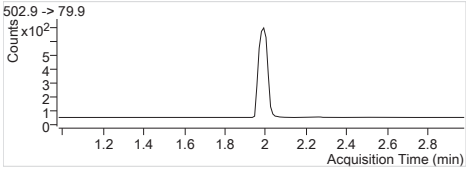
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 99.74 µg/L
Area ratio: 0.29139
Sample type: Calibration



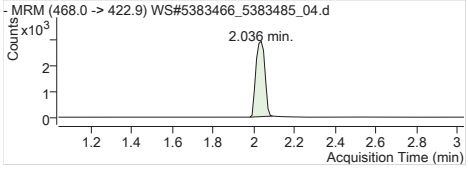


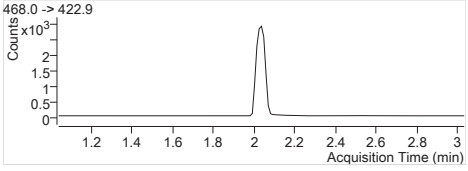
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 94.68 µg/L
Area ratio: 0.29721
Sample type: Calibration



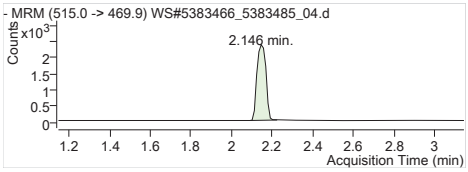


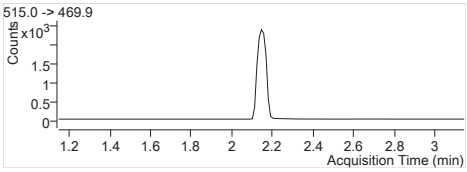
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 98.23 µg/L
Area ratio: 0.06780
Sample type: Calibration



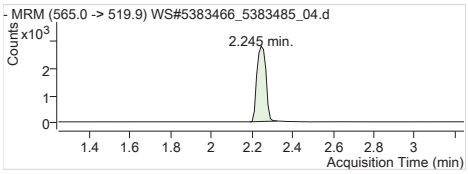


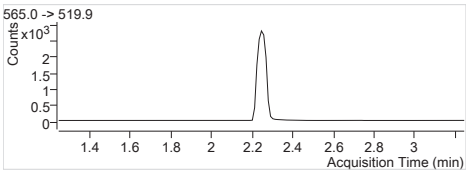
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 97.30 µg/L
Area ratio: 0.30094
Sample type: Calibration



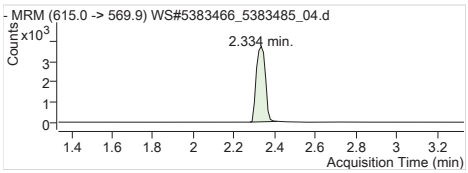


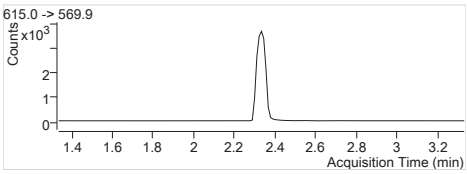
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 97.75 µg/L
Area ratio: 0.19616
Sample type: Calibration



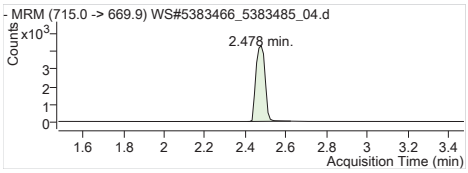


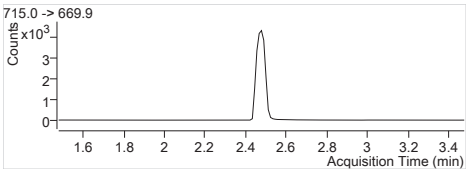
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 94.94 µg/L
Area ratio: 0.22963
Sample type: Calibration



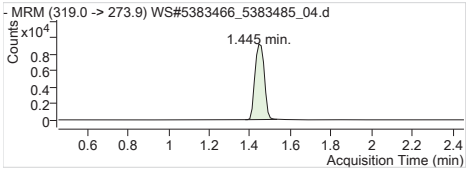


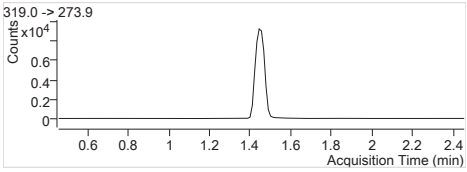
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 95.54 µg/L
Area ratio: 0.30756
Sample type: Calibration



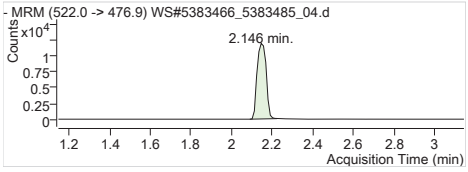


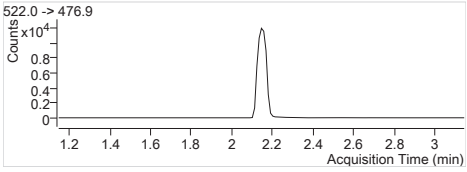
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 98.84 µg/L
Area ratio: 0.36252
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 103.50 µg/L
Area ratio: 0
Sample type: Calibration





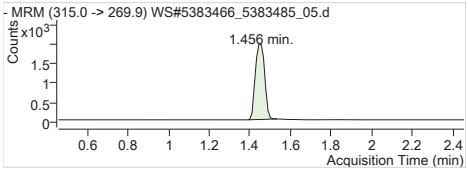
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 103.30 µg/L
Area ratio: 0
Sample type: Calibration

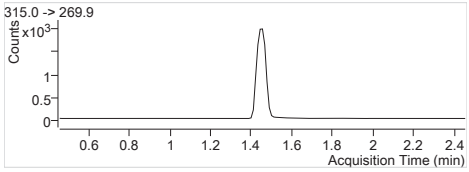
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/06 6:26:36 PM	**Injection Volume**	Per Method
Sample Annotation	-		

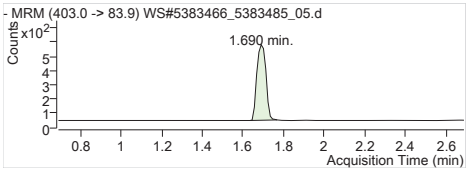
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6243	1.46	1 µg/L		
MPFHxS	1661	1.69	1 µg/L		
MPFHpA	8024	1.71	1 µg/L		
MPFOA	9155	1.89	1 µg/L		
MPFOS	1938	1.98	1 µg/L		
MPFNA	8771	2.04	1 µg/L		
MPFDA	6833	2.15	1 µg/L		
MPFUnA	8424	2.25	1 µg/L		
MPFDoA	11550	2.33	1 µg/L		
MPFTeDA	12631	2.48	1 µg/L		
13C6-PFHxA IS	28147	1.46	1 µg/L		
13C9-PFDA IS	35314	2.15	1 µg/L		

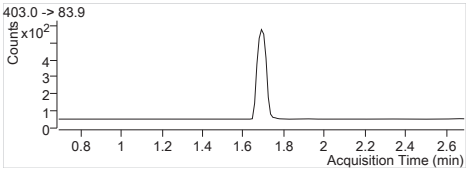
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7910	1.11	12.50	10.92 µg/L	87.38
PFHxA 1	29220	1.46	12.50	11.87 µg/L	94.99
PFHxS 1	7832	1.69	12.50	10.80 µg/L	86.37
PFHpA 1	38005	1.71	12.50	11.43 µg/L	91.43
PFOA 1	42523	1.89	12.50	11.06 µg/L	88.50
PFOS 1	7727	1.98	12.50	11.63 µg/L	93.05
PFNA 1	37466	2.04	12.50	11.49 µg/L	91.94
PFDA 1	39281	2.15	12.50	12.26 µg/L	98.10
PFUnA 1	42745	2.25	12.50	11.98 µg/L	95.83
PFDoA 1	54842	2.33	12.50	11.67 µg/L	93.40
PFTrDA 1	61125	2.41	12.50	11.72 µg/L	93.76
PFTeDA 1	50660	2.48	12.50	11.67 µg/L	93.35
13C2-PFHxA	6243	1.46	100.00	93.61 µg/L	93.61
18O2-PFHxS	1661	1.69	100.00	101.55 µg/L	101.55
13C4-PFHpA	8024	1.71	100.00	97.58 µg/L	97.58
13C4-PFOA	9155	1.89	100.00	103.62 µg/L	103.62
13C4-PFOS	1938	1.98	100.00	99.75 µg/L	99.75
13C5-PFNA	8771	2.04	100.00	100.75 µg/L	100.75
13C2-PFDA	6743	2.15	100.00	95.15 µg/L	95.15
13C2-PFUnA	8424	2.25	100.00	98.62 µg/L	98.62
13C2-PFDoA	11550	2.33	100.00	101.60 µg/L	101.60
13C2-PFTeDA	12873	2.48	100.00	99.38 µg/L	99.38
13C6-PFHxA	28147	1.46	100.00	99.01 µg/L	99.01
13C9-PFDA	35314	2.15	100.00	98.72 µg/L	98.72



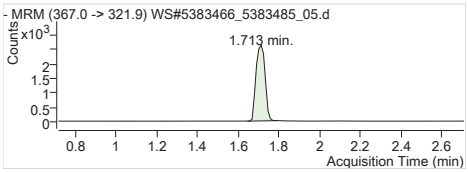


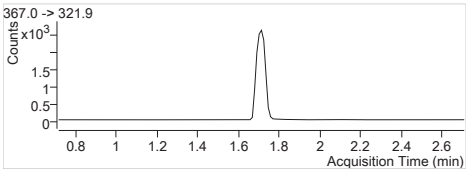
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Calibration



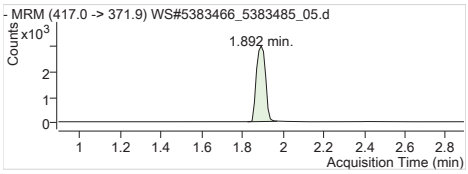


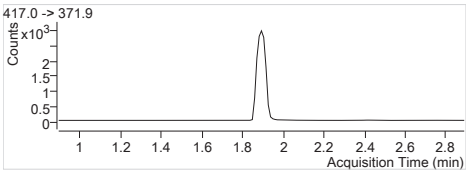
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



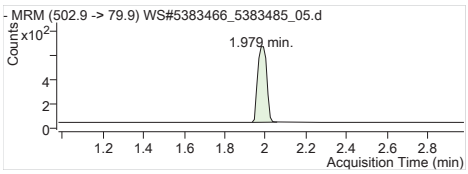


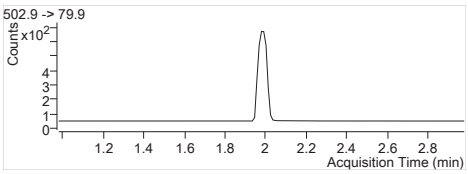
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



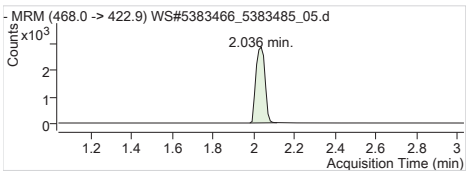


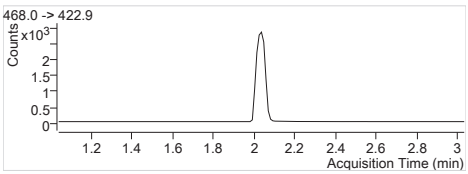
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



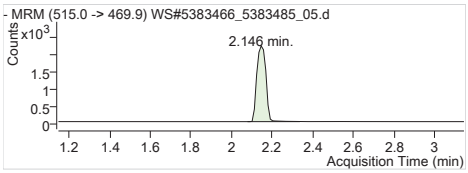


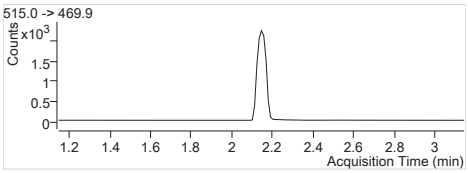
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



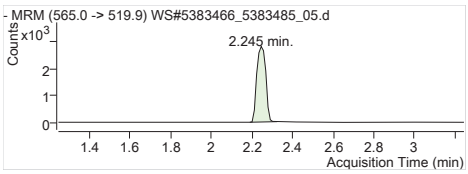


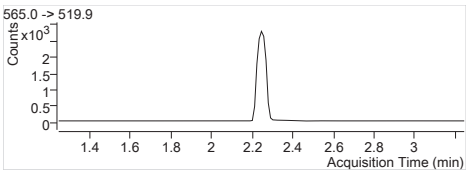
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



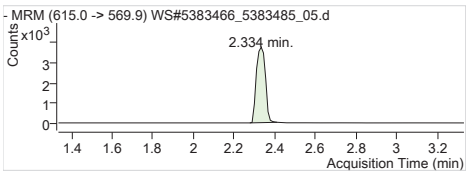


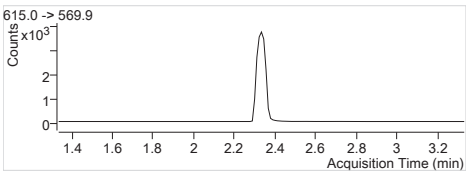
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



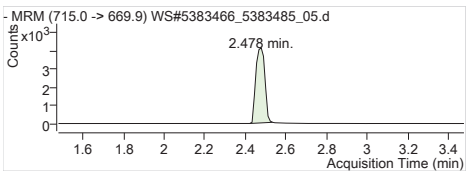


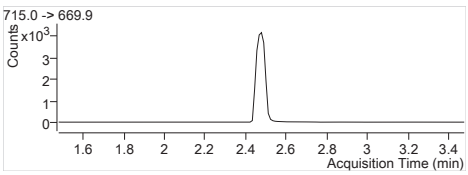
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



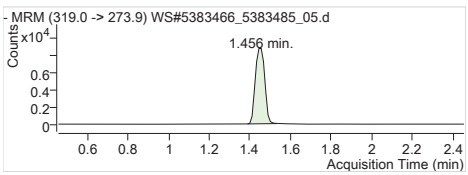


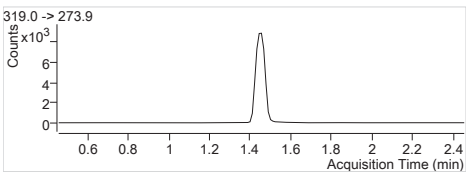
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Calibration



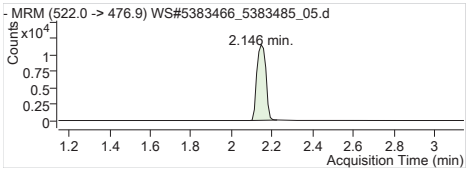


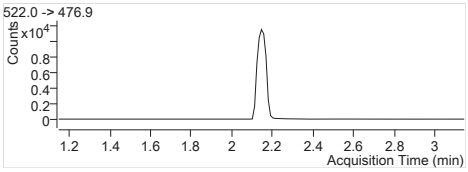
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



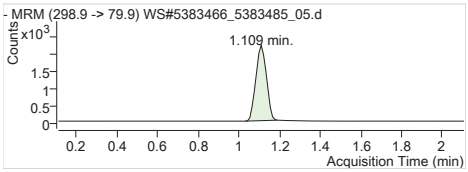


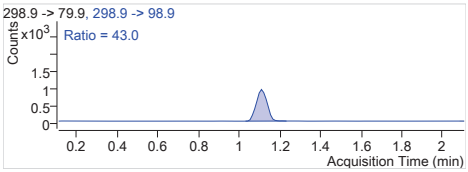
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



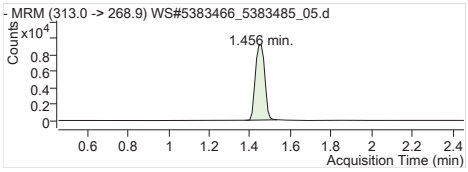


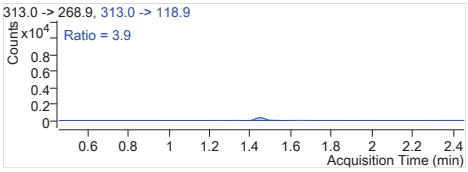
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



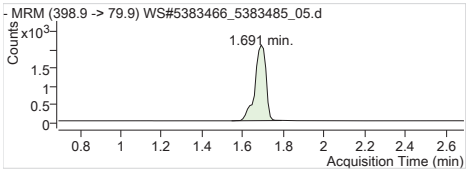


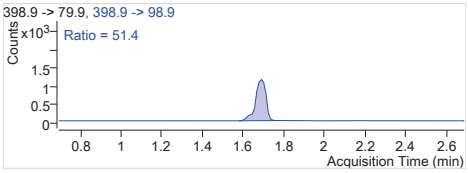
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 10.92 µg/L
Area ratio: 4.76219
Sample type: Calibration



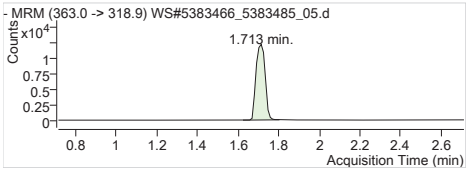


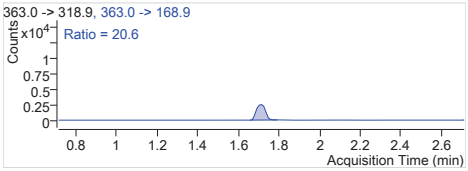
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 11.87 µg/L
Area ratio: 4.68044
Sample type: Calibration



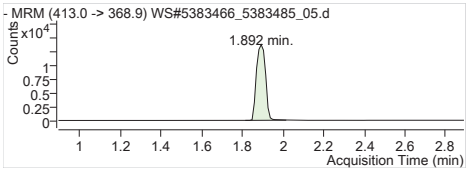


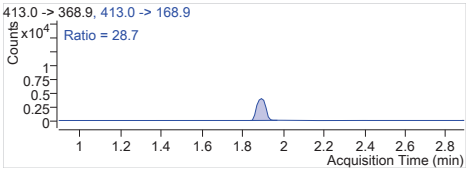
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 10.80 µg/L
Area ratio: 4.71523
Sample type: Calibration



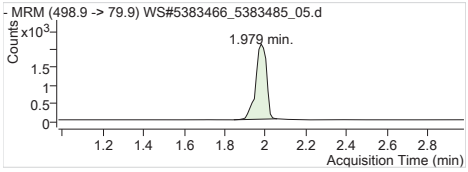


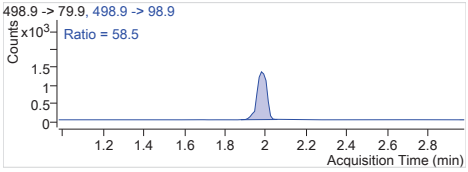
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 11.43 µg/L
Area ratio: 4.73642
Sample type: Calibration



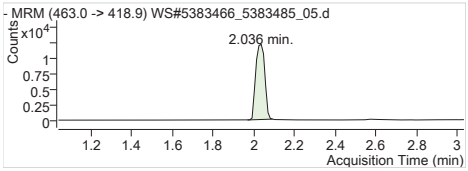


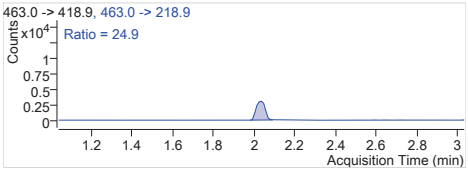
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 11.06 µg/L
Area ratio: 4.64478
Sample type: Calibration



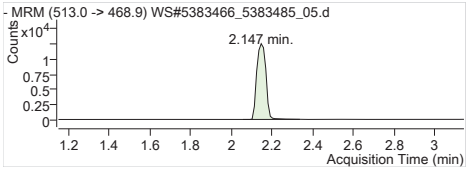


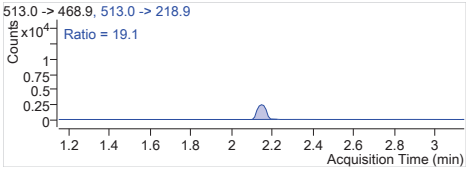
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 11.63 µg/L
Area ratio: 3.98710
Sample type: Calibration



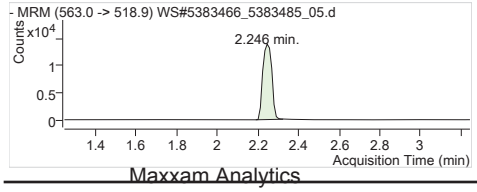


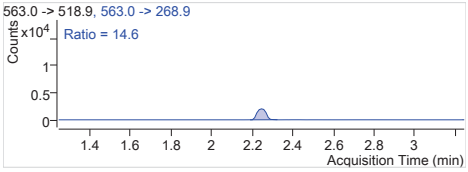
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 11.49 µg/L
Area ratio: 4.27158
Sample type: Calibration



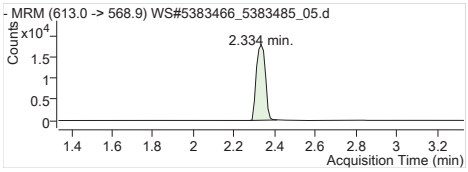


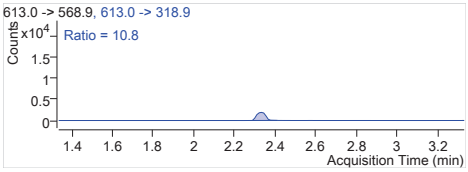
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 12.26 µg/L
Area ratio: 5.74872
Sample type: Calibration



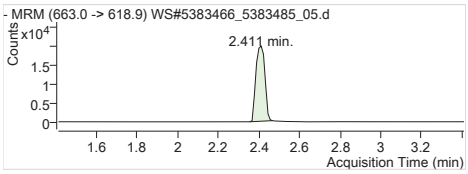


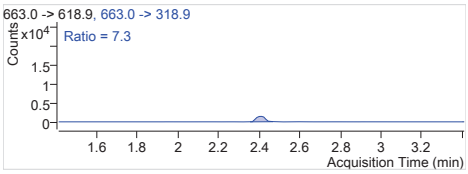
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 11.98 µg/L
Area ratio: 5.07419
Sample type: Calibration



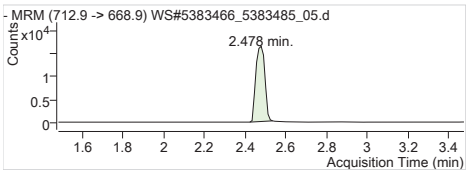


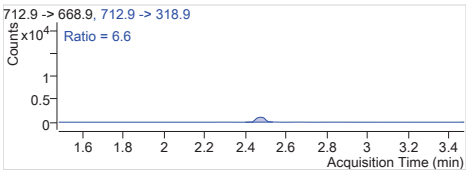
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 11.67 µg/L
Area ratio: 4.74823
Sample type: Calibration



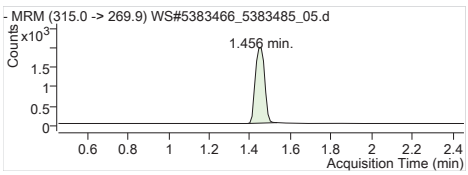


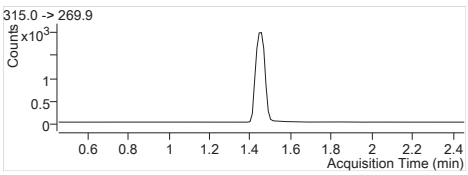
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 11.72 µg/L
Area ratio: 4.83928
Sample type: Calibration



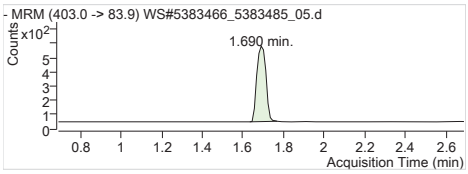


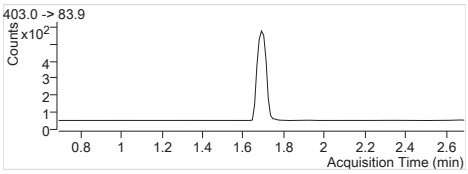
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 11.67 µg/L
Area ratio: 4.01077
Sample type: Calibration



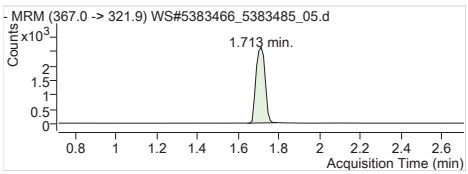


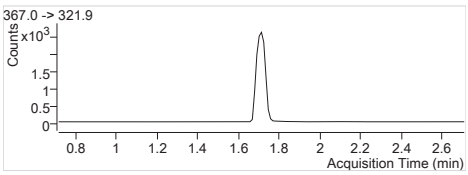
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 93.61 µg/L
Area ratio: 0.22180
Sample type: Calibration



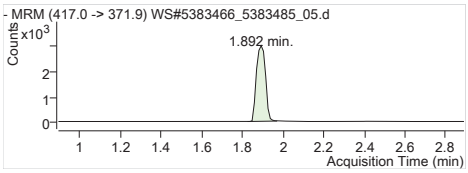


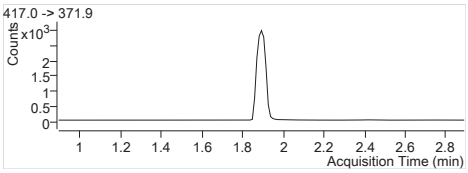
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 101.55 µg/L
Area ratio: 0.05901
Sample type: Calibration



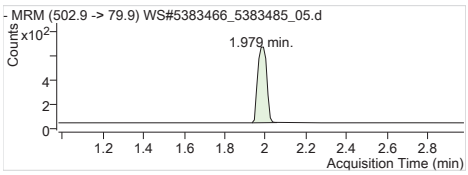


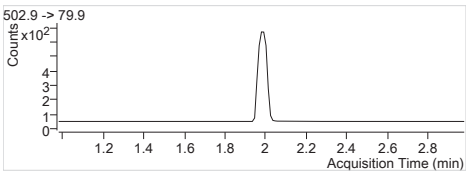
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 97.58 µg/L
Area ratio: 0.28507
Sample type: Calibration



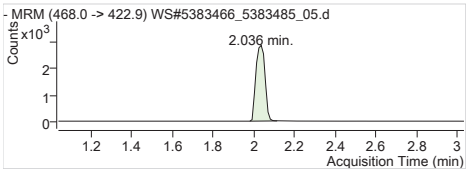


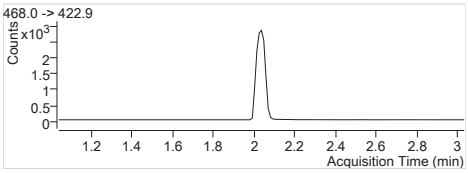
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 103.62 µg/L
Area ratio: 0.32526
Sample type: Calibration



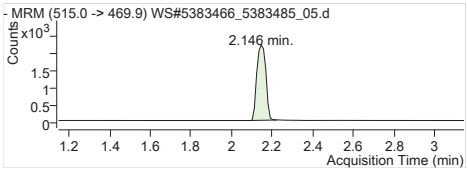


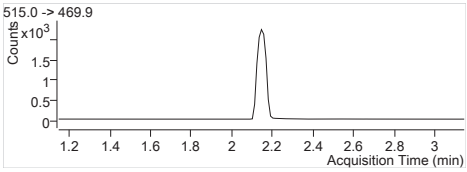
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 99.75 µg/L
Area ratio: 0.06885
Sample type: Calibration



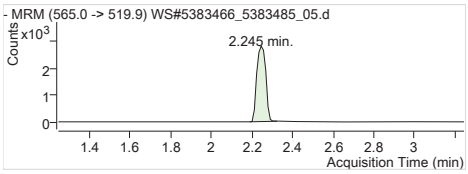


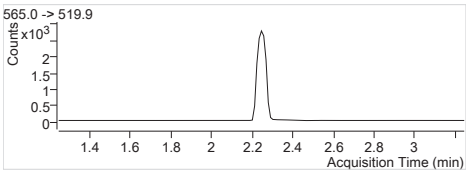
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 100.75 µg/L
Area ratio: 0.31161
Sample type: Calibration



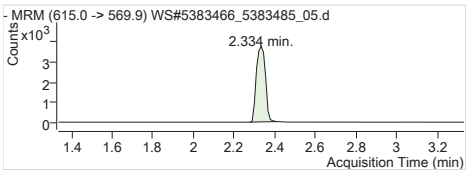


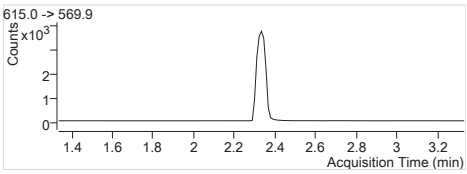
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 95.15 µg/L
Area ratio: 0.19094
Sample type: Calibration



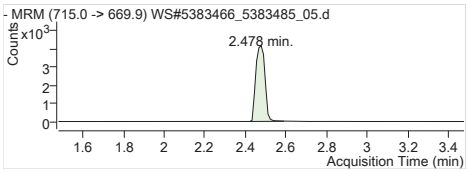


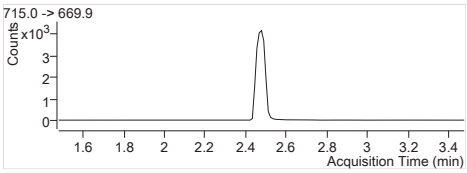
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 98.62 µg/L
Area ratio: 0.23855
Sample type: Calibration



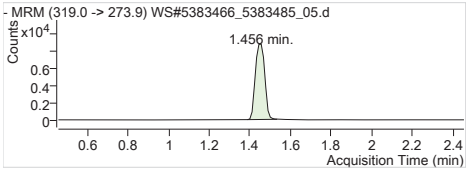


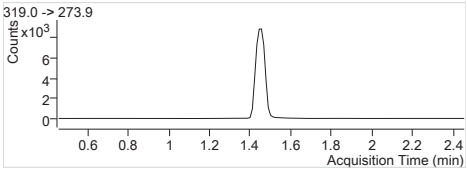
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 101.60 µg/L
Area ratio: 0.32707
Sample type: Calibration



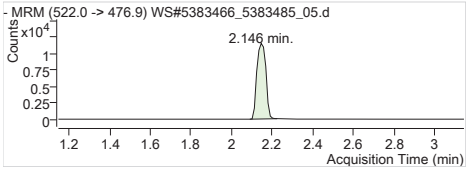


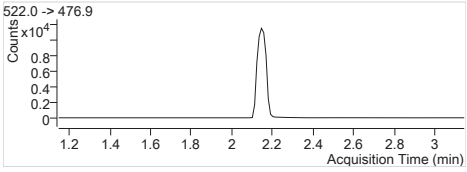
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 99.38 µg/L
Area ratio: 0.36453
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 99.01 µg/L
Area ratio: 0
Sample type: Calibration





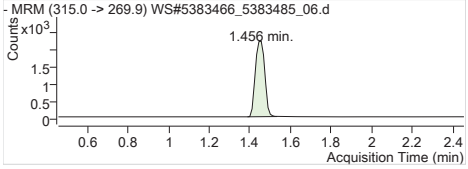
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 98.72 µg/L
Area ratio: 0
Sample type: Calibration

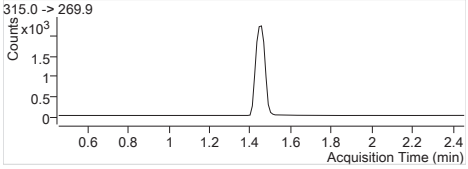
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_ETOxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A6
Acq. Date	2018/02/06 6:31:33 PM	**Injection Volume**	Per Method
Sample Annotation	-		

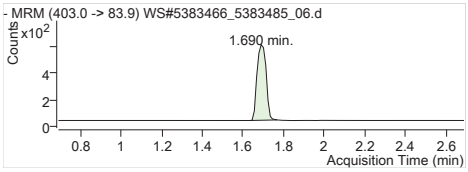
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7067	1.46	1 µg/L		
MPFHxS	1740	1.69	1 µg/L		
MPFHpA	7902	1.71	1 µg/L		
MPFOA	9039	1.89	1 µg/L		
MPFOS	2042	1.99	1 µg/L		
MPFNA	8933	2.04	1 µg/L		
MPFDA	7276	2.15	1 µg/L		
MPFUnA	8922	2.25	1 µg/L		
MPFDoA	11545	2.33	1 µg/L		
MPFTeDA	12948	2.48	1 µg/L		
13C6-PFHxA IS	29859	1.46	1 µg/L		
13C9-PFDA IS	36873	2.15	1 µg/L		

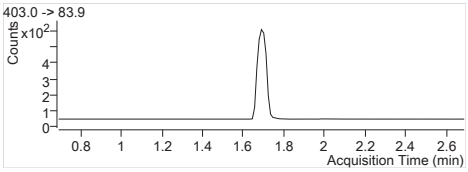
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	18029	1.11	25.00	23.59 µg/L	94.36
PFHxA 1	67616	1.45	25.00	23.94 µg/L	95.75
PFHxS 1	17949	1.69	25.00	23.32 µg/L	93.28
PFHpA 1	87578	1.71	25.00	26.49 µg/L	105.94
PFOA 1	94546	1.89	25.00	24.69 µg/L	98.75
PFOS 1	17307	1.98	25.00	24.66 µg/L	98.64
PFNA 1	84183	2.04	25.00	25.23 µg/L	100.91
PFDA 1	87430	2.15	25.00	25.54 µg/L	102.15
PFUnA 1	96084	2.25	25.00	25.43 µg/L	101.73
PFDoA 1	122186	2.33	25.00	25.87 µg/L	103.48
PFTrDA 1	138442	2.41	25.00	25.85 µg/L	103.40
PFTeDA 1	117482	2.48	25.00	26.34 µg/L	105.38
13C2-PFHxA	7067	1.46	100.00	99.89 µg/L	99.89
18O2-PFHxS	1740	1.69	100.00	100.28 µg/L	100.28
13C4-PFHpA	7902	1.71	100.00	90.59 µg/L	90.59
13C4-PFOA	9039	1.89	100.00	96.44 µg/L	96.44
13C4-PFOS	2042	1.99	100.00	99.08 µg/L	99.08
13C5-PFNA	8933	2.04	100.00	96.73 µg/L	96.73
13C2-PFDA	7229	2.15	100.00	97.70 µg/L	97.70
13C2-PFUnA	8922	2.25	100.00	100.04 µg/L	100.04
13C2-PFDoA	11545	2.33	100.00	97.26 µg/L	97.26
13C2-PFTeDA	13153	2.48	100.00	97.25 µg/L	97.25
13C6-PFHxA	29859	1.46	100.00	105.03 µg/L	105.03
13C9-PFDA	36873	2.15	100.00	103.07 µg/L	103.07



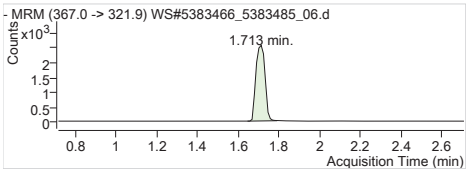


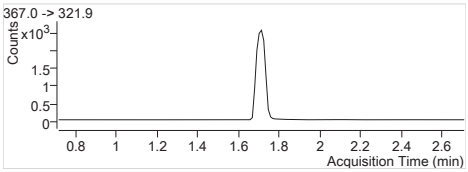
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Calibration



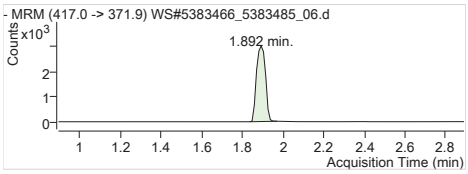


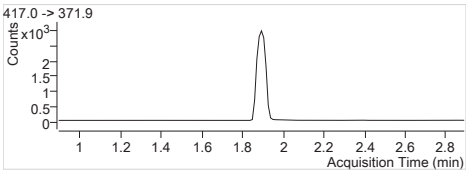
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



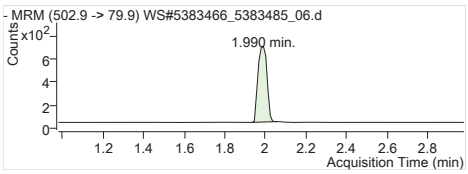


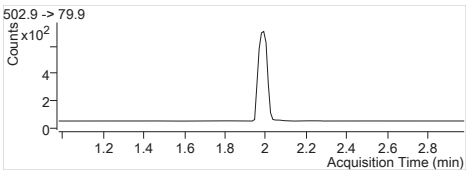
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



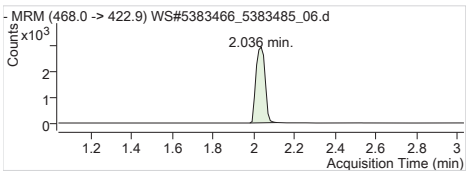


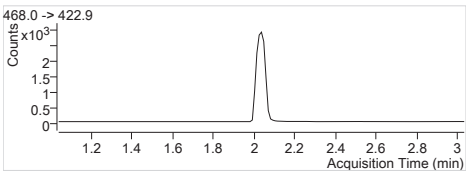
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



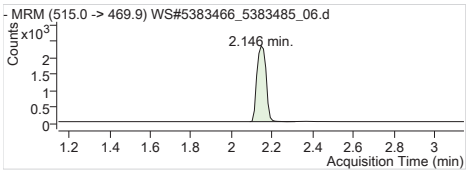


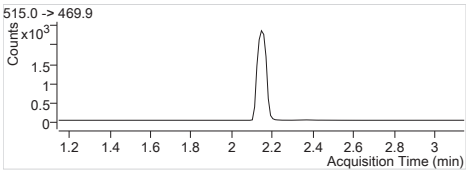
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



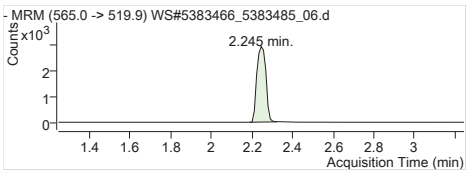


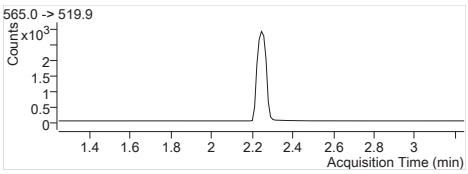
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



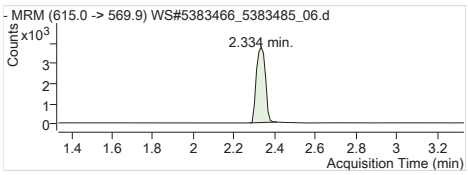


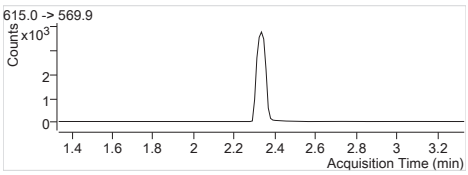
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



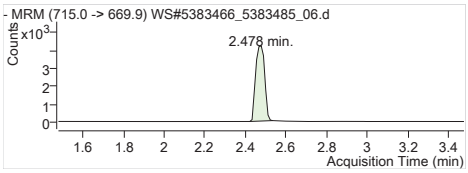


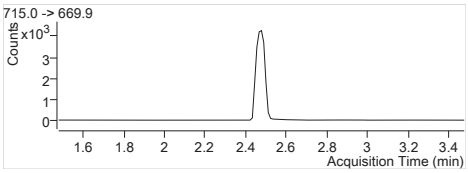
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



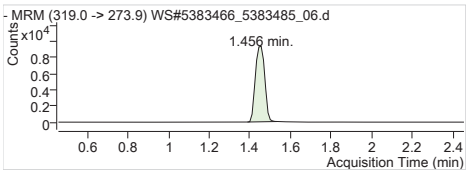


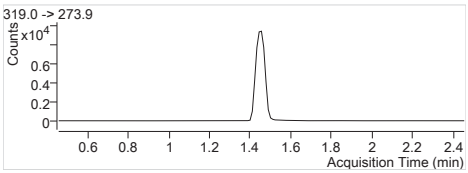
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Calibration



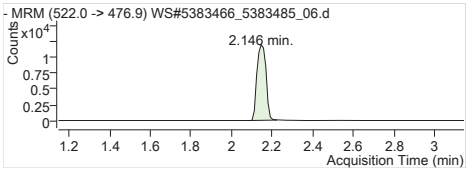


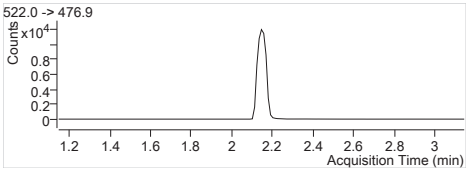
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



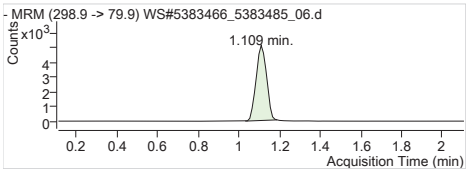


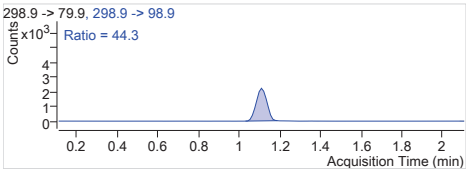
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



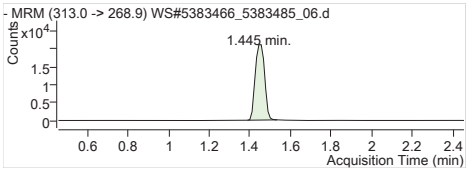


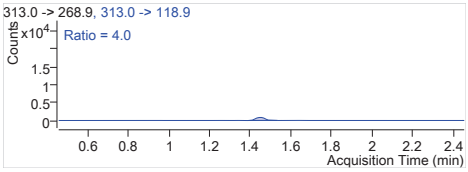
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



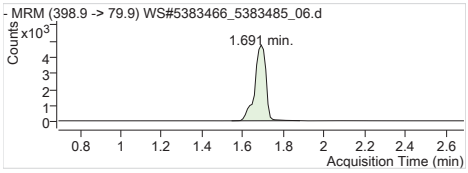


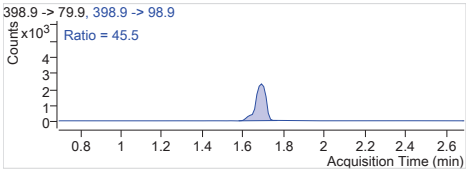
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 23.59 µg/L
Area ratio: 10.36149
Sample type: Calibration



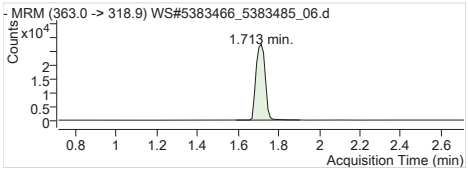


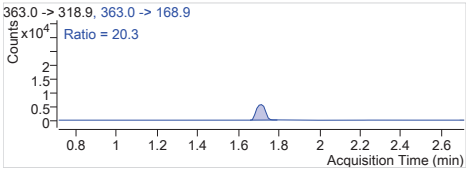
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 23.94 µg/L
Area ratio: 9.56785
Sample type: Calibration



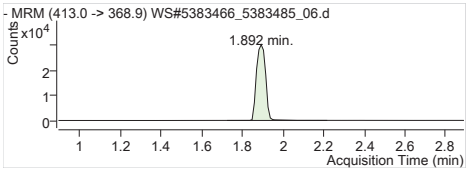


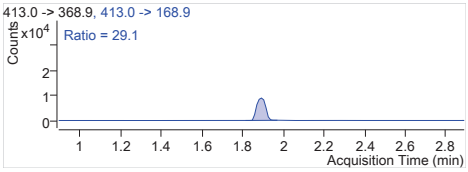
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 23.32 µg/L
Area ratio: 10.31552
Sample type: Calibration



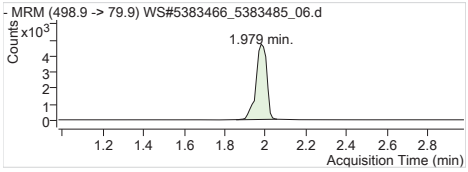


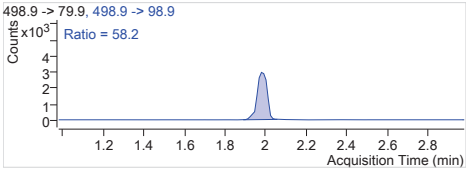
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 26.49 µg/L
Area ratio: 11.08302
Sample type: Calibration



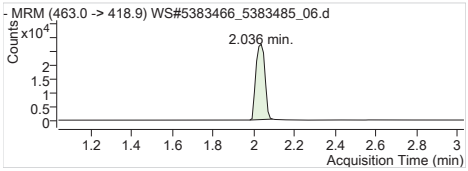


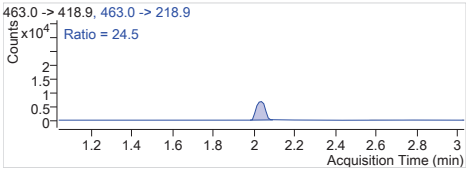
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 24.69 µg/L
Area ratio: 10.45979
Sample type: Calibration



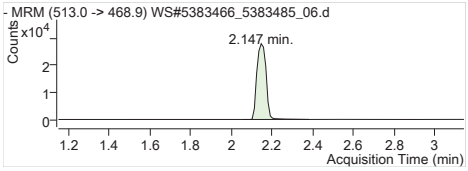


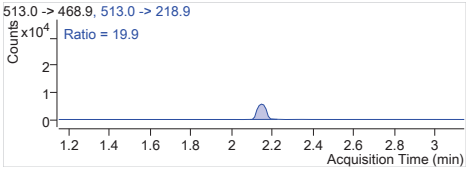
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 24.66 µg/L
Area ratio: 8.47551
Sample type: Calibration



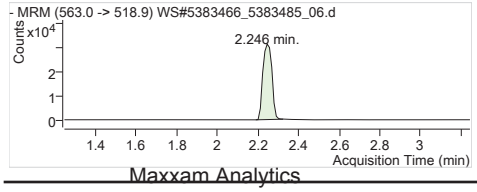


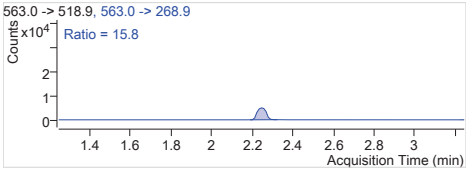
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 25.23 µg/L
Area ratio: 9.42382
Sample type: Calibration



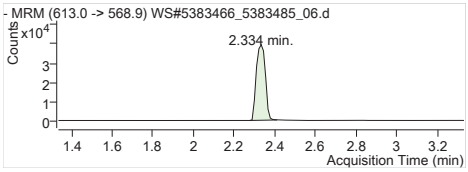


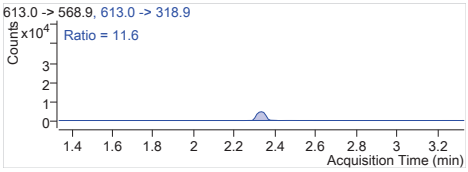
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 25.54 µg/L
Area ratio: 12.01622
Sample type: Calibration



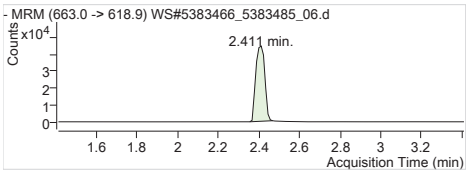


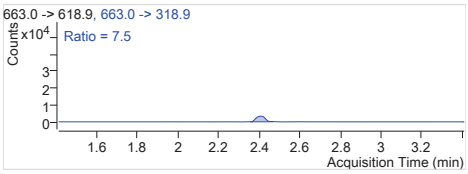
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 25.43 µg/L
Area ratio: 10.76933
Sample type: Calibration



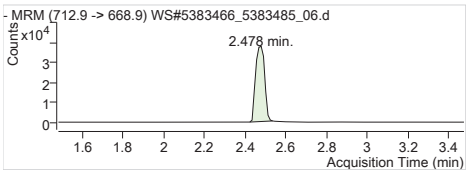


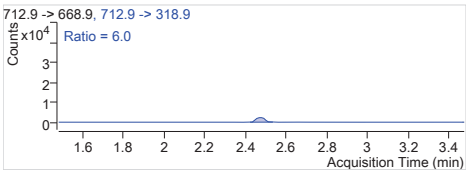
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 25.87 µg/L
Area ratio: 10.58346
Sample type: Calibration



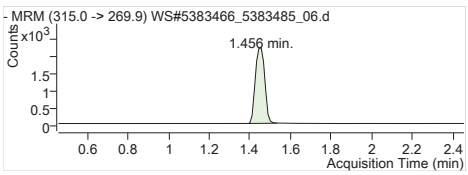


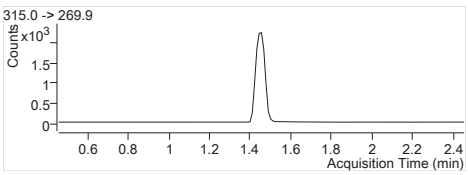
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 25.85 µg/L
Area ratio: 10.69215
Sample type: Calibration



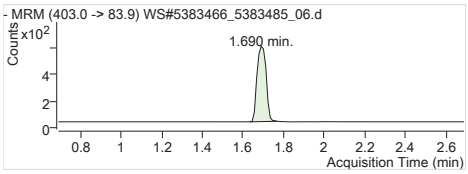


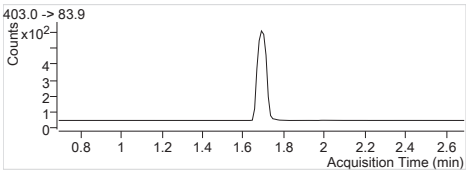
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 26.34 µg/L
Area ratio: 9.07337
Sample type: Calibration



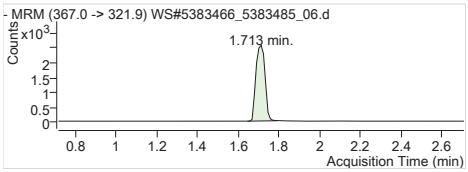


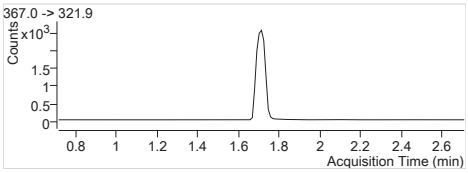
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 99.89 µg/L
Area ratio: 0.23668
Sample type: Calibration



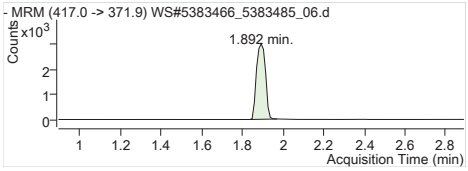


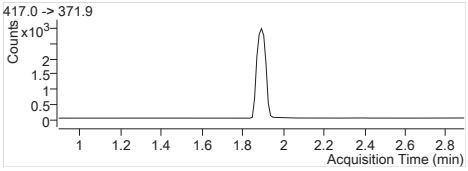
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 100.28 µg/L
Area ratio: 0.05827
Sample type: Calibration



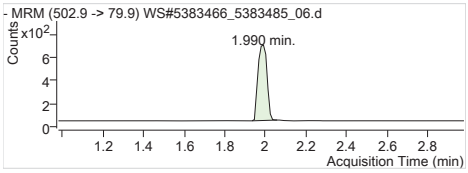


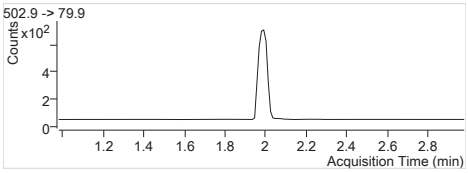
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 90.59 µg/L
Area ratio: 0.26464
Sample type: Calibration



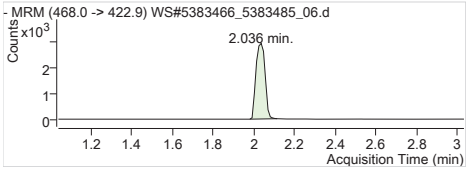


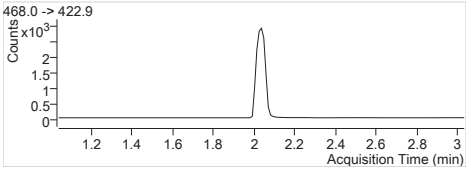
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 96.44 µg/L
Area ratio: 0.30272
Sample type: Calibration



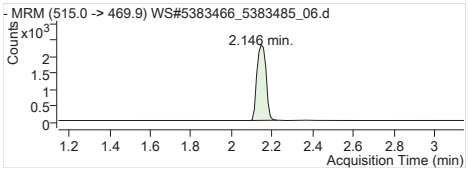


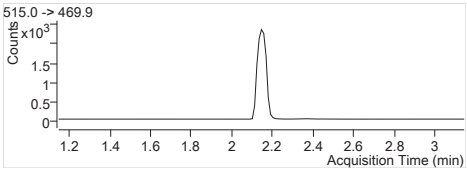
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 99.08 µg/L
Area ratio: 0.06839
Sample type: Calibration



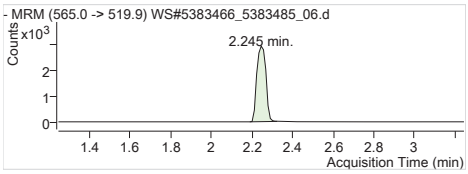


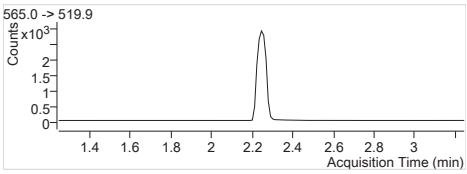
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 96.73 µg/L
Area ratio: 0.29917
Sample type: Calibration



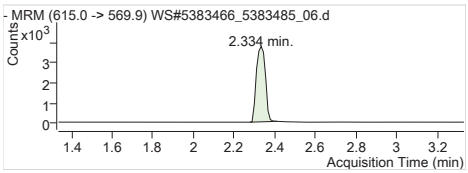


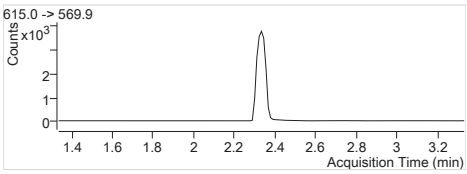
13C2-PFDA	515.0 -> 469.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	97.70 µg/L
Area ratio:	0.19605
Sample type:	Calibration



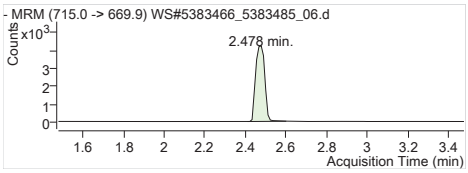


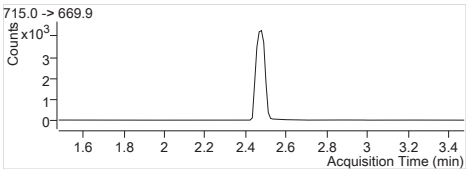
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.245 (2.245)
Calc. conc.	100.04 µg/L
Area ratio:	0.24197
Sample type:	Calibration



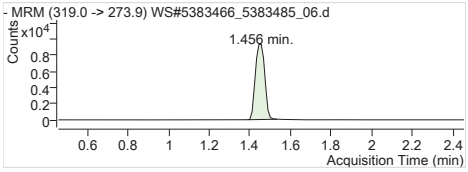


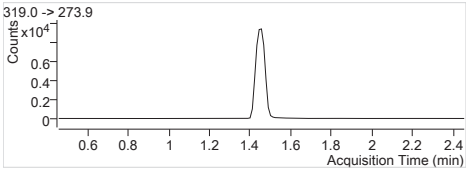
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.334 (2.334)
Calc. conc.	97.26 µg/L
Area ratio:	0.31310
Sample type:	Calibration



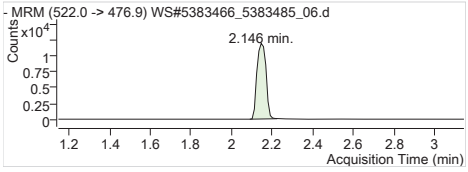


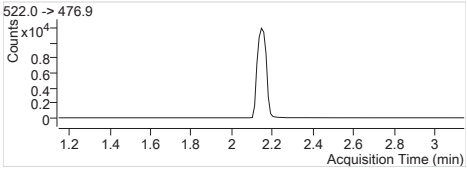
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.478 (2.478)
Calc. conc.	97.25 µg/L
Area ratio:	0.35671
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	105.03 µg/L
Area ratio:	0
Sample type:	Calibration





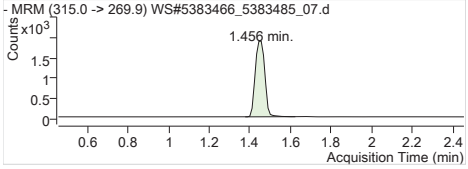
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	103.07 µg/L
Area ratio:	0
Sample type:	Calibration

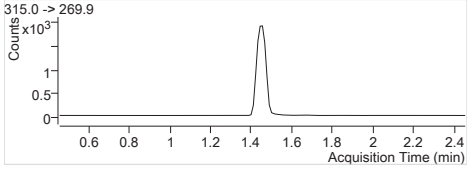
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A7
Acq. Date	2018/02/06 6:36:29 PM	**Injection Volume**	Per Method
Sample Annotation	-		

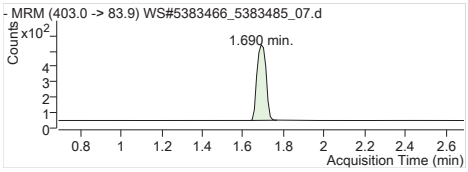
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6099	1.46	1 µg/L		
MPFHxS	1532	1.69	1 µg/L		
MPFHpA	8269	1.71	1 µg/L		
MPFOA	8383	1.89	1 µg/L		
MPFOS	2017	1.99	1 µg/L		
MPFNA	8652	2.04	1 µg/L		
MPFDA	7210	2.15	1 µg/L		
MPFUnA	8626	2.25	1 µg/L		
MPFDoA	10899	2.33	1 µg/L		
MPFTeDA	13063	2.48	1 µg/L		
13C6-PFHxA IS	29422	1.46	1 µg/L		
13C9-PFDA IS	35570	2.15	1 µg/L		

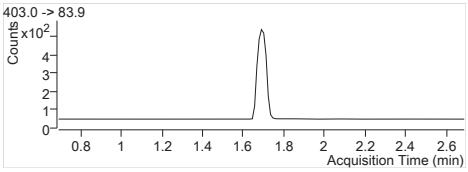
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	30068	1.11	41.70	44.55 µg/L	106.85
PFHxA 1	107039	1.46	41.70	43.64 µg/L	104.65
PFHxS 1	30772	1.69	41.70	45.17 µg/L	108.32
PFHpA 1	144581	1.71	41.70	41.67 µg/L	99.93
PFOA 1	154971	1.89	41.70	43.49 µg/L	104.30
PFOS 1	29880	1.98	41.70	43.06 µg/L	103.25
PFNA 1	137494	2.04	41.70	42.47 µg/L	101.85
PFDA 1	147759	2.15	41.70	43.49 µg/L	104.29
PFUnA 1	162248	2.25	41.70	44.42 µg/L	106.53
PFDoA 1	206576	2.33	41.70	46.23 µg/L	110.87
PFTrDA 1	231782	2.41	41.70	42.87 µg/L	102.82
PFTeDA 1	192586	2.48	41.70	42.78 µg/L	102.59
13C2-PFHxA	6099	1.46	100.00	87.49 µg/L	87.49
18O2-PFHxS	1532	1.69	100.00	89.61 µg/L	89.61
13C4-PFHpA	8269	1.71	100.00	96.20 µg/L	96.20
13C4-PFOA	8383	1.89	100.00	90.77 µg/L	90.77
13C4-PFOS	2017	1.99	100.00	99.32 µg/L	99.32
13C5-PFNA	8578	2.04	100.00	94.26 µg/L	94.26
13C2-PFDA	7078	2.15	100.00	99.16 µg/L	99.16
13C2-PFUnA	8626	2.25	100.00	100.26 µg/L	100.26
13C2-PFDoA	10899	2.33	100.00	95.18 µg/L	95.18
13C2-PFTeDA	13464	2.48	100.00	103.20 µg/L	103.20
13C6-PFHxA	29422	1.46	100.00	103.49 µg/L	103.49
13C9-PFDA	35570	2.15	100.00	99.43 µg/L	99.43



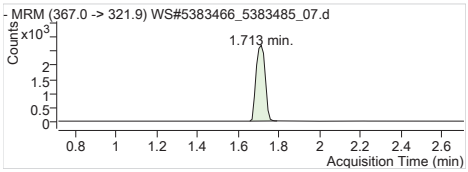


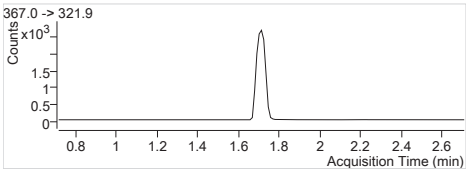
MPFHxA Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



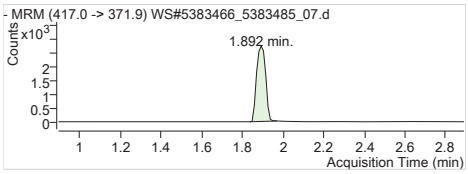


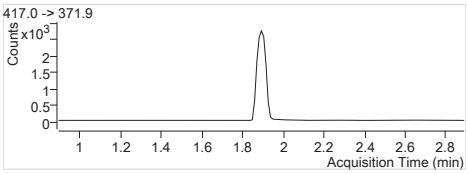
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



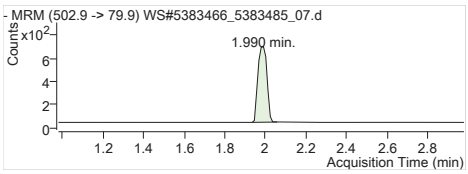


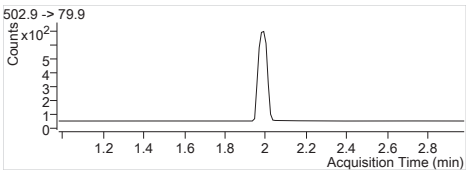
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



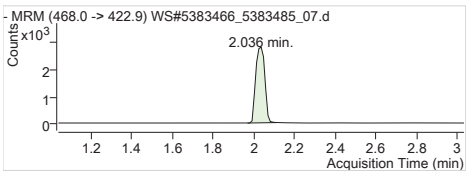


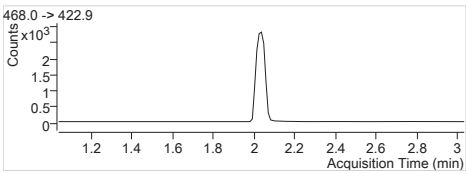
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



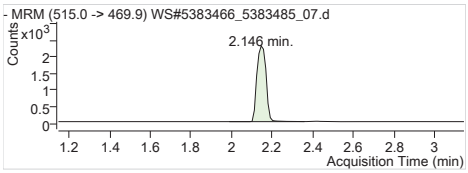


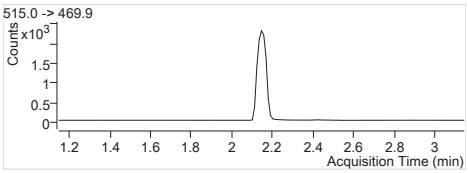
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



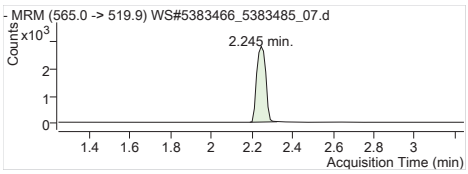


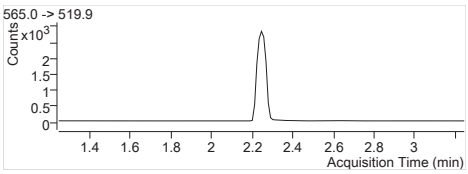
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



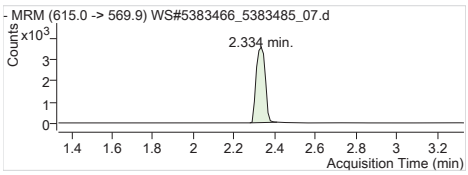


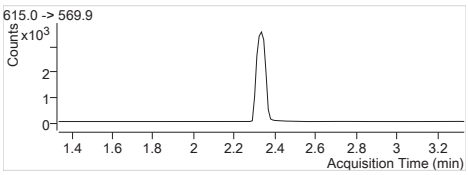
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



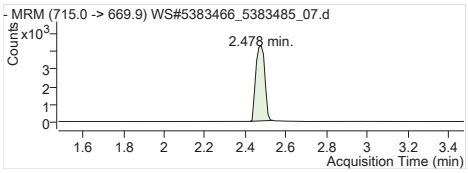


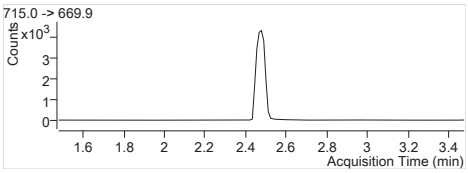
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



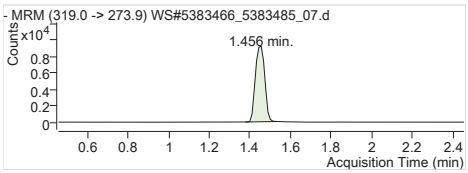


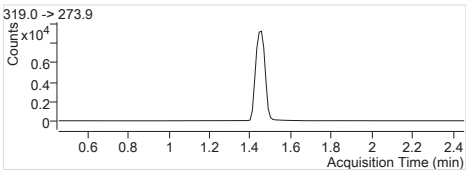
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Calibration



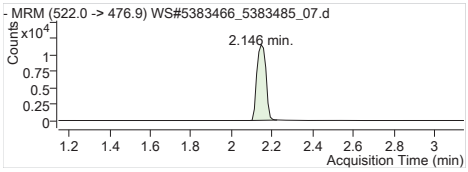


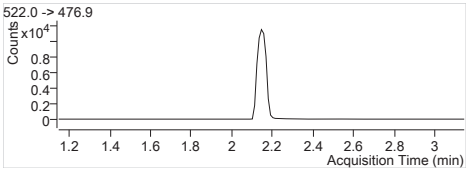
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



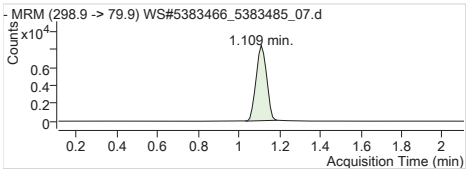


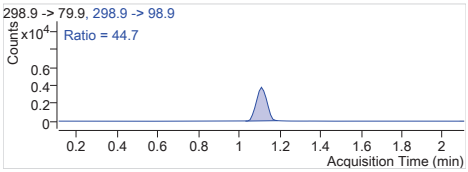
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



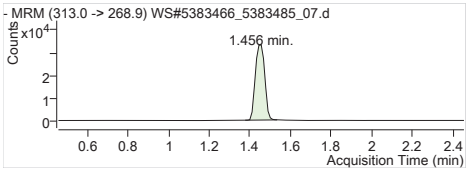


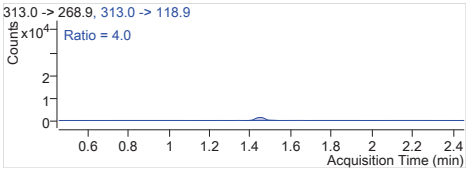
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



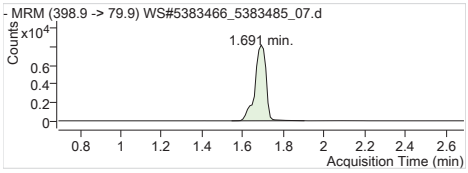


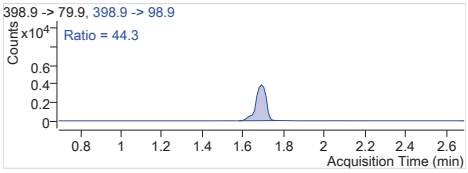
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 44.55 µg/L
Area ratio: 19.62663
Sample type: Calibration



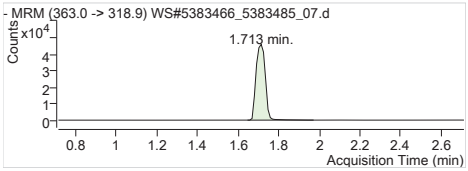


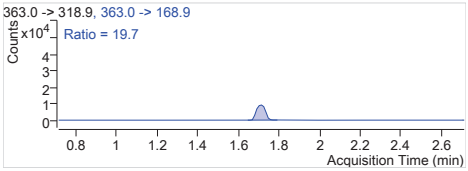
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 43.64 µg/L
Area ratio: 17.55025
Sample type: Calibration



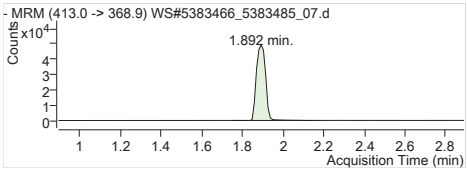


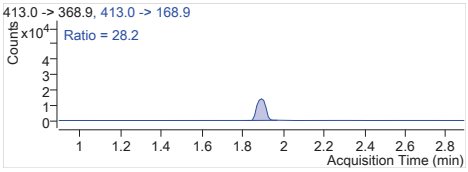
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 45.17 µg/L
Area ratio: 20.08616
Sample type: Calibration



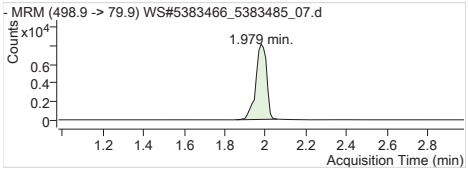


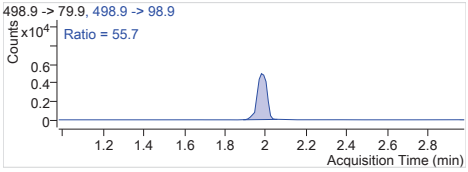
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 41.67 µg/L
Area ratio: 17.48470
Sample type: Calibration



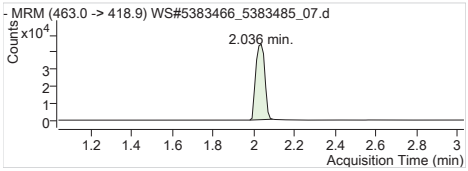


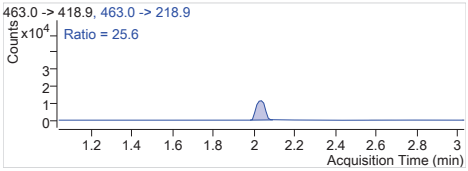
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 43.49 µg/L
Area ratio: 18.48634
Sample type: Calibration



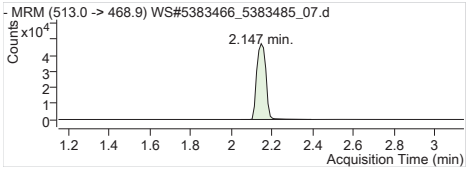


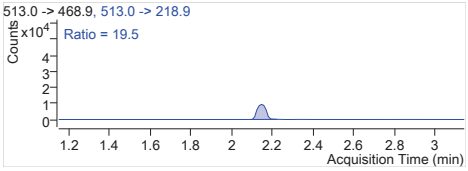
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 43.06 µg/L
Area ratio: 14.81408
Sample type: Calibration



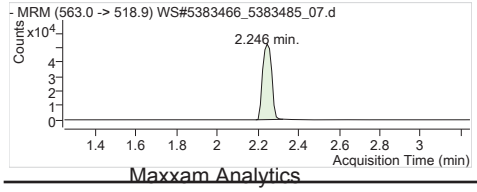


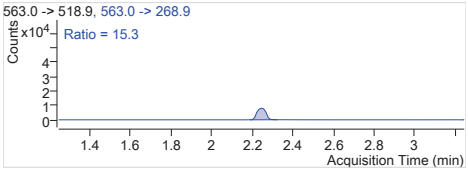
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 42.47 µg/L
Area ratio: 15.89159
Sample type: Calibration



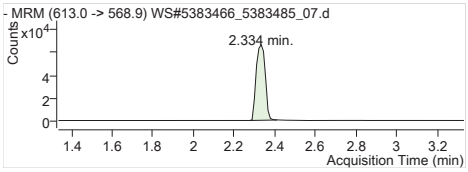


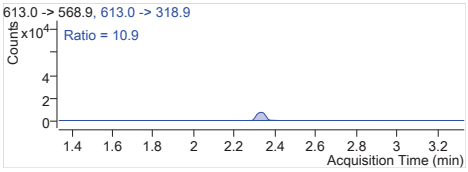
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 43.49 µg/L
Area ratio: 20.49362
Sample type: Calibration



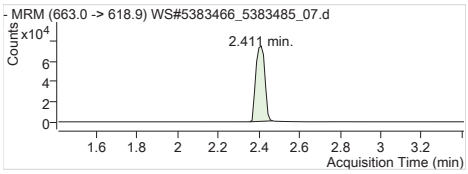


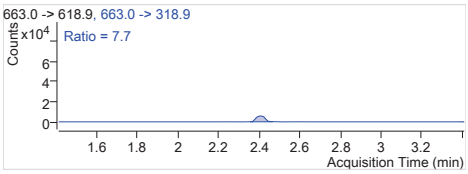
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 44.42 µg/L
Area ratio: 18.80918
Sample type: Calibration



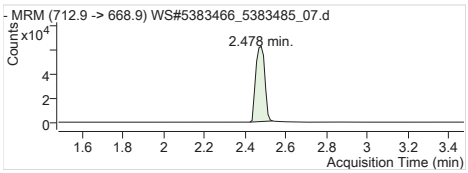


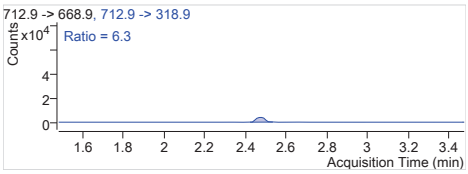
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.334 (2.334)
Calc. conc.	46.23 µg/L
Area ratio:	18.95367
Sample type:	Calibration



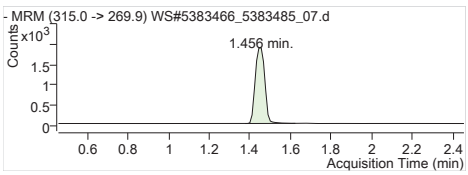


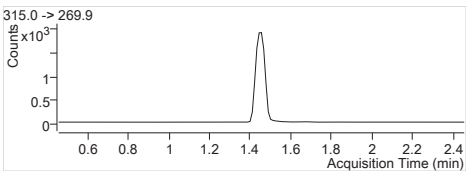
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.411 (2.411)
Calc. conc.	42.87 µg/L
Area ratio:	17.74340
Sample type:	Calibration



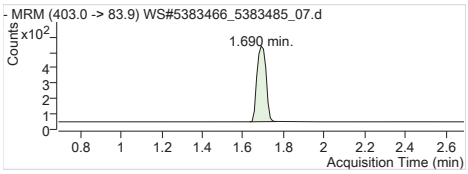


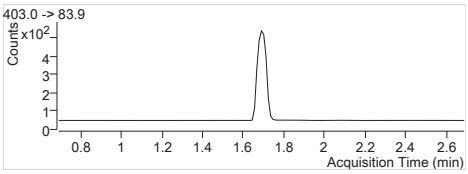
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.478 (2.478)
Calc. conc.	42.78 µg/L
Area ratio:	14.74286
Sample type:	Calibration



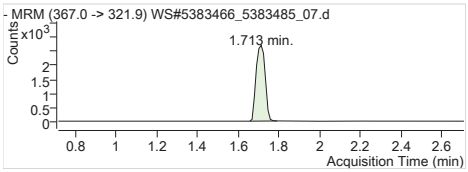


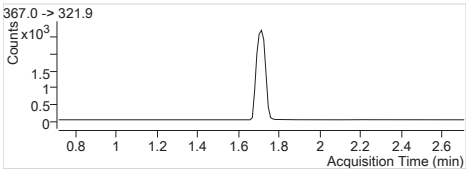
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	87.49 µg/L
Area ratio:	0.20729
Sample type:	Calibration



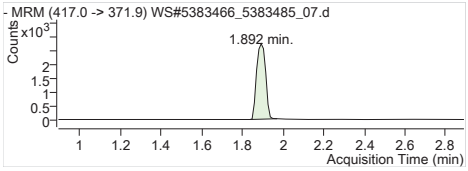


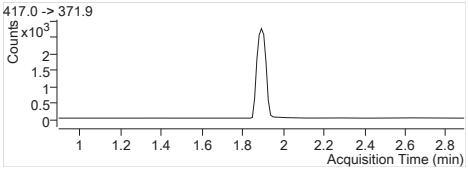
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	89.61 µg/L
Area ratio:	0.05207
Sample type:	Calibration



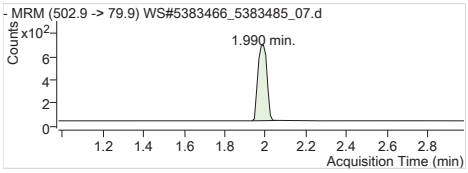


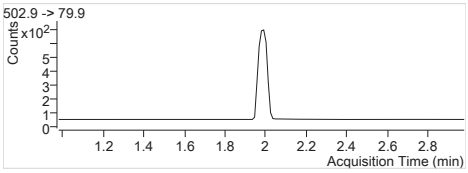
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	96.20 µg/L
Area ratio:	0.28105
Sample type:	Calibration



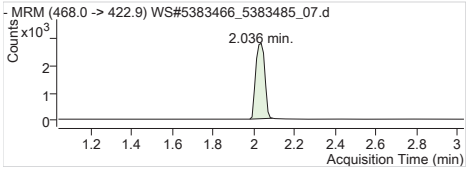


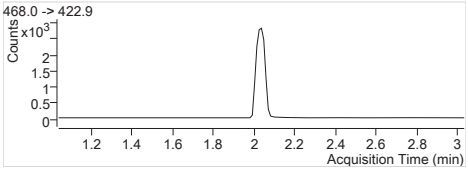
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	90.77 µg/L
Area ratio:	0.28492
Sample type:	Calibration



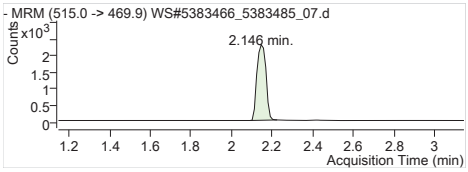


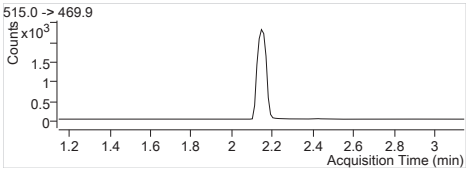
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	99.32 µg/L
Area ratio:	0.06855
Sample type:	Calibration



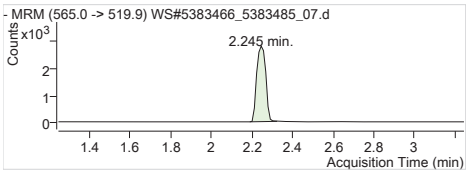


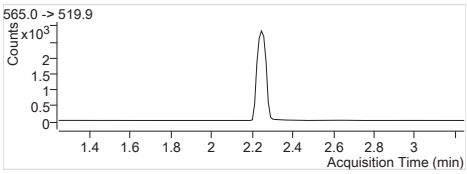
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	94.26 µg/L
Area ratio:	0.29155
Sample type:	Calibration



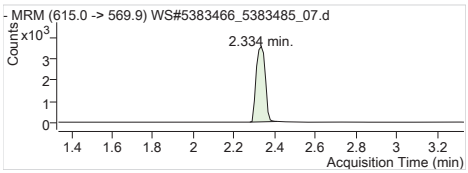


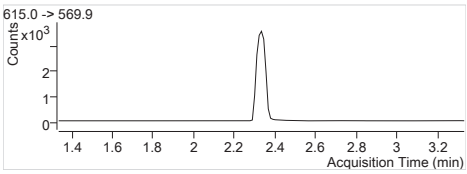
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 99.16 µg/L
Area ratio: 0.19899
Sample type: Calibration



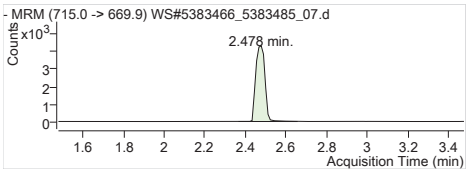


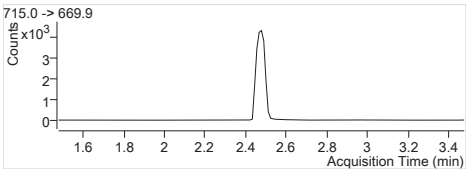
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 100.26 µg/L
Area ratio: 0.24251
Sample type: Calibration



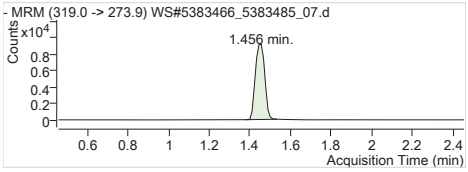


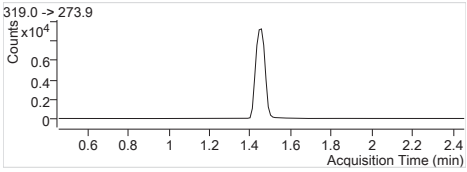
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 95.18 µg/L
Area ratio: 0.30641
Sample type: Calibration



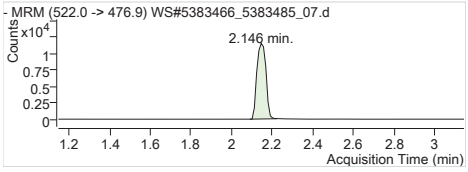


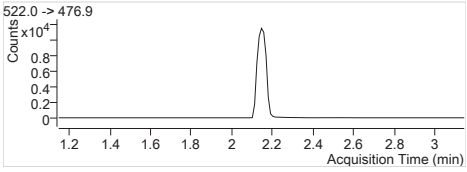
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 103.20 µg/L
Area ratio: 0.37852
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 103.49 µg/L
Area ratio: 0
Sample type: Calibration





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 99.43 µg/L
Area ratio: 0
Sample type: Calibration

Quantitation Results

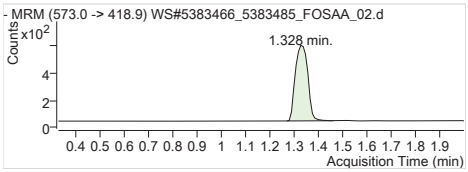
Agilent Technologies

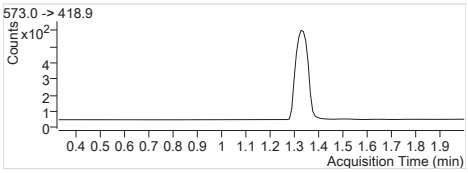
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/06 12:28:01 PM	**Injection Volume**	Per Method
Sample Annotation	-		

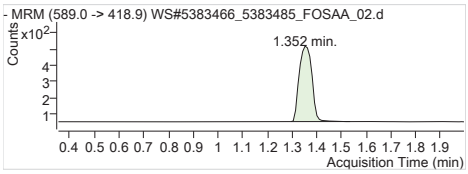
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1974	1.33	1 µg/L		
D5-EtFOSAA IS	1666	1.35	1 µg/L		
13C9-PFDA IS	26354	0.96	1 µg/L		

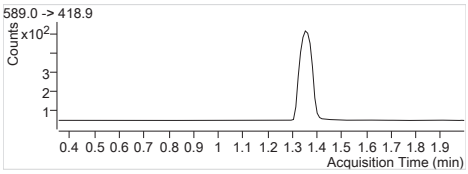
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	581	1.33	0.83	0.84 µg/L	101.53
EtFOSAA 1	520	1.35	0.83	0.89 µg/L	107.39
D3-MeFOSAA	1974	1.33	100.00	114.03 µg/L	114.03
D5-EtFOSAA	1666	1.35	100.00	111.70 µg/L	111.70
13C9-PFDA	26183	0.96	100.00	92.88 µg/L	92.88



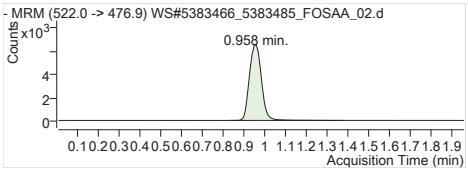


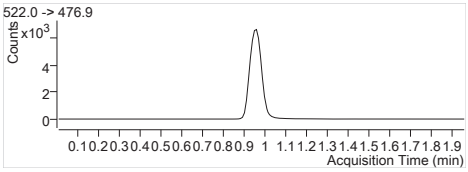
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Calibration



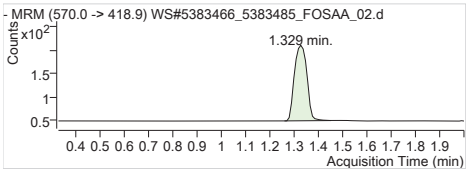


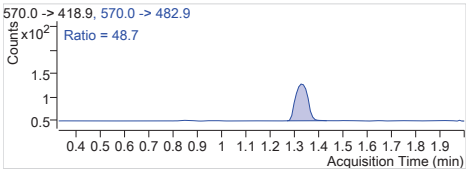
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Calibration



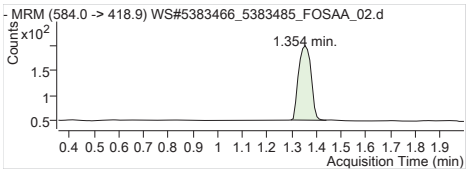


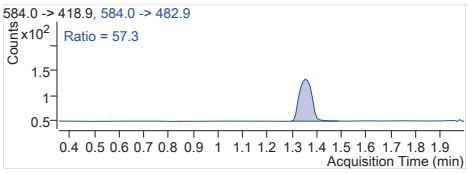
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: Calibration



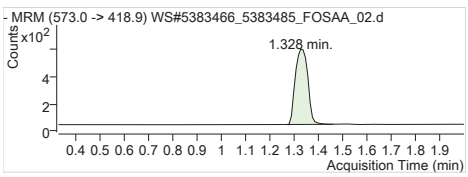


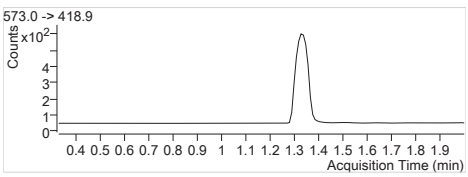
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 0.84 µg/L
Area ratio: 0.29433
Sample type: Calibration



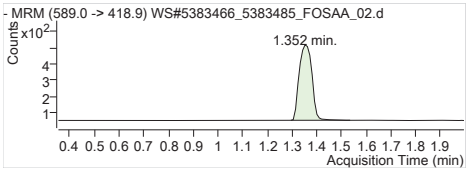


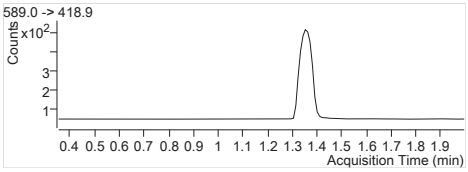
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 0.89 µg/L
Area ratio: 0.31212
Sample type: Calibration



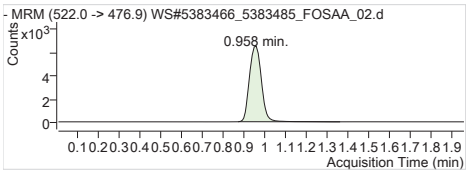


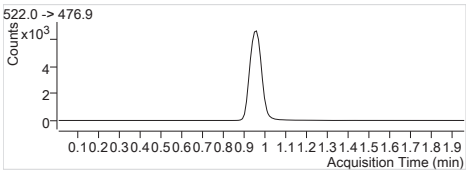
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 114.03 µg/L
Area ratio: 0.07490
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	111.70 µg/L
Area ratio:	0.06322
Sample type:	Calibration





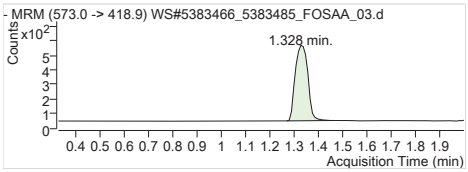
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	92.88 µg/L
Area ratio:	0
Sample type:	Calibration

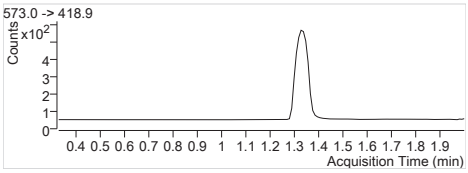
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A3
Acq. Date	2018/02/06 12:30:26 PM	**Injection Volume**	Per Method
Sample Annotation	-		

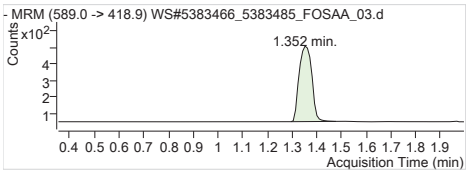
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1862	1.33	1 µg/L		
D5-EtFOSAA IS	1641	1.35	1 µg/L		
13C9-PFDA IS	28857	0.95	1 µg/L		

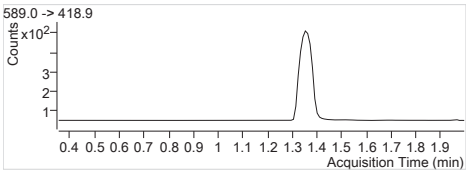
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	1088	1.33	1.70	1.64 µg/L	96.66
EtFOSAA 1	1054	1.35	1.70	1.66 µg/L	97.93
D3-MeFOSAA	1862	1.33	100.00	98.23 µg/L	98.23
D5-EtFOSAA	1641	1.35	100.00	100.48 µg/L	100.48
13C9-PFDA	28851	0.95	100.00	102.34 µg/L	102.34



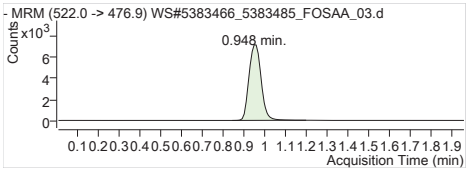


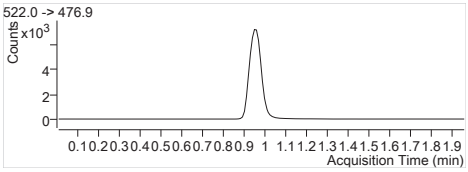
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Calibration



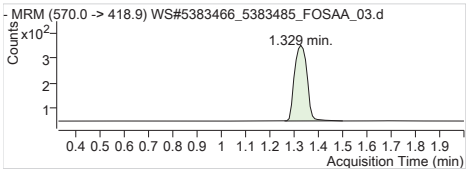


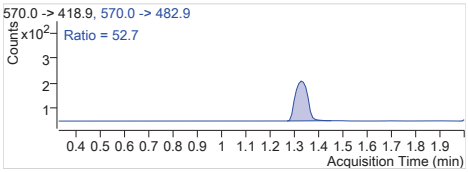
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Calibration



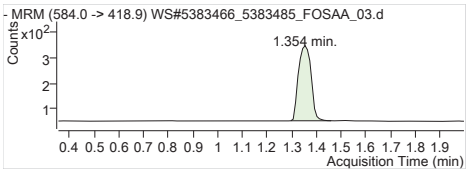


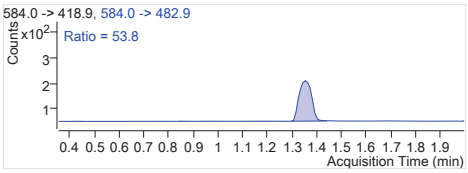
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: Calibration



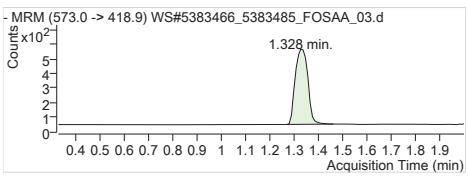


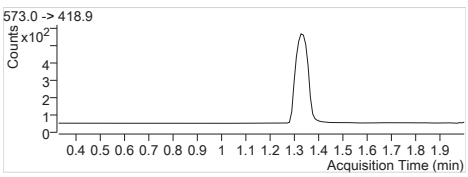
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 1.64 µg/L
Area ratio: 0.58432
Sample type: Calibration



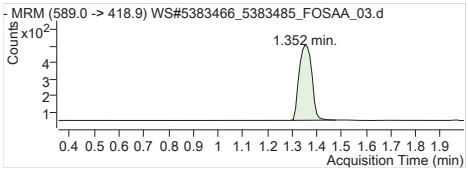


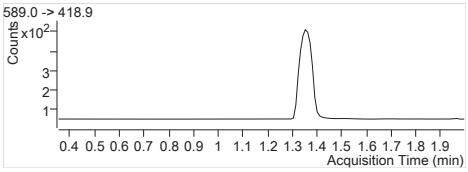
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 1.66 µg/L
Area ratio: 0.64229
Sample type: Calibration



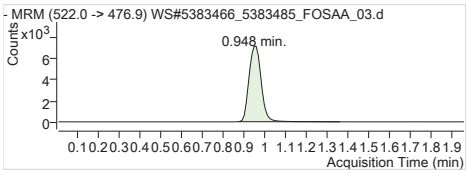


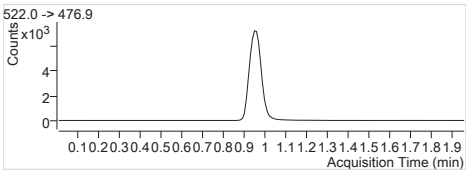
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 98.23 µg/L
Area ratio: 0.06453
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	100.48 µg/L
Area ratio:	0.05687
Sample type:	Calibration





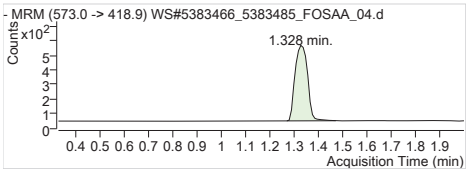
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	102.34 µg/L
Area ratio:	0
Sample type:	Calibration

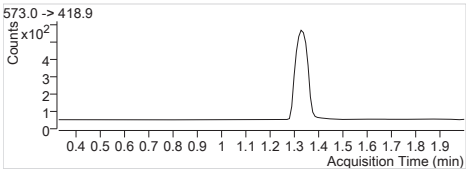
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A4
Acq. Date	2018/02/06 12:32:51 PM	**Injection Volume**	Per Method
Sample Annotation	-		

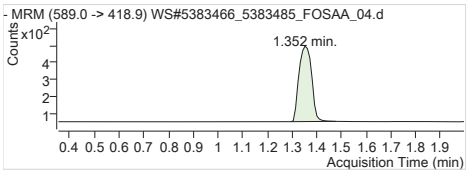
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1845	1.33	1 µg/L		
D5-EtFOSAA IS	1589	1.35	1 µg/L		
13C9-PFDA IS	29034	0.95	1 µg/L		

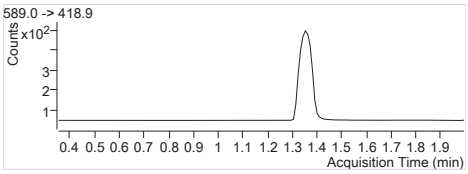
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	3380	1.33	5.00	5.09 µg/L	101.74
EtFOSAA 1	3261	1.35	5.00	4.97 µg/L	99.35
D3-MeFOSAA	1845	1.33	100.00	96.74 µg/L	96.74
D5-EtFOSAA	1589	1.35	100.00	96.70 µg/L	96.70
13C9-PFDA	29289	0.95	100.00	103.90 µg/L	103.90



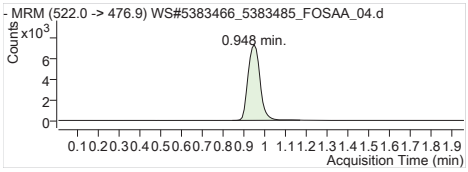


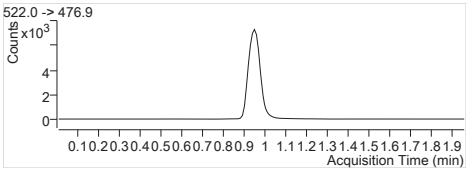
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Calibration



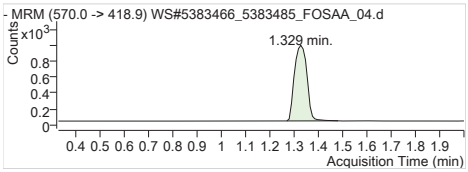


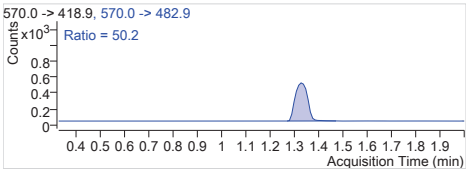
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Calibration



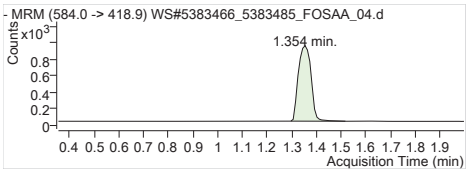


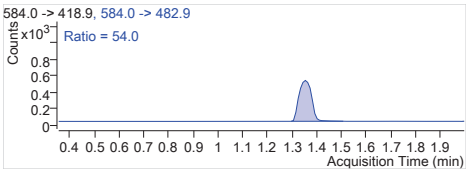
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: Calibration



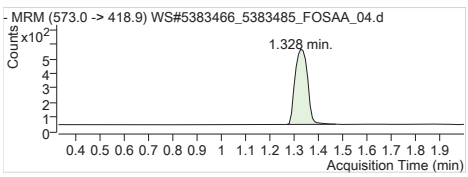


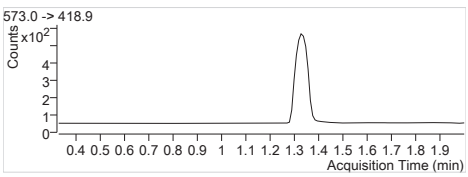
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 5.09 µg/L
Area ratio: 1.83198
Sample type: Calibration



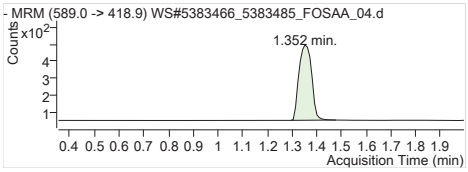


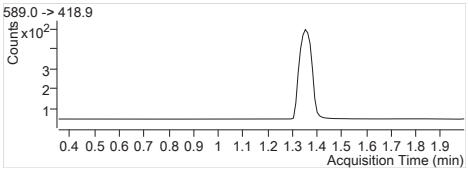
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 4.97 µg/L
Area ratio: 2.05223
Sample type: Calibration



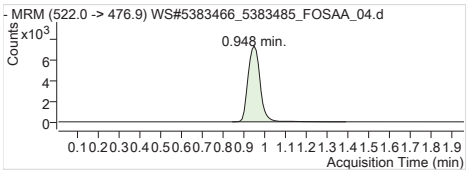


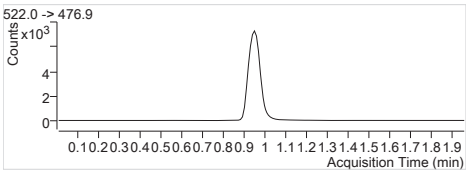
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 96.74 µg/L
Area ratio: 0.06355
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	96.70 µg/L
Area ratio:	0.05473
Sample type:	Calibration





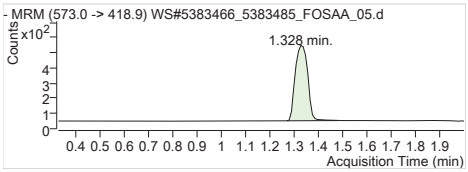
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	103.90 µg/L
Area ratio:	0
Sample type:	Calibration

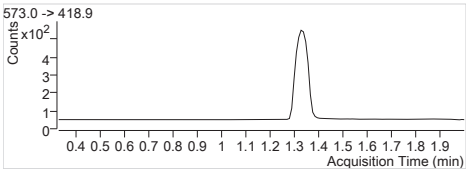
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 12:35:16 PM	**Injection Volume**	Per Method
Sample Annotation	-		

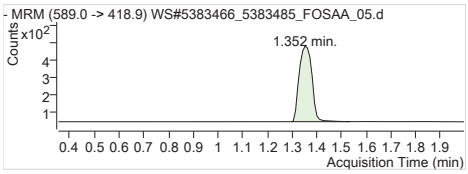
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1774	1.33	1 µg/L		
D5-EtFOSAA IS	1559	1.35	1 µg/L		
13C9-PFDA IS	28453	0.96	1 µg/L		

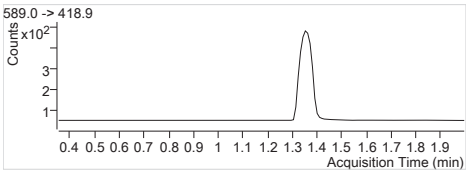
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7647	1.33	12.50	11.93 µg/L	95.43
EtFOSAA 1	7583	1.35	12.50	11.55 µg/L	92.43
D3-MeFOSAA	1774	1.33	100.00	94.91 µg/L	94.91
D5-EtFOSAA	1559	1.35	100.00	96.81 µg/L	96.81
13C9-PFDA	28326	0.96	100.00	100.48 µg/L	100.48



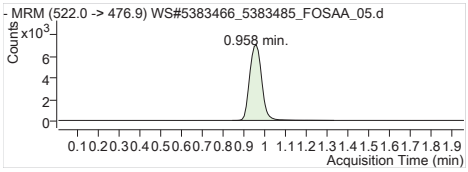


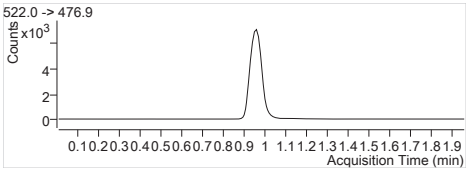
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Calibration



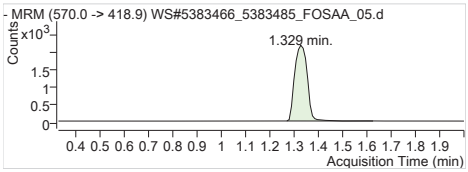


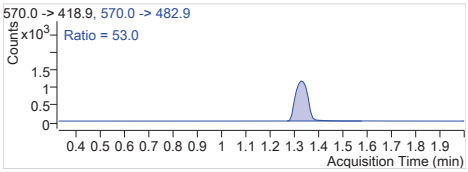
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Calibration



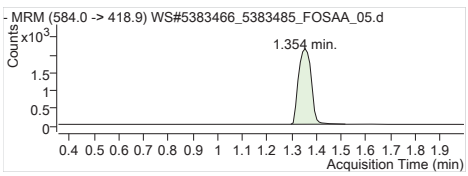


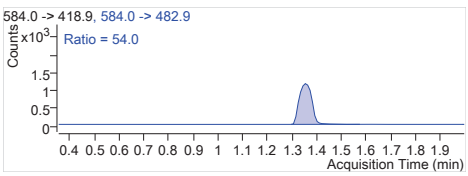
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: Calibration



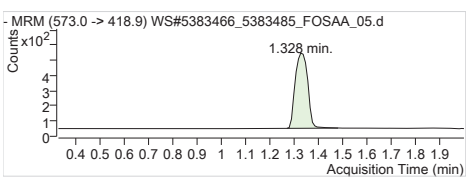


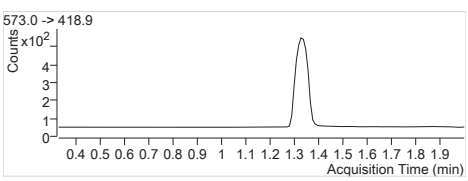
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 11.93 µg/L
Area ratio: 4.31060
Sample type: Calibration



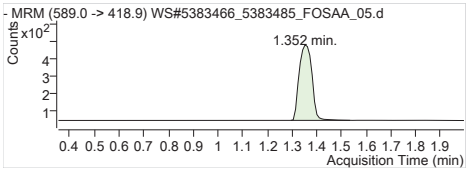


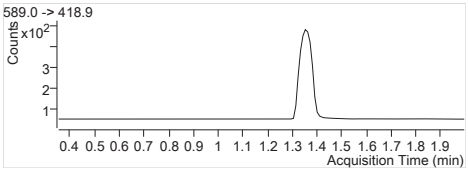
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.55 µg/L
Area ratio: 4.86402
Sample type: Calibration



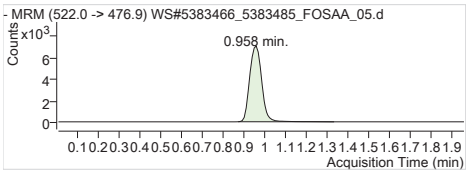


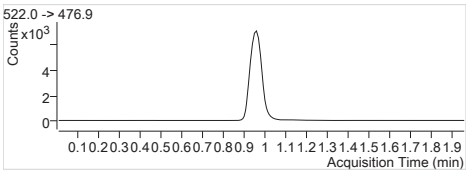
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 94.91 µg/L
Area ratio: 0.06235
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	96.81 µg/L
Area ratio:	0.05479
Sample type:	Calibration





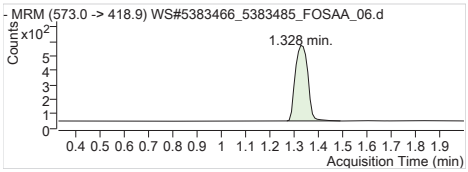
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	100.48 µg/L
Area ratio:	0
Sample type:	Calibration

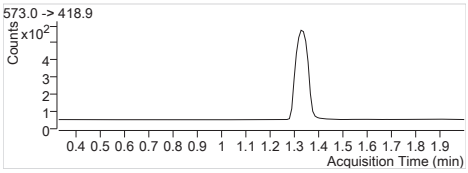
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A6
Acq. Date	2018/02/06 12:37:42 PM	**Injection Volume**	Per Method
Sample Annotation	-		

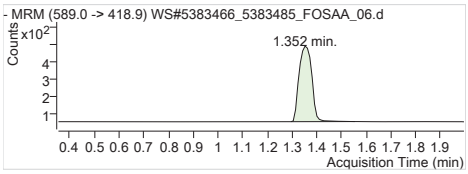
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1881	1.33	1 µg/L		
D5-EtFOSAA IS	1587	1.35	1 µg/L		
13C9-PFDA IS	28628	0.96	1 µg/L		

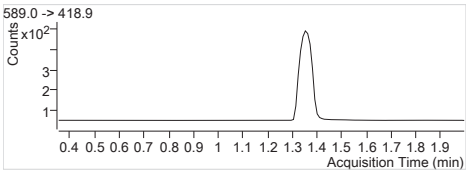
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	17314	1.33	25.00	25.44 µg/L	101.75
EtFOSAA 1	17091	1.35	25.00	25.39 µg/L	101.55
D3-MeFOSAA	1881	1.33	100.00	100.02 µg/L	100.02
D5-EtFOSAA	1587	1.35	100.00	97.95 µg/L	97.95
13C9-PFDA	28590	0.96	100.00	101.42 µg/L	101.42



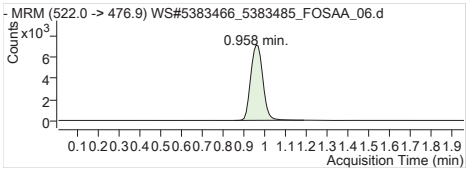


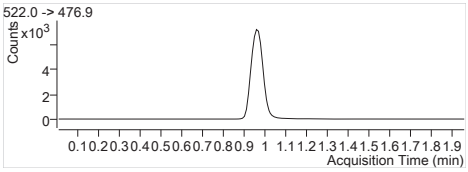
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Calibration



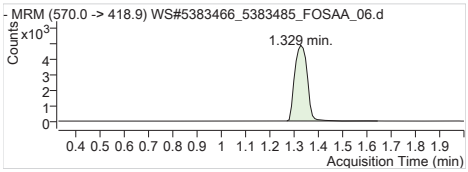


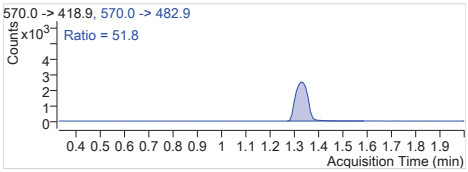
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Calibration



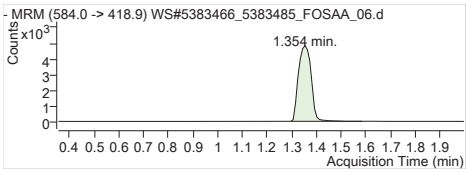


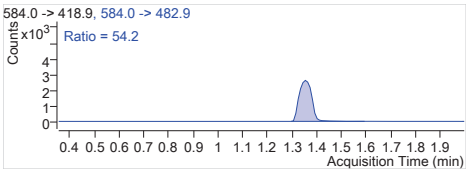
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: Calibration



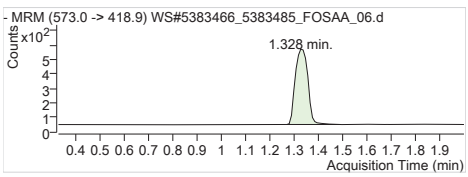


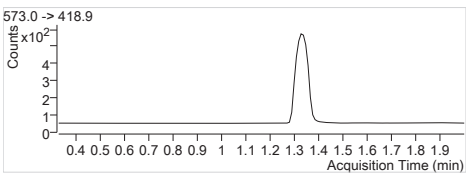
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 25.44 µg/L
Area ratio: 9.20468
Sample type: Calibration



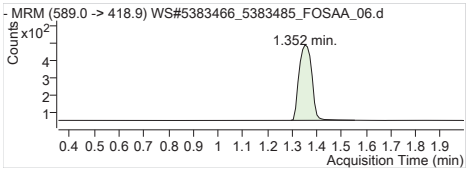


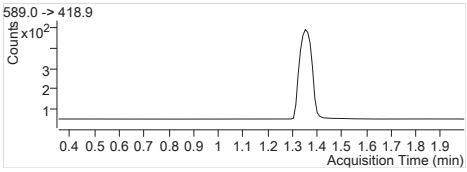
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 25.39 µg/L
Area ratio: 10.76938
Sample type: Calibration



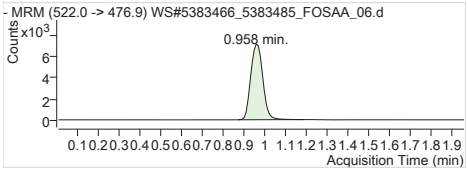


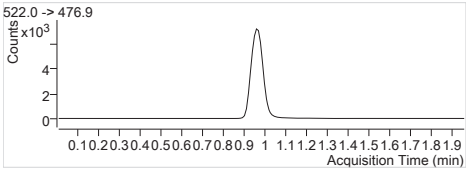
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 100.02 µg/L
Area ratio: 0.06570
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	97.95 µg/L
Area ratio:	0.05544
Sample type:	Calibration





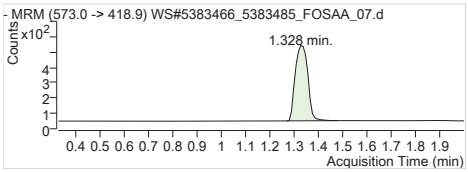
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	101.42 µg/L
Area ratio:	0
Sample type:	Calibration

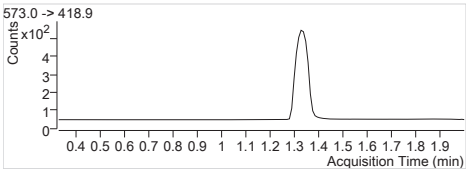
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A7
Acq. Date	2018/02/06 12:40:07 PM	**Injection Volume**	Per Method
Sample Annotation	-		

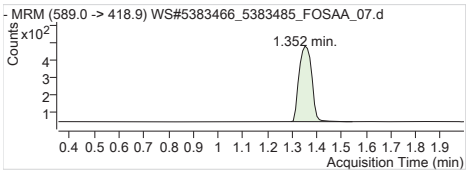
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1774	1.33	1 µg/L		
D5-EtFOSAA IS	1533	1.35	1 µg/L		
13C9-PFDA IS	28110	0.95	1 µg/L		

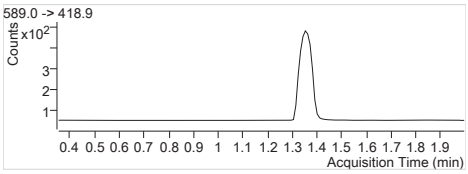
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	27554	1.33	41.70	42.90 µg/L	102.89
EtFOSAA 1	27557	1.35	41.70	42.27 µg/L	101.36
D3-MeFOSAA	1774	1.33	100.00	96.07 µg/L	96.07
D5-EtFOSAA	1533	1.35	100.00	96.36 µg/L	96.36
13C9-PFDA	27901	0.95	100.00	98.97 µg/L	98.97



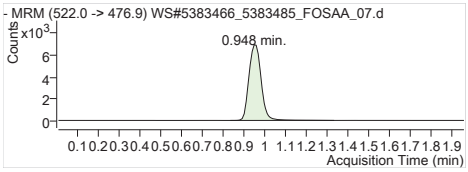


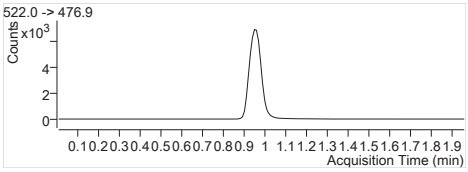
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Calibration



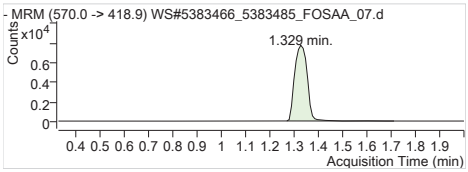


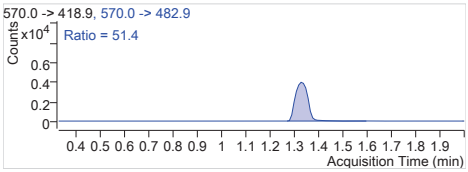
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Calibration



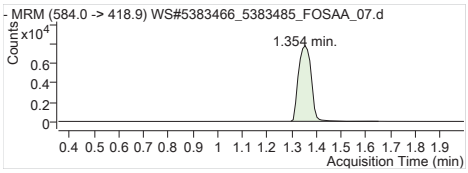


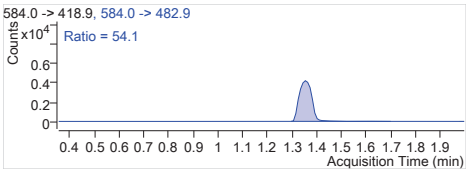
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: Calibration



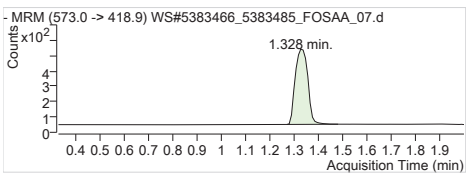


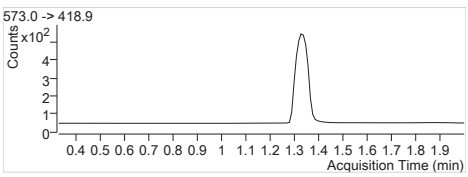
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 42.90 µg/L
Area ratio: 15.53213
Sample type: Calibration



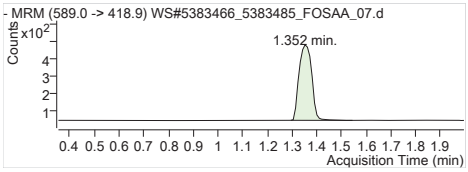


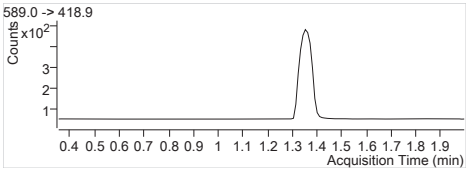
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 42.27 µg/L
Area ratio: 17.97586
Sample type: Calibration



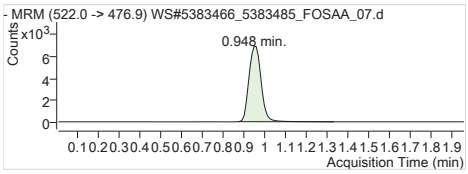


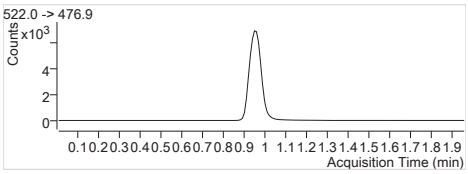
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 96.07 µg/L
Area ratio: 0.06311
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	96.36 µg/L
Area ratio:	0.05454
Sample type:	Calibration





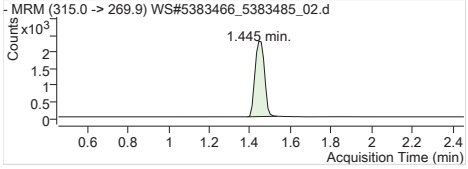
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	98.97 µg/L
Area ratio:	0
Sample type:	Calibration

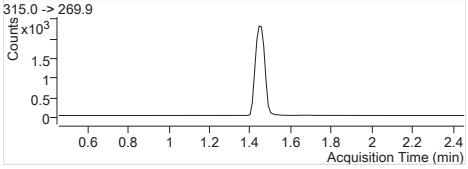
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/06 6:11:47 PM	**Injection Volume**	Per Method
Sample Annotation	-		

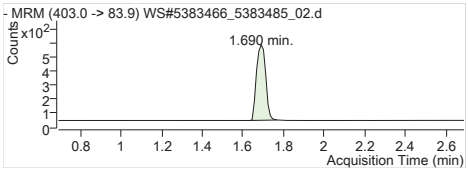
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7360	1.44	1 µg/L		
MPFHxS	1709	1.69	1 µg/L		
MPFHpA	8555	1.71	1 µg/L		
MPFOA	9294	1.89	1 µg/L		
MPFOS	1880	1.99	1 µg/L		
MPFNA	8823	2.04	1 µg/L		
MPFDA	7393	2.15	1 µg/L		
MPFUnA	8613	2.25	1 µg/L		
MPFDoA	12307	2.33	1 µg/L		
MPFTeDA	13245	2.48	1 µg/L		
13C6-PFHxA IS	25741	1.44	1 µg/L		
13C9-PFDA IS	34399	2.15	1 µg/L		

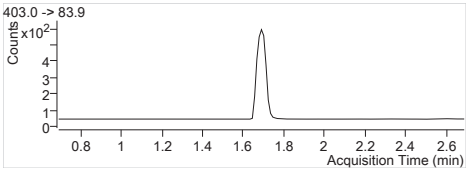
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	560	1.11	0.83	0.89 µg/L	107.07
PFHxA 1	1612	1.45	0.83	0.86 µg/L	104.02
PFHxS 1	524	1.69	0.83	0.94 µg/L	112.86
PFHpA 1	2769	1.71	0.83	0.96 µg/L	115.76
PFOA 1	2835	1.89	0.83	0.89 µg/L	107.76
PFOS 1	592	1.98	0.83	0.97 µg/L	117.23
PFNA 1	2562	2.04	0.83	0.88 µg/L	105.89
PFDA 1	2686	2.15	0.83	0.86 µg/L	103.25
PFUnA 1	3117	2.25	0.83	0.85 µg/L	102.10
PFDoA 1	3531	2.33	0.83	0.82 µg/L	98.99
PFTrDA 1	4399	2.41	0.83	0.84 µg/L	101.03
PFTeDA 1	3520	2.48	0.83	0.81 µg/L	97.97
13C2-PFHxA	7360	1.44	100.00	120.68 µg/L	120.68
18O2-PFHxS	1709	1.69	100.00	114.25 µg/L	114.25
13C4-PFHpA	8555	1.71	100.00	113.76 µg/L	113.76
13C4-PFOA	9294	1.89	100.00	115.02 µg/L	115.02
13C4-PFOS	1880	1.99	100.00	105.81 µg/L	105.81
13C5-PFNA	8749	2.04	100.00	109.89 µg/L	109.89
13C2-PFDA	7298	2.15	100.00	105.73 µg/L	105.73
13C2-PFUnA	8613	2.25	100.00	103.52 µg/L	103.52
13C2-PFDoA	12307	2.33	100.00	111.14 µg/L	111.14
13C2-PFTeDA	13325	2.48	100.00	105.61 µg/L	105.61
13C6-PFHxA	25741	1.44	100.00	90.54 µg/L	90.54
13C9-PFDA	34399	2.15	100.00	96.16 µg/L	96.16



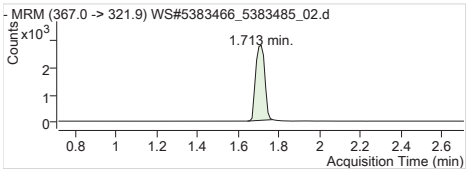


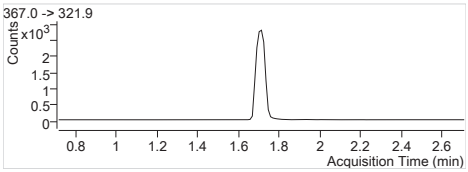
MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	Calibration



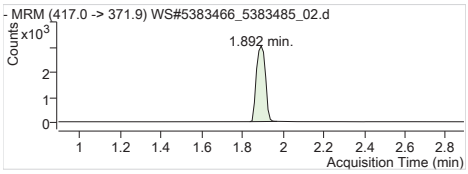


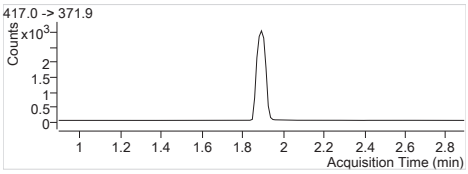
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



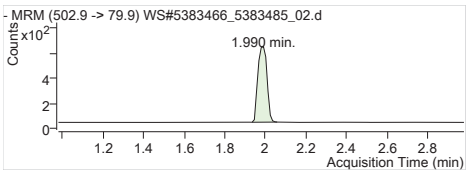


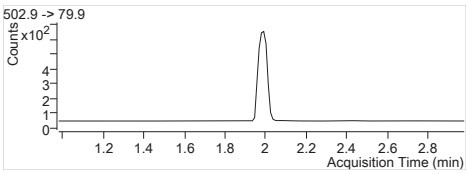
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



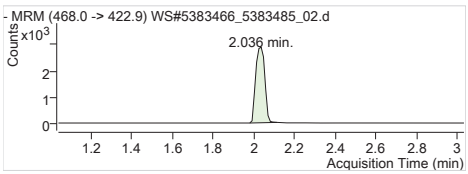


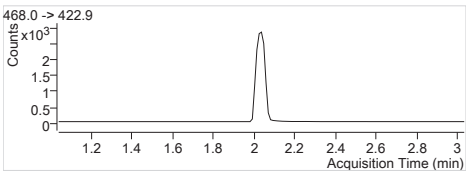
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



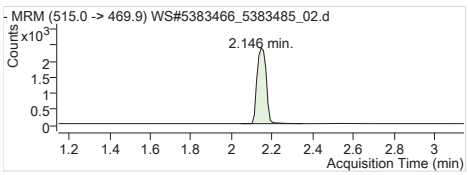


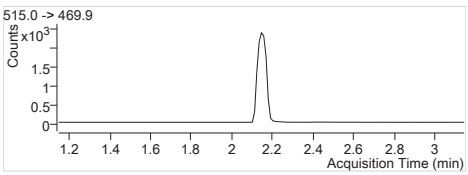
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



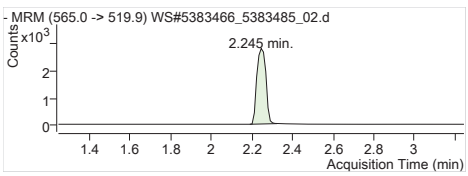


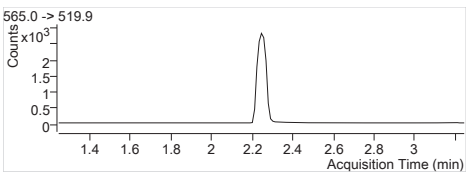
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



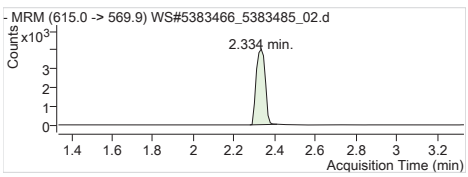


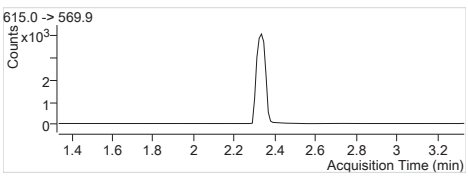
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



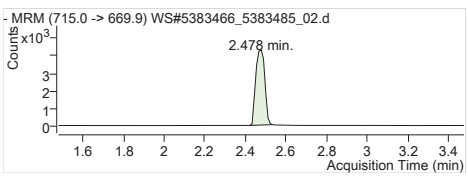


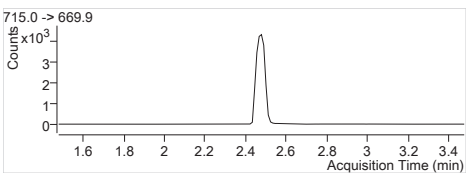
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



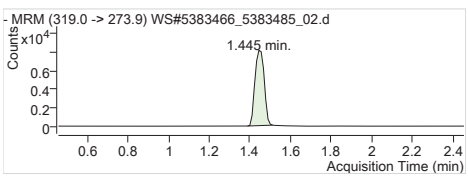


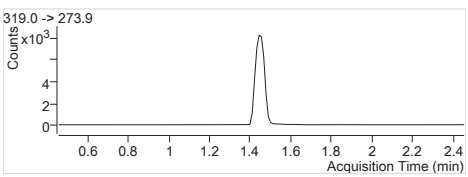
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Calibration



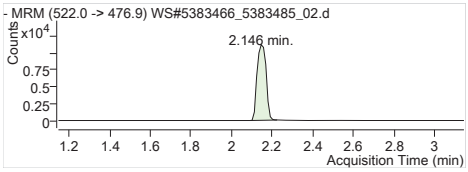


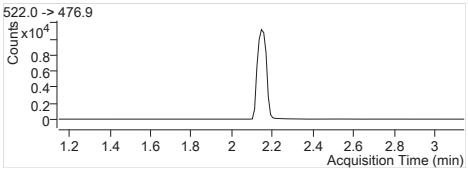
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



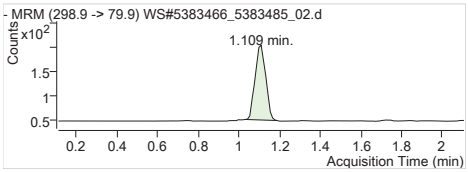


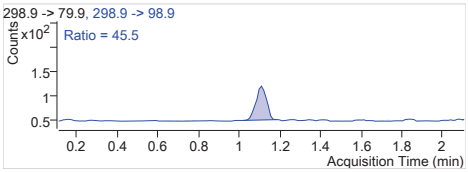
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



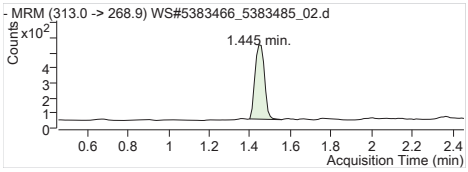


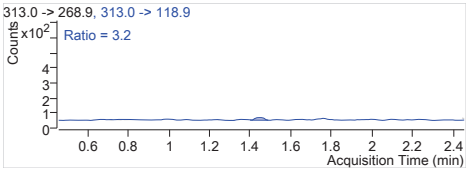
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



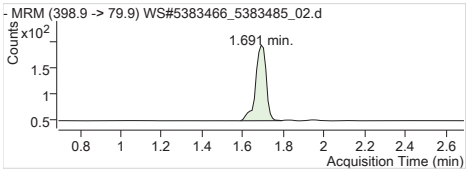


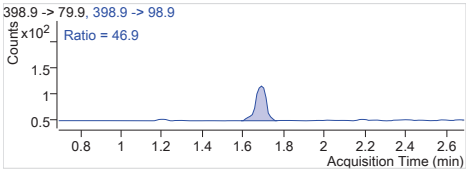
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 0.89 µg/L
Area ratio: 0.32768
Sample type: Calibration



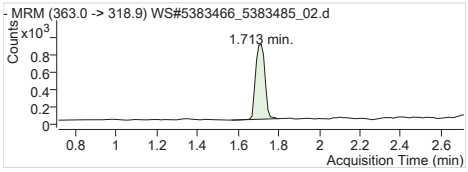


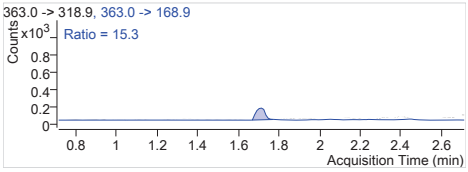
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 0.86 µg/L
Area ratio: 0.21902
Sample type: Calibration



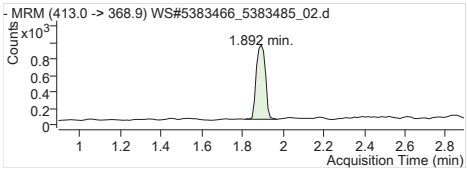


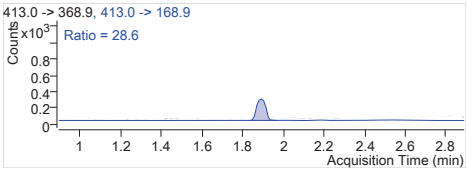
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.94 µg/L
Area ratio: 0.30661
Sample type: Calibration



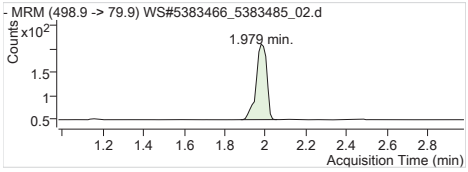


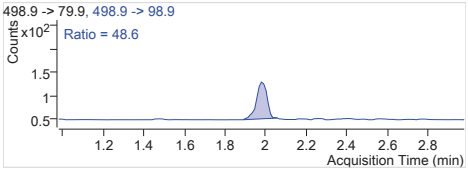
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 0.96 µg/L
Area ratio: 0.32367
Sample type: Calibration



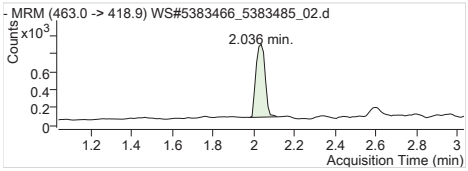


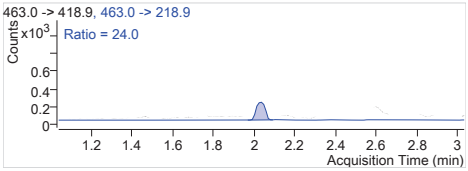
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 0.89 µg/L
Area ratio: 0.30504
Sample type: Calibration



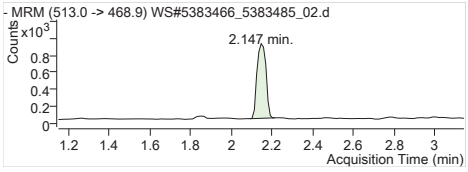


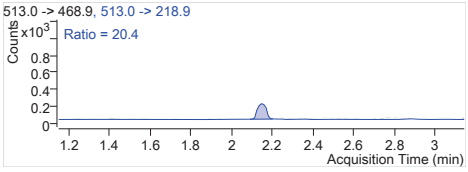
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.97 µg/L
Area ratio: 0.31489
Sample type: Calibration



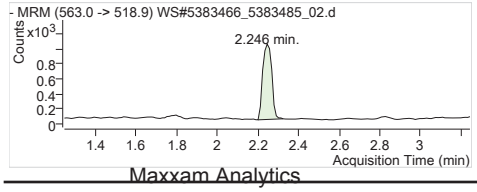


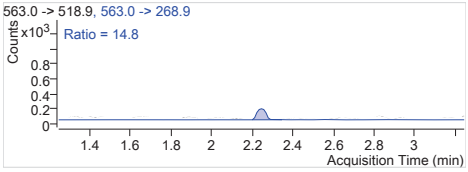
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.88 µg/L
Area ratio: 0.29038
Sample type: Calibration



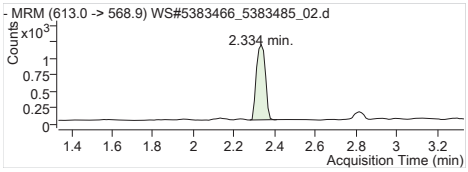


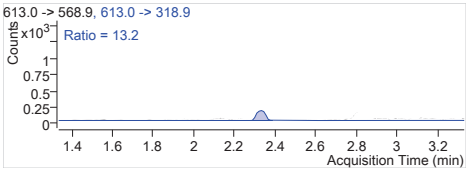
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 0.86 µg/L
Area ratio: 0.36332
Sample type: Calibration



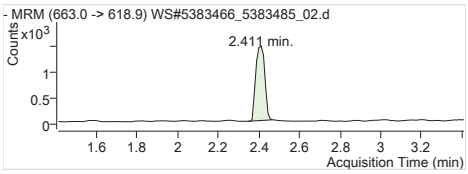


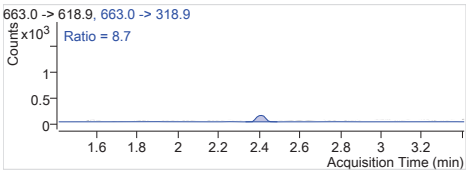
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.85 µg/L
Area ratio: 0.36189
Sample type: Calibration



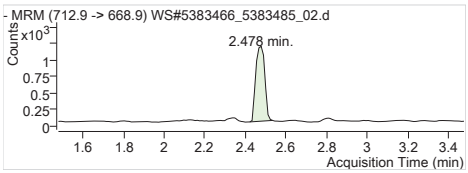


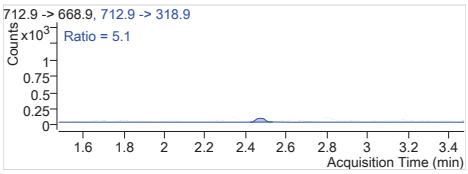
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 0.82 µg/L
Area ratio: 0.28691
Sample type: Calibration



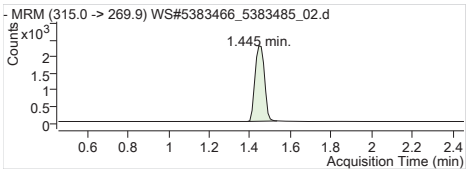


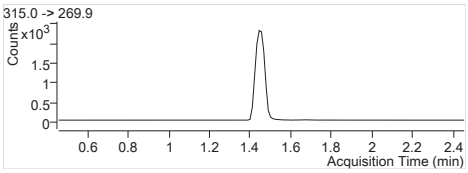
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 0.84 µg/L
Area ratio: 0.33213
Sample type: Calibration



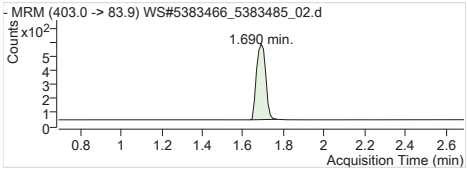


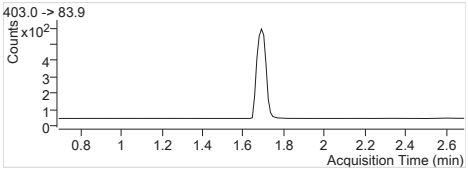
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 0.81 µg/L
Area ratio: 0.26576
Sample type: Calibration



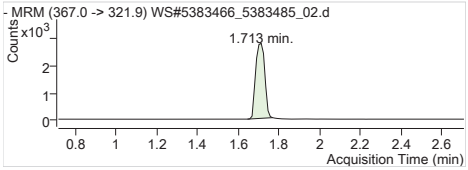


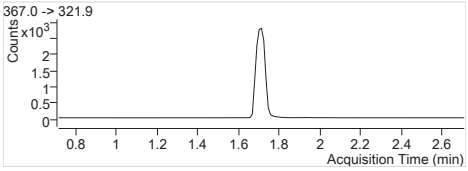
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 120.68 µg/L
Area ratio: 0.28593
Sample type: Calibration



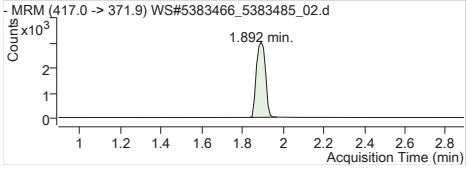


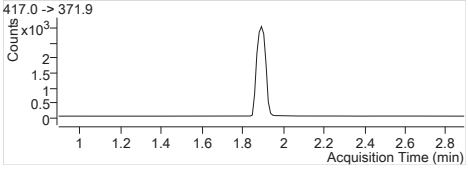
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 114.25 µg/L
Area ratio: 0.06639
Sample type: Calibration



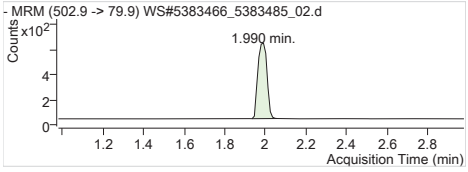


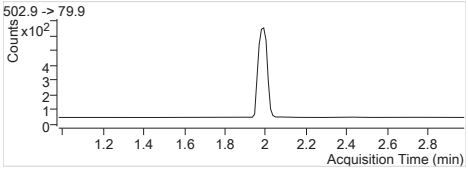
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 113.76 µg/L
Area ratio: 0.33235
Sample type: Calibration



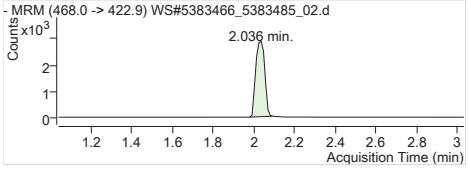


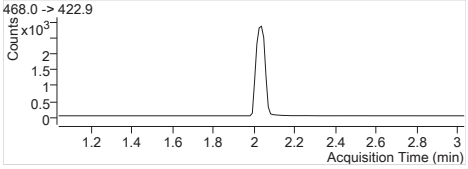
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 115.02 µg/L
Area ratio: 0.36106
Sample type: Calibration



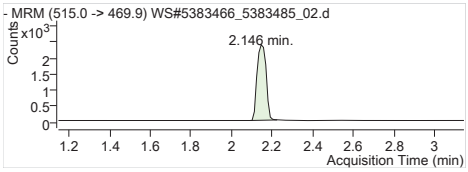


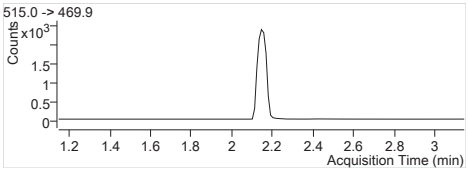
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 105.81 µg/L
Area ratio: 0.07304
Sample type: Calibration



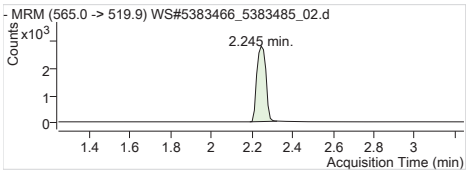


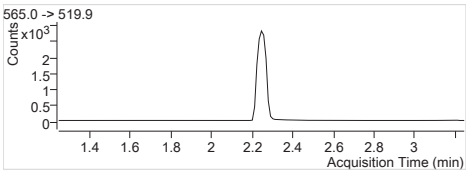
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 109.89 µg/L
Area ratio: 0.33989
Sample type: Calibration



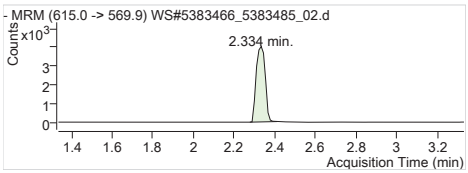


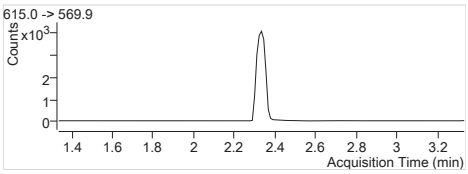
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 105.73 µg/L
Area ratio: 0.21216
Sample type: Calibration



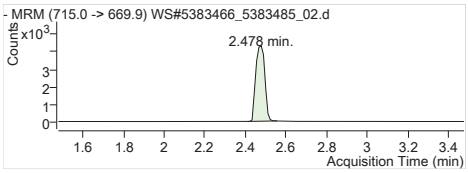


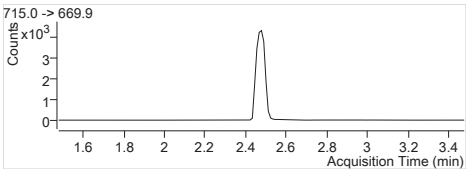
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 103.52 µg/L
Area ratio: 0.25039
Sample type: Calibration



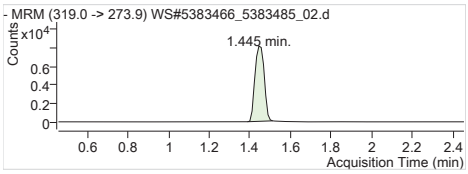


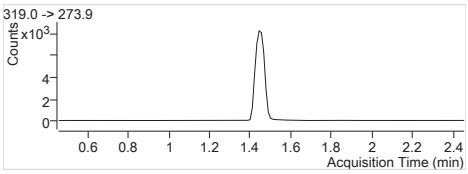
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 111.14 µg/L
Area ratio: 0.35777
Sample type: Calibration



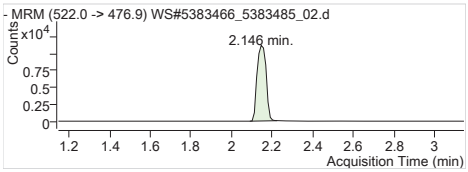


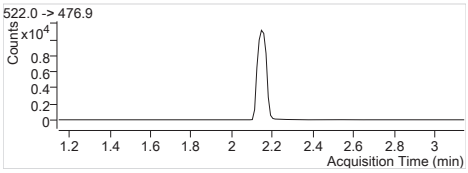
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 105.61 µg/L
Area ratio: 0.38737
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 90.54 µg/L
Area ratio: 0
Sample type: Calibration





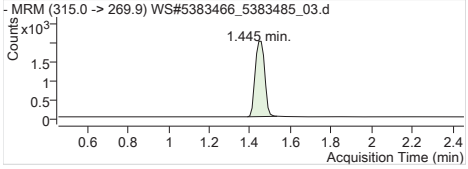
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 96.16 µg/L
Area ratio: 0
Sample type: Calibration

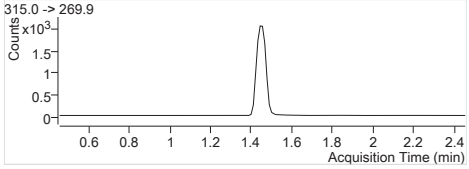
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A3
Acq. Date	2018/02/06 6:16:44 PM	**Injection Volume**	Per Method
Sample Annotation	-		

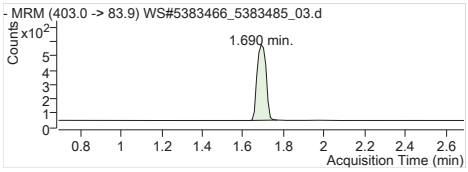
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6506	1.44	1 µg/L		
MPFHxS	1633	1.69	1 µg/L		
MPFHpA	8349	1.71	1 µg/L		
MPFOA	8736	1.89	1 µg/L		
MPFOS	1889	1.99	1 µg/L		
MPFNA	8809	2.04	1 µg/L		
MPFDA	7517	2.15	1 µg/L		
MPFUnA	8820	2.25	1 µg/L		
MPFDoA	11355	2.33	1 µg/L		
MPFTeDA	12272	2.48	1 µg/L		
13C6-PFHxA IS	27981	1.46	1 µg/L		
13C9-PFDA IS	35531	2.15	1 µg/L		

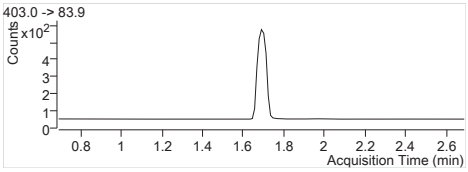
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1174	1.11	1.70	1.77 µg/L	104.35
PFHxA 1	4054	1.46	1.70	1.86 µg/L	109.45
PFHxS 1	1115	1.69	1.70	1.78 µg/L	104.59
PFHpA 1	5056	1.71	1.70	1.63 µg/L	95.86
PFOA 1	5942	1.89	1.70	1.77 µg/L	104.31
PFOS 1	961	1.98	1.70	1.54 µg/L	90.33
PFNA 1	5291	2.04	1.70	1.71 µg/L	100.36
PFDA 1	5351	2.15	1.70	1.60 µg/L	93.83
PFUnA 1	5994	2.25	1.70	1.60 µg/L	93.99
PFDoA 1	7517	2.33	1.70	1.73 µg/L	102.01
PFTrDA 1	8288	2.41	1.70	1.67 µg/L	98.07
PFTeDA 1	7406	2.48	1.70	1.79 µg/L	105.42
13C2-PFHxA	6506	1.44	100.00	98.14 µg/L	98.14
18O2-PFHxS	1633	1.69	100.00	100.43 µg/L	100.43
13C4-PFHpA	8349	1.71	100.00	102.13 µg/L	102.13
13C4-PFOA	8736	1.89	100.00	99.46 µg/L	99.46
13C4-PFOS	1889	1.99	100.00	97.81 µg/L	97.81
13C5-PFNA	8746	2.04	100.00	101.06 µg/L	101.06
13C2-PFDA	7451	2.15	100.00	104.50 µg/L	104.50
13C2-PFUnA	8820	2.25	100.00	102.63 µg/L	102.63
13C2-PFDoA	11355	2.33	100.00	99.27 µg/L	99.27
13C2-PFTeDA	12474	2.48	100.00	95.72 µg/L	95.72
13C6-PFHxA	27981	1.46	100.00	98.42 µg/L	98.42
13C9-PFDA	35531	2.15	100.00	99.32 µg/L	99.32



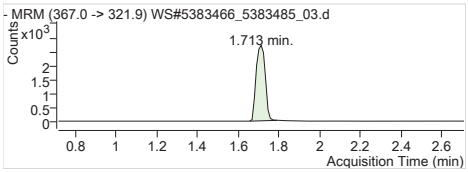


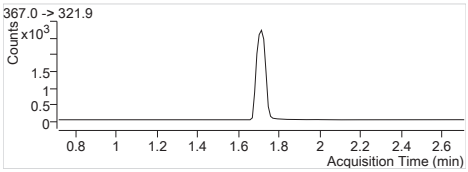
MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	Calibration



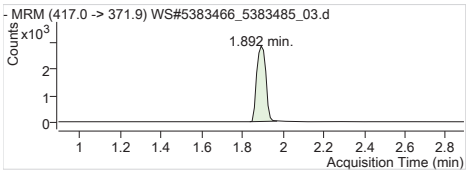


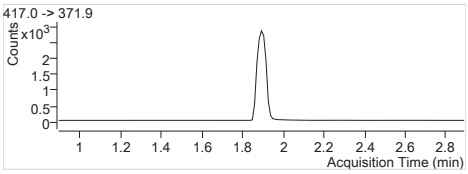
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



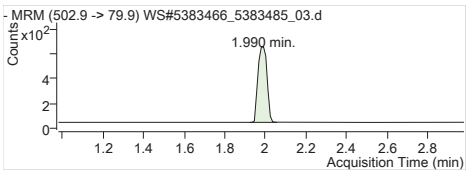


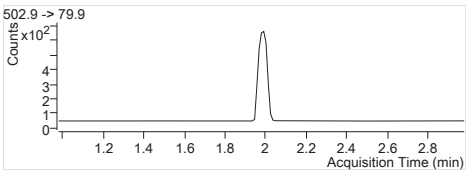
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



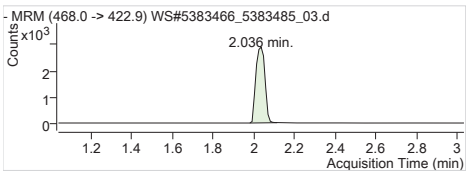


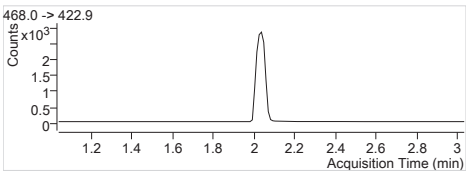
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



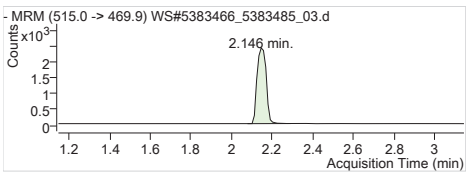


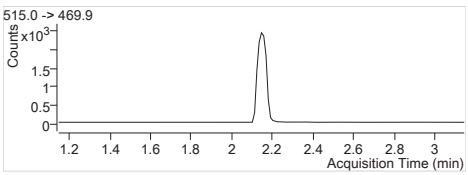
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



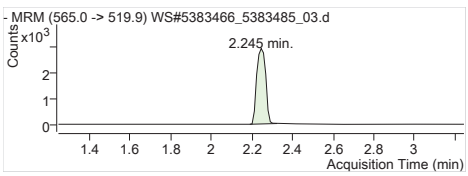


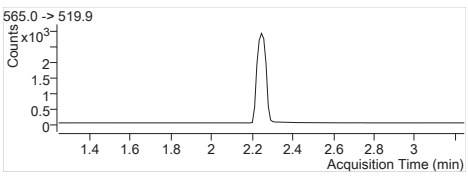
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



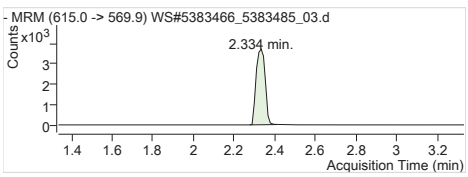


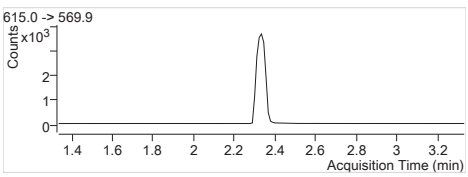
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



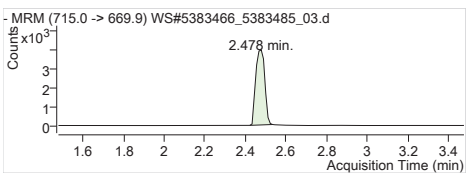


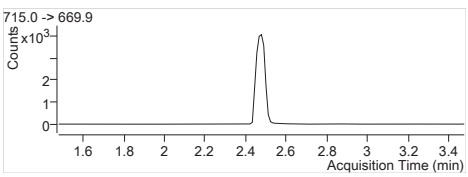
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



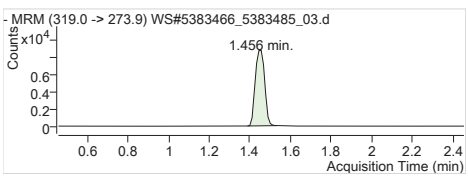


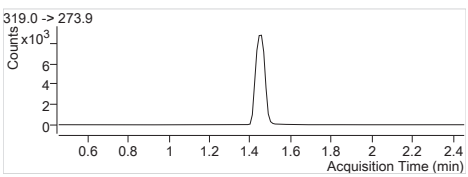
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Calibration



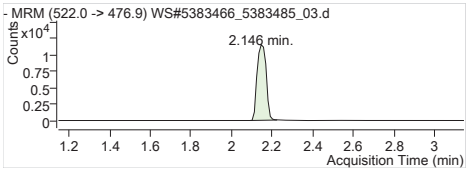


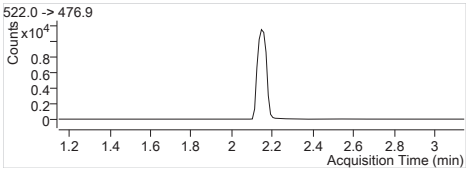
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



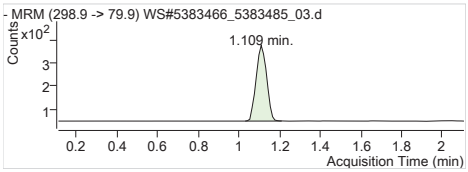


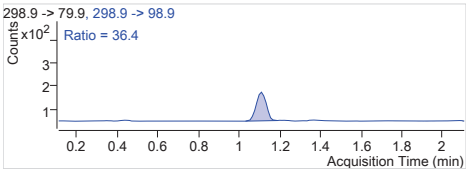
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



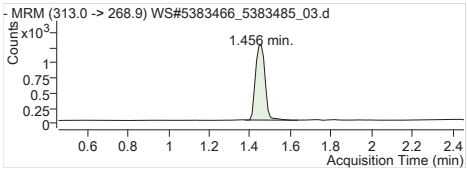


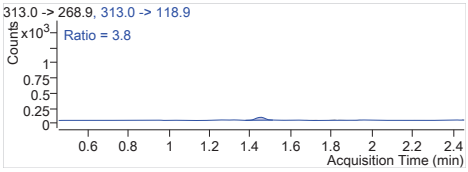
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



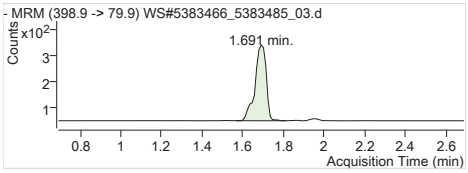


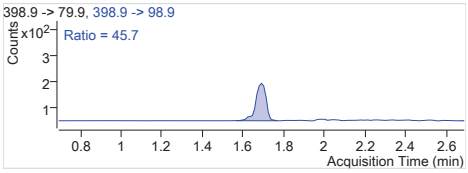
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 1.77 µg/L
Area ratio: 0.71892
Sample type: Calibration



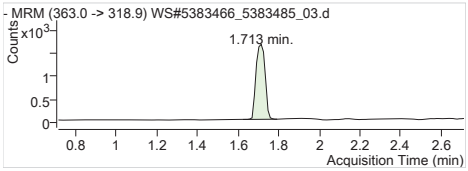


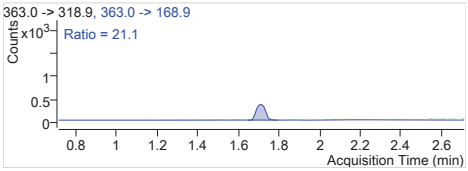
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 1.86 µg/L
Area ratio: 0.62312
Sample type: Calibration



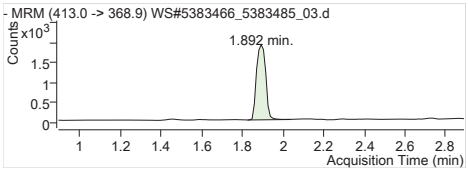


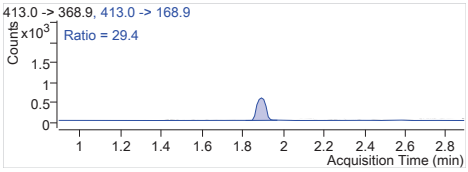
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 1.78 µg/L
Area ratio: 0.68279
Sample type: Calibration



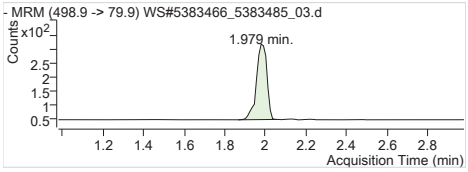


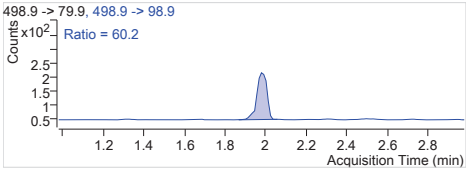
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 1.63 µg/L
Area ratio: 0.60558
Sample type: Calibration



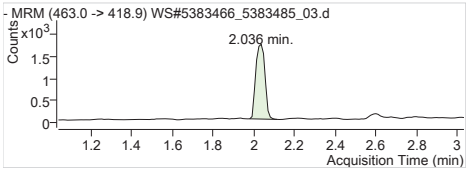


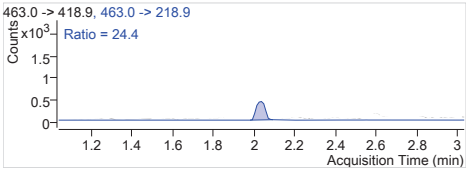
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 1.77 µg/L
Area ratio: 0.68017
Sample type: Calibration



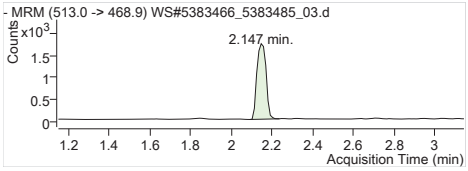


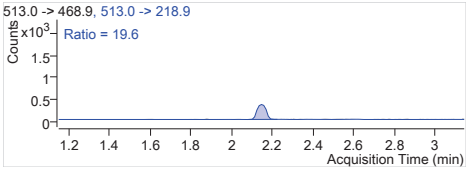
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 1.54 µg/L
Area ratio: 0.50873
Sample type: Calibration



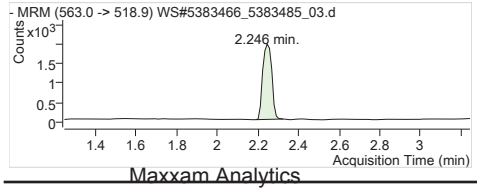


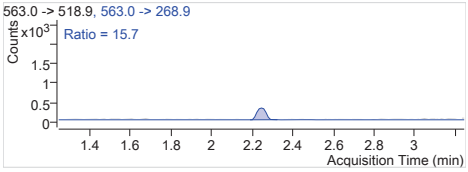
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 1.71 µg/L
Area ratio: 0.60064
Sample type: Calibration



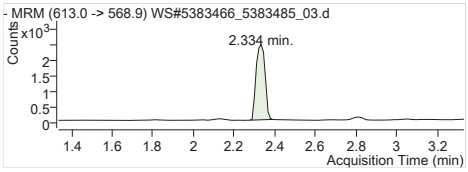


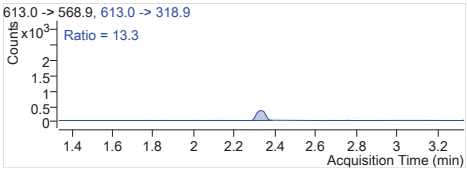
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 1.60 µg/L
Area ratio: 0.71185
Sample type: Calibration



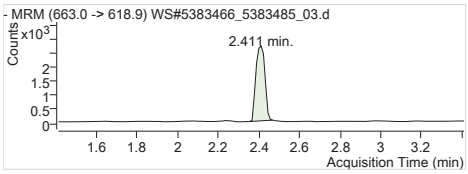


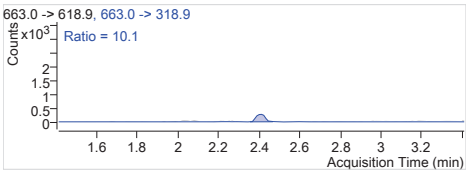
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 1.60 µg/L
Area ratio: 0.67959
Sample type: Calibration



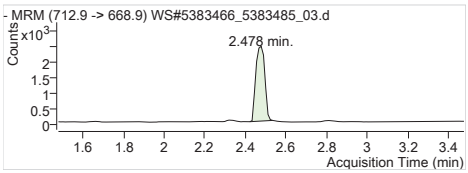


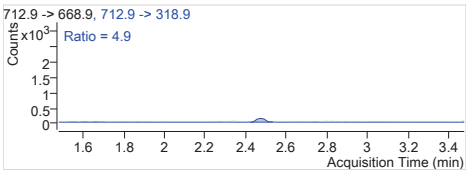
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 1.73 µg/L
Area ratio: 0.66200
Sample type: Calibration



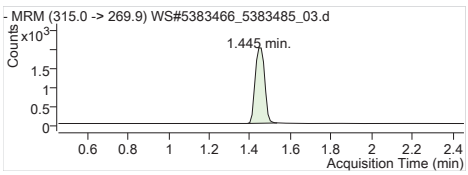


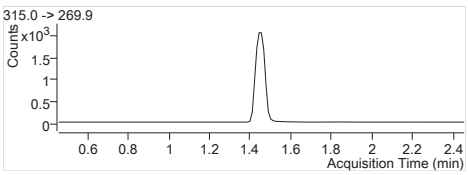
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 1.67 µg/L
Area ratio: 0.67536
Sample type: Calibration



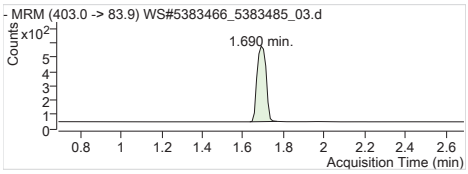


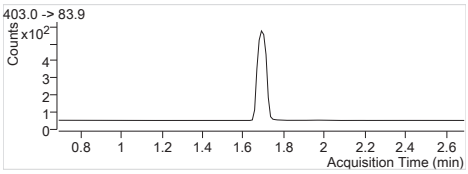
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 1.79 µg/L
Area ratio: 0.60349
Sample type: Calibration



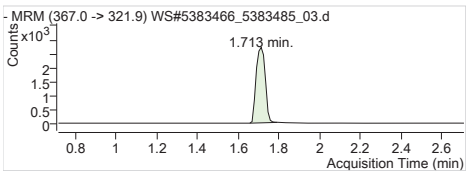


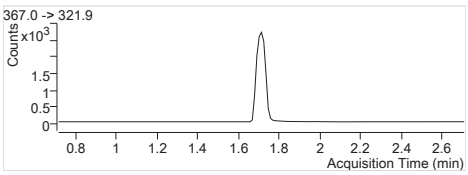
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 98.14 µg/L
Area ratio: 0.23251
Sample type: Calibration



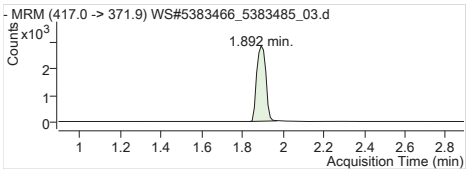


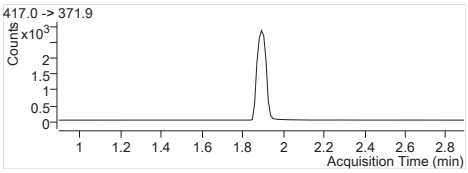
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 100.43 µg/L
Area ratio: 0.05836
Sample type: Calibration



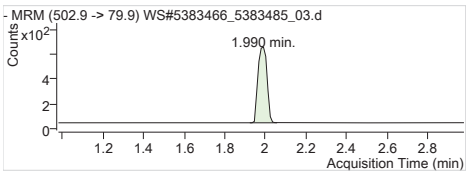


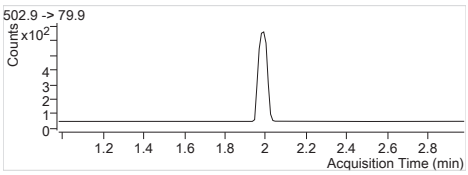
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 102.13 µg/L
Area ratio: 0.29838
Sample type: Calibration



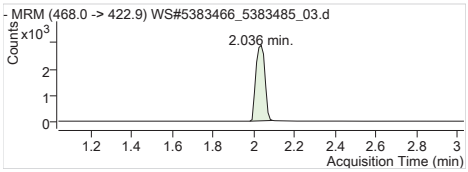


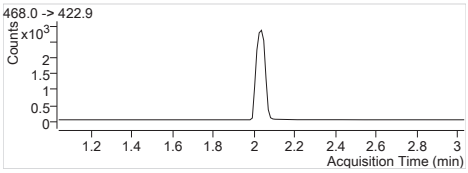
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 99.46 µg/L
Area ratio: 0.31221
Sample type: Calibration



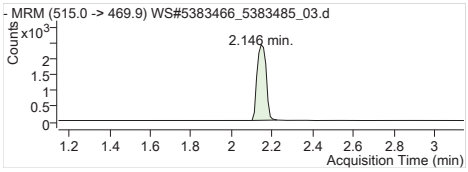


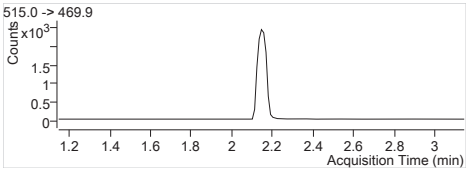
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 97.81 µg/L
Area ratio: 0.06751
Sample type: Calibration



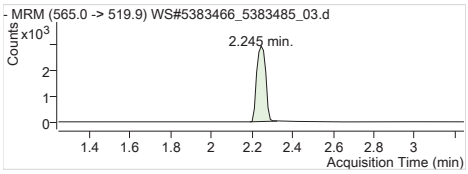


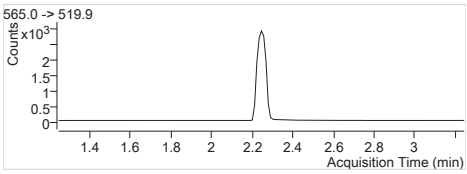
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 101.06 µg/L
Area ratio: 0.31257
Sample type: Calibration



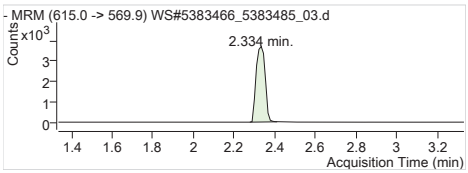


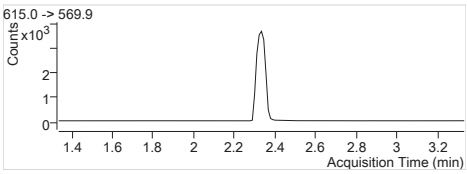
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 104.50 µg/L
Area ratio: 0.20970
Sample type: Calibration



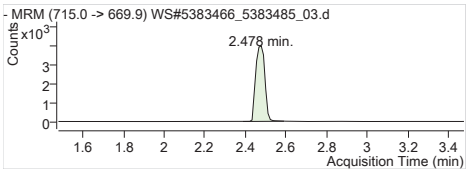


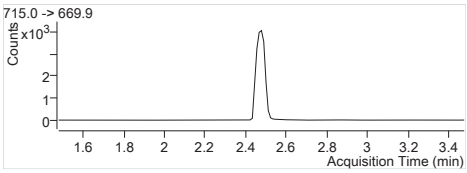
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 102.63 µg/L
Area ratio: 0.24823
Sample type: Calibration



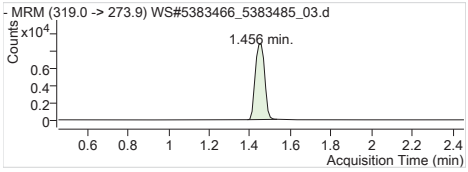


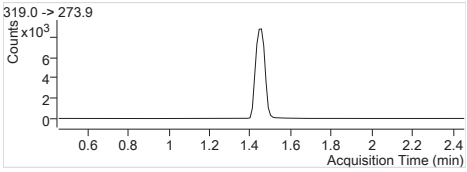
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 99.27 µg/L
Area ratio: 0.31958
Sample type: Calibration



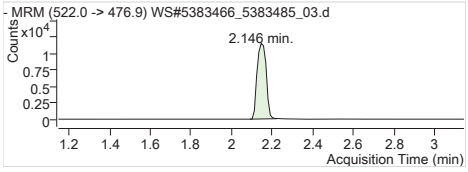


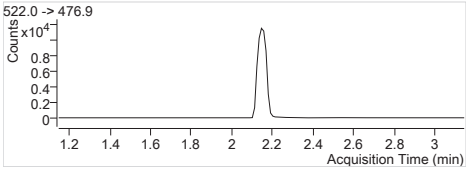
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 95.72 µg/L
Area ratio: 0.35107
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 98.42 µg/L
Area ratio: 0
Sample type: Calibration





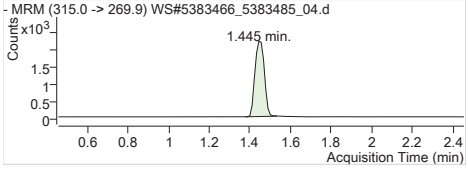
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 99.32 µg/L
Area ratio: 0
Sample type: Calibration

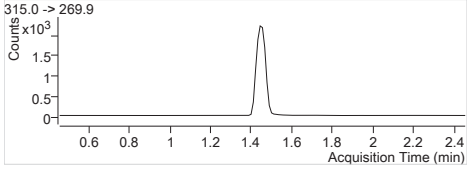
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A4
Acq. Date	2018/02/06 6:21:40 PM	**Injection Volume**	Per Method
Sample Annotation	-		

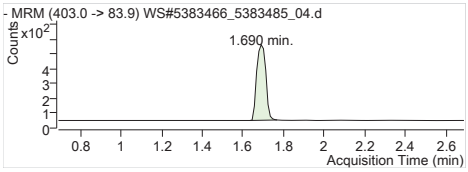
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6984	1.44	1 µg/L		
MPFHxS	1605	1.69	1 µg/L		
MPFHpA	8574	1.71	1 µg/L		
MPFOA	8745	1.89	1 µg/L		
MPFOS	1995	1.99	1 µg/L		
MPFNA	8917	2.04	1 µg/L		
MPFDA	7363	2.15	1 µg/L		
MPFUnA	8486	2.25	1 µg/L		
MPFDoA	11366	2.33	1 µg/L		
MPFTeDA	13162	2.48	1 µg/L		
13C6-PFHxA IS	29424	1.44	1 µg/L		
13C9-PFDA IS	36955	2.15	1 µg/L		

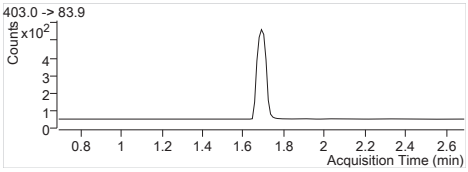
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	3442	1.11	5.00	5.00 µg/L	99.99
PFHxA 1	11982	1.45	5.00	4.56 µg/L	91.14
PFHxS 1	3214	1.69	5.00	4.73 µg/L	94.59
PFHpA 1	15761	1.71	5.00	4.55 µg/L	91.08
PFOA 1	17315	1.89	5.00	4.82 µg/L	96.38
PFOS 1	3310	1.98	5.00	4.87 µg/L	97.49
PFNA 1	16213	2.04	5.00	4.95 µg/L	99.04
PFDA 1	16796	2.15	5.00	4.92 µg/L	98.37
PFUnA 1	19129	2.25	5.00	5.32 µg/L	106.35
PFDoA 1	23281	2.33	5.00	5.11 µg/L	102.13
PFTrDA 1	27306	2.41	5.00	5.05 µg/L	100.91
PFTeDA 1	22027	2.48	5.00	4.89 µg/L	97.88
13C2-PFHxA	6984	1.44	100.00	100.18 µg/L	100.18
18O2-PFHxS	1605	1.69	100.00	93.87 µg/L	93.87
13C4-PFHpA	8574	1.71	100.00	99.74 µg/L	99.74
13C4-PFOA	8745	1.89	100.00	94.68 µg/L	94.68
13C4-PFOS	1995	1.99	100.00	98.23 µg/L	98.23
13C5-PFNA	8855	2.04	100.00	97.30 µg/L	97.30
13C2-PFDA	7249	2.15	100.00	97.75 µg/L	97.75
13C2-PFUnA	8486	2.25	100.00	94.94 µg/L	94.94
13C2-PFDoA	11366	2.33	100.00	95.54 µg/L	95.54
13C2-PFTeDA	13397	2.48	100.00	98.84 µg/L	98.84
13C6-PFHxA	29424	1.44	100.00	103.50 µg/L	103.50
13C9-PFDA	36955	2.15	100.00	103.30 µg/L	103.30



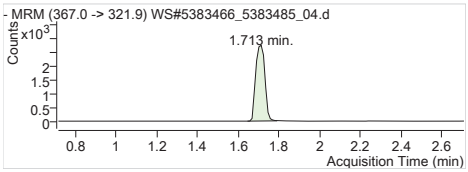


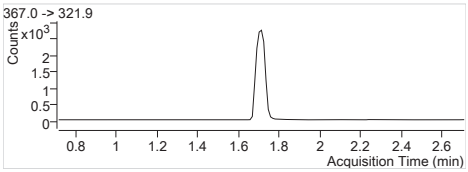
MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	Calibration



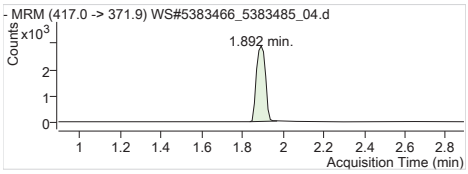


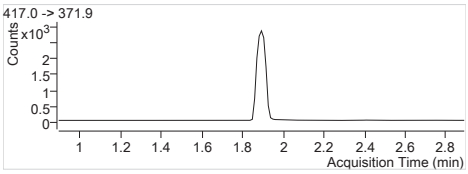
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



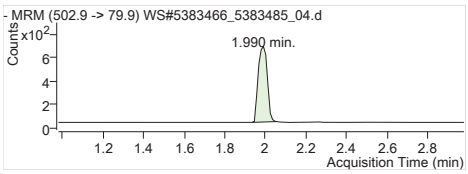


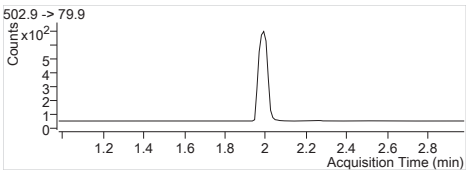
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



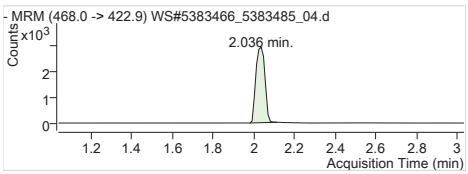


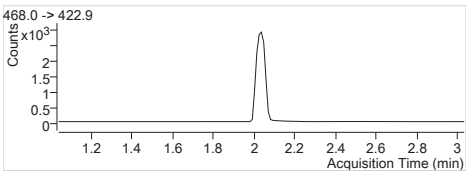
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



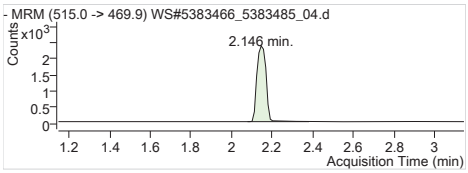


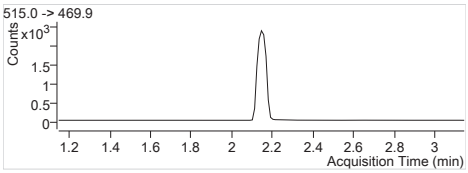
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



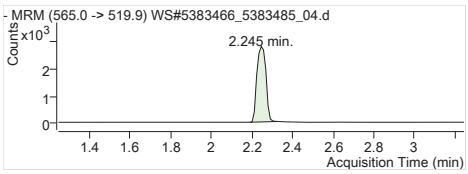


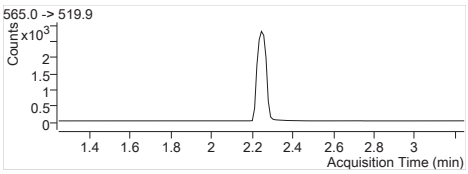
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



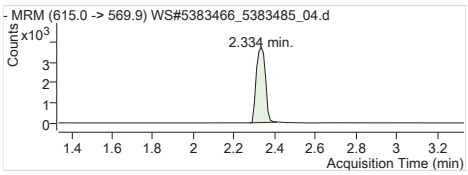


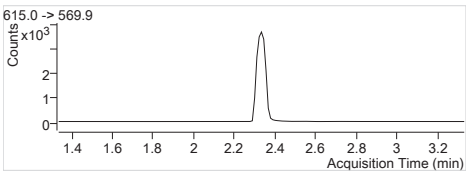
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



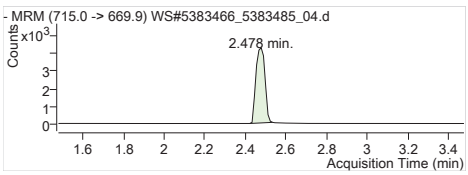


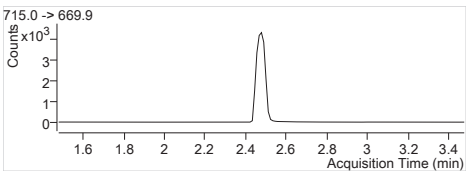
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



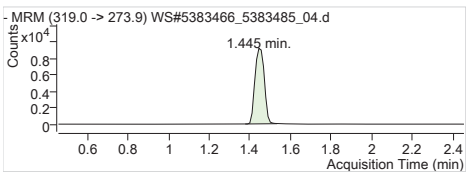


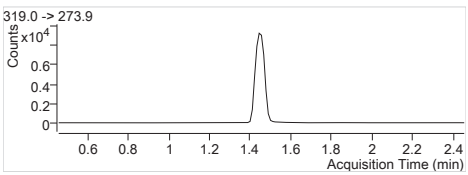
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Calibration



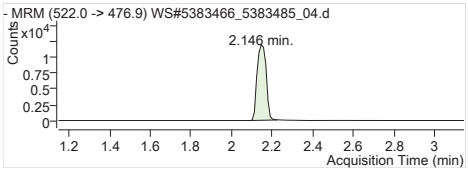


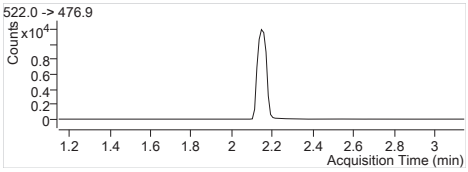
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



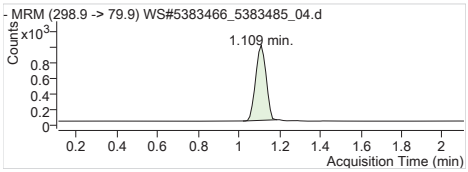


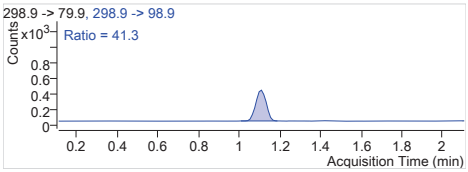
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



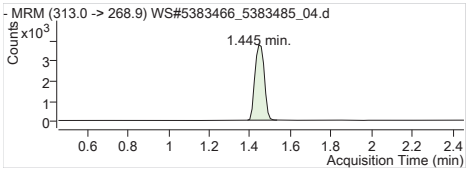


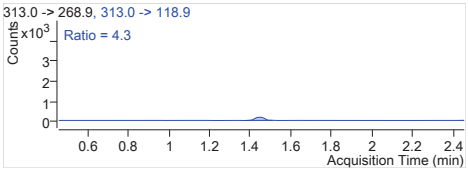
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



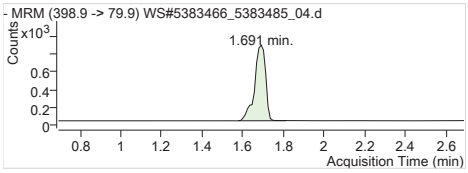


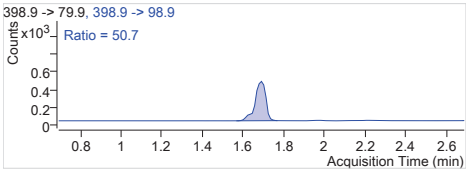
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 5.00 µg/L
Area ratio: 2.14455
Sample type: Calibration



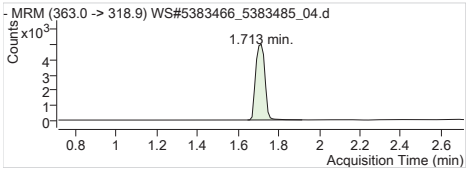


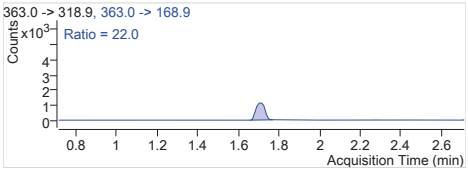
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 4.56 µg/L
Area ratio: 1.71564
Sample type: Calibration



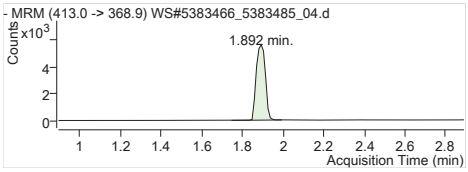


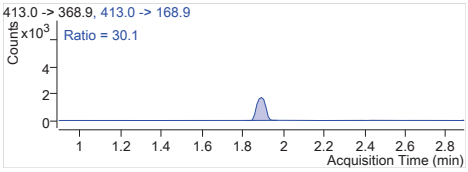
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 4.73 µg/L
Area ratio: 2.00249
Sample type: Calibration



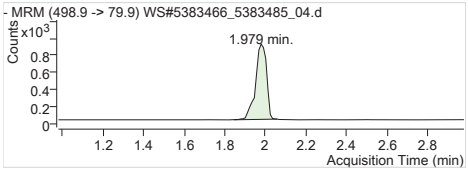


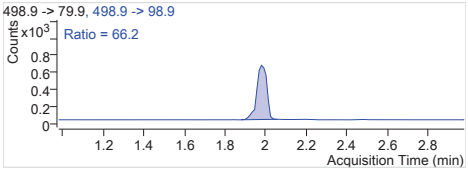
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 4.55 µg/L
Area ratio: 1.83823
Sample type: Calibration



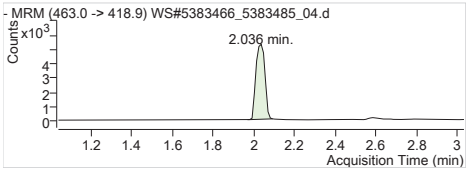


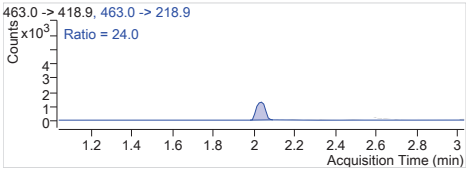
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 4.82 µg/L
Area ratio: 1.97999
Sample type: Calibration



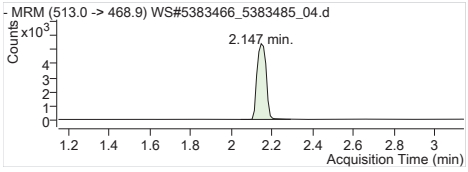


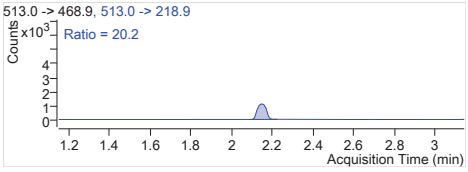
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 4.87 µg/L
Area ratio: 1.65915
Sample type: Calibration



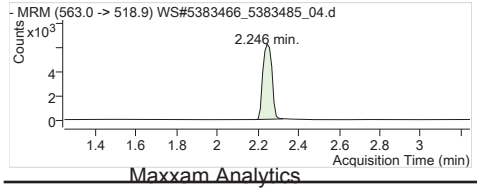


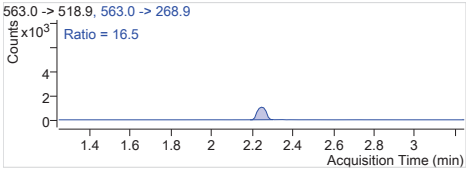
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 4.95 µg/L
Area ratio: 1.81821
Sample type: Calibration



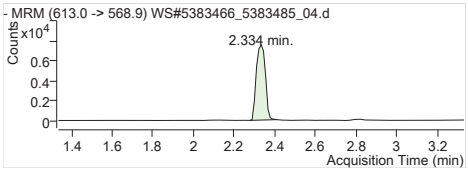


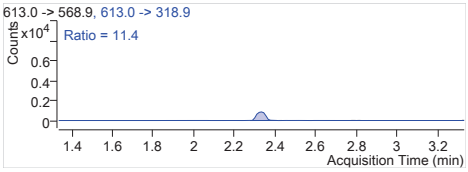
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 4.92 µg/L
Area ratio: 2.28114
Sample type: Calibration



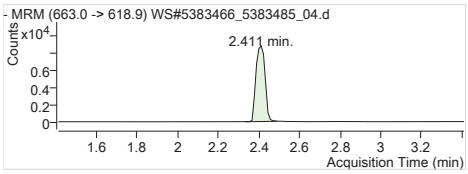


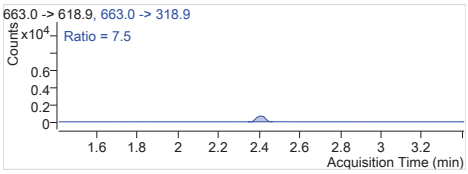
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 5.32 µg/L
Area ratio: 2.25418
Sample type: Calibration



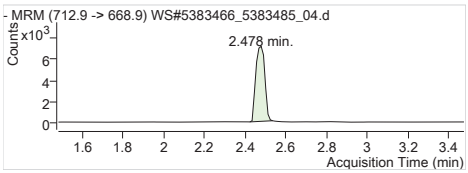


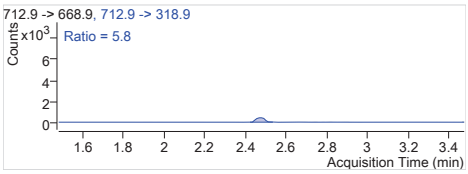
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 5.11 µg/L
Area ratio: 2.04830
Sample type: Calibration



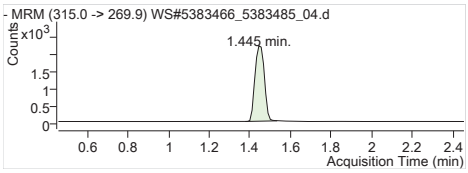


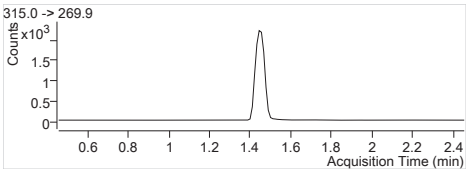
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 5.05 µg/L
Area ratio: 2.07461
Sample type: Calibration



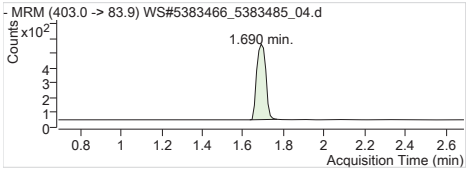


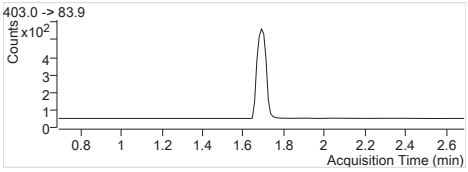
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 4.89 µg/L
Area ratio: 1.67353
Sample type: Calibration



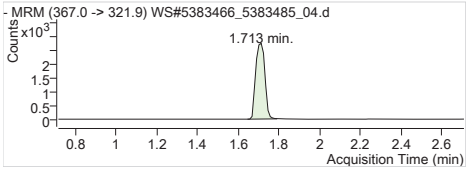


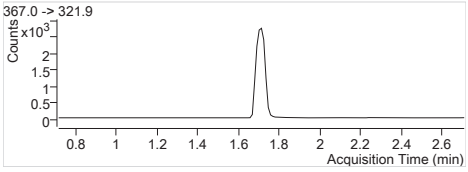
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 100.18 µg/L
Area ratio: 0.23736
Sample type: Calibration



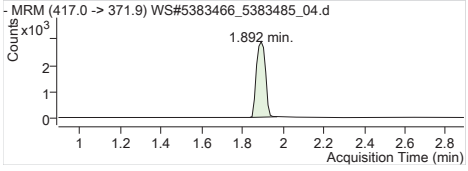


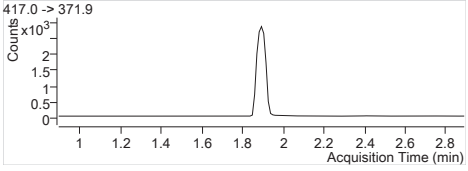
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 93.87 µg/L
Area ratio: 0.05455
Sample type: Calibration



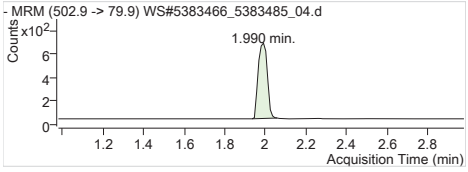


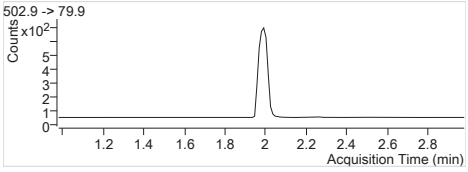
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 99.74 µg/L
Area ratio: 0.29139
Sample type: Calibration



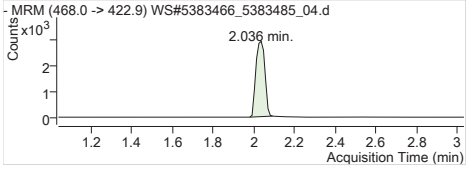


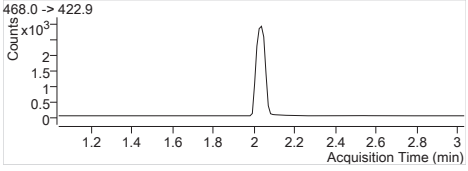
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 94.68 µg/L
Area ratio: 0.29721
Sample type: Calibration



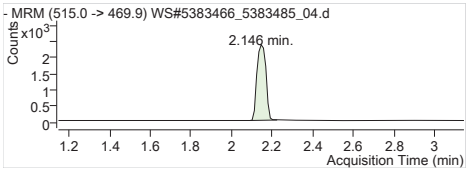


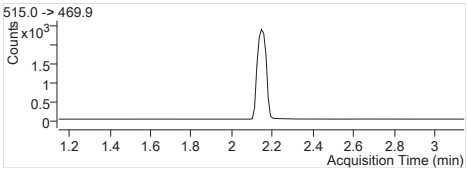
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 98.23 µg/L
Area ratio: 0.06780
Sample type: Calibration



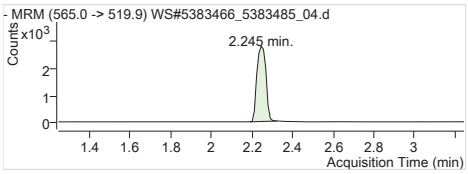


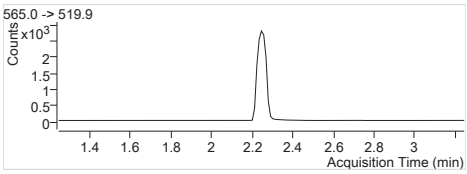
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 97.30 µg/L
Area ratio: 0.30094
Sample type: Calibration



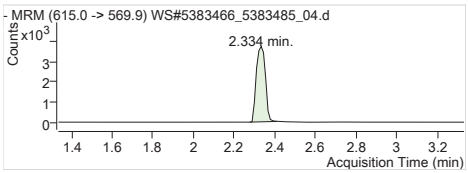


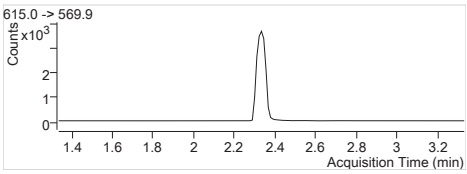
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 97.75 µg/L
Area ratio: 0.19616
Sample type: Calibration



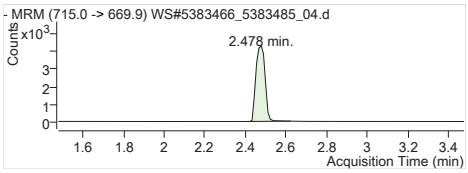


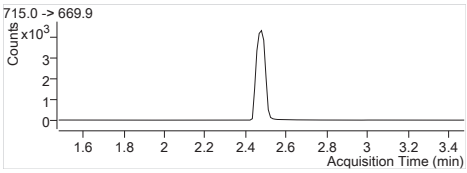
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 94.94 µg/L
Area ratio: 0.22963
Sample type: Calibration



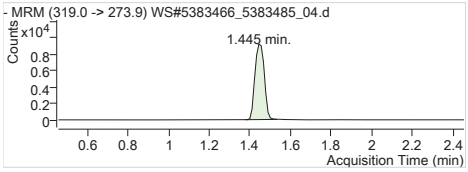


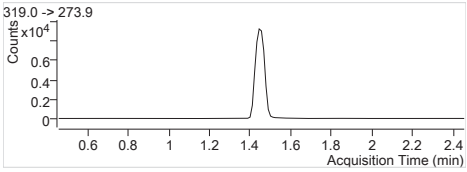
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 95.54 µg/L
Area ratio: 0.30756
Sample type: Calibration



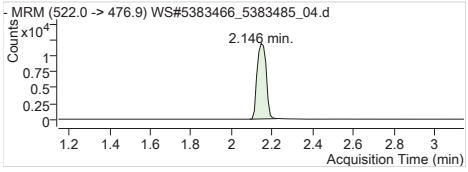


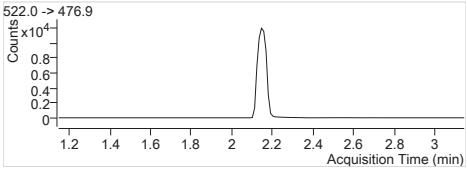
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 98.84 µg/L
Area ratio: 0.36252
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 103.50 µg/L
Area ratio: 0
Sample type: Calibration





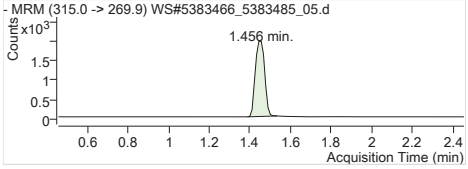
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 103.30 µg/L
Area ratio: 0
Sample type: Calibration

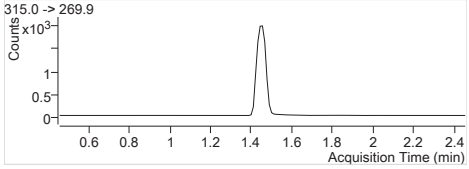
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/06 6:26:36 PM	**Injection Volume**	Per Method
Sample Annotation	-		

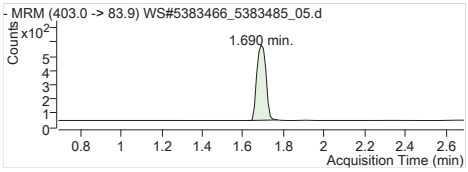
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6243	1.46	1 µg/L		
MPFHxS	1661	1.69	1 µg/L		
MPFHpA	8024	1.71	1 µg/L		
MPFOA	9155	1.89	1 µg/L		
MPFOS	1938	1.98	1 µg/L		
MPFNA	8771	2.04	1 µg/L		
MPFDA	6833	2.15	1 µg/L		
MPFUnA	8424	2.25	1 µg/L		
MPFDoA	11550	2.33	1 µg/L		
MPFTeDA	12631	2.48	1 µg/L		
13C6-PFHxA IS	28147	1.46	1 µg/L		
13C9-PFDA IS	35314	2.15	1 µg/L		

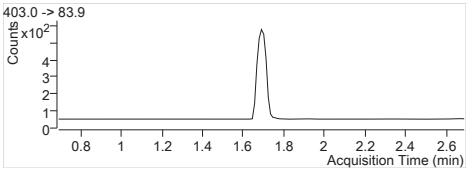
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7910	1.11	12.50	10.92 µg/L	87.38
PFHxA 1	29220	1.46	12.50	11.87 µg/L	94.99
PFHxS 1	7832	1.69	12.50	10.80 µg/L	86.37
PFHpA 1	38005	1.71	12.50	11.43 µg/L	91.43
PFOA 1	42523	1.89	12.50	11.06 µg/L	88.50
PFOS 1	7727	1.98	12.50	11.63 µg/L	93.05
PFNA 1	37466	2.04	12.50	11.49 µg/L	91.94
PFDA 1	39281	2.15	12.50	12.26 µg/L	98.10
PFUnA 1	42745	2.25	12.50	11.98 µg/L	95.83
PFDoA 1	54842	2.33	12.50	11.67 µg/L	93.40
PFTrDA 1	61125	2.41	12.50	11.72 µg/L	93.76
PFTeDA 1	50660	2.48	12.50	11.67 µg/L	93.35
13C2-PFHxA	6243	1.46	100.00	93.61 µg/L	93.61
18O2-PFHxS	1661	1.69	100.00	101.55 µg/L	101.55
13C4-PFHpA	8024	1.71	100.00	97.58 µg/L	97.58
13C4-PFOA	9155	1.89	100.00	103.62 µg/L	103.62
13C4-PFOS	1938	1.98	100.00	99.75 µg/L	99.75
13C5-PFNA	8771	2.04	100.00	100.75 µg/L	100.75
13C2-PFDA	6743	2.15	100.00	95.15 µg/L	95.15
13C2-PFUnA	8424	2.25	100.00	98.62 µg/L	98.62
13C2-PFDoA	11550	2.33	100.00	101.60 µg/L	101.60
13C2-PFTeDA	12873	2.48	100.00	99.38 µg/L	99.38
13C6-PFHxA	28147	1.46	100.00	99.01 µg/L	99.01
13C9-PFDA	35314	2.15	100.00	98.72 µg/L	98.72



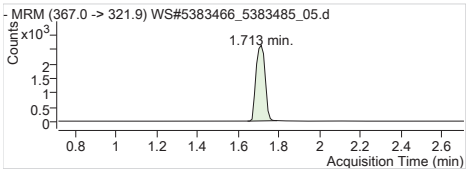


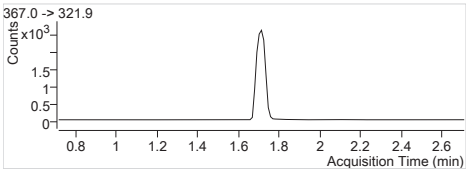
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Calibration



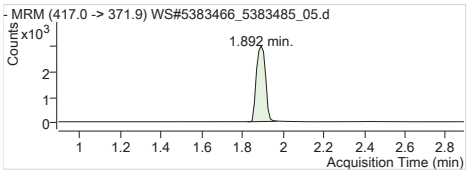


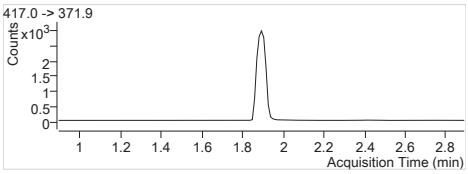
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



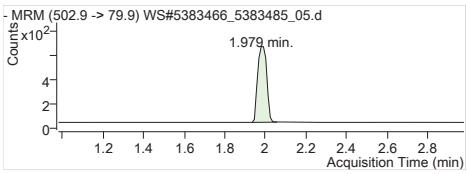


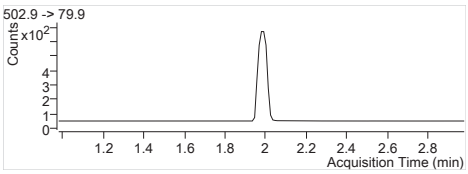
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



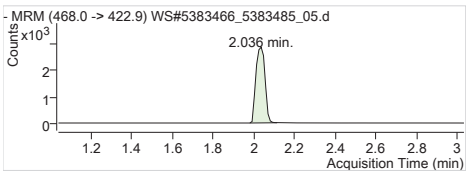


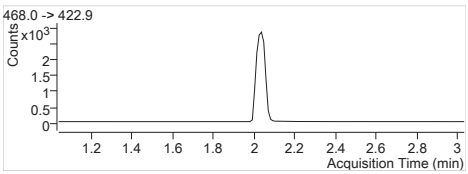
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



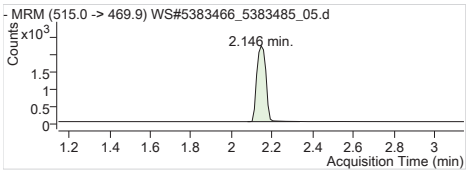


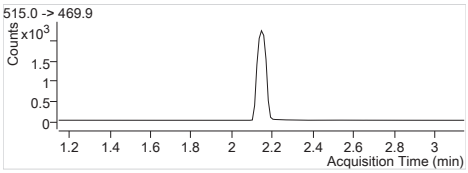
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



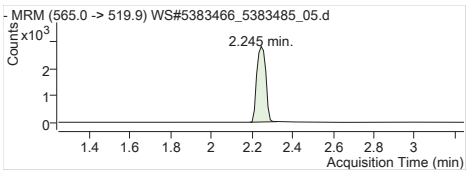


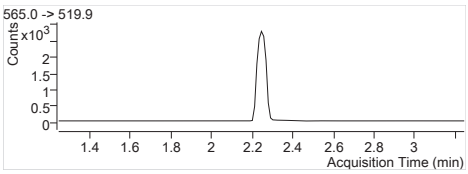
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



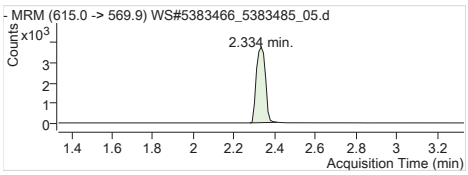


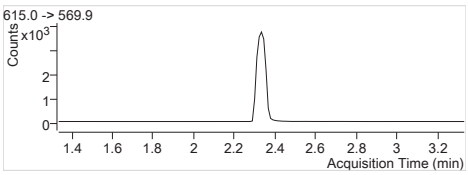
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



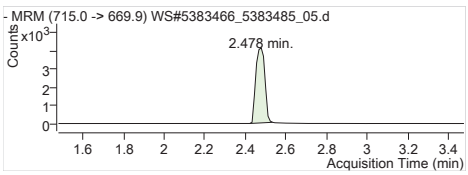


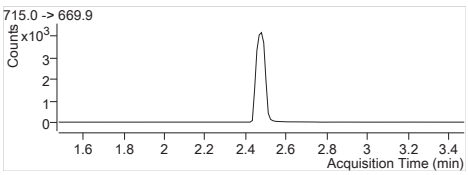
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



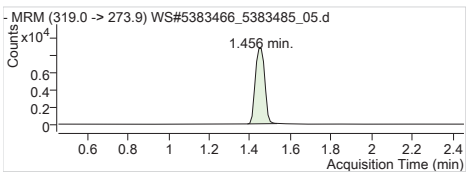


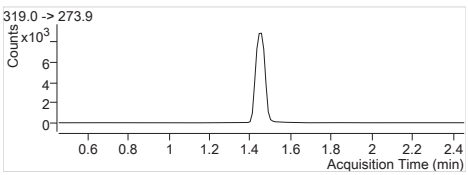
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Calibration



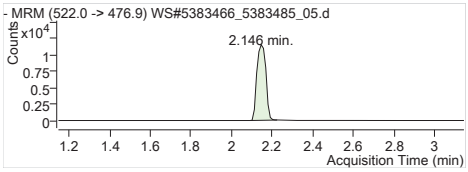


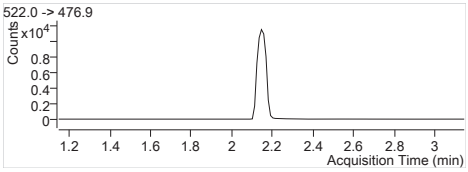
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



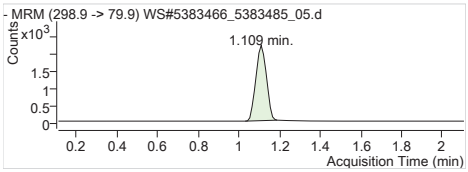


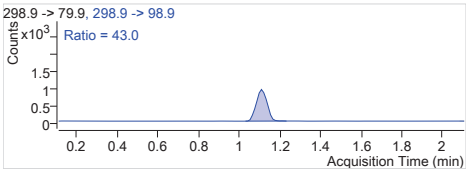
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



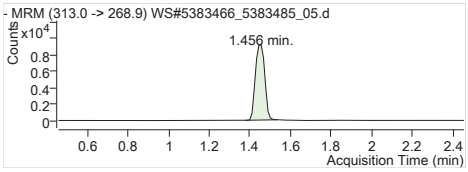


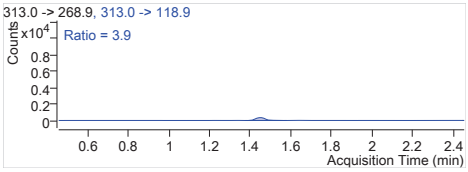
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



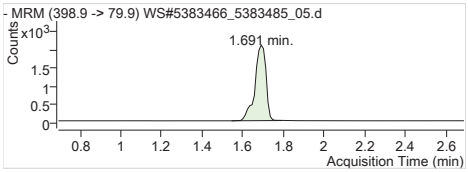


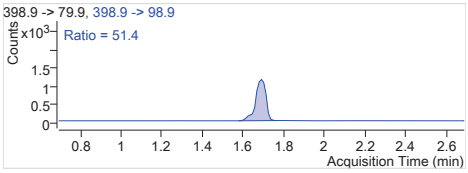
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 10.92 µg/L
Area ratio: 4.76219
Sample type: Calibration



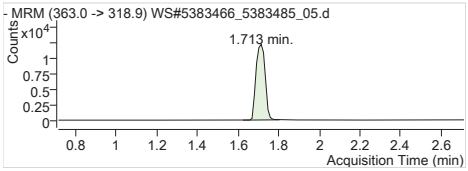


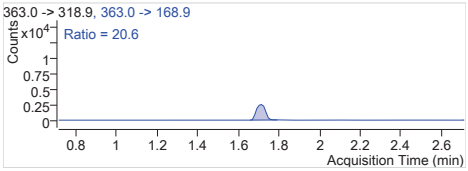
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 11.87 µg/L
Area ratio: 4.68044
Sample type: Calibration



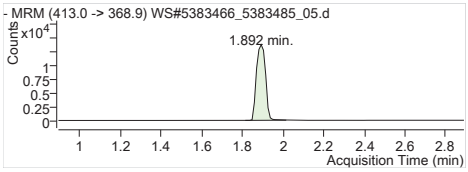


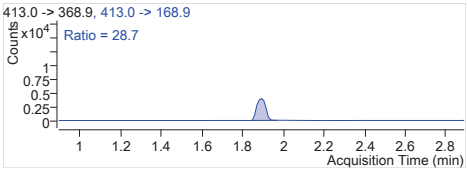
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 10.80 µg/L
Area ratio: 4.71523
Sample type: Calibration



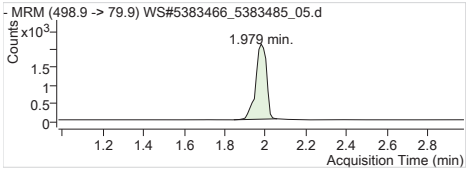


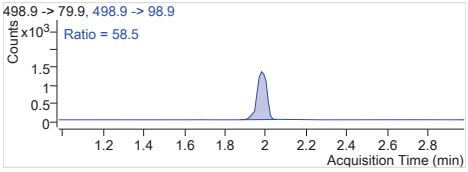
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 11.43 µg/L
Area ratio: 4.73642
Sample type: Calibration



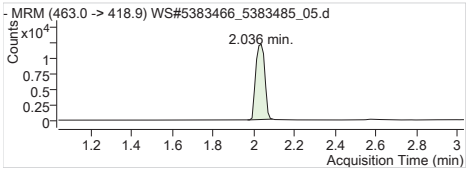


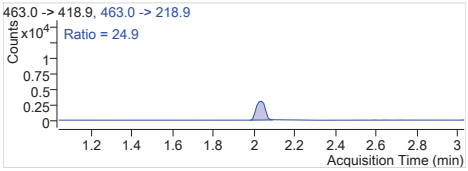
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 11.06 µg/L
Area ratio: 4.64478
Sample type: Calibration



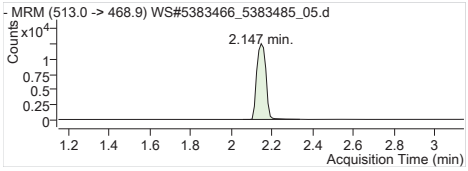


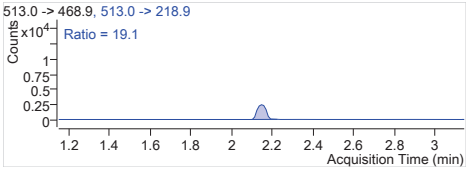
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 11.63 µg/L
Area ratio: 3.98710
Sample type: Calibration



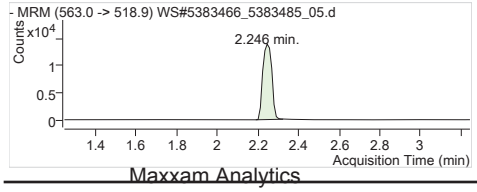


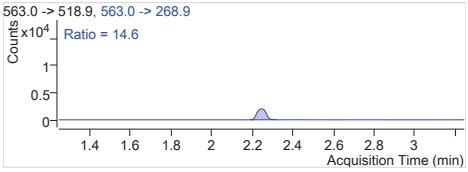
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 11.49 µg/L
Area ratio: 4.27158
Sample type: Calibration



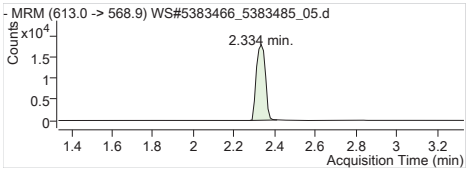


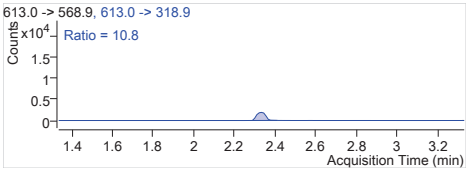
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 12.26 µg/L
Area ratio: 5.74872
Sample type: Calibration



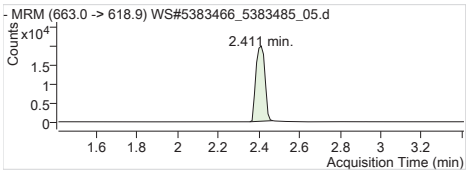


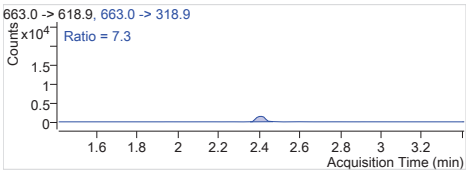
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 11.98 µg/L
Area ratio: 5.07419
Sample type: Calibration



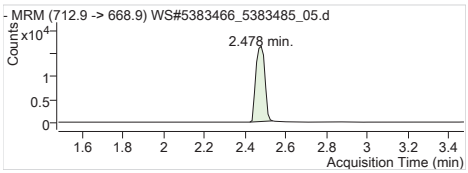


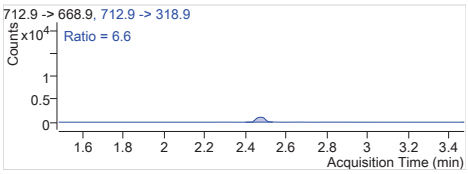
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 11.67 µg/L
Area ratio: 4.74823
Sample type: Calibration



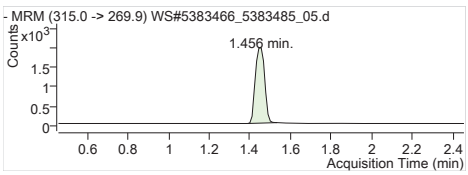


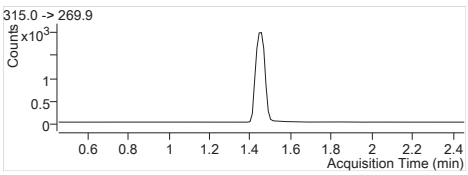
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 11.72 µg/L
Area ratio: 4.83928
Sample type: Calibration



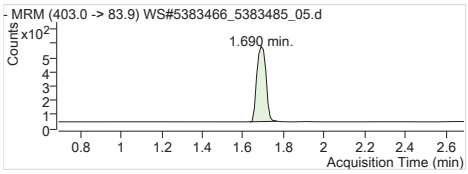


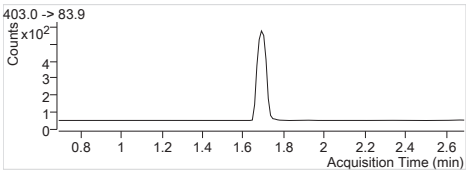
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 11.67 µg/L
Area ratio: 4.01077
Sample type: Calibration



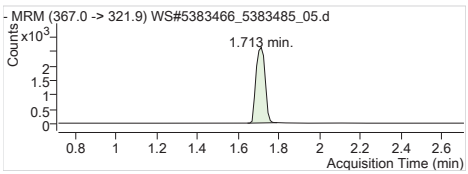


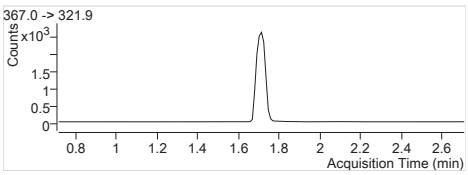
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 93.61 µg/L
Area ratio: 0.22180
Sample type: Calibration



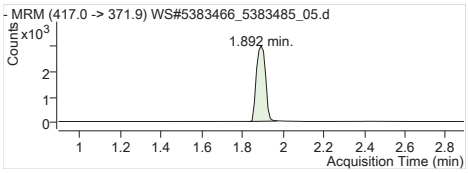


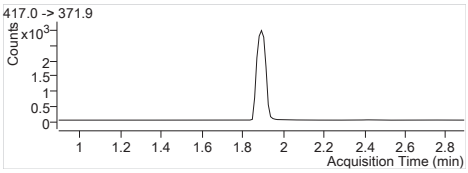
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 101.55 µg/L
Area ratio: 0.05901
Sample type: Calibration



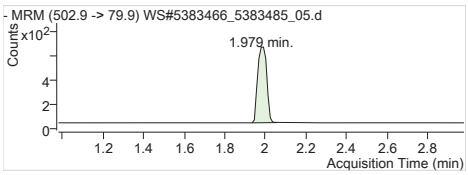


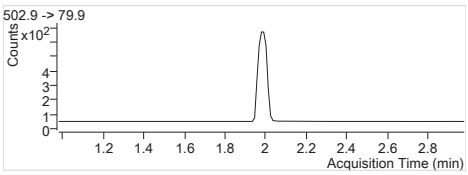
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 97.58 µg/L
Area ratio: 0.28507
Sample type: Calibration



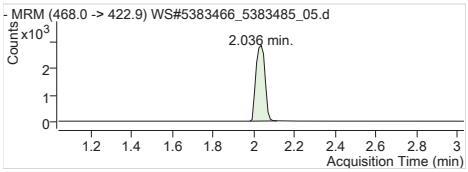


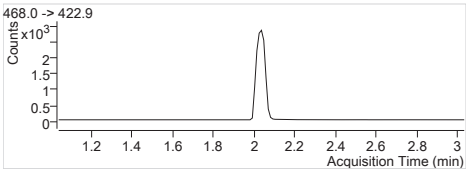
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 103.62 µg/L
Area ratio: 0.32526
Sample type: Calibration



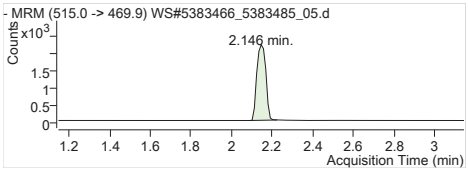


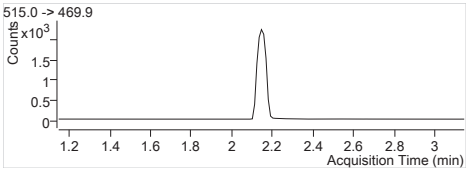
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 99.75 µg/L
Area ratio: 0.06885
Sample type: Calibration



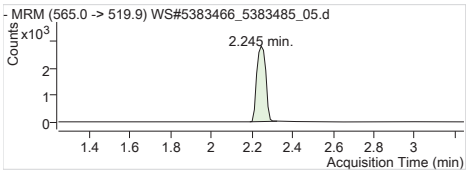


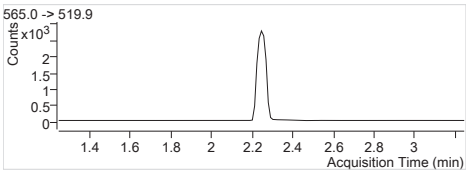
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 100.75 µg/L
Area ratio: 0.31161
Sample type: Calibration



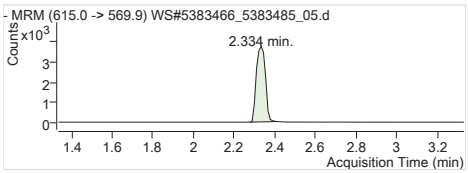


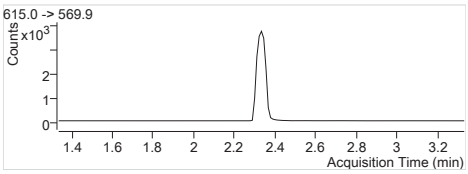
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 95.15 µg/L
Area ratio: 0.19094
Sample type: Calibration



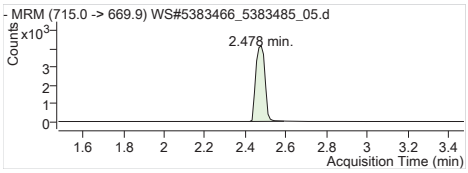


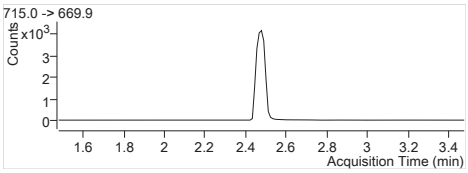
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 98.62 µg/L
Area ratio: 0.23855
Sample type: Calibration



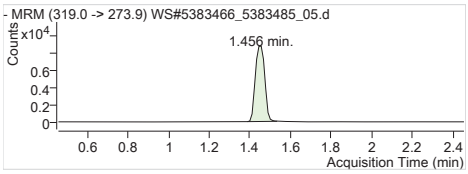


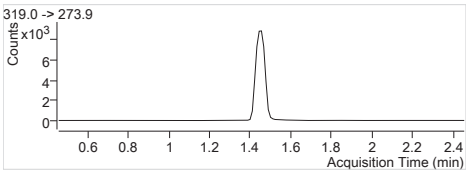
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 101.60 µg/L
Area ratio: 0.32707
Sample type: Calibration



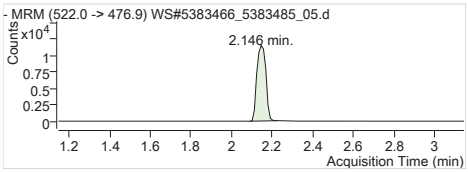


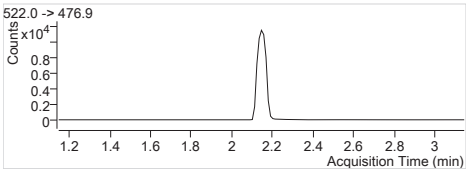
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 99.38 µg/L
Area ratio: 0.36453
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 99.01 µg/L
Area ratio: 0
Sample type: Calibration





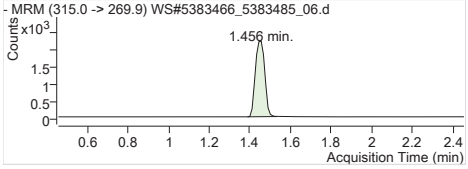
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 98.72 µg/L
Area ratio: 0
Sample type: Calibration

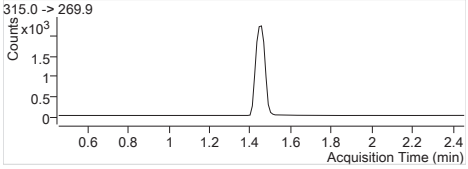
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A6
Acq. Date	2018/02/06 6:31:33 PM	**Injection Volume**	Per Method
Sample Annotation	-		

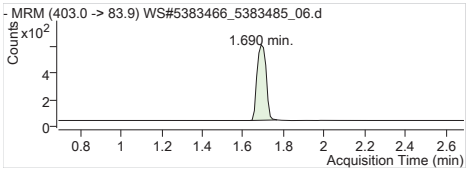
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7067	1.46	1 µg/L		
MPFHxS	1740	1.69	1 µg/L		
MPFHpA	7902	1.71	1 µg/L		
MPFOA	9039	1.89	1 µg/L		
MPFOS	2042	1.99	1 µg/L		
MPFNA	8933	2.04	1 µg/L		
MPFDA	7276	2.15	1 µg/L		
MPFUnA	8922	2.25	1 µg/L		
MPFDoA	11545	2.33	1 µg/L		
MPFTeDA	12948	2.48	1 µg/L		
13C6-PFHxA IS	29859	1.46	1 µg/L		
13C9-PFDA IS	36873	2.15	1 µg/L		

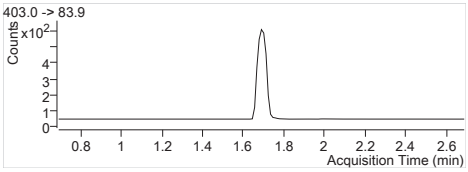
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	18029	1.11	25.00	23.59 µg/L	94.36
PFHxA 1	67616	1.45	25.00	23.94 µg/L	95.75
PFHxS 1	17949	1.69	25.00	23.32 µg/L	93.28
PFHpA 1	87578	1.71	25.00	26.49 µg/L	105.94
PFOA 1	94546	1.89	25.00	24.69 µg/L	98.75
PFOS 1	17307	1.98	25.00	24.66 µg/L	98.64
PFNA 1	84183	2.04	25.00	25.23 µg/L	100.91
PFDA 1	87430	2.15	25.00	25.54 µg/L	102.15
PFUnA 1	96084	2.25	25.00	25.43 µg/L	101.73
PFDoA 1	122186	2.33	25.00	25.87 µg/L	103.48
PFTrDA 1	138442	2.41	25.00	25.85 µg/L	103.40
PFTeDA 1	117482	2.48	25.00	26.34 µg/L	105.38
13C2-PFHxA	7067	1.46	100.00	99.89 µg/L	99.89
18O2-PFHxS	1740	1.69	100.00	100.28 µg/L	100.28
13C4-PFHpA	7902	1.71	100.00	90.59 µg/L	90.59
13C4-PFOA	9039	1.89	100.00	96.44 µg/L	96.44
13C4-PFOS	2042	1.99	100.00	99.08 µg/L	99.08
13C5-PFNA	8933	2.04	100.00	96.73 µg/L	96.73
13C2-PFDA	7229	2.15	100.00	97.70 µg/L	97.70
13C2-PFUnA	8922	2.25	100.00	100.04 µg/L	100.04
13C2-PFDoA	11545	2.33	100.00	97.26 µg/L	97.26
13C2-PFTeDA	13153	2.48	100.00	97.25 µg/L	97.25
13C6-PFHxA	29859	1.46	100.00	105.03 µg/L	105.03
13C9-PFDA	36873	2.15	100.00	103.07 µg/L	103.07



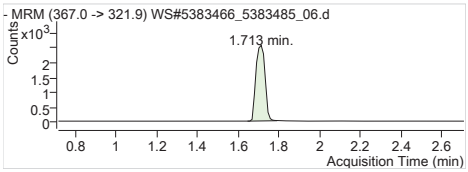


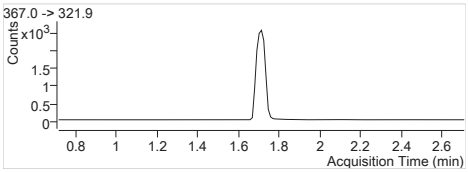
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	Calibration



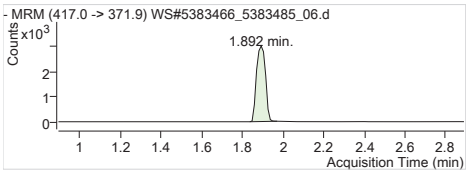


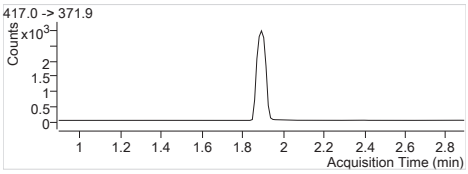
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



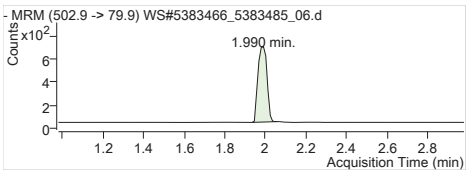


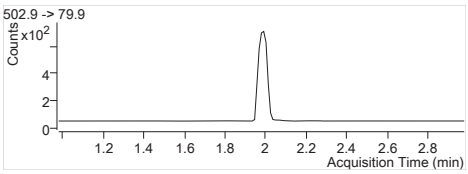
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



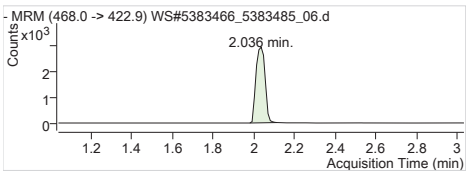


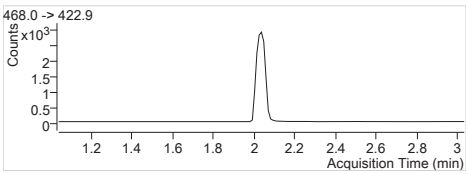
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



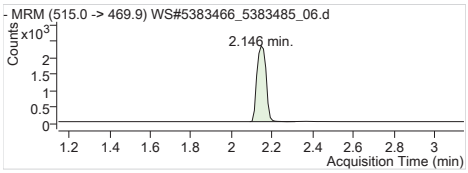


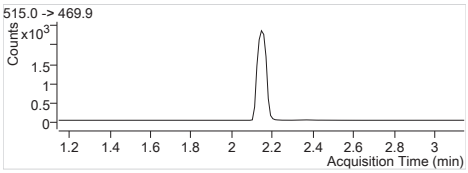
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



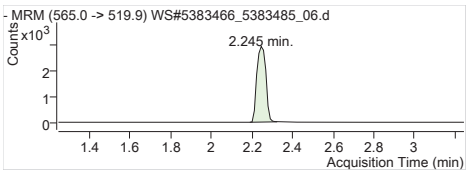


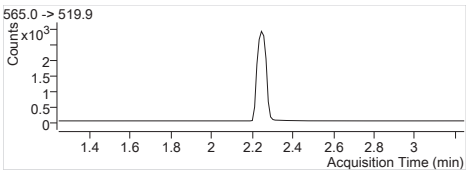
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



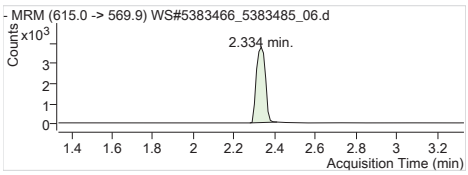


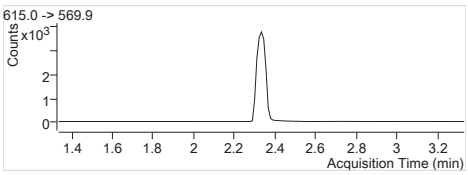
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



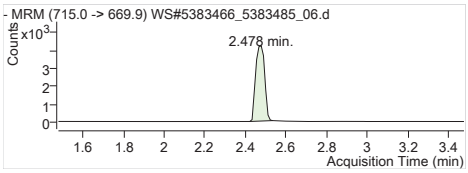


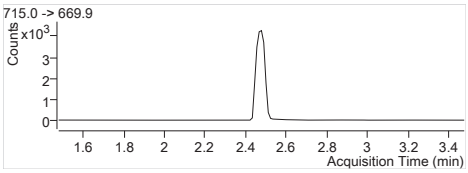
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



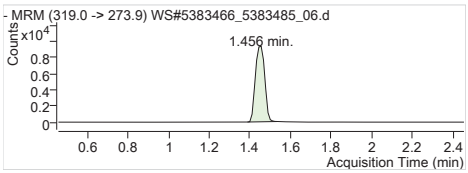


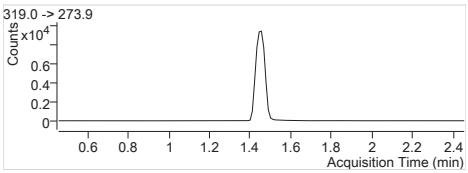
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Calibration



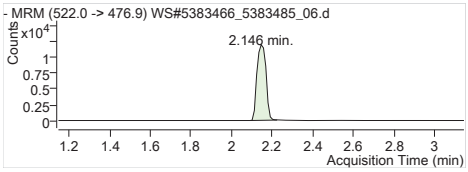


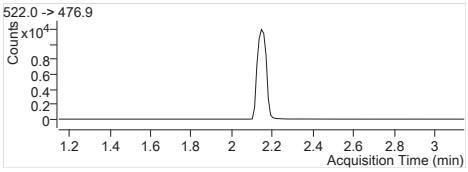
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



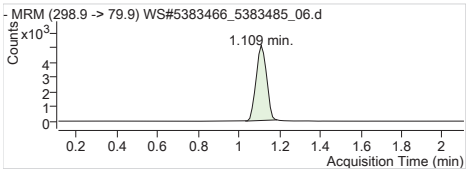


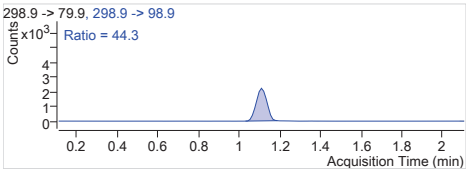
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



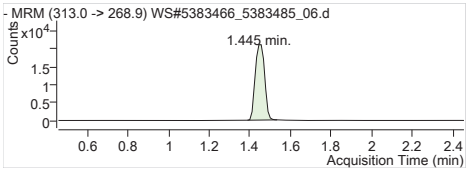


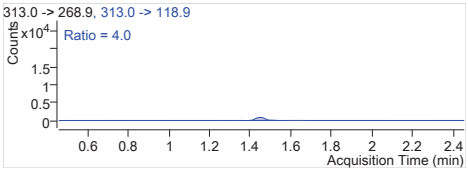
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



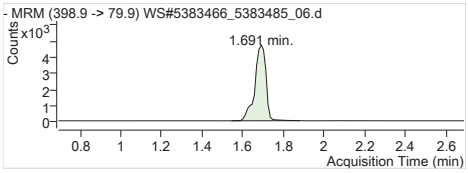


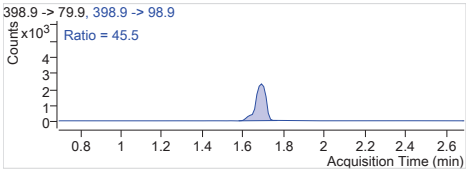
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 23.59 µg/L
Area ratio: 10.36149
Sample type: Calibration



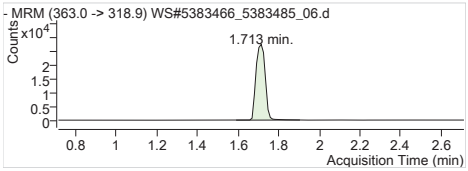


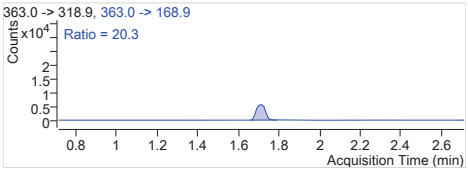
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 23.94 µg/L
Area ratio: 9.56785
Sample type: Calibration



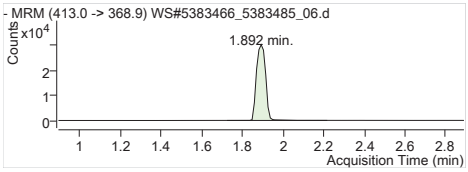


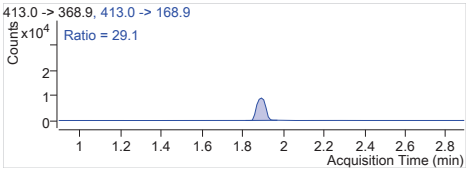
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 23.32 µg/L
Area ratio: 10.31552
Sample type: Calibration



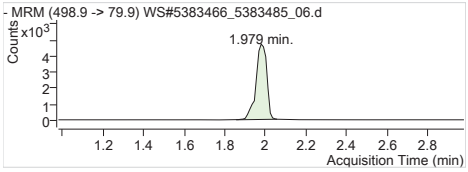


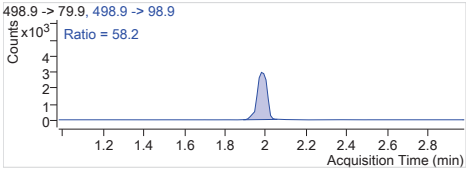
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 26.49 µg/L
Area ratio: 11.08302
Sample type: Calibration



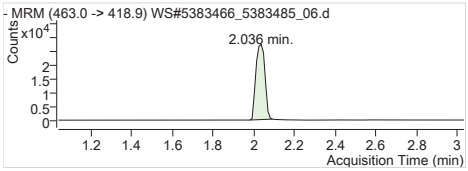


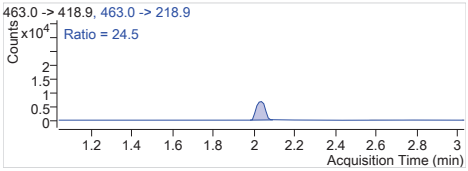
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 24.69 µg/L
Area ratio: 10.45979
Sample type: Calibration



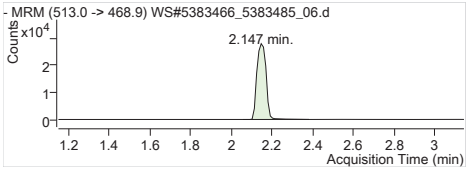


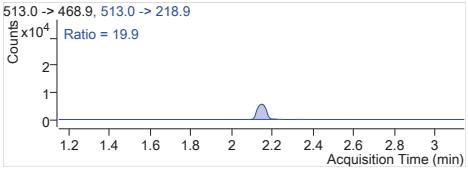
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 24.66 µg/L
Area ratio: 8.47551
Sample type: Calibration



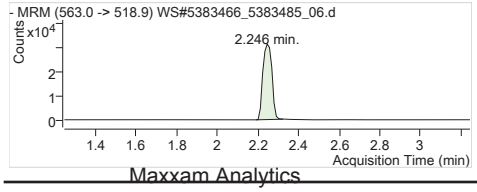


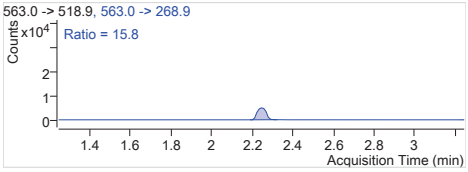
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 25.23 µg/L
Area ratio: 9.42382
Sample type: Calibration



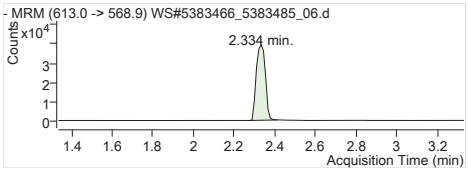


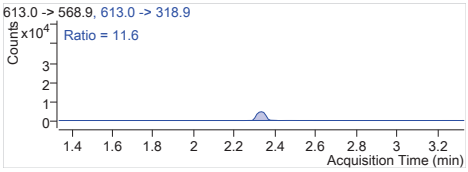
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 25.54 µg/L
Area ratio: 12.01622
Sample type: Calibration



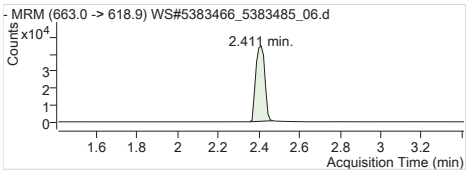


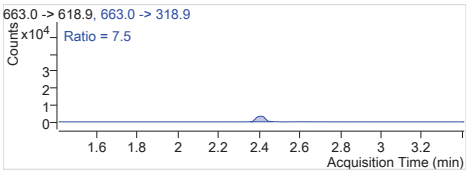
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 25.43 µg/L
Area ratio: 10.76933
Sample type: Calibration



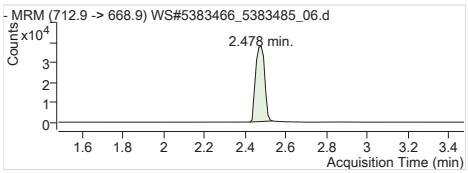


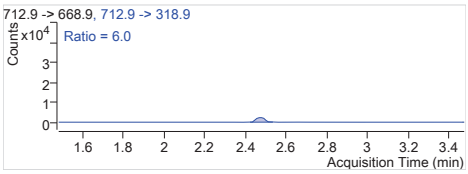
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.334 (2.334)
Calc. conc.	25.87 µg/L
Area ratio:	10.58346
Sample type:	Calibration



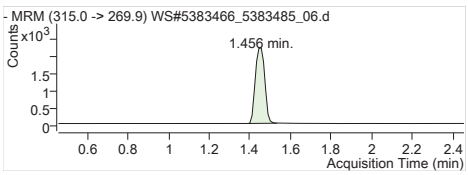


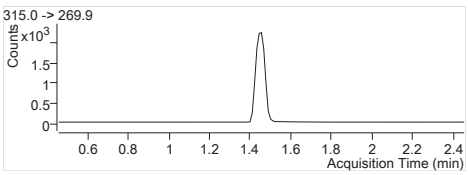
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.411 (2.411)
Calc. conc.	25.85 µg/L
Area ratio:	10.69215
Sample type:	Calibration



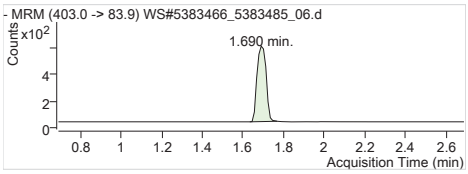


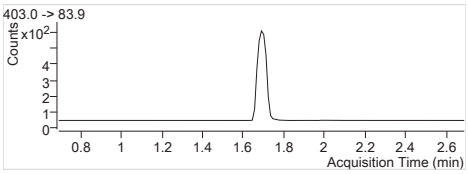
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.478 (2.478)
Calc. conc.	26.34 µg/L
Area ratio:	9.07337
Sample type:	Calibration



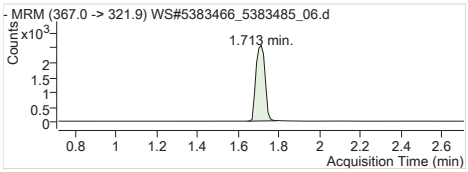


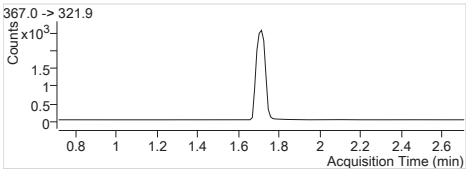
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	99.89 µg/L
Area ratio:	0.23668
Sample type:	Calibration



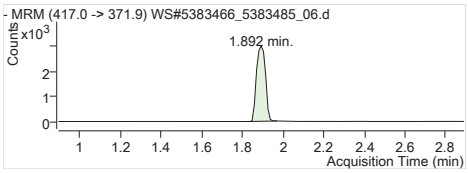


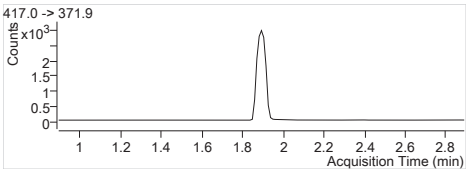
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	100.28 µg/L
Area ratio:	0.05827
Sample type:	Calibration



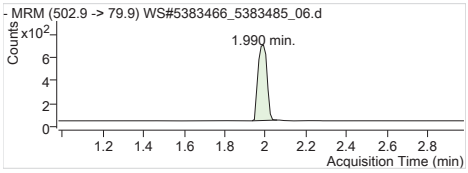


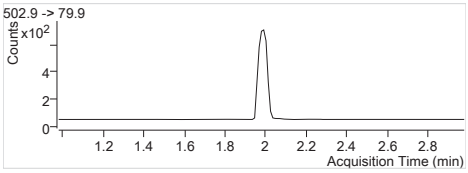
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	90.59 µg/L
Area ratio:	0.26464
Sample type:	Calibration



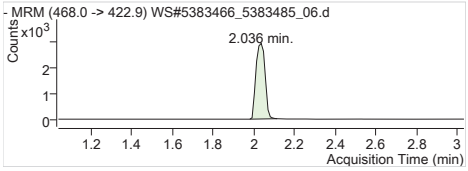


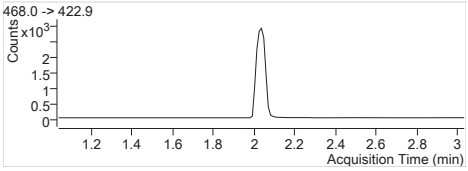
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	96.44 µg/L
Area ratio:	0.30272
Sample type:	Calibration



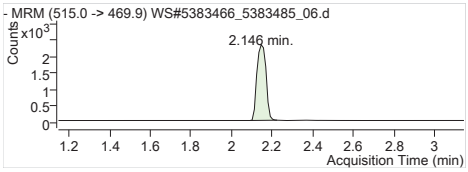


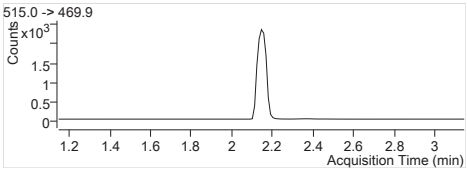
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	99.08 µg/L
Area ratio:	0.06839
Sample type:	Calibration



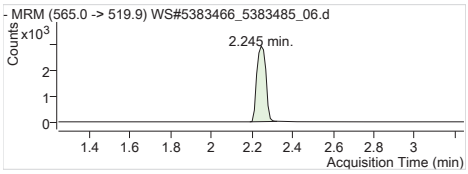


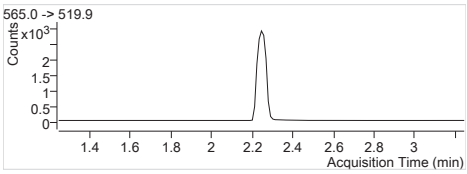
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	96.73 µg/L
Area ratio:	0.29917
Sample type:	Calibration



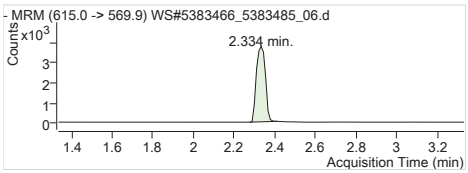


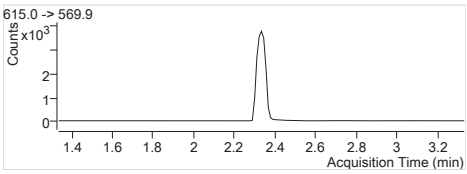
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 97.70 µg/L
Area ratio: 0.19605
Sample type: Calibration



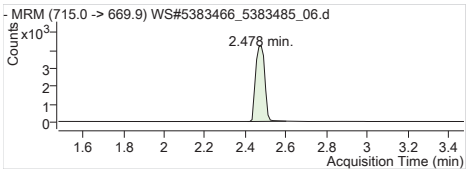


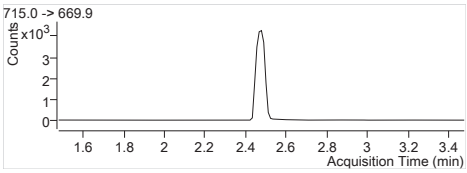
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 100.04 µg/L
Area ratio: 0.24197
Sample type: Calibration



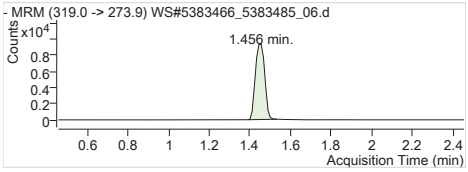


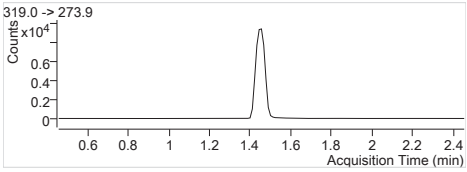
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 97.26 µg/L
Area ratio: 0.31310
Sample type: Calibration



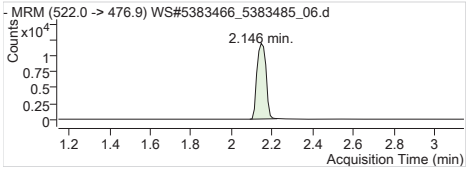


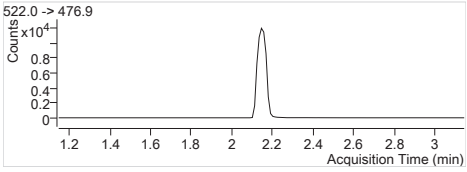
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 97.25 µg/L
Area ratio: 0.35671
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 105.03 µg/L
Area ratio: 0
Sample type: Calibration





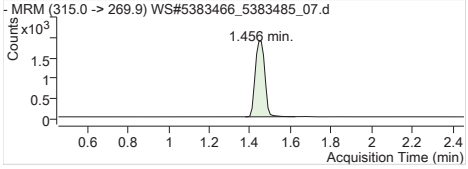
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 103.07 µg/L
Area ratio: 0
Sample type: Calibration

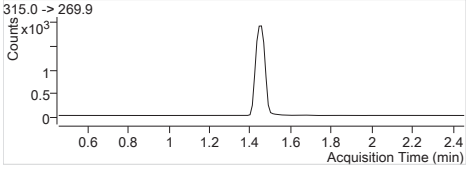
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A7
Acq. Date	2018/02/06 6:36:29 PM	**Injection Volume**	Per Method
Sample Annotation	-		

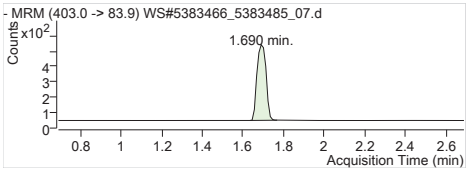
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6099	1.46	1 µg/L		
MPFHxS	1532	1.69	1 µg/L		
MPFHpA	8269	1.71	1 µg/L		
MPFOA	8383	1.89	1 µg/L		
MPFOS	2017	1.99	1 µg/L		
MPFNA	8652	2.04	1 µg/L		
MPFDA	7210	2.15	1 µg/L		
MPFUnA	8626	2.25	1 µg/L		
MPFDoA	10899	2.33	1 µg/L		
MPFTeDA	13063	2.48	1 µg/L		
13C6-PFHxA IS	29422	1.46	1 µg/L		
13C9-PFDA IS	35570	2.15	1 µg/L		

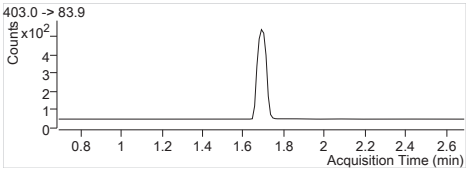
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	30068	1.11	41.70	44.55 µg/L	106.85
PFHxA 1	107039	1.46	41.70	43.64 µg/L	104.65
PFHxS 1	30772	1.69	41.70	45.17 µg/L	108.32
PFHpA 1	144581	1.71	41.70	41.67 µg/L	99.93
PFOA 1	154971	1.89	41.70	43.49 µg/L	104.30
PFOS 1	29880	1.98	41.70	43.06 µg/L	103.25
PFNA 1	137494	2.04	41.70	42.47 µg/L	101.85
PFDA 1	147759	2.15	41.70	43.49 µg/L	104.29
PFUnA 1	162248	2.25	41.70	44.42 µg/L	106.53
PFDoA 1	206576	2.33	41.70	46.23 µg/L	110.87
PFTrDA 1	231782	2.41	41.70	42.87 µg/L	102.82
PFTeDA 1	192586	2.48	41.70	42.78 µg/L	102.59
13C2-PFHxA	6099	1.46	100.00	87.49 µg/L	87.49
18O2-PFHxS	1532	1.69	100.00	89.61 µg/L	89.61
13C4-PFHpA	8269	1.71	100.00	96.20 µg/L	96.20
13C4-PFOA	8383	1.89	100.00	90.77 µg/L	90.77
13C4-PFOS	2017	1.99	100.00	99.32 µg/L	99.32
13C5-PFNA	8578	2.04	100.00	94.26 µg/L	94.26
13C2-PFDA	7078	2.15	100.00	99.16 µg/L	99.16
13C2-PFUnA	8626	2.25	100.00	100.26 µg/L	100.26
13C2-PFDoA	10899	2.33	100.00	95.18 µg/L	95.18
13C2-PFTeDA	13464	2.48	100.00	103.20 µg/L	103.20
13C6-PFHxA	29422	1.46	100.00	103.49 µg/L	103.49
13C9-PFDA	35570	2.15	100.00	99.43 µg/L	99.43



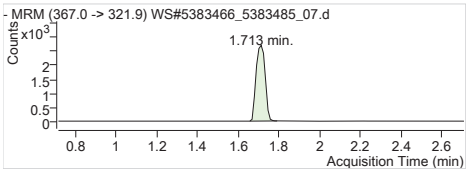


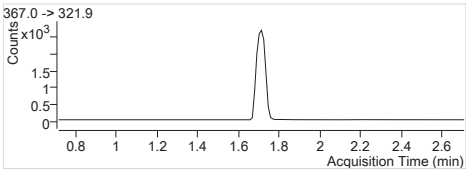
MPFHxA Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



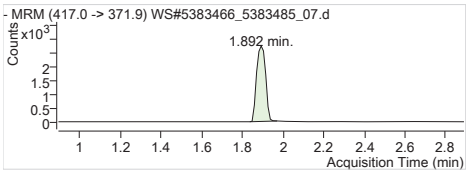


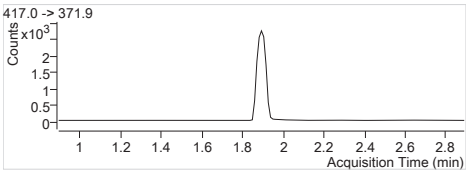
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



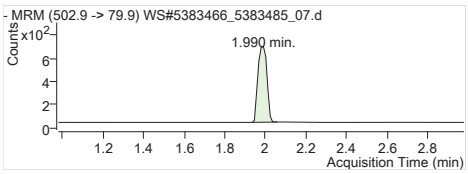


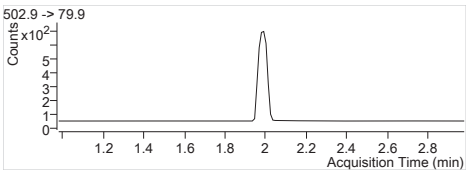
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: Calibration



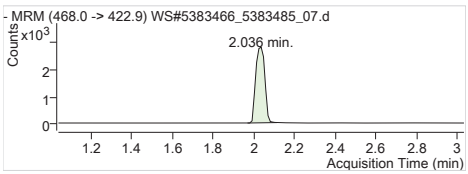


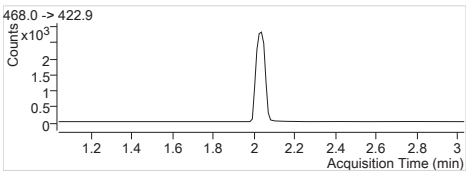
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: Calibration



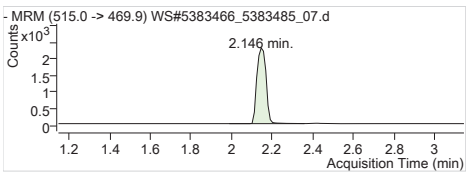


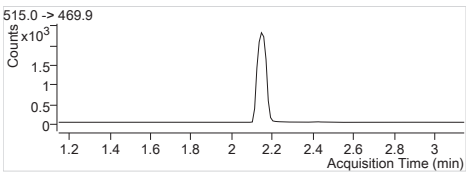
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



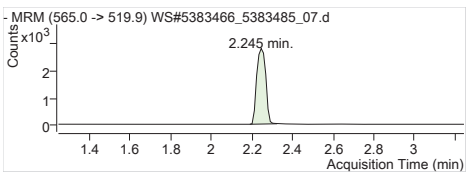


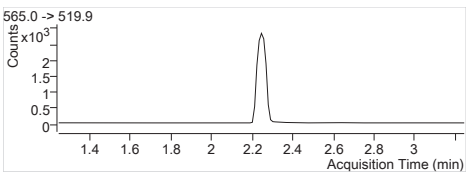
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: Calibration



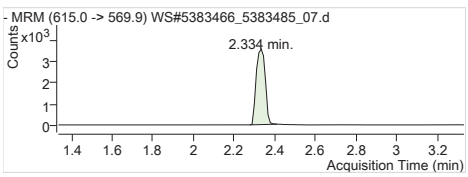


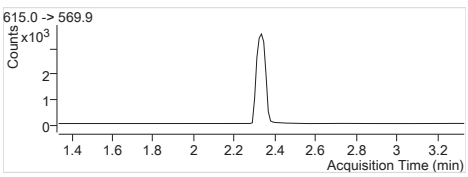
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



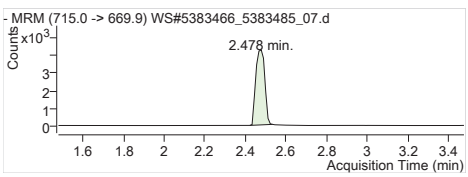


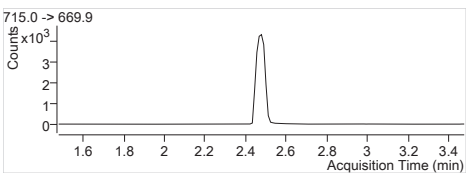
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



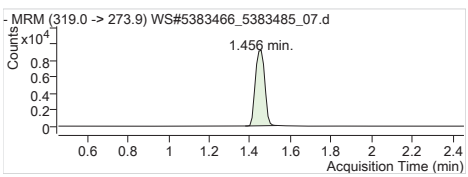


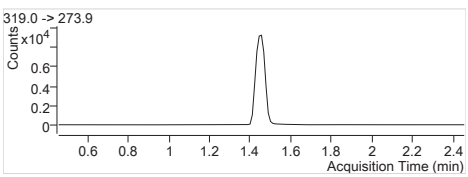
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: Calibration



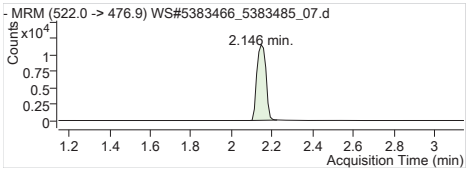


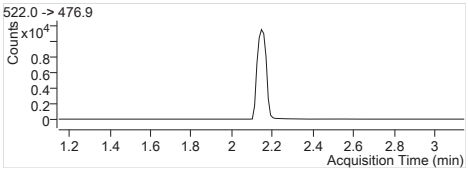
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: Calibration



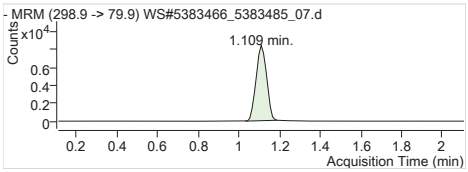


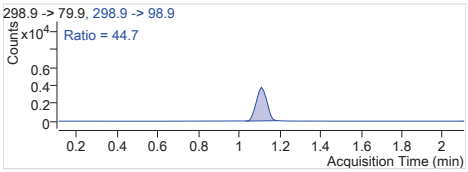
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: Calibration



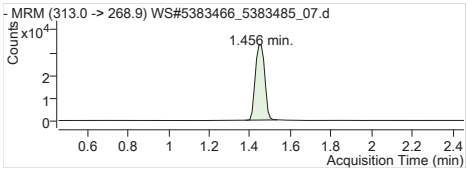


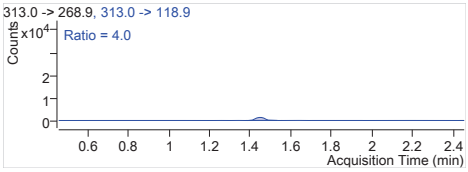
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



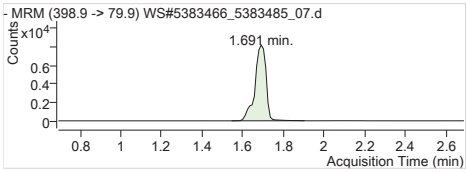


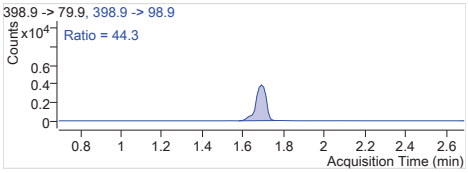
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 44.55 µg/L
Area ratio: 19.62663
Sample type: Calibration



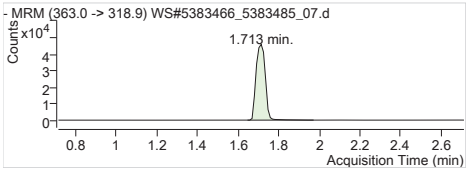


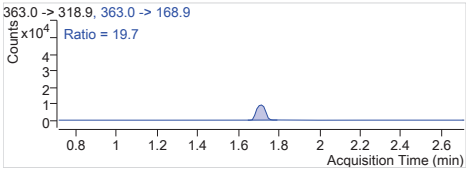
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 43.64 µg/L
Area ratio: 17.55025
Sample type: Calibration



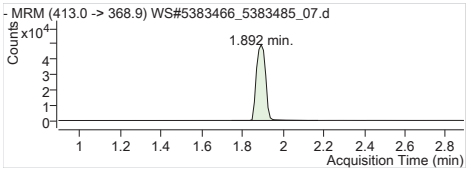


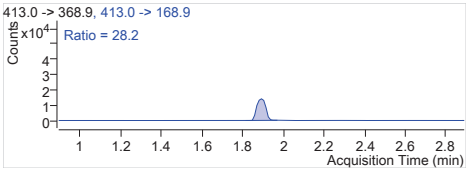
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 45.17 µg/L
Area ratio: 20.08616
Sample type: Calibration



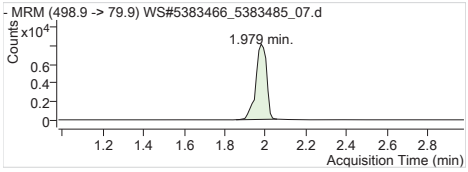


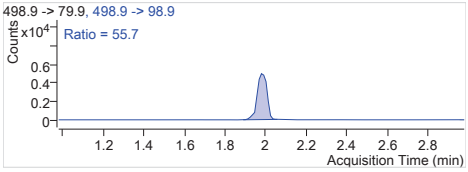
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 41.67 µg/L
Area ratio: 17.48470
Sample type: Calibration



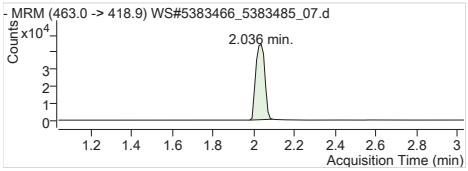


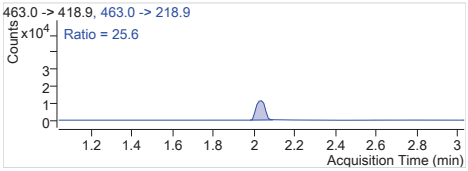
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 43.49 µg/L
Area ratio: 18.48634
Sample type: Calibration



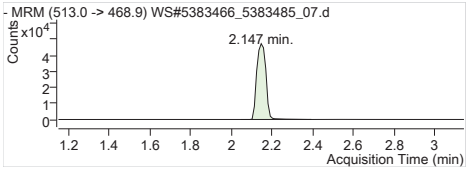


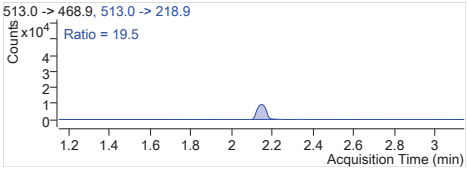
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 43.06 µg/L
Area ratio: 14.81408
Sample type: Calibration



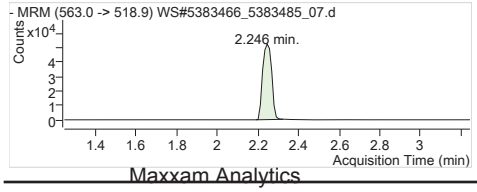


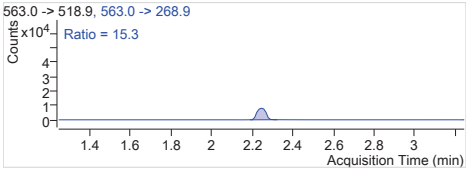
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 42.47 µg/L
Area ratio: 15.89159
Sample type: Calibration



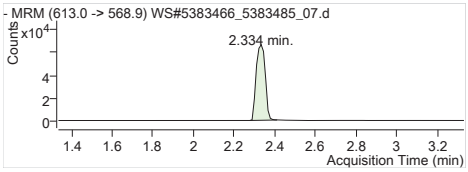


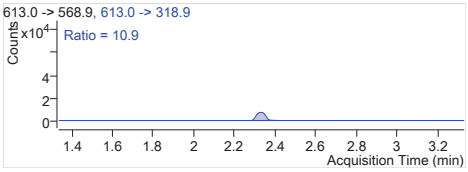
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 43.49 µg/L
Area ratio: 20.49362
Sample type: Calibration



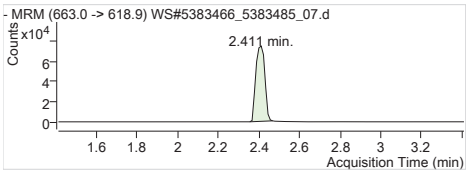


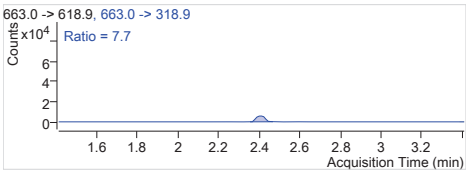
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 44.42 µg/L
Area ratio: 18.80918
Sample type: Calibration



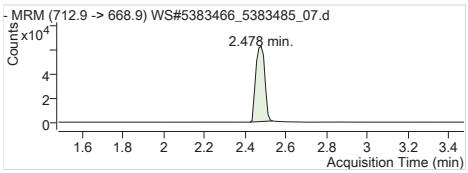


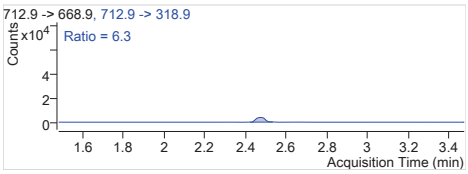
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.334 (2.334)
Calc. conc.	46.23 µg/L
Area ratio:	18.95367
Sample type:	Calibration



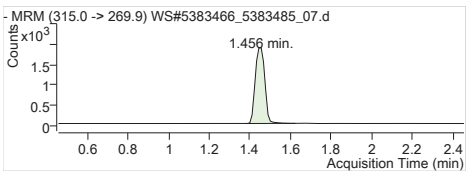


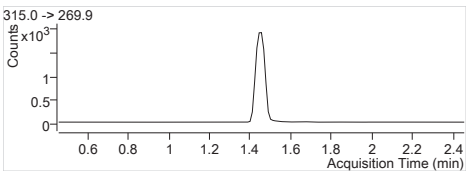
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.411 (2.411)
Calc. conc.	42.87 µg/L
Area ratio:	17.74340
Sample type:	Calibration



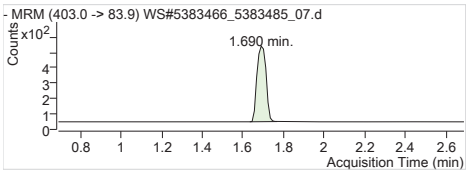


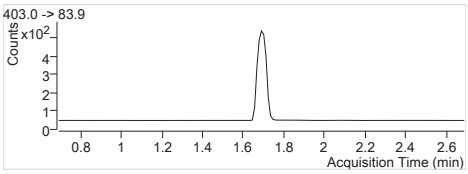
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.478 (2.478)
Calc. conc.	42.78 µg/L
Area ratio:	14.74286
Sample type:	Calibration



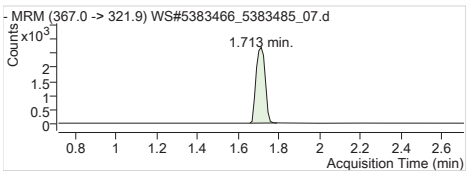


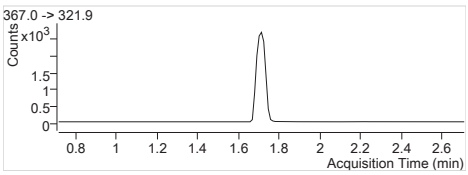
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	87.49 µg/L
Area ratio:	0.20729
Sample type:	Calibration



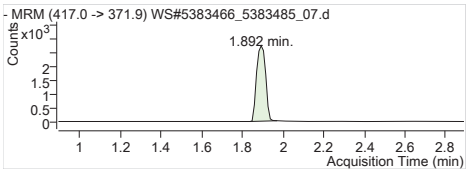


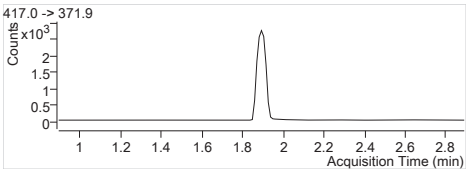
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	89.61 µg/L
Area ratio:	0.05207
Sample type:	Calibration



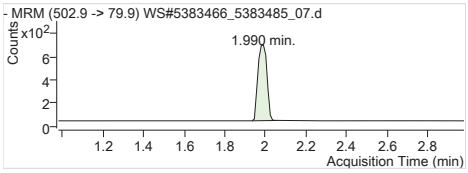


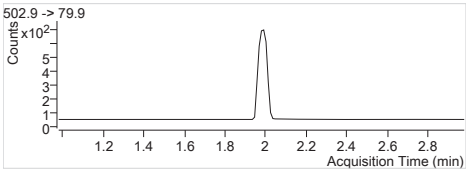
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	96.20 µg/L
Area ratio:	0.28105
Sample type:	Calibration



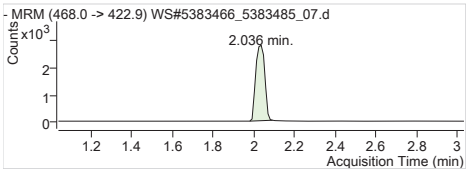


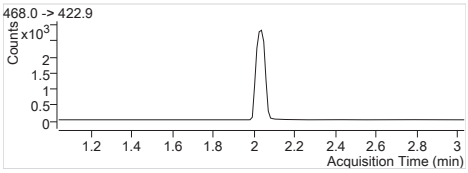
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	90.77 µg/L
Area ratio:	0.28492
Sample type:	Calibration



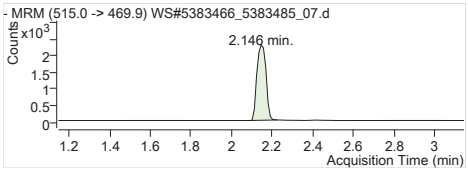


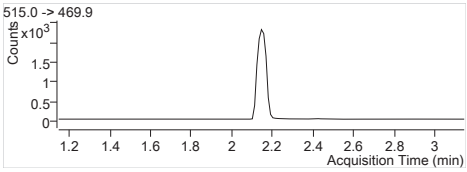
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	99.32 µg/L
Area ratio:	0.06855
Sample type:	Calibration



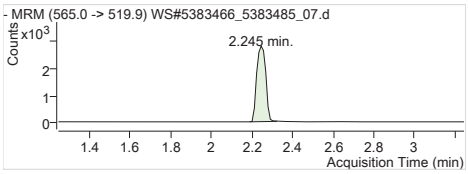


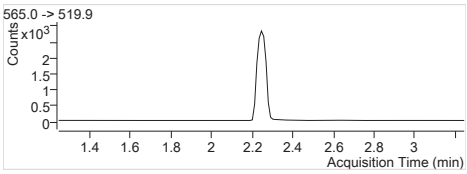
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	94.26 µg/L
Area ratio:	0.29155
Sample type:	Calibration



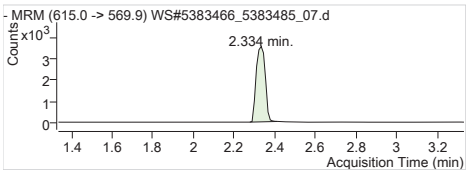


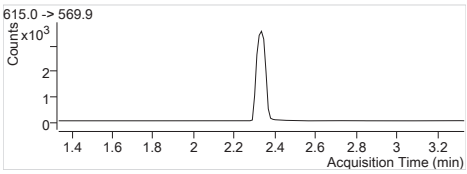
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 99.16 µg/L
Area ratio: 0.19899
Sample type: Calibration



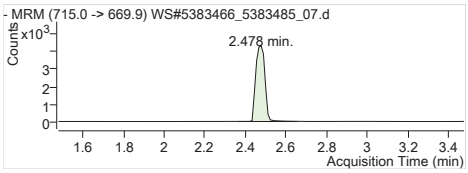


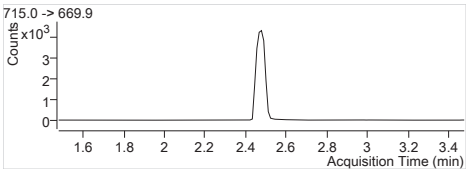
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 100.26 µg/L
Area ratio: 0.24251
Sample type: Calibration



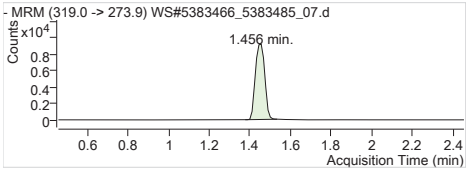


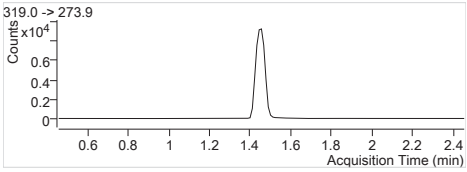
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 95.18 µg/L
Area ratio: 0.30641
Sample type: Calibration



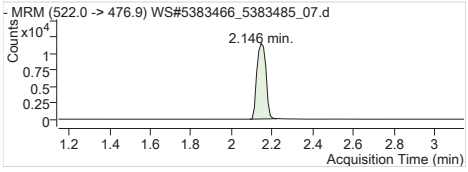


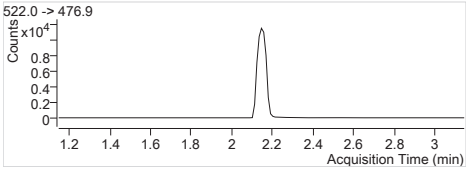
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 103.20 µg/L
Area ratio: 0.37852
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 103.49 µg/L
Area ratio: 0
Sample type: Calibration





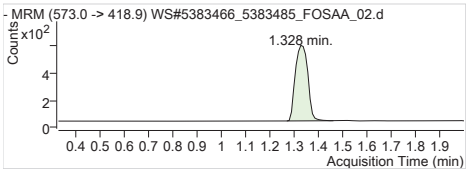
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 99.43 µg/L
Area ratio: 0
Sample type: Calibration

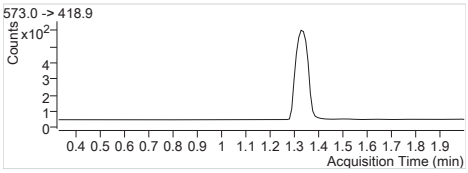
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/06 12:28:01 PM	**Injection Volume**	Per Method
Sample Annotation	-		

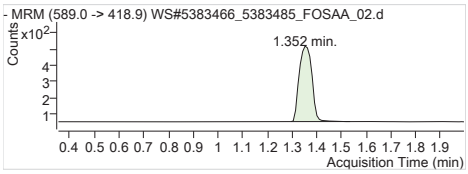
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1974	1.33	1 µg/L		
D5-EtFOSAA IS	1666	1.35	1 µg/L		
13C9-PFDA IS	26354	0.96	1 µg/L		

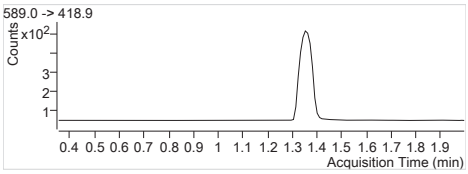
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	581	1.33	0.83	0.84 µg/L	101.53
EtFOSAA 1	520	1.35	0.83	0.89 µg/L	107.39
D3-MeFOSAA	1974	1.33	100.00	114.03 µg/L	114.03
D5-EtFOSAA	1666	1.35	100.00	111.70 µg/L	111.70
13C9-PFDA	26183	0.96	100.00	92.88 µg/L	92.88



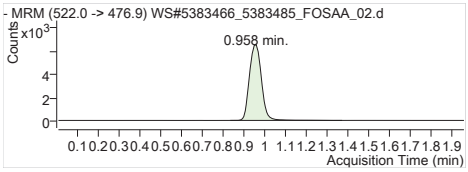


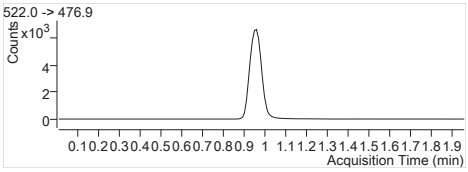
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Calibration



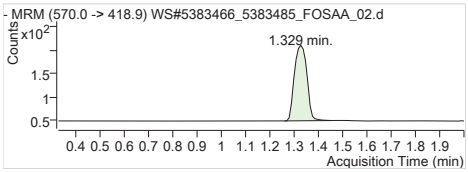


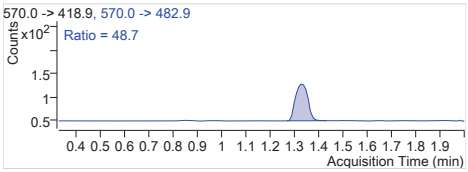
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Calibration



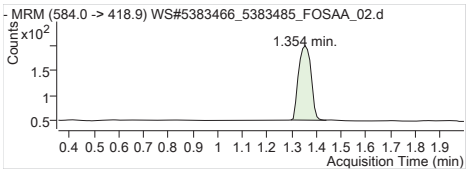


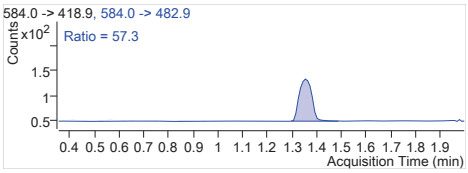
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: Calibration



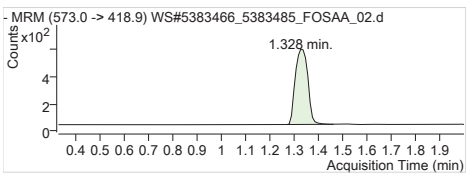


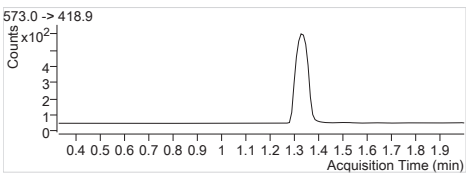
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 0.84 µg/L
Area ratio: 0.29433
Sample type: Calibration



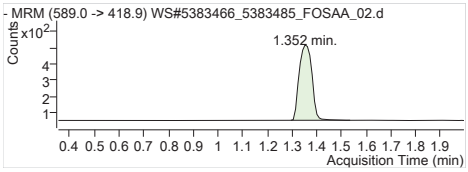


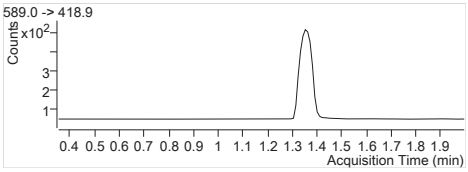
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 0.89 µg/L
Area ratio: 0.31212
Sample type: Calibration



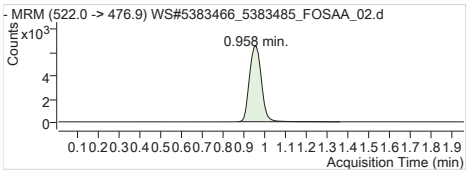


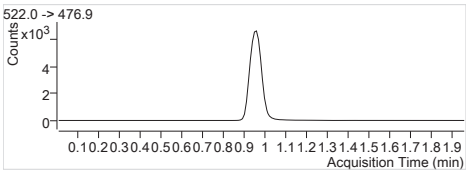
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 114.03 µg/L
Area ratio: 0.07490
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	111.70 µg/L
Area ratio:	0.06322
Sample type:	Calibration





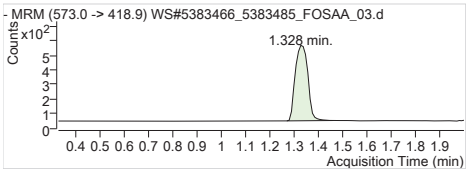
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	92.88 µg/L
Area ratio:	0
Sample type:	Calibration

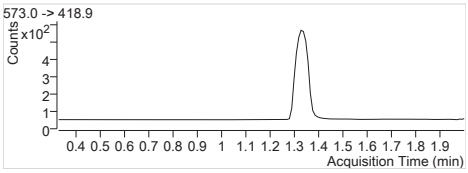
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A3
Acq. Date	2018/02/06 12:30:26 PM	**Injection Volume**	Per Method
Sample Annotation	-		

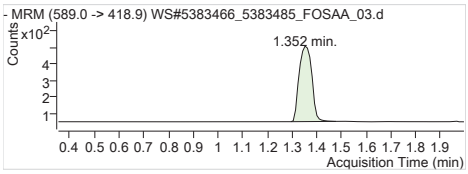
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1862	1.33	1 µg/L		
D5-EtFOSAA IS	1641	1.35	1 µg/L		
13C9-PFDA IS	28857	0.95	1 µg/L		

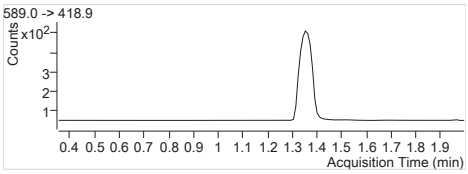
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	1088	1.33	1.70	1.64 µg/L	96.66
EtFOSAA 1	1054	1.35	1.70	1.66 µg/L	97.93
D3-MeFOSAA	1862	1.33	100.00	98.23 µg/L	98.23
D5-EtFOSAA	1641	1.35	100.00	100.48 µg/L	100.48
13C9-PFDA	28851	0.95	100.00	102.34 µg/L	102.34



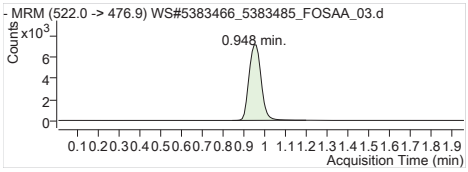


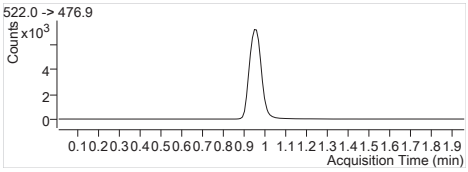
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Calibration



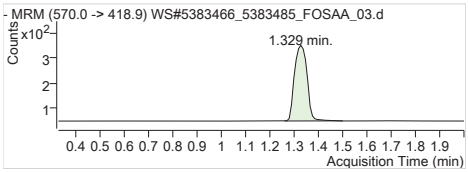


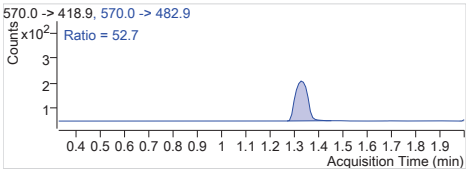
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Calibration



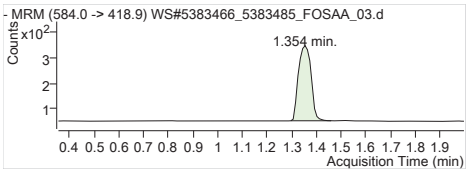


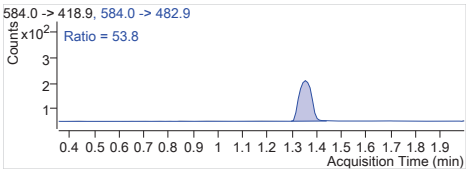
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: Calibration



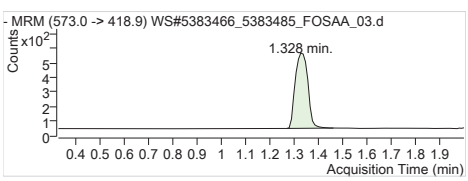


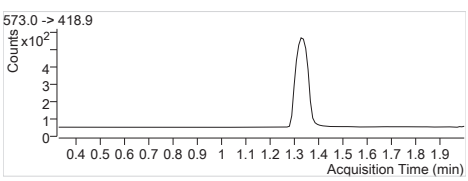
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 1.64 µg/L
Area ratio: 0.58432
Sample type: Calibration



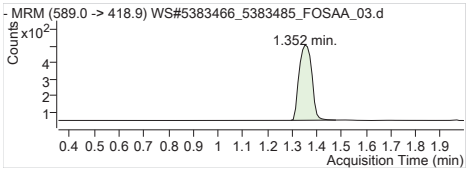


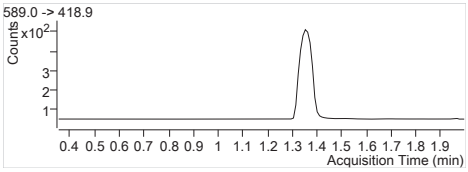
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 1.66 µg/L
Area ratio: 0.64229
Sample type: Calibration



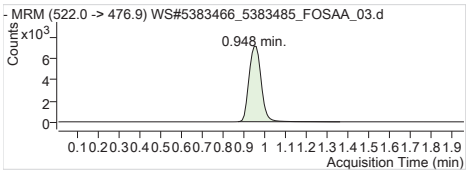


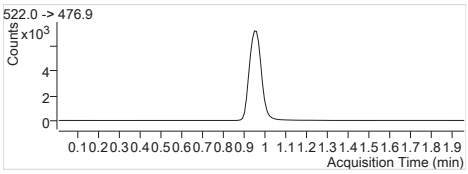
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 98.23 µg/L
Area ratio: 0.06453
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	100.48 µg/L
Area ratio:	0.05687
Sample type:	Calibration





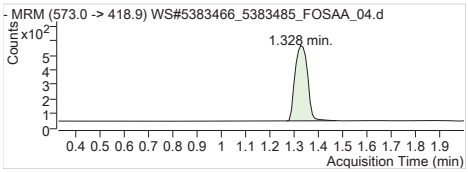
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	102.34 µg/L
Area ratio:	0
Sample type:	Calibration

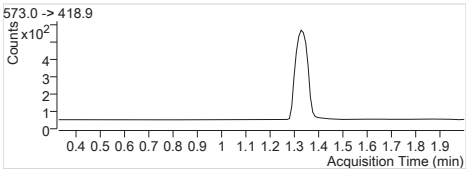
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A4
Acq. Date	2018/02/06 12:32:51 PM	**Injection Volume**	Per Method
Sample Annotation	-		

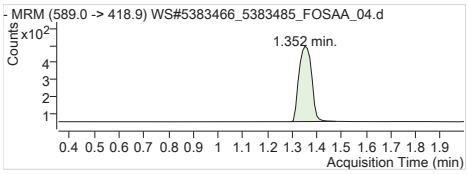
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1845	1.33	1 µg/L		
D5-EtFOSAA IS	1589	1.35	1 µg/L		
13C9-PFDA IS	29034	0.95	1 µg/L		

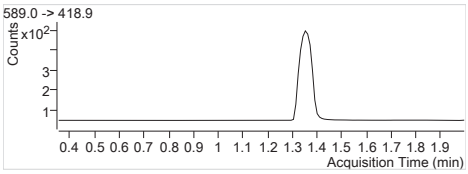
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	3380	1.33	5.00	5.09 µg/L	101.74
EtFOSAA 1	3261	1.35	5.00	4.97 µg/L	99.35
D3-MeFOSAA	1845	1.33	100.00	96.74 µg/L	96.74
D5-EtFOSAA	1589	1.35	100.00	96.70 µg/L	96.70
13C9-PFDA	29289	0.95	100.00	103.90 µg/L	103.90



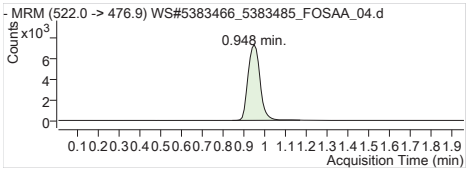


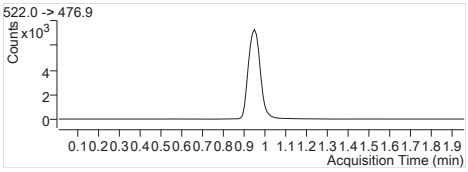
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Calibration



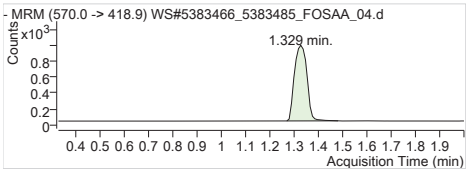


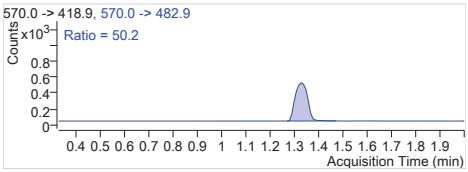
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Calibration



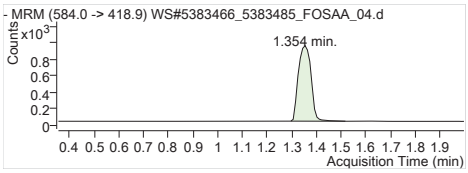


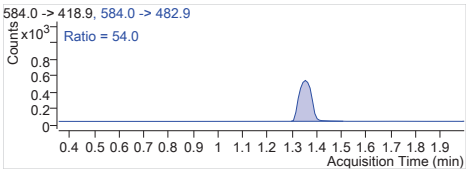
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: Calibration



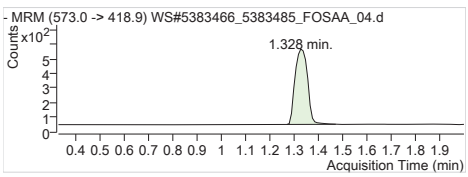


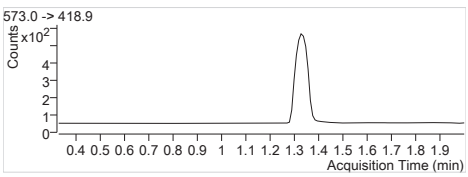
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 5.09 µg/L
Area ratio: 1.83198
Sample type: Calibration



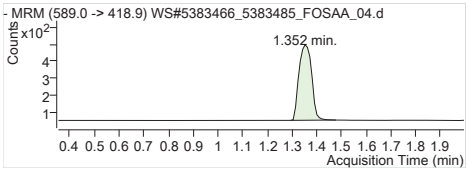


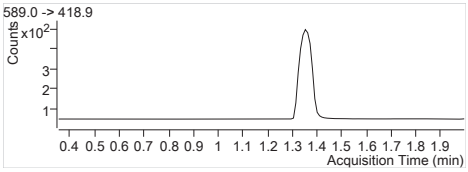
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 4.97 µg/L
Area ratio: 2.05223
Sample type: Calibration



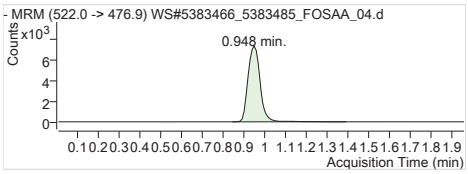


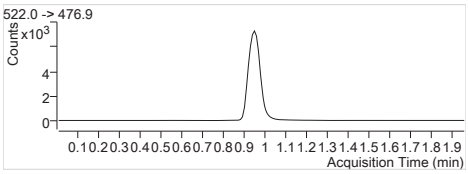
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 96.74 µg/L
Area ratio: 0.06355
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	96.70 µg/L
Area ratio:	0.05473
Sample type:	Calibration





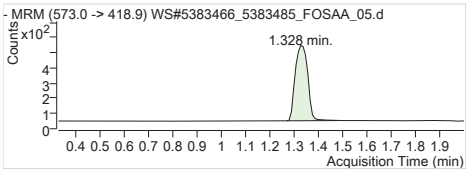
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	103.90 µg/L
Area ratio:	0
Sample type:	Calibration

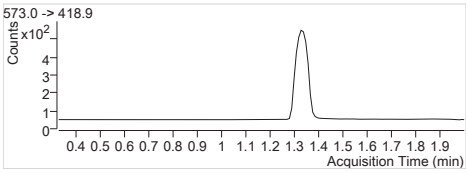
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 12:35:16 PM	**Injection Volume**	Per Method
Sample Annotation	-		

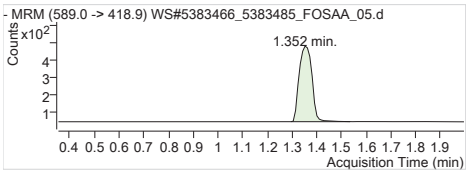
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1774	1.33	1 µg/L		
D5-EtFOSAA IS	1559	1.35	1 µg/L		
13C9-PFDA IS	28453	0.96	1 µg/L		

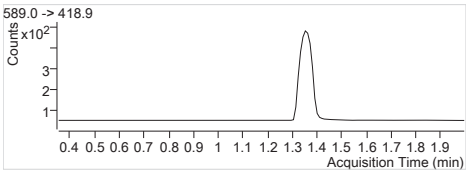
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7647	1.33	12.50	11.93 µg/L	95.43
EtFOSAA 1	7583	1.35	12.50	11.55 µg/L	92.43
D3-MeFOSAA	1774	1.33	100.00	94.91 µg/L	94.91
D5-EtFOSAA	1559	1.35	100.00	96.81 µg/L	96.81
13C9-PFDA	28326	0.96	100.00	100.48 µg/L	100.48



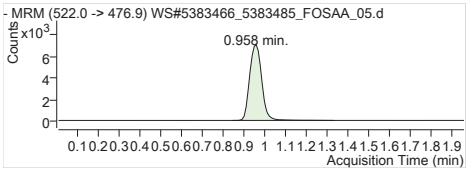


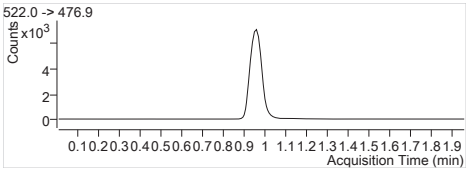
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Calibration



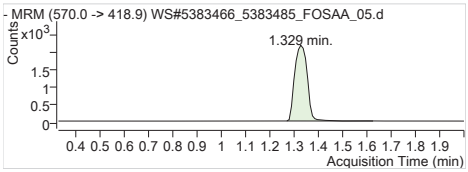


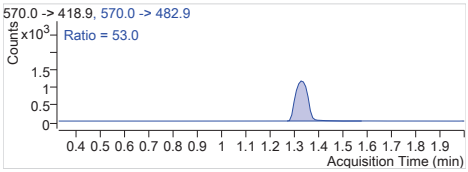
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Calibration



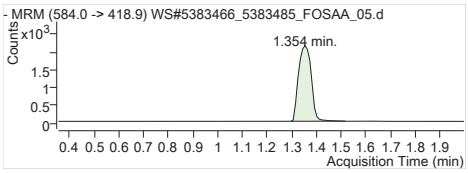


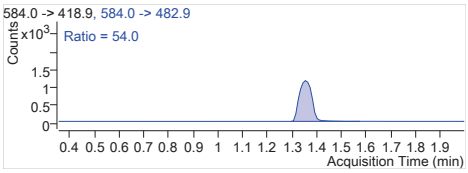
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: Calibration



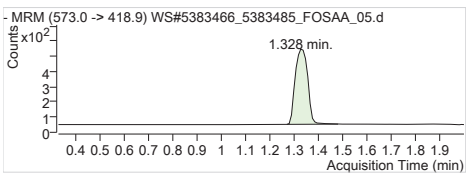


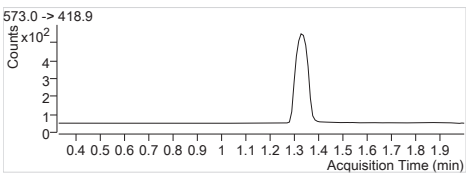
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 11.93 µg/L
Area ratio: 4.31060
Sample type: Calibration



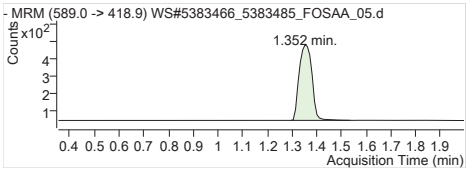


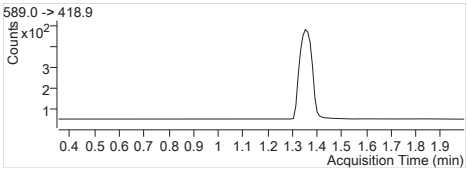
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.55 µg/L
Area ratio: 4.86402
Sample type: Calibration



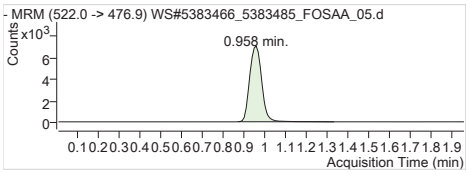


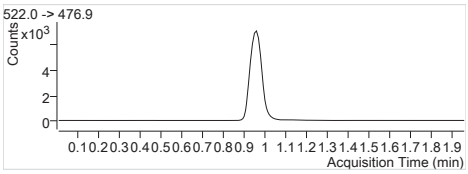
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 94.91 µg/L
Area ratio: 0.06235
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	96.81 µg/L
Area ratio:	0.05479
Sample type:	Calibration





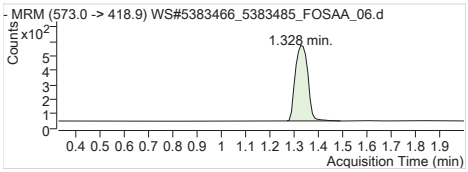
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	100.48 µg/L
Area ratio:	0
Sample type:	Calibration

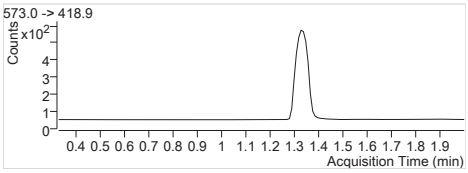
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A6
Acq. Date	2018/02/06 12:37:42 PM	**Injection Volume**	Per Method
Sample Annotation	-		

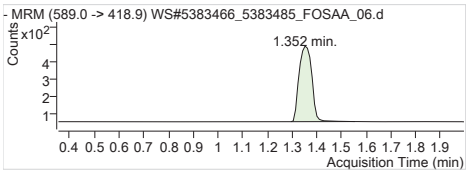
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1881	1.33	1 µg/L		
D5-EtFOSAA IS	1587	1.35	1 µg/L		
13C9-PFDA IS	28628	0.96	1 µg/L		

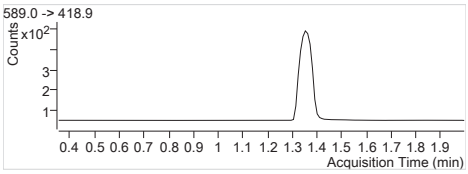
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	17314	1.33	25.00	25.44 µg/L	101.75
EtFOSAA 1	17091	1.35	25.00	25.39 µg/L	101.55
D3-MeFOSAA	1881	1.33	100.00	100.02 µg/L	100.02
D5-EtFOSAA	1587	1.35	100.00	97.95 µg/L	97.95
13C9-PFDA	28590	0.96	100.00	101.42 µg/L	101.42



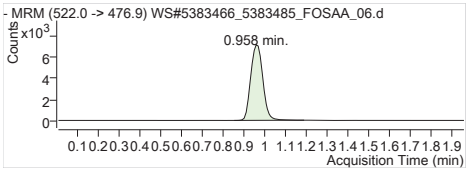


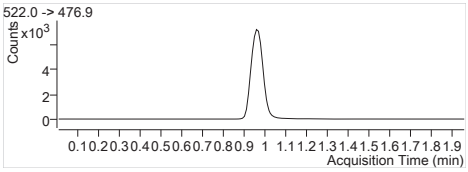
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Calibration



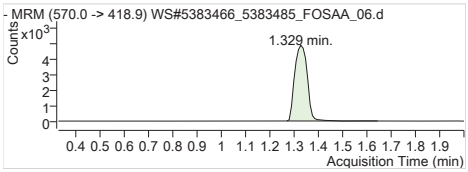


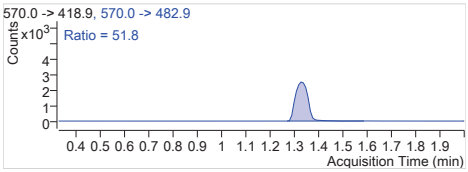
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Calibration



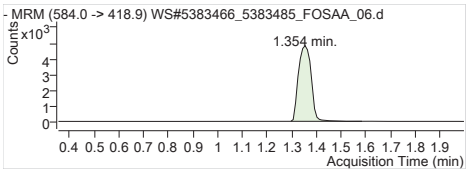


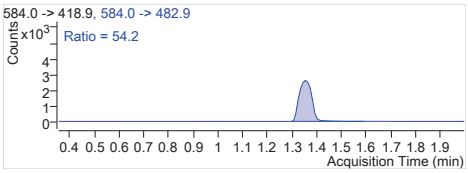
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: Calibration



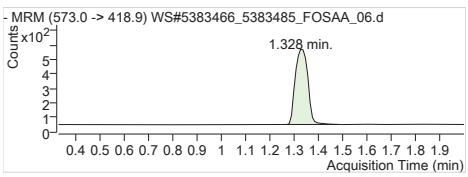


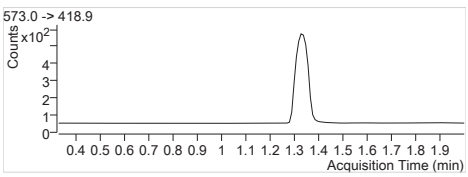
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 25.44 µg/L
Area ratio: 9.20468
Sample type: Calibration



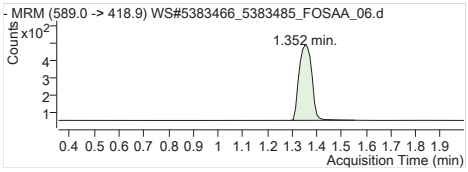


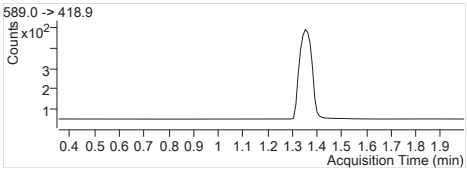
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 25.39 µg/L
Area ratio: 10.76938
Sample type: Calibration



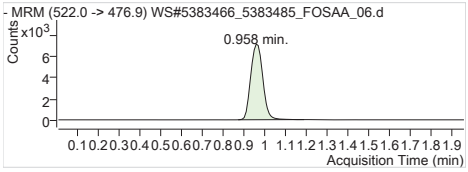


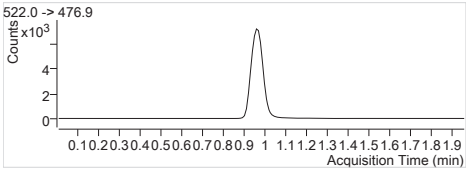
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 100.02 µg/L
Area ratio: 0.06570
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	97.95 µg/L
Area ratio:	0.05544
Sample type:	Calibration





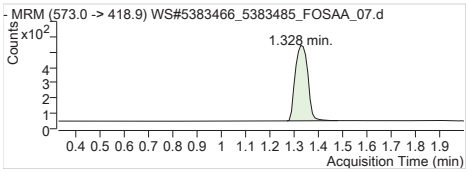
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	101.42 µg/L
Area ratio:	0
Sample type:	Calibration

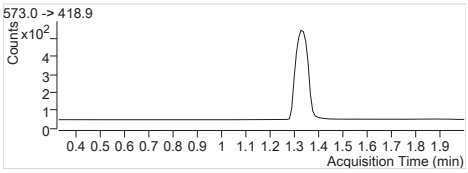
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A7
Acq. Date	2018/02/06 12:40:07 PM	**Injection Volume**	Per Method
Sample Annotation	-		

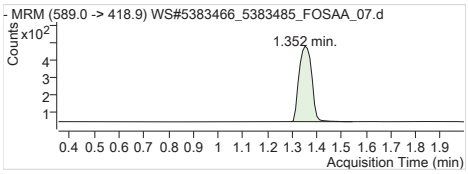
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1774	1.33	1 µg/L		
D5-EtFOSAA IS	1533	1.35	1 µg/L		
13C9-PFDA IS	28110	0.95	1 µg/L		

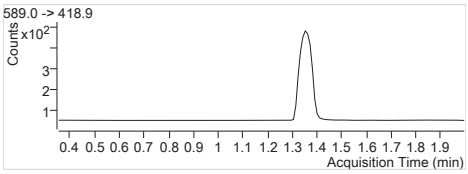
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	27554	1.33	41.70	42.90 µg/L	102.89
EtFOSAA 1	27557	1.35	41.70	42.27 µg/L	101.36
D3-MeFOSAA	1774	1.33	100.00	96.07 µg/L	96.07
D5-EtFOSAA	1533	1.35	100.00	96.36 µg/L	96.36
13C9-PFDA	27901	0.95	100.00	98.97 µg/L	98.97



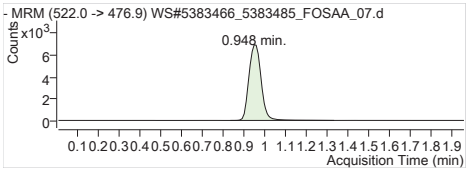


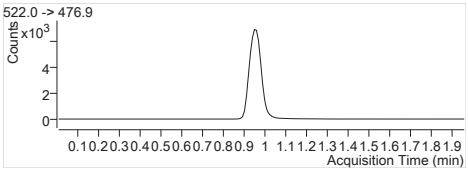
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: Calibration



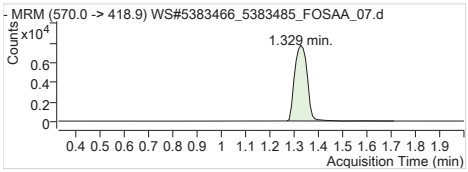


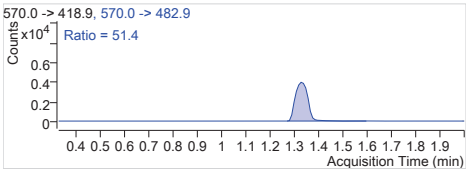
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: Calibration



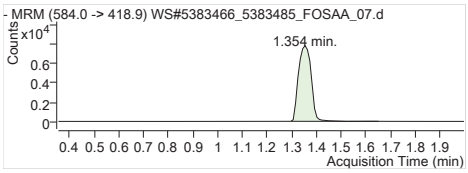


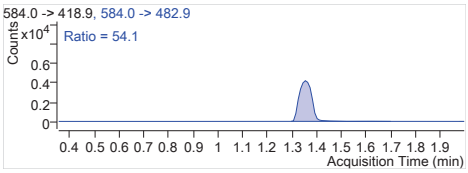
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: Calibration



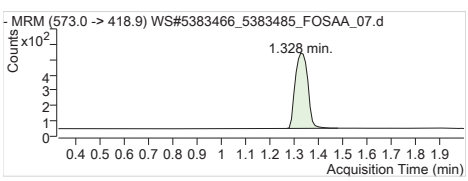


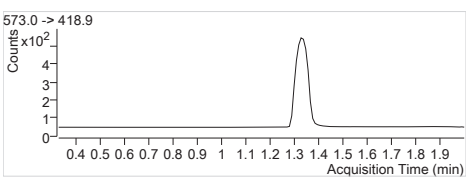
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 42.90 µg/L
Area ratio: 15.53213
Sample type: Calibration



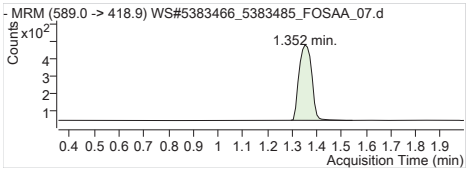


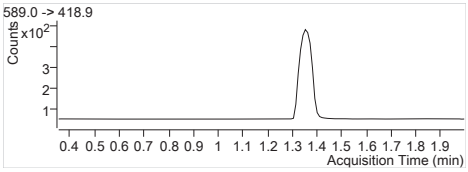
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 42.27 µg/L
Area ratio: 17.97586
Sample type: Calibration



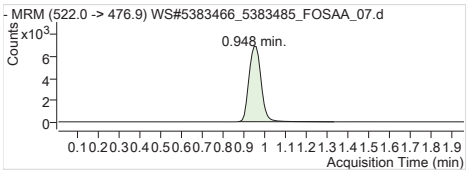


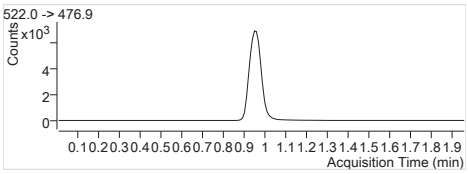
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 96.07 µg/L
Area ratio: 0.06311
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	96.36 µg/L
Area ratio:	0.05454
Sample type:	Calibration





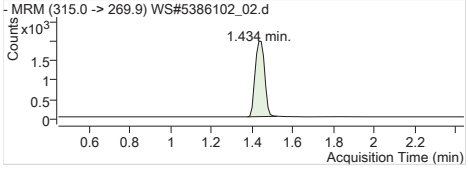
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	98.97 µg/L
Area ratio:	0
Sample type:	Calibration

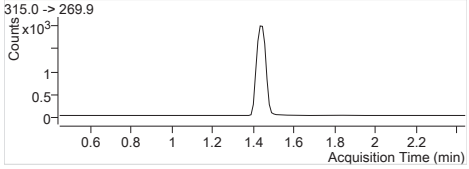
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5386102_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C8
Acq. Date	2018/02/08 3:11:49 AM	**Injection Volume**	Per Method
Sample Annotation	-		

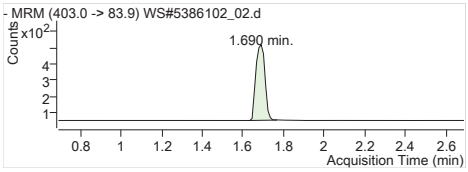
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6286	1.43	1 µg/L		
MPFHxS	1473	1.69	1 µg/L		
MPFHpA	8019	1.70	1 µg/L		
MPFOA	8729	1.88	1 µg/L		
MPFOS	1860	1.98	1 µg/L		
MPFNA	8353	2.02	1 µg/L		
MPFDA	7066	2.14	1 µg/L		
MPFUnA	8650	2.23	1 µg/L		
MPFDoA	11533	2.32	1 µg/L		
MPFTeDA	12719	2.47	1 µg/L		
13C6-PFHxA IS	31547	1.43	1 µg/L		
13C9-PFDA IS	40575	2.15	1 µg/L		

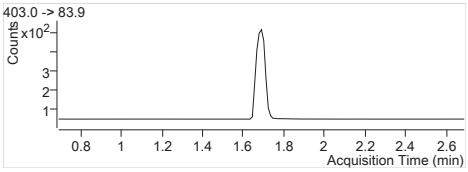
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	497	1.10	0.83	0.85 µg/L	102.97
PFHxA 1	2077	1.43	0.83	0.90 µg/L	108.78
PFHxS 1	500	1.68	0.83	0.77 µg/L	92.65
PFHpA 1	2450	1.70	0.83	0.84 µg/L	100.97
PFOA 1	2739	1.88	0.83	0.87 µg/L	104.99
PFOS 1	497	1.97	0.83	0.83 µg/L	100.24
PFNA 1	2263	2.03	0.83	0.79 µg/L	95.06
PFDA 1	2942	2.14	0.83	0.85 µg/L	102.34
PFUnA 1	3263	2.25	0.83	0.92 µg/L	110.36
PFDoA 1	3755	2.32	0.83	0.86 µg/L	103.20
PFTrDA 1	3880	2.40	0.83	0.83 µg/L	99.93
PFTeDA 1	3584	2.47	0.83	0.86 µg/L	103.09
13C2-PFHxA	6286	1.43	100.00	102.54 µg/L	102.54
18O2-PFHxS	1473	1.69	100.00	93.91 µg/L	93.91
13C4-PFHpA	8019	1.70	100.00	99.89 µg/L	99.89
13C4-PFOA	8729	1.88	100.00	103.07 µg/L	103.07
13C4-PFOS	1860	1.98	100.00	97.38 µg/L	97.38
13C5-PFNA	8354	2.02	100.00	98.83 µg/L	98.83
13C2-PFDA	6953	2.14	100.00	100.68 µg/L	100.68
13C2-PFUnA	8650	2.23	100.00	105.62 µg/L	105.62
13C2-PFDoA	11533	2.32	100.00	101.44 µg/L	101.44
13C2-PFTeDA	12880	2.47	100.00	99.31 µg/L	99.31
13C6-PFHxA	31547	1.43	100.00	99.45 µg/L	99.45
13C9-PFDA	40575	2.15	100.00	100.05 µg/L	100.05



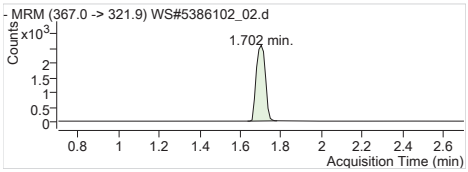


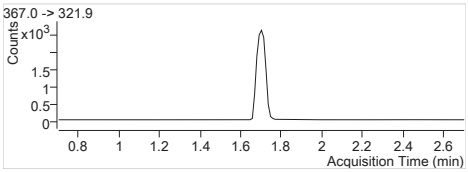
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.445)
Concentration: 1 µg/L
Sample type: Calibration



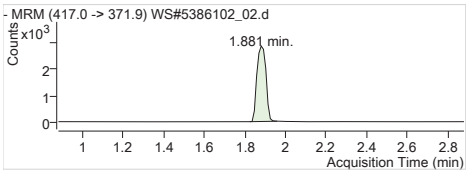


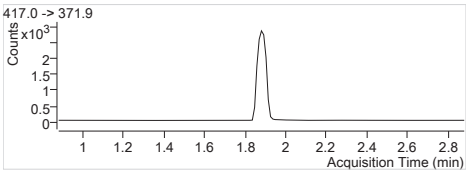
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



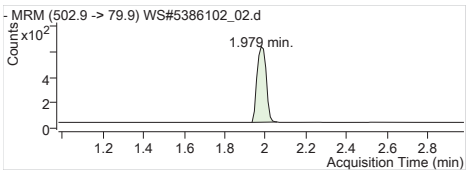


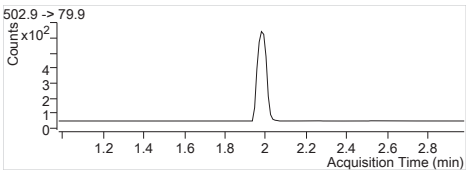
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Calibration



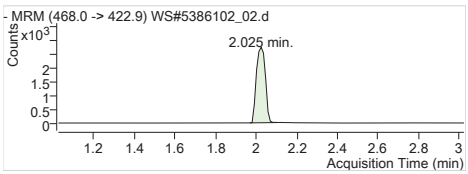


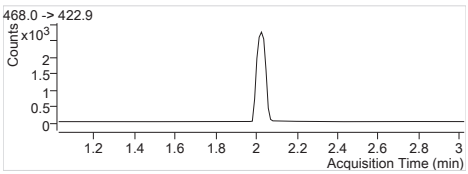
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



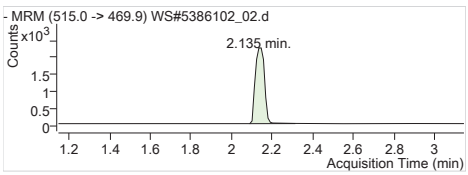


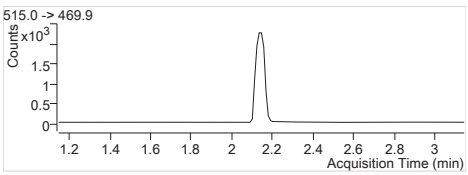
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



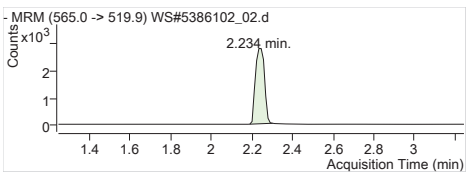


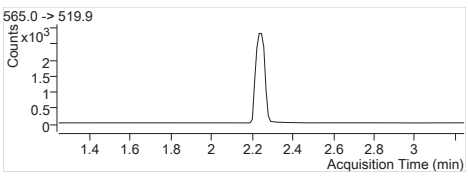
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Calibration



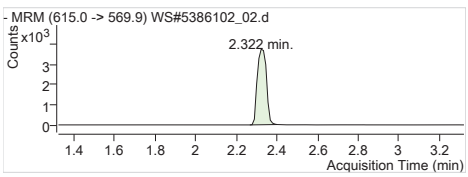


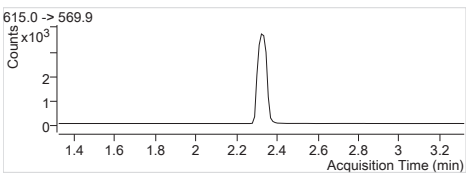
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



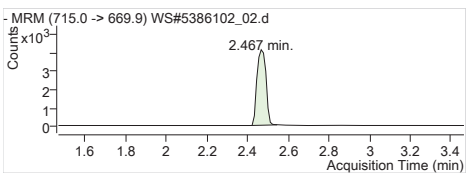


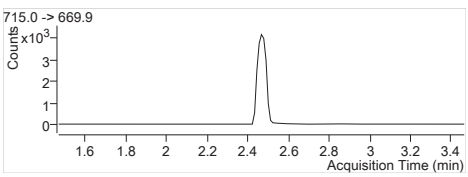
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



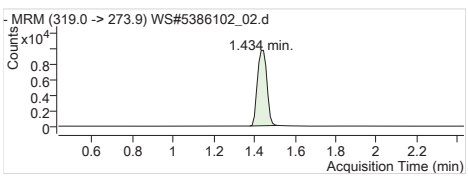


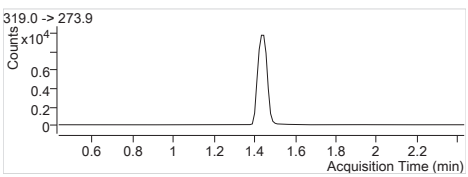
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



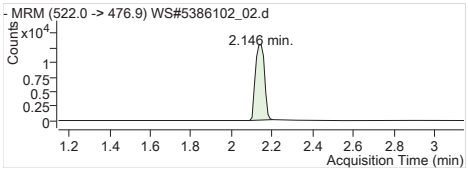


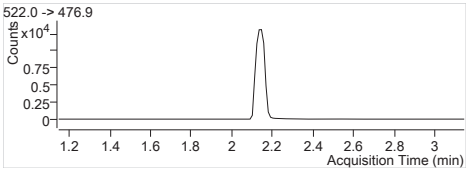
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



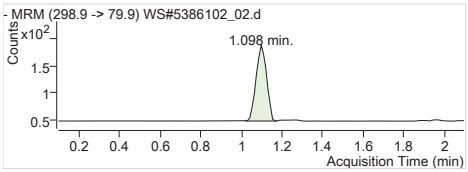


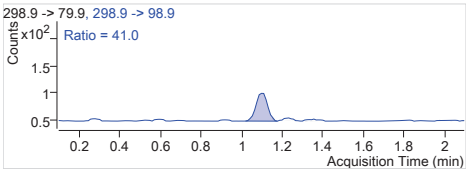
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



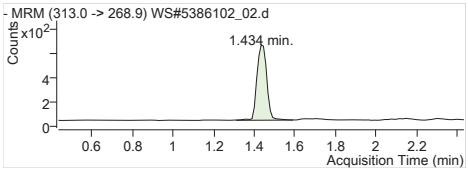


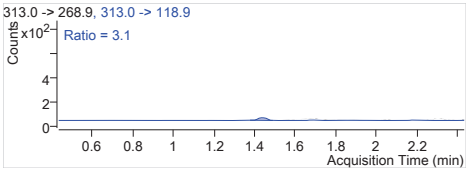
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



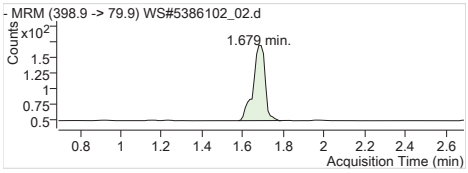


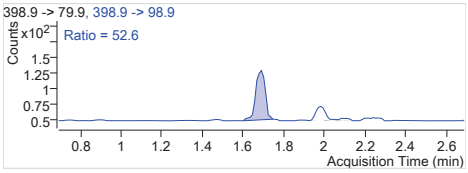
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 0.85 µg/L
Area ratio: 0.33741
Sample type: Calibration



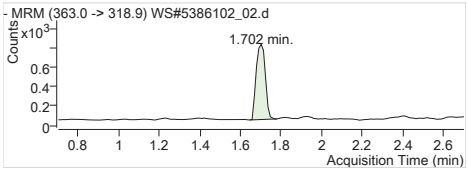


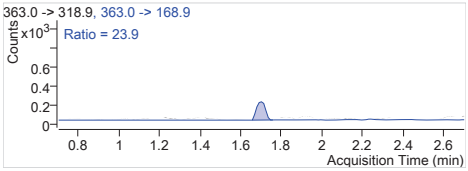
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.90 µg/L
Area ratio: 0.33042
Sample type: Calibration



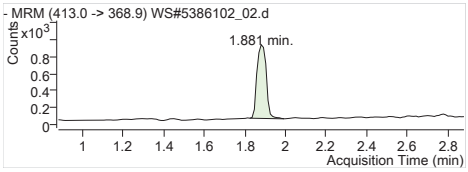


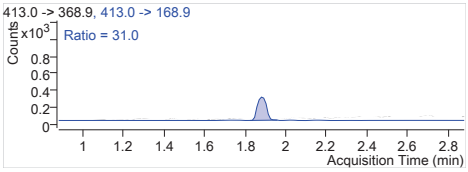
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 0.77 µg/L
Area ratio: 0.33944
Sample type: Calibration



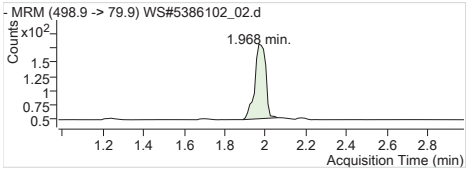


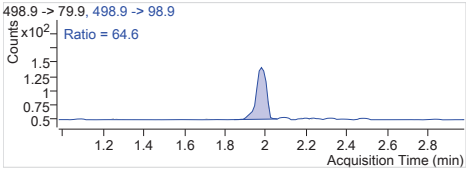
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.84 µg/L
Area ratio: 0.30552
Sample type: Calibration



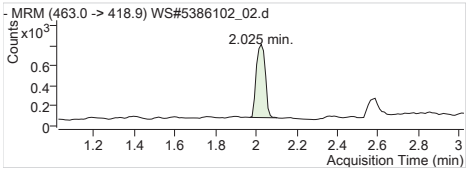


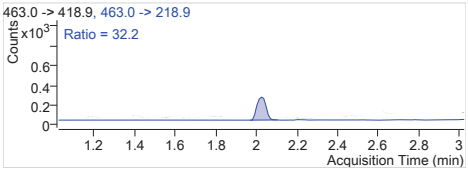
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.87 µg/L
Area ratio: 0.31378
Sample type: Calibration



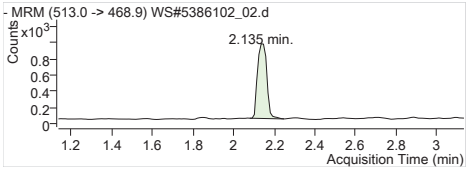


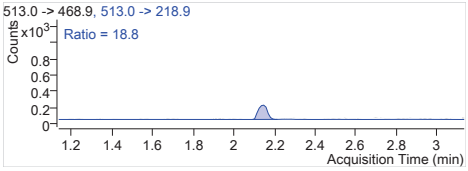
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.979)
Calc. conc. 0.83 µg/L
Area ratio: 0.26720
Sample type: Calibration



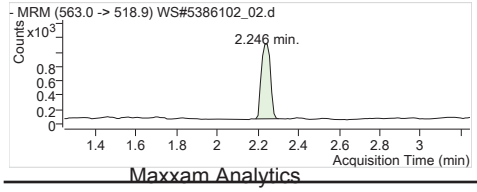


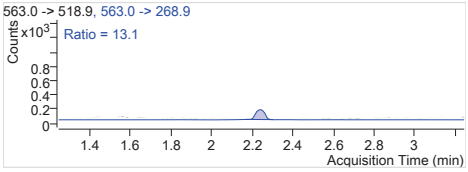
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 0.79 µg/L
Area ratio: 0.27092
Sample type: Calibration



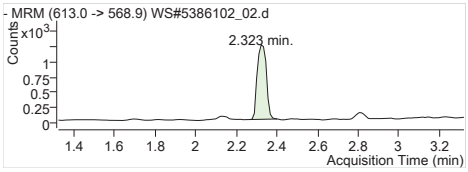


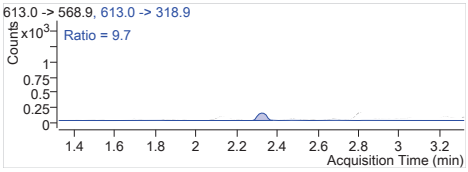
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.85 µg/L
Area ratio: 0.41636
Sample type: Calibration



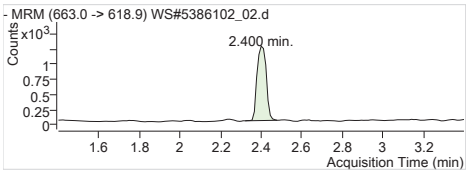


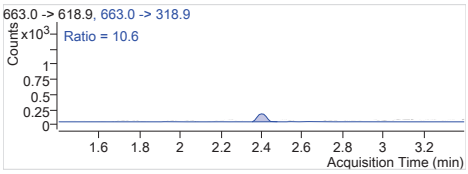
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.92 µg/L
Area ratio: 0.37723
Sample type: Calibration



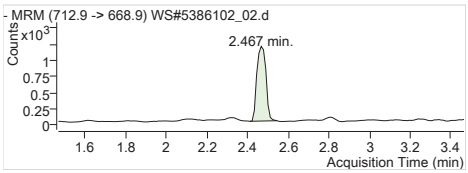


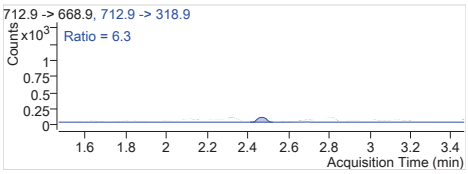
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.86 µg/L
Area ratio: 0.32559
Sample type: Calibration



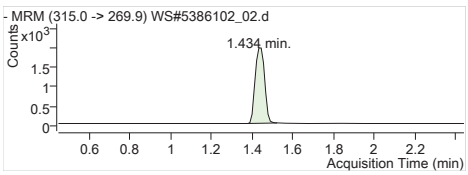


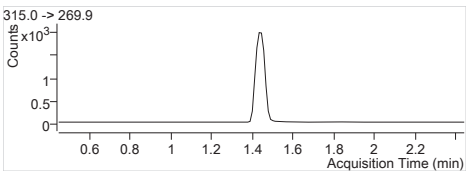
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.83 µg/L
Area ratio: 0.30506
Sample type: Calibration



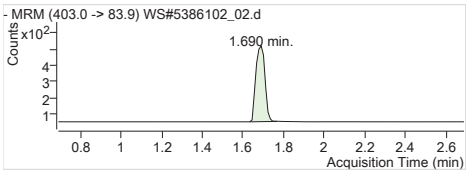


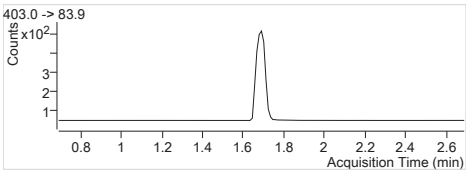
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.86 µg/L
Area ratio: 0.28178
Sample type: Calibration



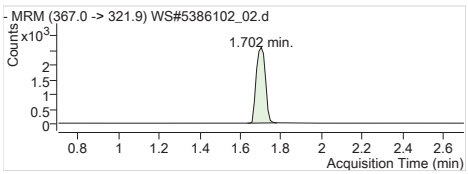


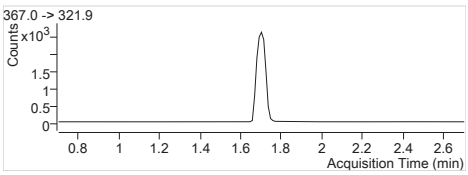
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 102.54 µg/L
Area ratio: 0.19926
Sample type: Calibration



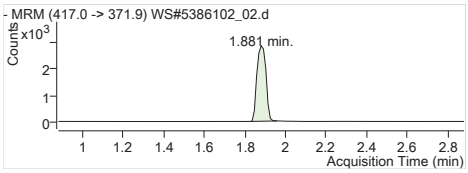


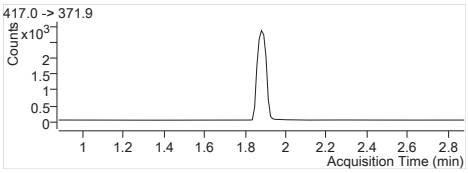
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 93.91 µg/L
Area ratio: 0.04669
Sample type: Calibration



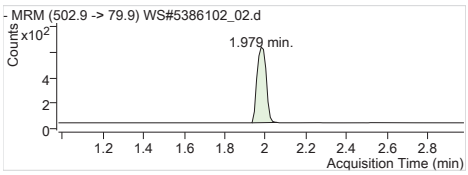


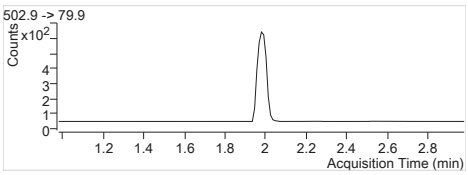
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 99.89 µg/L
Area ratio: 0.25419
Sample type: Calibration



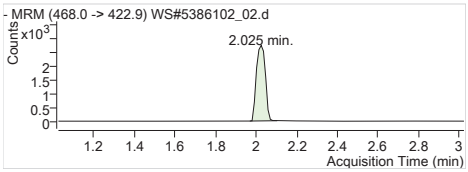


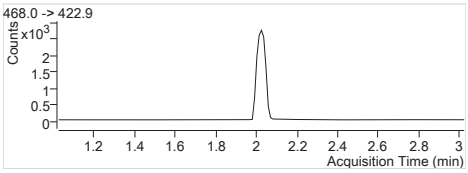
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 103.07 µg/L
Area ratio: 0.27670
Sample type: Calibration



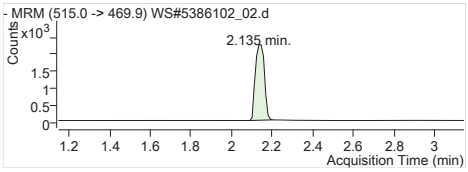


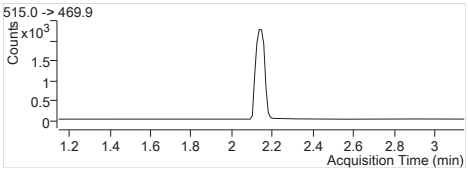
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 97.38 µg/L
Area ratio: 0.05896
Sample type: Calibration



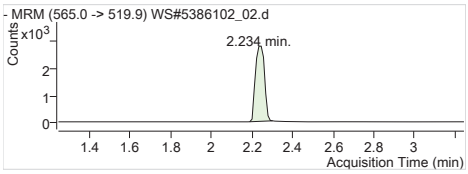


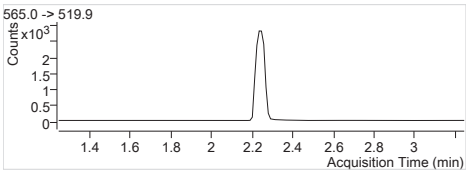
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 98.83 µg/L
Area ratio: 0.26481
Sample type: Calibration



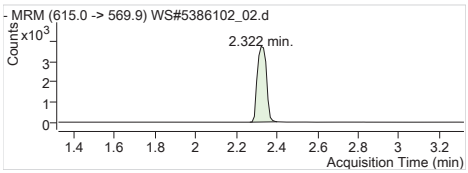


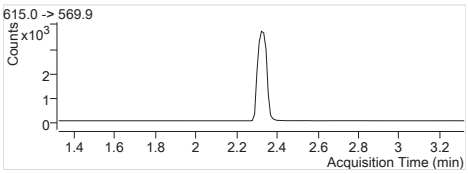
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 100.68 µg/L
Area ratio: 0.17136
Sample type: Calibration



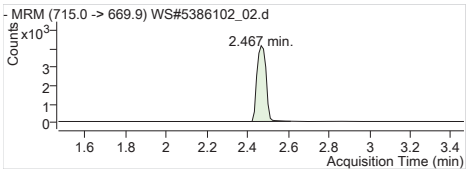


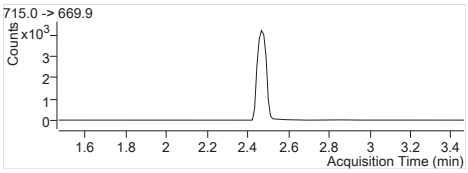
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.245)
Calc. conc. 105.62 µg/L
Area ratio: 0.21319
Sample type: Calibration



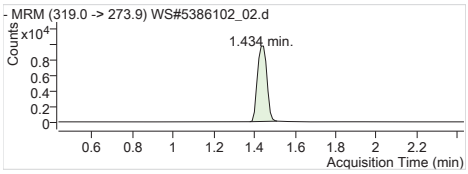


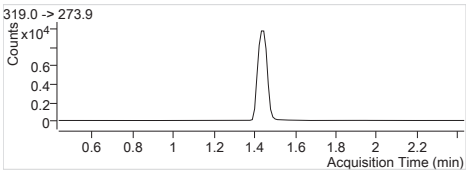
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 101.44 µg/L
Area ratio: 0.28424
Sample type: Calibration



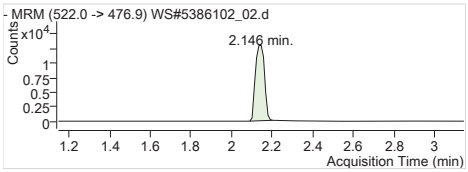


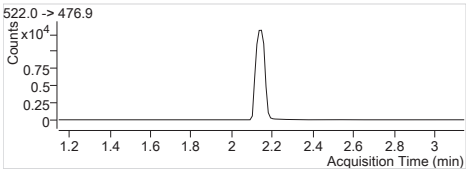
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 99.31 µg/L
Area ratio: 0.31744
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 99.45 µg/L
Area ratio: 0
Sample type: Calibration





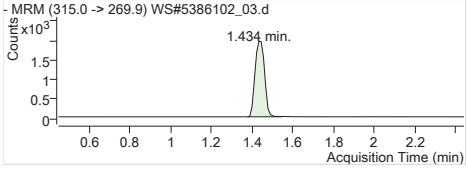
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 100.05 µg/L
Area ratio: 0
Sample type: Calibration

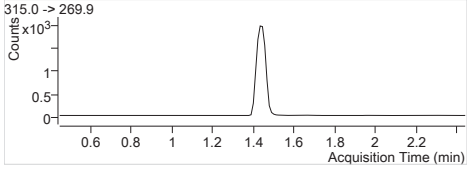
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5386102_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C9
Acq. Date	2018/02/08 3:16:45 AM	**Injection Volume**	Per Method
Sample Annotation	-		

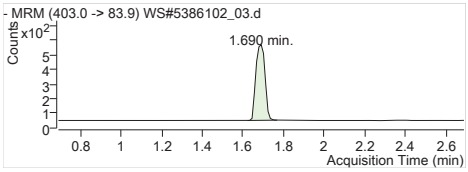
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6287	1.43	1 µg/L		
MPFHxS	1637	1.69	1 µg/L		
MPFHpA	8116	1.70	1 µg/L		
MPFOA	8477	1.88	1 µg/L		
MPFOS	2005	1.98	1 µg/L		
MPFNA	8739	2.02	1 µg/L		
MPFDA	7334	2.15	1 µg/L		
MPFUnA	8638	2.25	1 µg/L		
MPFDoA	12169	2.32	1 µg/L		
MPFTeDA	13023	2.47	1 µg/L		
13C6-PFHxA IS	31482	1.43	1 µg/L		
13C9-PFDA IS	42308	2.15	1 µg/L		

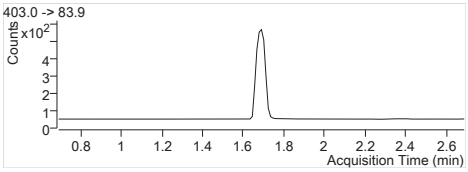
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1093	1.10	1.70	1.63 µg/L	95.94
PFHxA 1	3838	1.43	1.70	1.59 µg/L	93.53
PFHxS 1	1272	1.68	1.70	1.83 µg/L	107.51
PFHpA 1	5287	1.70	1.70	1.71 µg/L	100.48
PFOA 1	5595	1.88	1.70	1.70 µg/L	99.80
PFOS 1	1227	1.98	1.70	1.76 µg/L	103.82
PFNA 1	5567	2.03	1.70	1.79 µg/L	105.25
PFDA 1	5859	2.15	1.70	1.64 µg/L	96.50
PFUnA 1	6188	2.23	1.70	1.64 µg/L	96.22
PFDoA 1	7818	2.32	1.70	1.62 µg/L	95.03
PFTrDA 1	8552	2.40	1.70	1.68 µg/L	98.64
PFTeDA 1	7309	2.47	1.70	1.65 µg/L	97.34
13C2-PFHxA	6287	1.43	100.00	102.76 µg/L	102.76
18O2-PFHxS	1637	1.69	100.00	104.58 µg/L	104.58
13C4-PFHpA	8116	1.70	100.00	101.30 µg/L	101.30
13C4-PFOA	8477	1.88	100.00	100.30 µg/L	100.30
13C4-PFOS	2005	1.98	100.00	105.18 µg/L	105.18
13C5-PFNA	8739	2.02	100.00	103.60 µg/L	103.60
13C2-PFDA	7177	2.15	100.00	99.66 µg/L	99.66
13C2-PFUnA	8638	2.25	100.00	101.15 µg/L	101.15
13C2-PFDoA	12169	2.32	100.00	102.65 µg/L	102.65
13C2-PFTeDA	13294	2.47	100.00	98.30 µg/L	98.30
13C6-PFHxA	31482	1.43	100.00	99.24 µg/L	99.24
13C9-PFDA	42308	2.15	100.00	104.32 µg/L	104.32



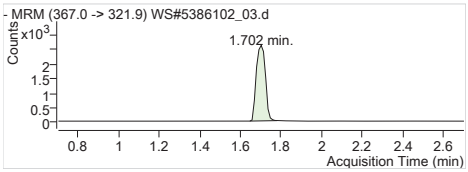


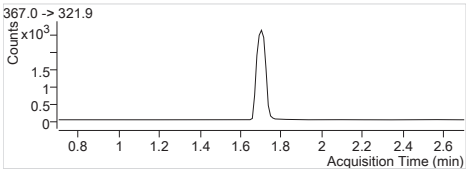
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.445)
Concentration: 1 µg/L
Sample type: Calibration



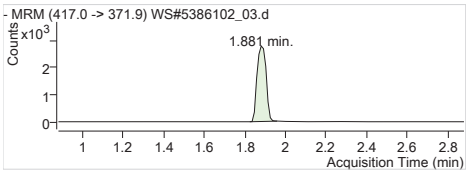


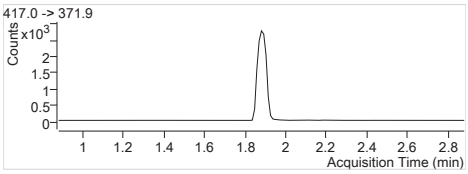
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



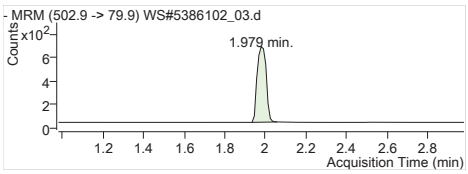


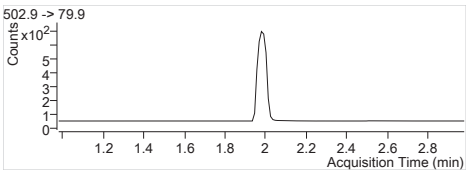
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Calibration



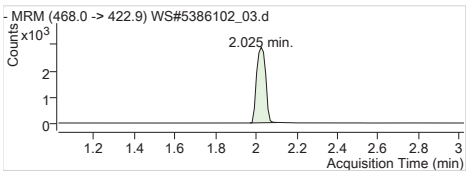


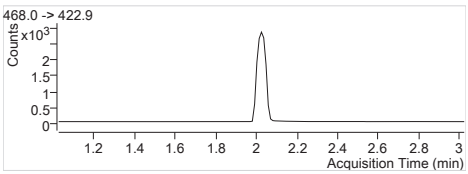
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



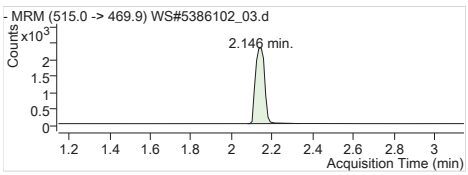


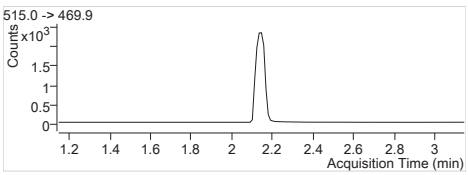
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



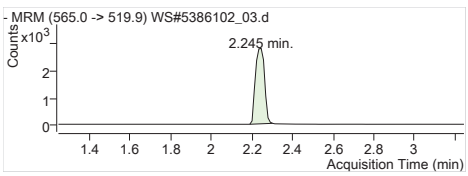


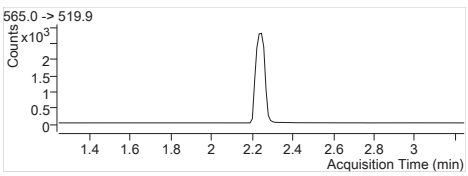
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Calibration



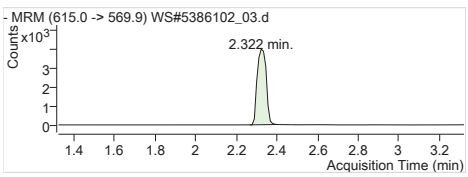


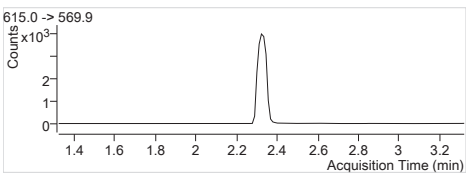
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



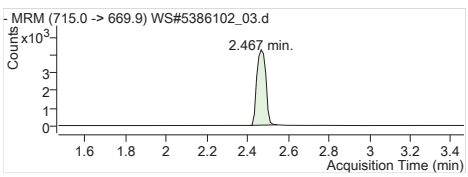


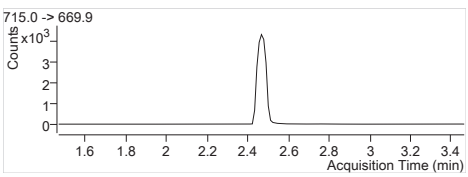
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



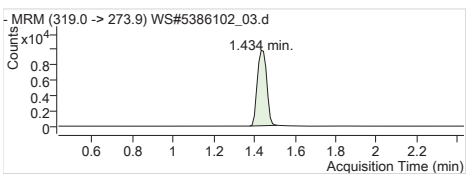


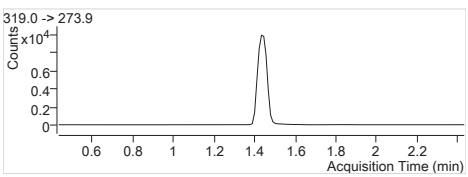
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



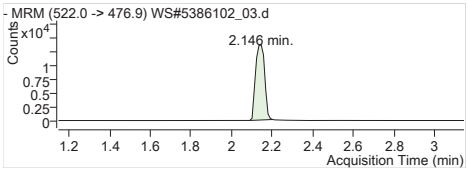


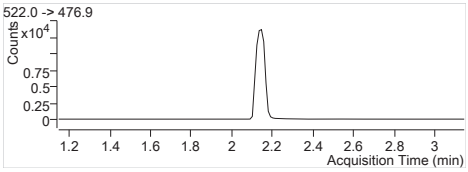
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



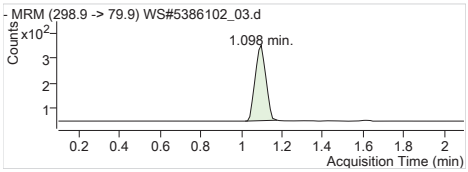


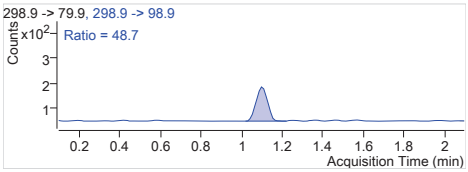
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



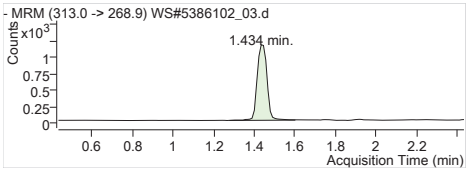


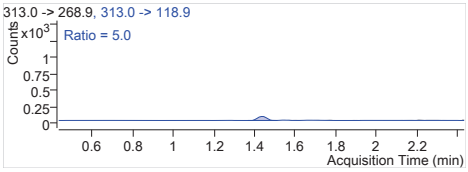
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



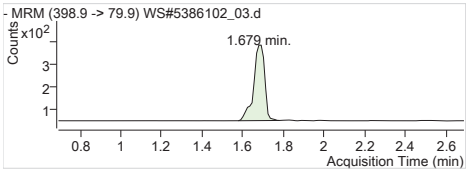


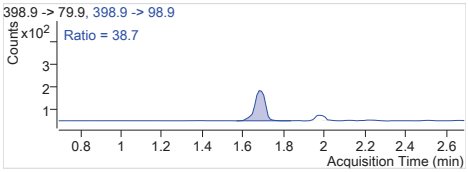
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 1.63 µg/L
Area ratio: 0.66768
Sample type: Calibration



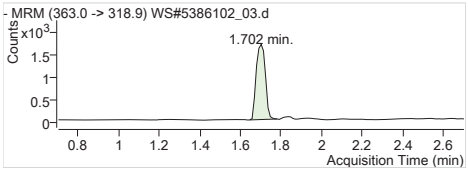


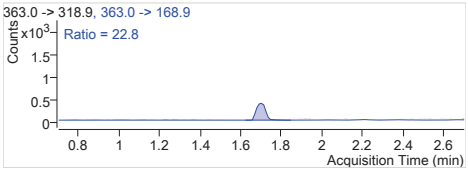
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 1.59 µg/L
Area ratio: 0.61047
Sample type: Calibration



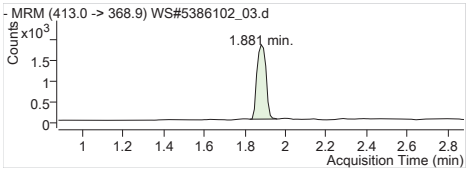


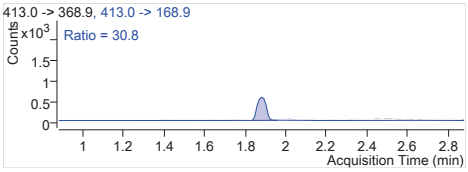
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 1.83 µg/L
Area ratio: 0.77703
Sample type: Calibration



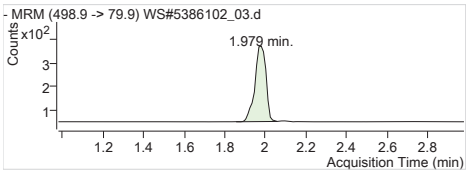


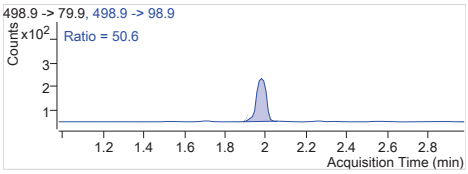
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 1.71 µg/L
Area ratio: 0.65143
Sample type: Calibration



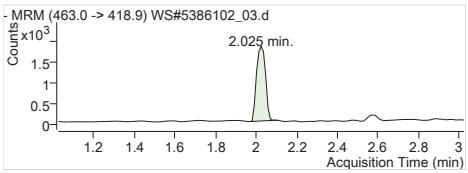


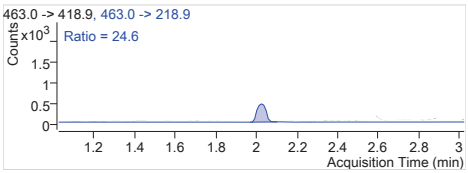
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 1.70 µg/L
Area ratio: 0.66002
Sample type: Calibration



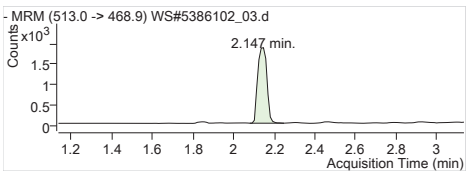


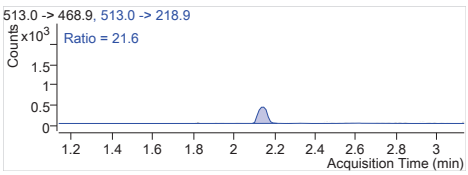
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 1.76 µg/L
Area ratio: 0.61197
Sample type: Calibration



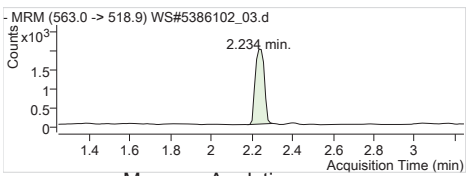


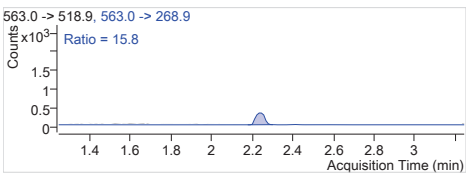
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 1.79 µg/L
Area ratio: 0.63703
Sample type: Calibration



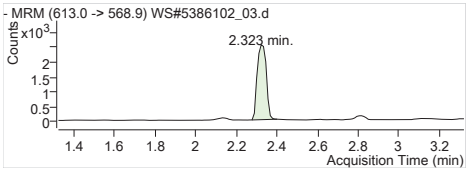


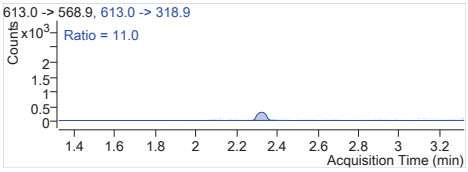
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.135)
Calc. conc. 1.64 µg/L
Area ratio: 0.79888
Sample type: Calibration



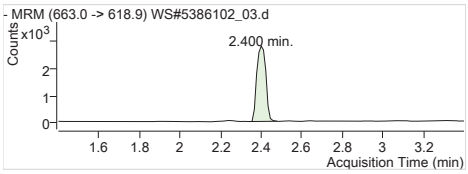


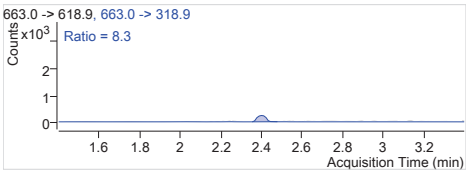
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.246)
Calc. conc. 1.64 µg/L
Area ratio: 0.71637
Sample type: Calibration



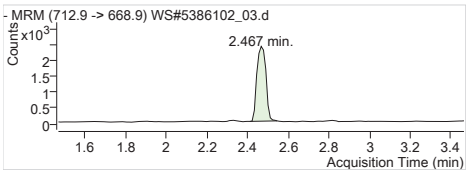


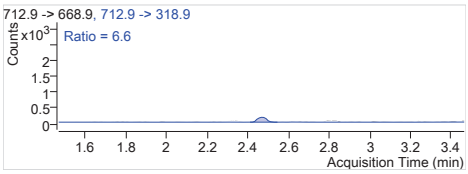
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 1.62 µg/L
Area ratio: 0.64245
Sample type: Calibration



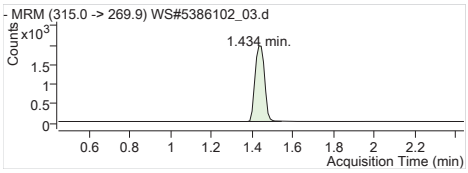


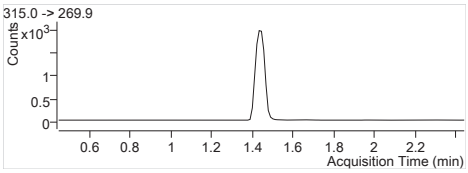
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 1.68 µg/L
Area ratio: 0.65668
Sample type: Calibration



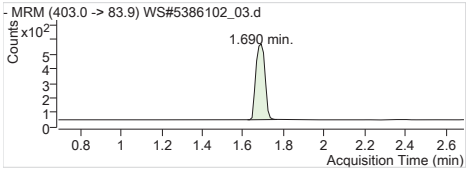


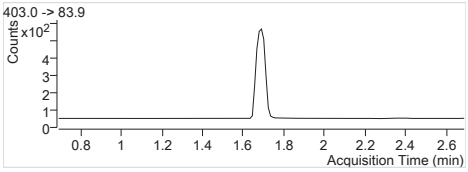
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 1.65 µg/L
Area ratio: 0.56124
Sample type: Calibration



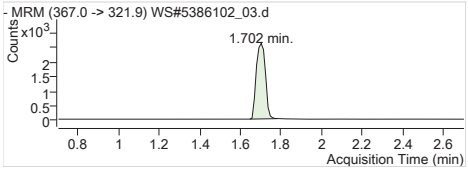


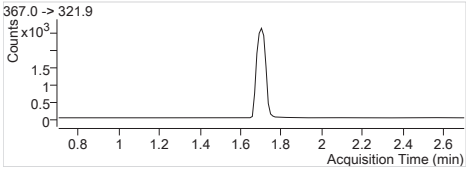
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 102.76 µg/L
Area ratio: 0.19970
Sample type: Calibration



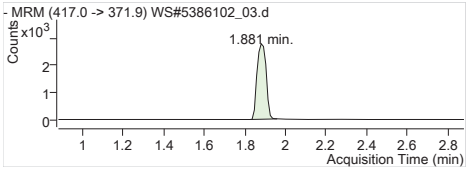


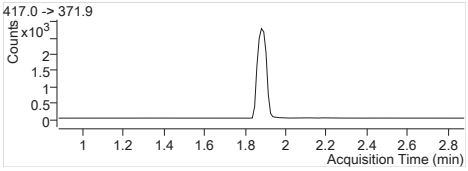
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 104.58 µg/L
Area ratio: 0.05200
Sample type: Calibration



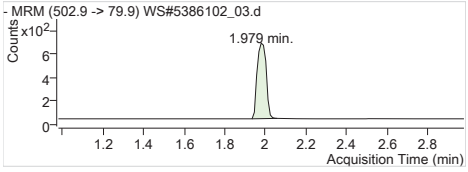


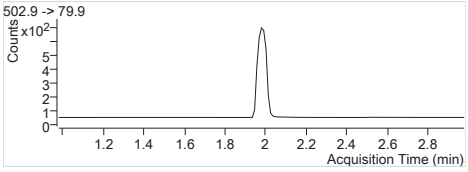
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 101.30 µg/L
Area ratio: 0.25780
Sample type: Calibration



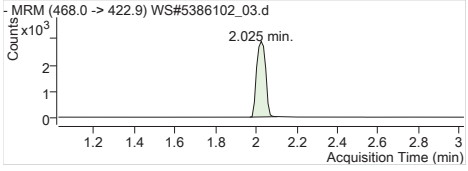


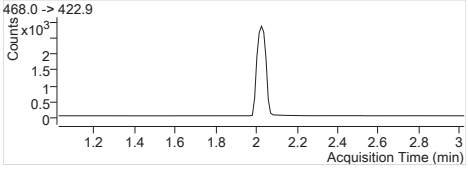
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 100.30 µg/L
Area ratio: 0.26926
Sample type: Calibration



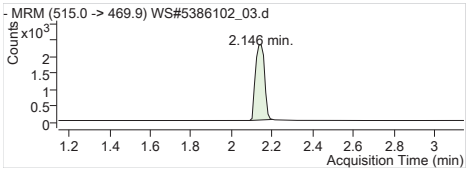


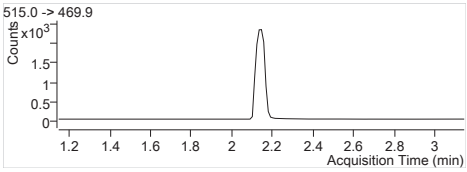
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 105.18 µg/L
Area ratio: 0.06369
Sample type: Calibration



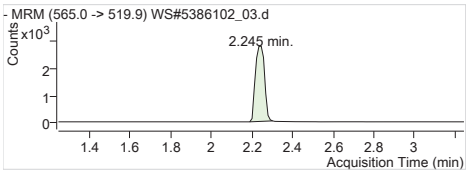


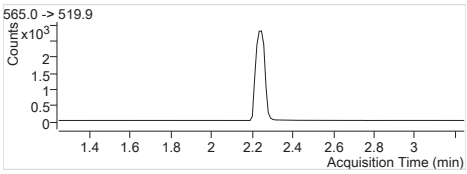
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 103.60 µg/L
Area ratio: 0.27759
Sample type: Calibration



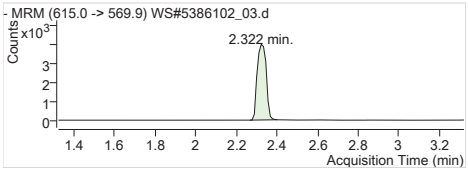


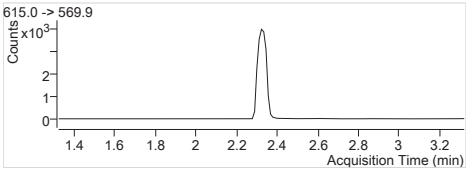
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 99.66 µg/L
Area ratio: 0.16964
Sample type: Calibration



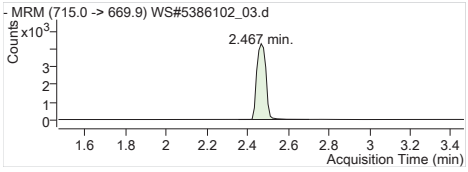


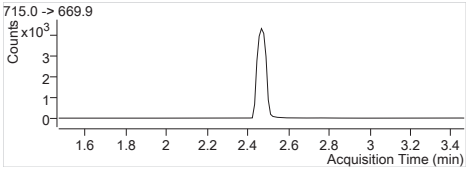
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 101.15 µg/L
Area ratio: 0.20417
Sample type: Calibration



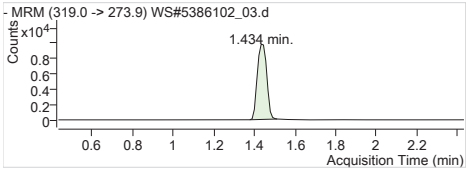


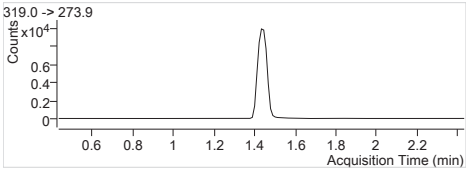
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 102.65 µg/L
Area ratio: 0.28763
Sample type: Calibration



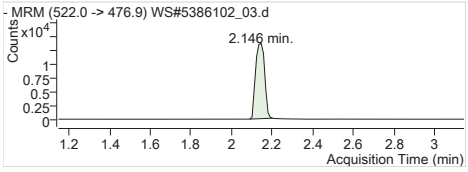


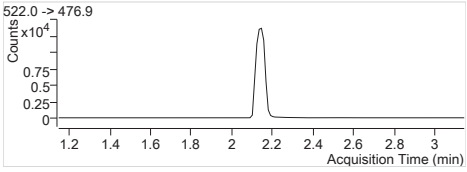
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 98.30 µg/L
Area ratio: 0.31422
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 99.24 µg/L
Area ratio: 0
Sample type: Calibration





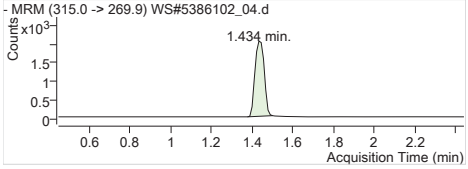
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 104.32 µg/L
Area ratio: 0
Sample type: Calibration

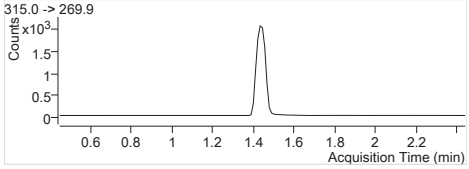
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5386102_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-D1
Acq. Date	2018/02/08 3:21:40 AM	**Injection Volume**	Per Method
Sample Annotation	-		

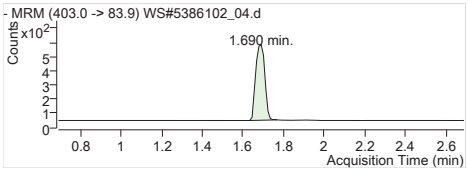
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6406	1.43	1 µg/L		
MPFHxS	1675	1.69	1 µg/L		
MPFHpA	8624	1.70	1 µg/L		
MPFOA	8909	1.88	1 µg/L		
MPFOS	2165	1.98	1 µg/L		
MPFNA	8912	2.02	1 µg/L		
MPFDA	7411	2.15	1 µg/L		
MPFUnA	8419	2.25	1 µg/L		
MPFDoA	11041	2.32	1 µg/L		
MPFTeDA	13095	2.47	1 µg/L		
13C6-PFHxA IS	31926	1.43	1 µg/L		
13C9-PFDA IS	40767	2.15	1 µg/L		

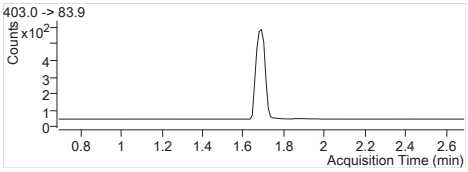
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	3474	1.10	5.00	4.94 µg/L	98.74
PFHxA 1	13004	1.43	5.00	5.07 µg/L	101.45
PFHxS 1	3485	1.68	5.00	4.98 µg/L	99.63
PFHpA 1	16931	1.70	5.00	5.01 µg/L	100.16
PFOA 1	17877	1.88	5.00	4.91 µg/L	98.12
PFOS 1	3588	1.98	5.00	4.59 µg/L	91.87
PFNA 1	16539	2.03	5.00	5.12 µg/L	102.38
PFDA 1	17246	2.15	5.00	4.80 µg/L	96.01
PFUnA 1	19018	2.25	5.00	4.91 µg/L	98.19
PFDoA 1	25147	2.32	5.00	5.53 µg/L	110.63
PFTrDA 1	28657	2.40	5.00	5.37 µg/L	107.36
PFTeDA 1	23410	2.47	5.00	5.16 µg/L	103.25
13C2-PFHxA	6406	1.43	100.00	103.25 µg/L	103.25
18O2-PFHxS	1675	1.69	100.00	105.52 µg/L	105.52
13C4-PFHpA	8624	1.70	100.00	106.15 µg/L	106.15
13C4-PFOA	8909	1.88	100.00	103.94 µg/L	103.94
13C4-PFOS	2165	1.98	100.00	112.00 µg/L	112.00
13C5-PFNA	8905	2.02	100.00	104.10 µg/L	104.10
13C2-PFDA	7232	2.15	100.00	104.22 µg/L	104.22
13C2-PFUnA	8419	2.25	100.00	102.32 µg/L	102.32
13C2-PFDoA	11041	2.32	100.00	96.65 µg/L	96.65
13C2-PFTeDA	13280	2.47	100.00	101.91 µg/L	101.91
13C6-PFHxA	31926	1.43	100.00	100.64 µg/L	100.64
13C9-PFDA	40767	2.15	100.00	100.52 µg/L	100.52



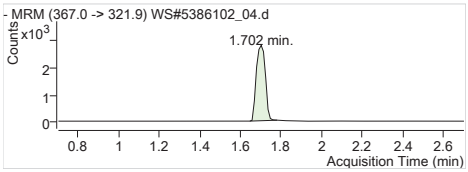


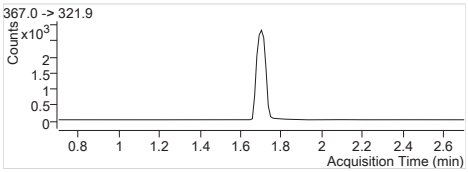
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.445)
Concentration: 1 µg/L
Sample type: Calibration



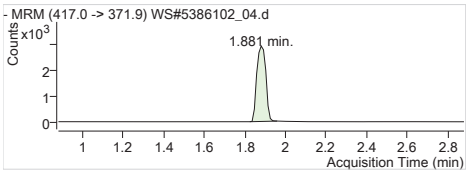


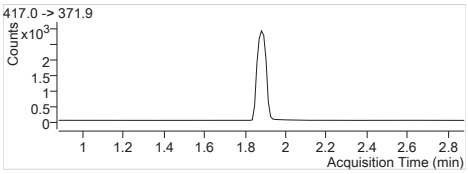
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



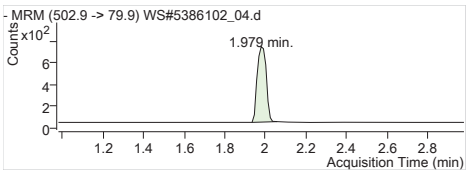


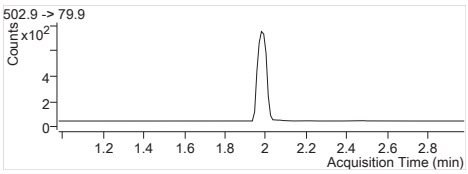
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Calibration



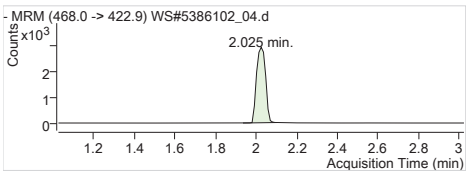


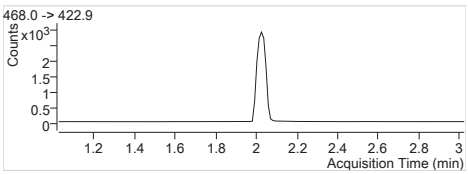
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



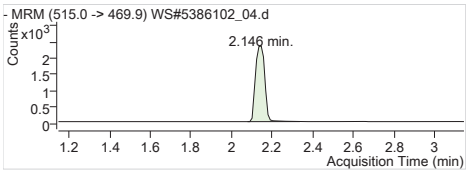


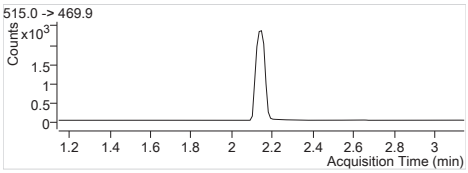
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



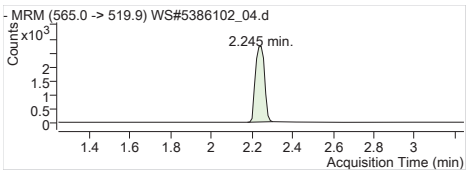


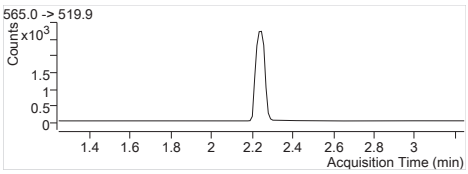
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Calibration



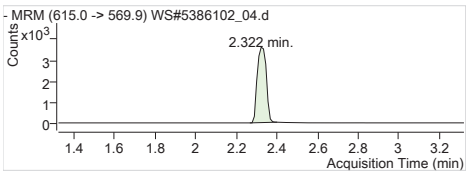


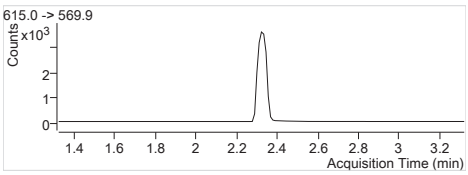
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



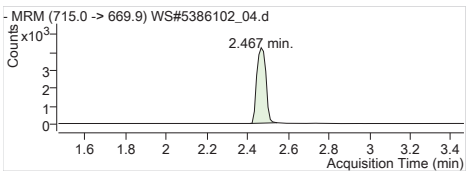


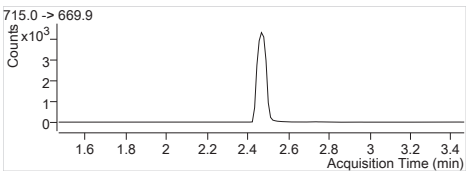
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



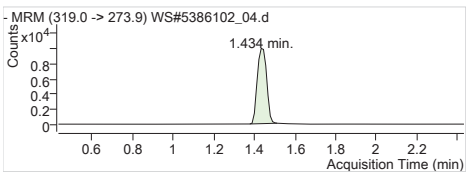


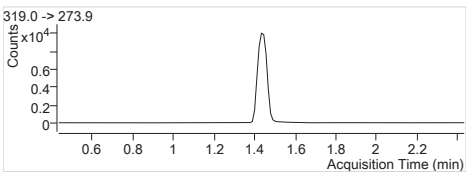
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



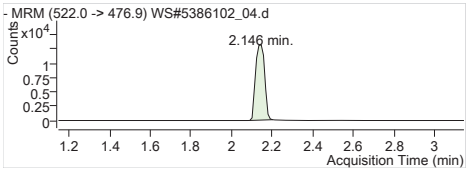


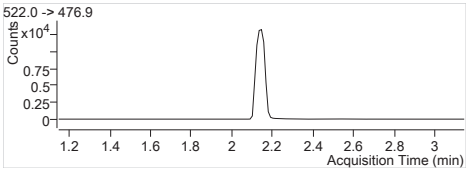
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



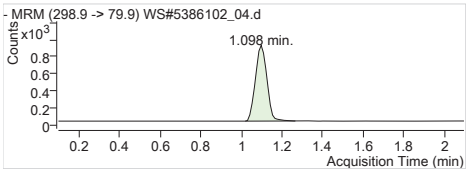


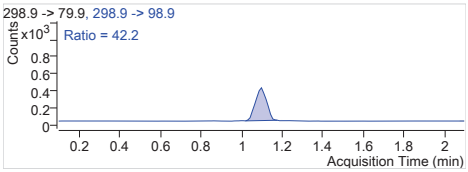
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



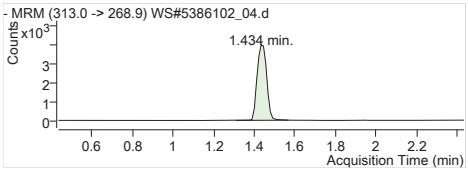


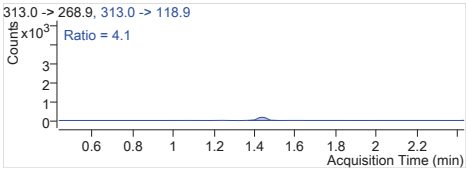
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



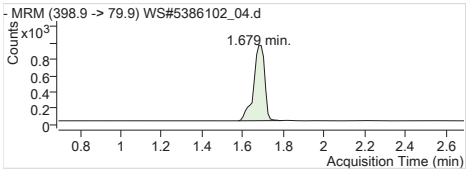


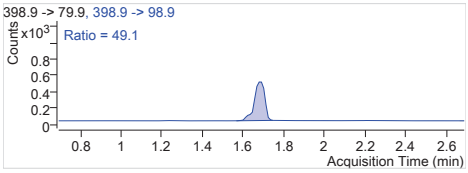
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 4.94 µg/L
Area ratio: 2.07403
Sample type: Calibration



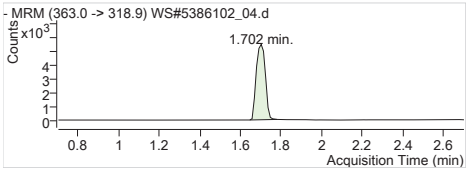


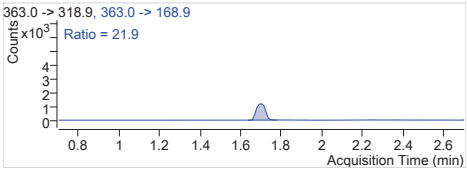
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 5.07 µg/L
Area ratio: 2.02997
Sample type: Calibration



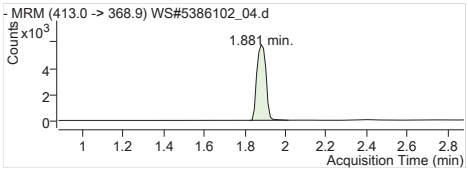


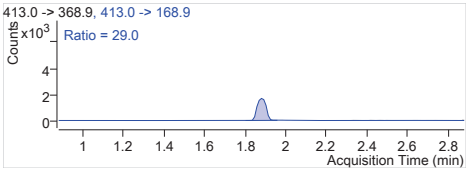
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 4.98 µg/L
Area ratio: 2.08060
Sample type: Calibration



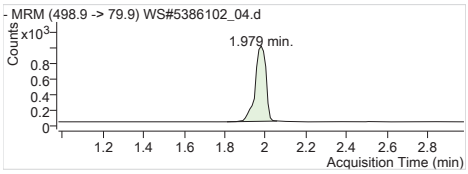


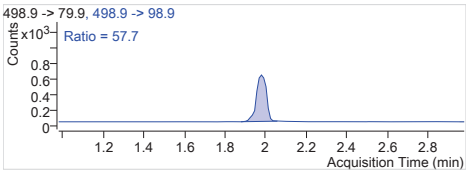
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 5.01 µg/L
Area ratio: 1.96324
Sample type: Calibration



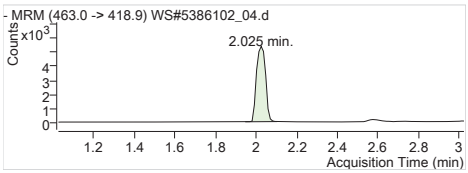


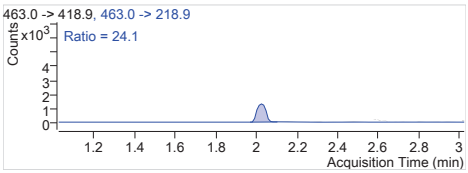
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 4.91 µg/L
Area ratio: 2.00662
Sample type: Calibration



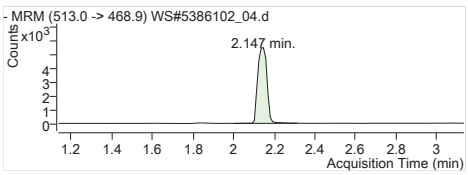


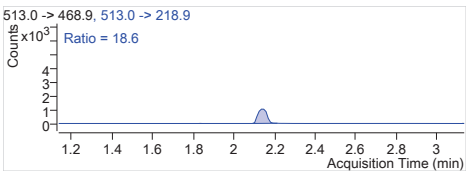
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 4.59 µg/L
Area ratio: 1.65727
Sample type: Calibration



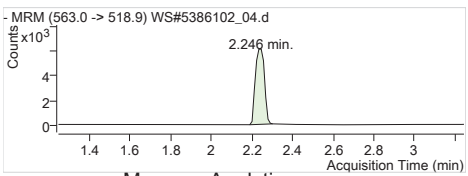


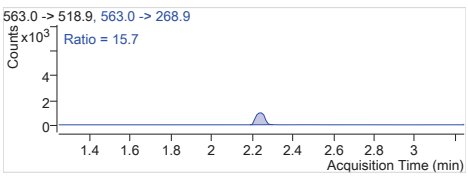
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 5.12 µg/L
Area ratio: 1.85581
Sample type: Calibration



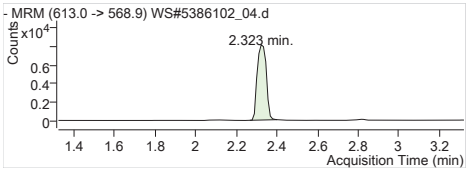


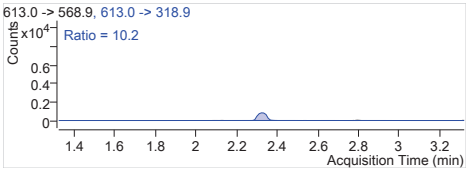
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.135)
Calc. conc. 4.80 µg/L
Area ratio: 2.32708
Sample type: Calibration



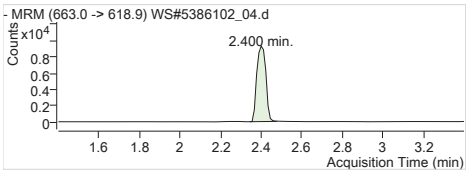


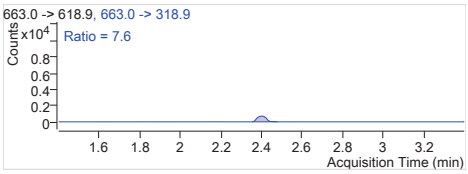
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 4.91 µg/L
Area ratio: 2.25894
Sample type: Calibration



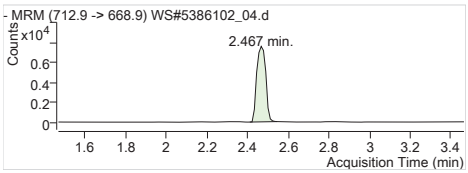


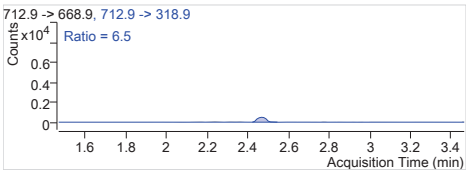
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 5.53 µg/L
Area ratio: 2.27760
Sample type: Calibration



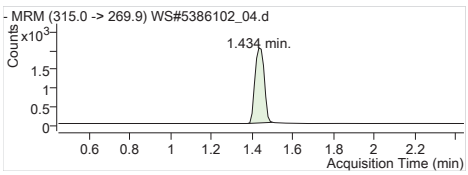


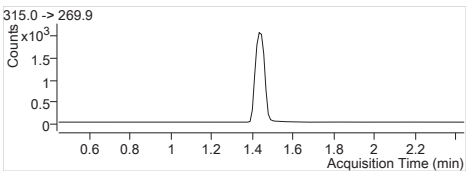
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 5.37 µg/L
Area ratio: 2.18839
Sample type: Calibration



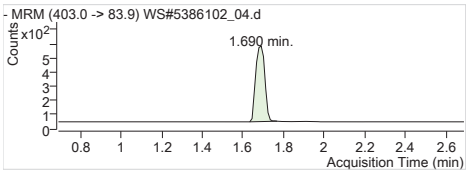


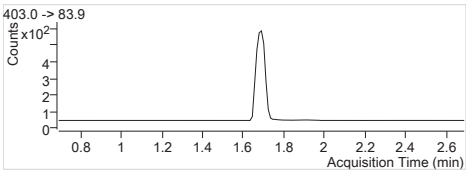
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 5.16 µg/L
Area ratio: 1.78771
Sample type: Calibration



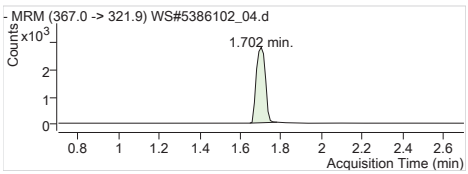


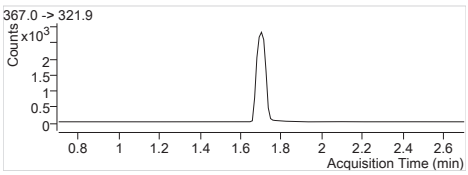
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 103.25 µg/L
Area ratio: 0.20065
Sample type: Calibration



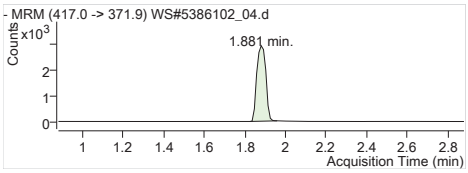


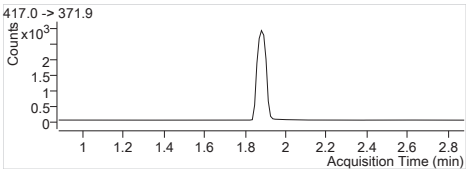
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 105.52 µg/L
Area ratio: 0.05247
Sample type: Calibration



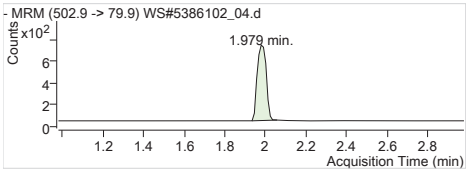


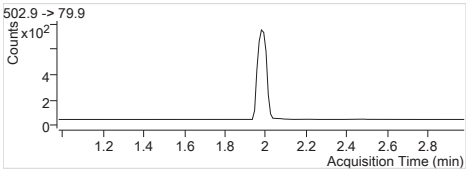
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 106.15 µg/L
Area ratio: 0.27012
Sample type: Calibration



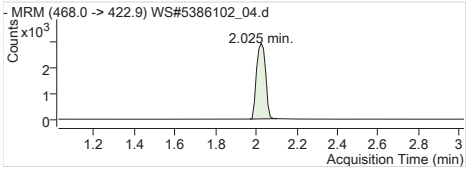


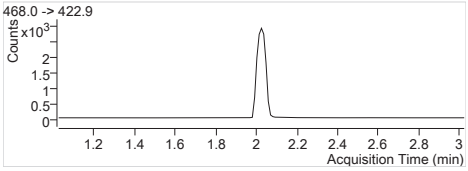
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 103.94 µg/L
Area ratio: 0.27905
Sample type: Calibration



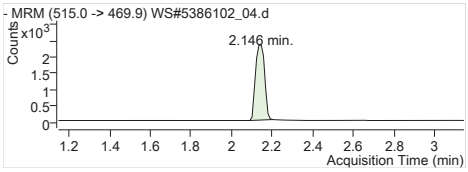


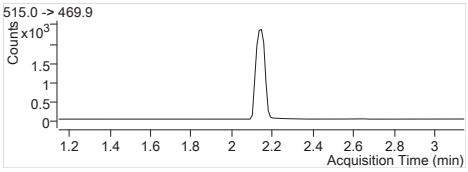
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 112.00 µg/L
Area ratio: 0.06781
Sample type: Calibration



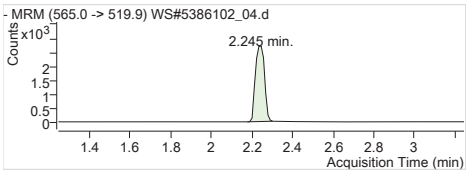


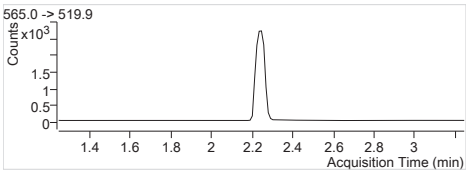
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 104.10 µg/L
Area ratio: 0.27893
Sample type: Calibration



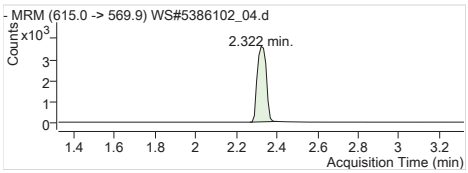


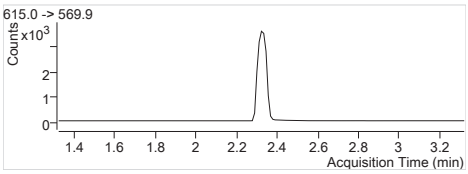
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 104.22 µg/L
Area ratio: 0.17740
Sample type: Calibration



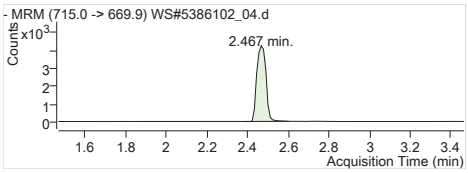


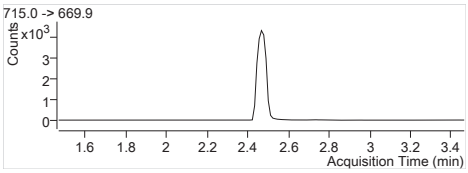
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 102.32 µg/L
Area ratio: 0.20652
Sample type: Calibration



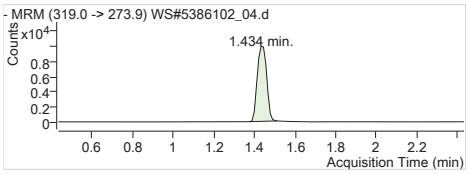


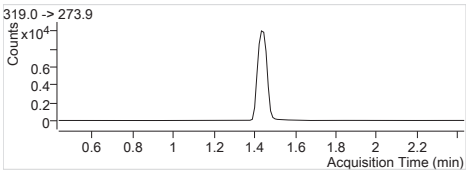
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 96.65 µg/L
Area ratio: 0.27083
Sample type: Calibration



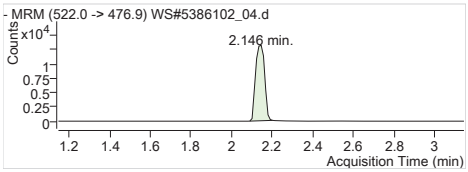


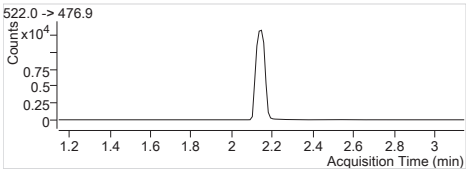
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 101.91 µg/L
Area ratio: 0.32575
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 100.64 µg/L
Area ratio: 0
Sample type: Calibration





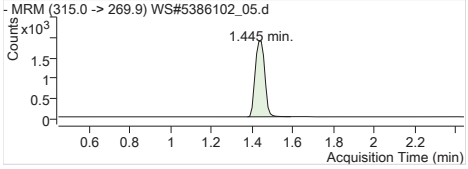
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 100.52 µg/L
Area ratio: 0
Sample type: Calibration

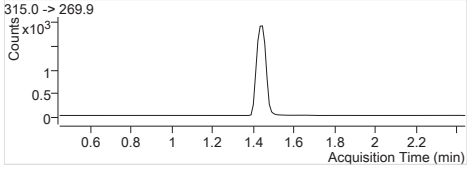
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5386102_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-D2
Acq. Date	2018/02/08 3:26:36 AM	**Injection Volume**	Per Method
Sample Annotation	-		

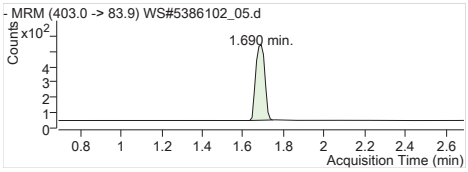
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6125	1.44	1 µg/L		
MPFHxS	1536	1.69	1 µg/L		
MPFHpA	8106	1.70	1 µg/L		
MPFOA	8318	1.88	1 µg/L		
MPFOS	1739	1.98	1 µg/L		
MPFNA	8270	2.02	1 µg/L		
MPFDA	7140	2.15	1 µg/L		
MPFUnA	8118	2.25	1 µg/L		
MPFDoA	11989	2.32	1 µg/L		
MPFTeDA	13266	2.47	1 µg/L		
13C6-PFHxA IS	32806	1.43	1 µg/L		
13C9-PFDA IS	41938	2.15	1 µg/L		

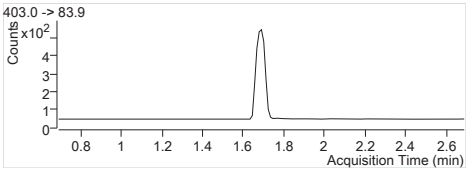
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8497	1.10	12.50	13.07 µg/L	104.53
PFHxA 1	29662	1.43	12.50	11.97 µg/L	95.79
PFHxS 1	8086	1.69	12.50	12.68 µg/L	101.48
PFHpA 1	39741	1.70	12.50	12.40 µg/L	99.21
PFOA 1	42181	1.88	12.50	12.21 µg/L	97.67
PFOS 1	8472	1.98	12.50	13.29 µg/L	106.33
PFNA 1	37275	2.03	12.50	12.36 µg/L	98.91
PFDA 1	42674	2.14	12.50	12.35 µg/L	98.78
PFUnA 1	44484	2.25	12.50	11.74 µg/L	93.95
PFDoA 1	57101	2.32	12.50	11.48 µg/L	91.87
PFTrDA 1	62931	2.40	12.50	11.53 µg/L	92.21
PFTeDA 1	55599	2.47	12.50	12.04 µg/L	96.28
13C2-PFHxA	6125	1.44	100.00	96.08 µg/L	96.08
18O2-PFHxS	1536	1.69	100.00	94.17 µg/L	94.17
13C4-PFHpA	8106	1.70	100.00	97.10 µg/L	97.10
13C4-PFOA	8318	1.88	100.00	94.44 µg/L	94.44
13C4-PFOS	1739	1.98	100.00	87.55 µg/L	87.55
13C5-PFNA	8269	2.02	100.00	94.07 µg/L	94.07
13C2-PFDA	7017	2.15	100.00	98.30 µg/L	98.30
13C2-PFUnA	8118	2.25	100.00	95.90 µg/L	95.90
13C2-PFDoA	11989	2.32	100.00	102.02 µg/L	102.02
13C2-PFTeDA	13490	2.47	100.00	100.63 µg/L	100.63
13C6-PFHxA	32806	1.43	100.00	103.42 µg/L	103.42
13C9-PFDA	41938	2.15	100.00	103.41 µg/L	103.41



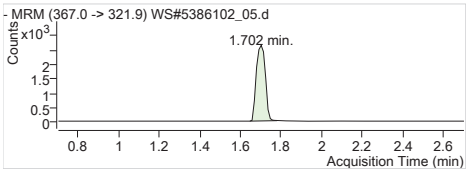


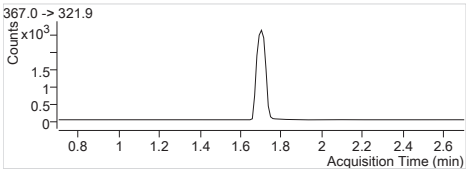
MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Calibration



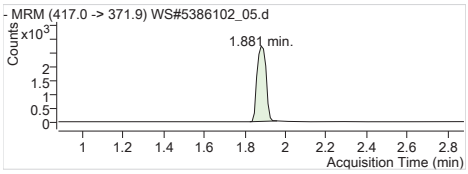


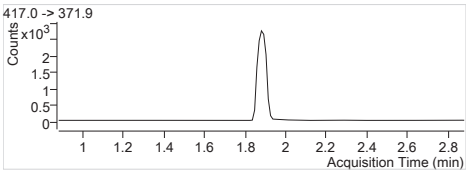
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



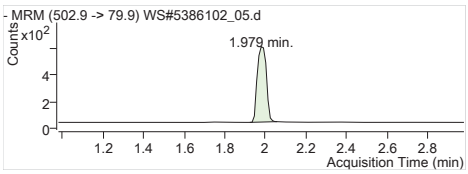


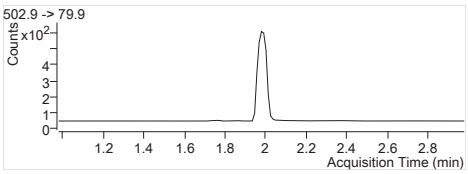
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Calibration



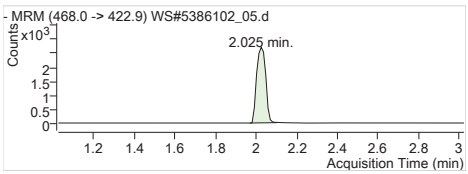


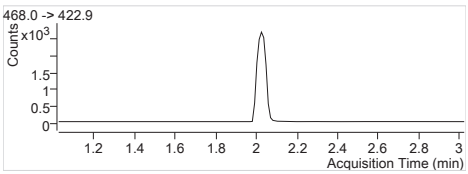
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



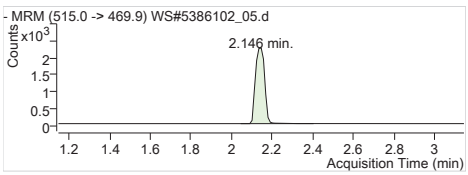


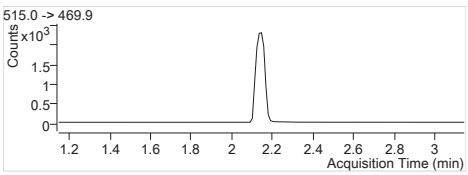
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



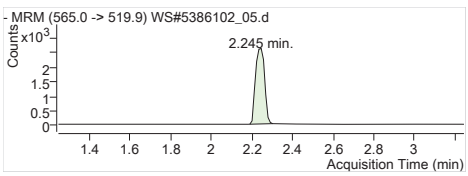


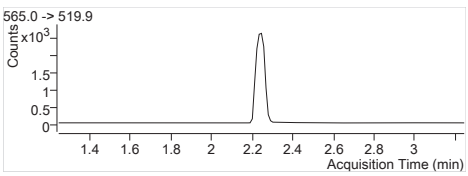
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Calibration



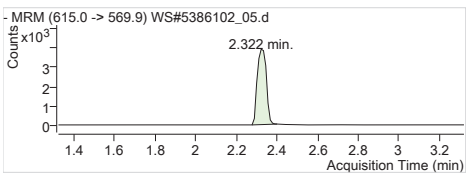


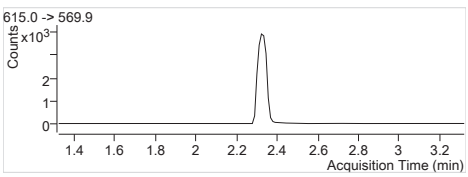
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



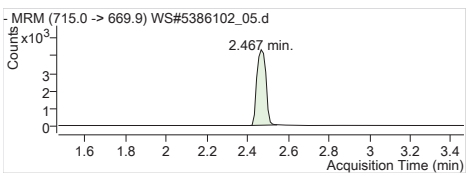


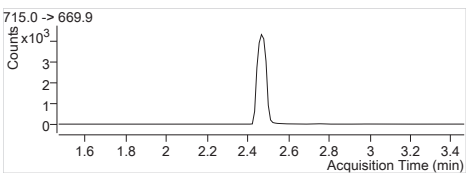
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



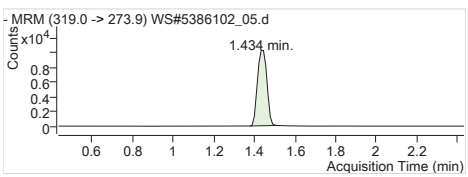


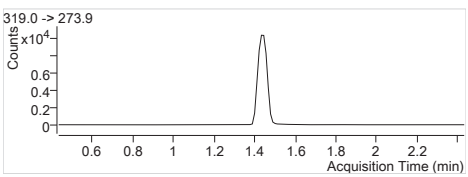
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



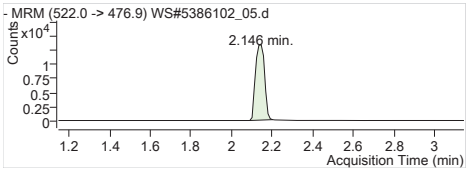


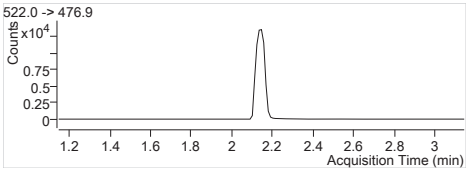
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



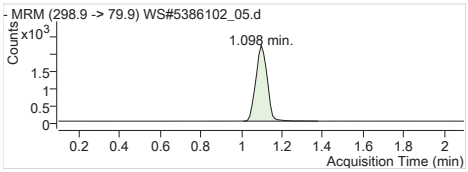


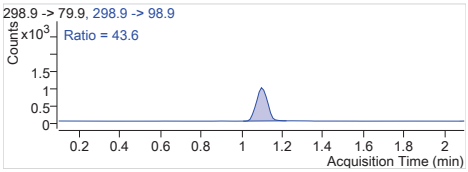
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



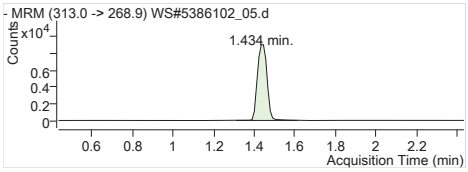


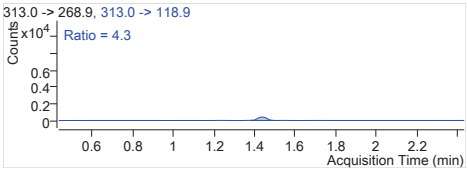
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



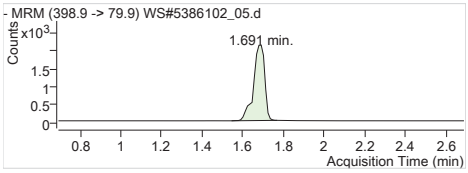


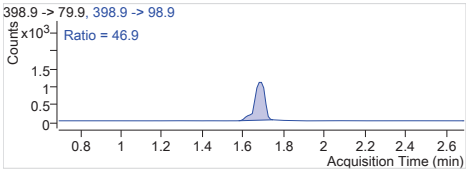
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 13.07 µg/L
Area ratio: 5.53190
Sample type: Calibration



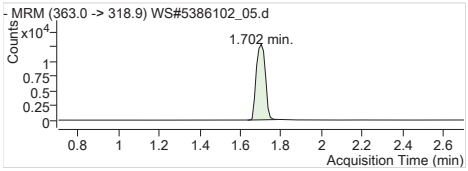


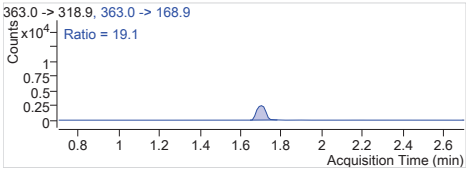
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 11.97 µg/L
Area ratio: 4.84278
Sample type: Calibration



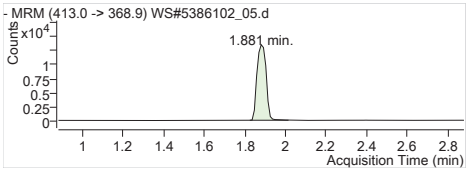


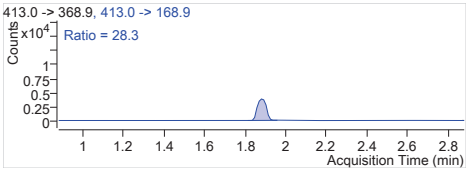
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.68 µg/L
Area ratio: 5.26432
Sample type: Calibration



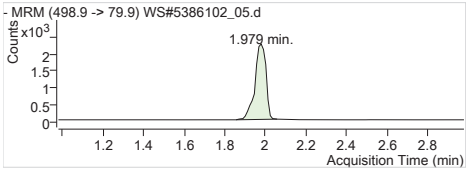


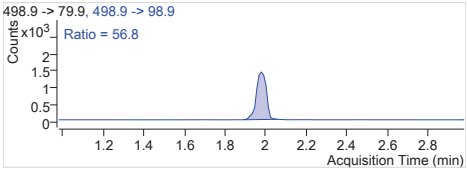
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 12.40 µg/L
Area ratio: 4.90266
Sample type: Calibration



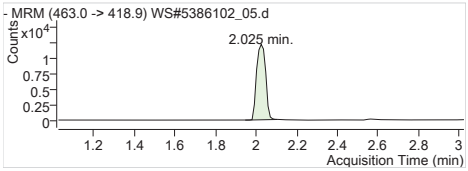


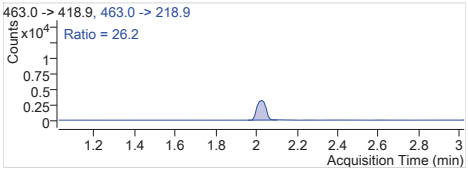
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 12.21 µg/L
Area ratio: 5.07105
Sample type: Calibration



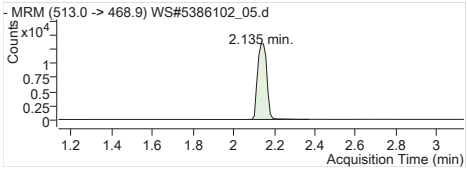


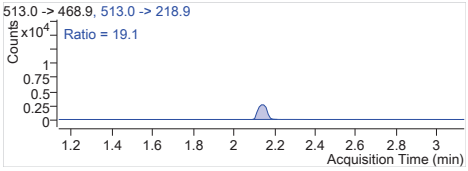
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 13.29 µg/L
Area ratio: 4.87177
Sample type: Calibration



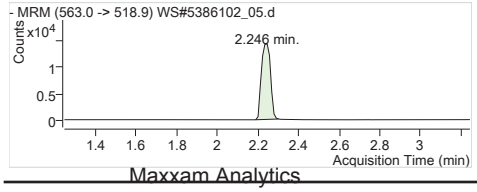


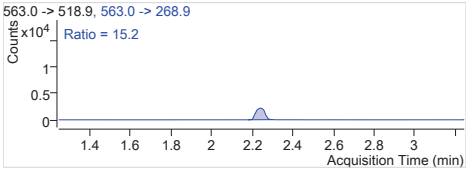
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 12.36 µg/L
Area ratio: 4.50726
Sample type: Calibration



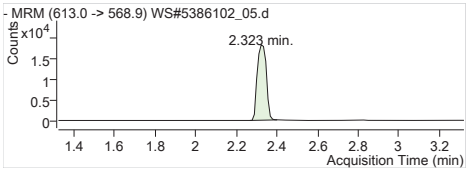


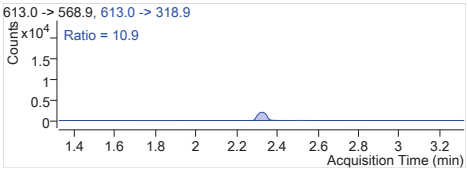
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 12.35 µg/L
Area ratio: 5.97675
Sample type: Calibration



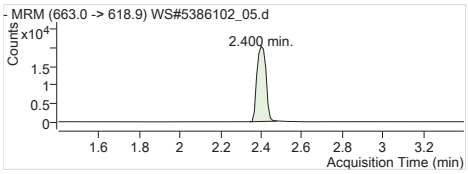


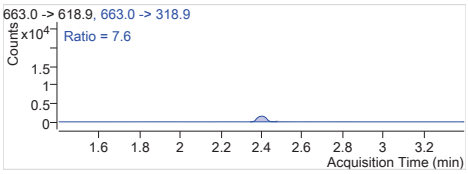
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 11.74 µg/L
Area ratio: 5.47967
Sample type: Calibration



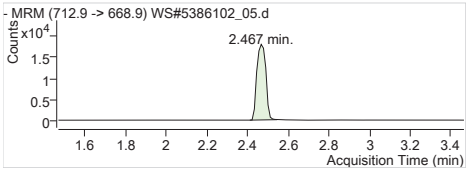


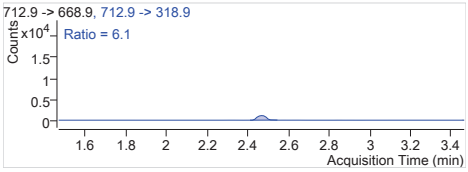
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 11.48 µg/L
Area ratio: 4.76278
Sample type: Calibration



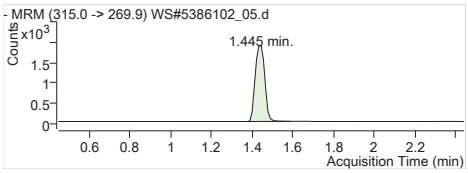


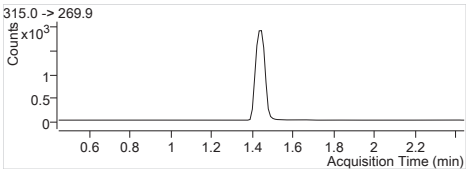
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 11.53 µg/L
Area ratio: 4.74378
Sample type: Calibration



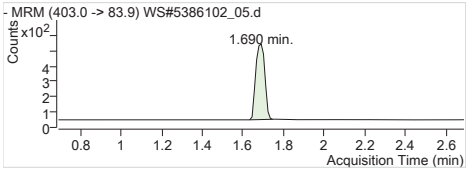


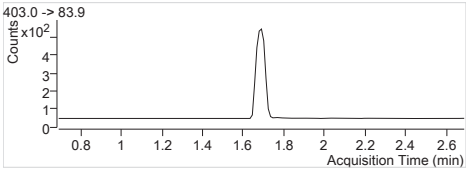
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 12.04 µg/L
Area ratio: 4.19109
Sample type: Calibration



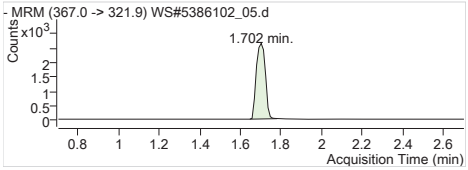


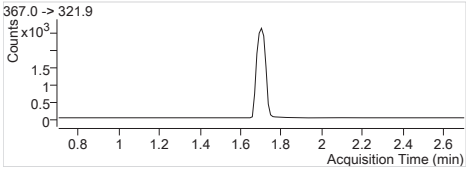
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.445)
Calc. conc. 96.08 µg/L
Area ratio: 0.18670
Sample type: Calibration



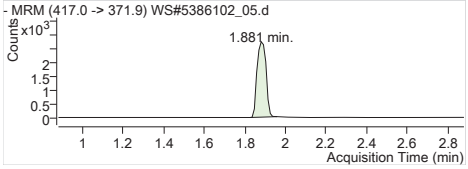


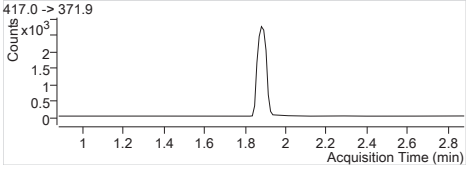
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 94.17 µg/L
Area ratio: 0.04682
Sample type: Calibration



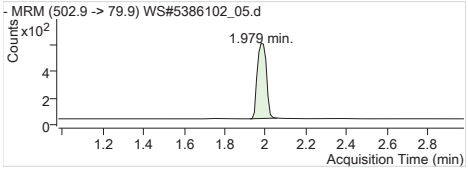


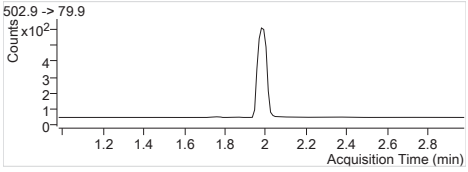
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 97.10 µg/L
Area ratio: 0.24709
Sample type: Calibration



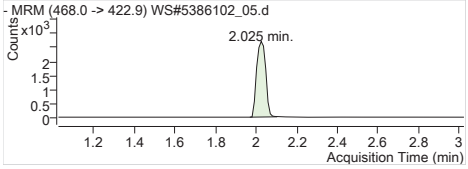


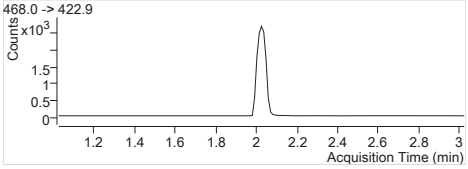
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 94.44 µg/L
Area ratio: 0.25355
Sample type: Calibration



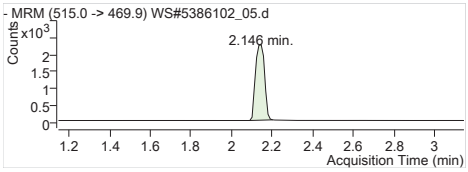


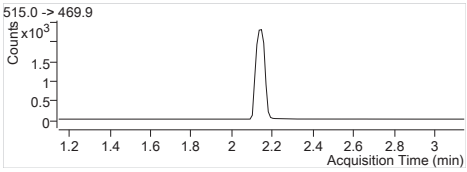
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 87.55 µg/L
Area ratio: 0.05301
Sample type: Calibration



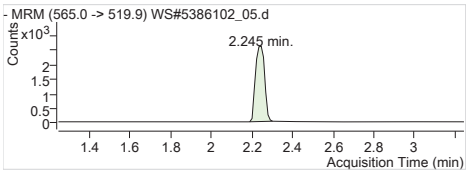


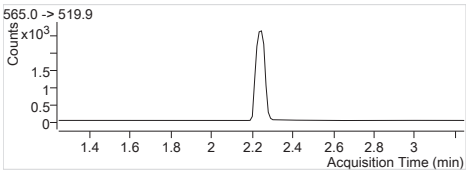
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 94.07 µg/L
Area ratio: 0.25206
Sample type: Calibration



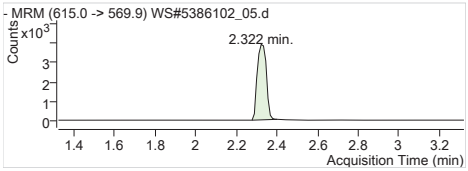


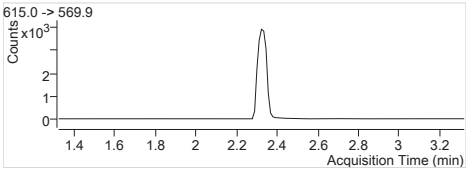
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 98.30 µg/L
Area ratio: 0.16732
Sample type: Calibration



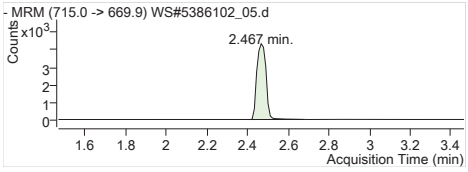


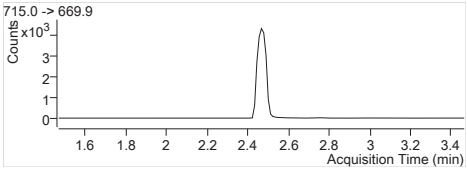
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 95.90 µg/L
Area ratio: 0.19357
Sample type: Calibration



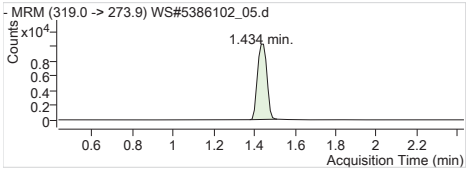


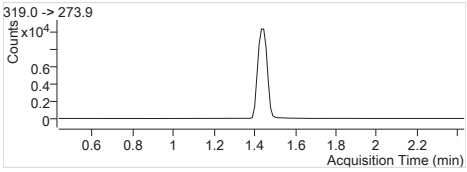
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 102.02 µg/L
Area ratio: 0.28587
Sample type: Calibration



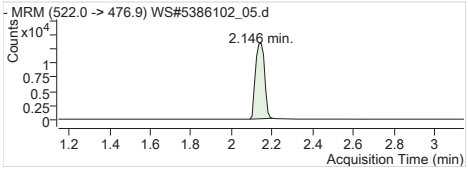


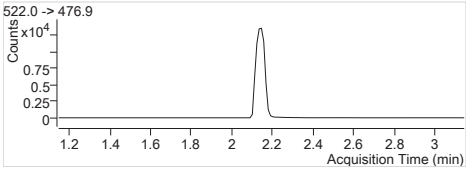
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 100.63 µg/L
Area ratio: 0.32167
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 103.42 µg/L
Area ratio: 0
Sample type: Calibration





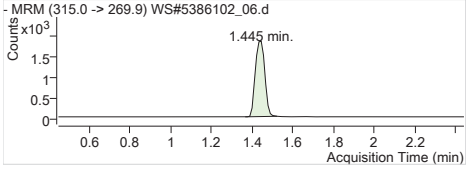
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 103.41 µg/L
Area ratio: 0
Sample type: Calibration

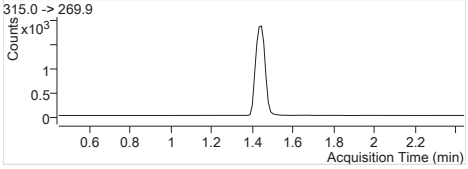
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5386102_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-D3
Acq. Date	2018/02/08 3:31:32 AM	**Injection Volume**	Per Method
Sample Annotation	-		

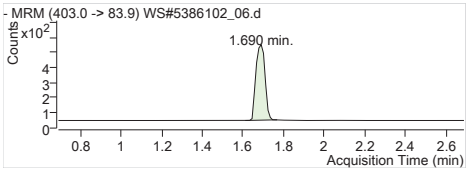
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5939	1.44	1 µg/L		
MPFHxS	1560	1.69	1 µg/L		
MPFHpA	7782	1.70	1 µg/L		
MPFOA	8479	1.88	1 µg/L		
MPFOS	1893	1.98	1 µg/L		
MPFNA	8438	2.02	1 µg/L		
MPFDA	6929	2.15	1 µg/L		
MPFUnA	7581	2.25	1 µg/L		
MPFDoA	11015	2.32	1 µg/L		
MPFTeDA	11987	2.47	1 µg/L		
13C6-PFHxA IS	31504	1.44	1 µg/L		
13C9-PFDA IS	39393	2.15	1 µg/L		

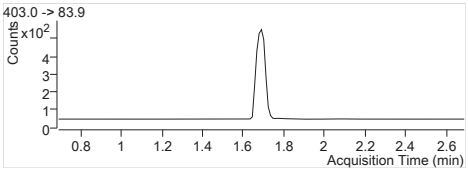
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	16101	1.10	25.00	24.32 µg/L	97.30
PFHxA 1	59203	1.45	25.00	24.55 µg/L	98.20
PFHxS 1	15866	1.69	25.00	24.55 µg/L	98.22
PFHpA 1	75218	1.70	25.00	24.38 µg/L	97.53
PFOA 1	85357	1.88	25.00	24.12 µg/L	96.46
PFOS 1	16897	1.98	25.00	24.26 µg/L	97.05
PFNA 1	74127	2.03	25.00	24.05 µg/L	96.20
PFDA 1	82723	2.15	25.00	24.68 µg/L	98.70
PFUnA 1	87330	2.25	25.00	24.56 µg/L	98.25
PFDoA 1	108804	2.32	25.00	23.73 µg/L	94.94
PFTrDA 1	124952	2.40	25.00	25.22 µg/L	100.86
PFTeDA 1	102650	2.47	25.00	24.54 µg/L	98.16
13C2-PFHxA	5939	1.44	100.00	97.01 µg/L	97.01
18O2-PFHxS	1560	1.69	100.00	99.60 µg/L	99.60
13C4-PFHpA	7782	1.70	100.00	97.07 µg/L	97.07
13C4-PFOA	8479	1.88	100.00	100.25 µg/L	100.25
13C4-PFOS	1893	1.98	100.00	99.24 µg/L	99.24
13C5-PFNA	8439	2.02	100.00	99.97 µg/L	99.97
13C2-PFDA	6749	2.15	100.00	100.66 µg/L	100.66
13C2-PFUnA	7581	2.25	100.00	95.35 µg/L	95.35
13C2-PFDoA	11015	2.32	100.00	99.79 µg/L	99.79
13C2-PFTeDA	12212	2.47	100.00	96.98 µg/L	96.98
13C6-PFHxA	31504	1.44	100.00	99.31 µg/L	99.31
13C9-PFDA	39393	2.15	100.00	97.14 µg/L	97.14



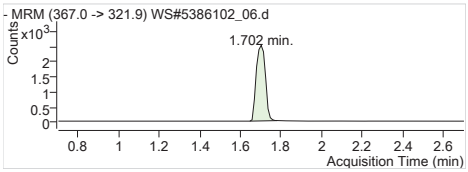


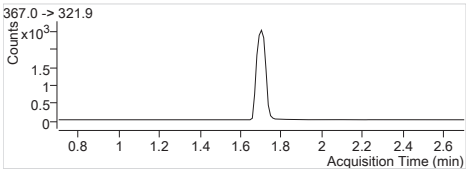
MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: Calibration



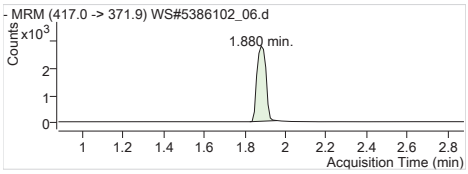


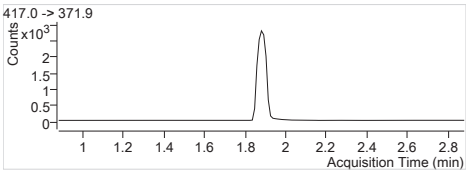
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



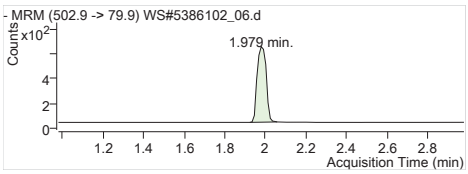


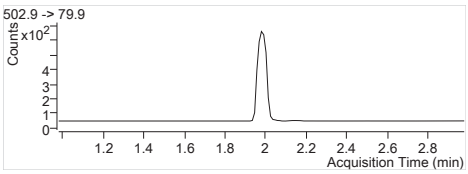
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Calibration



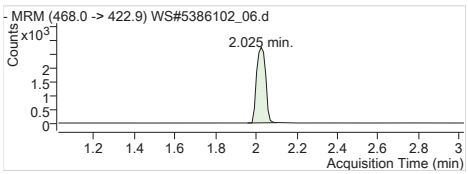


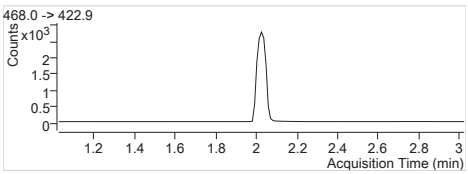
MPFOA Internal Standard
RT (Exp. RT): 1.880 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



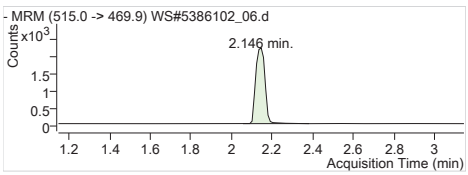


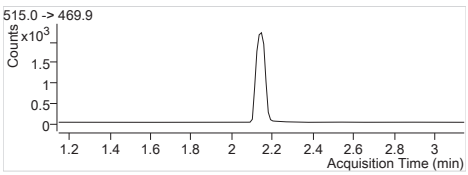
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



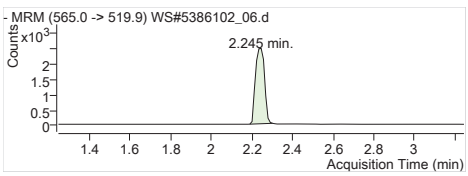


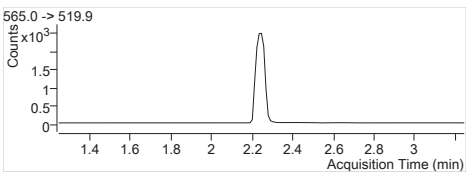
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Calibration



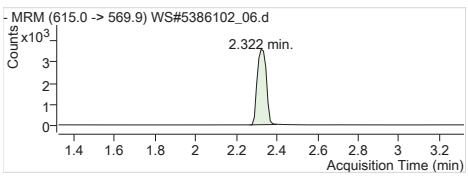


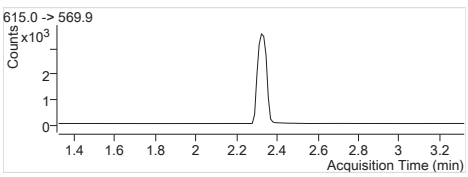
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



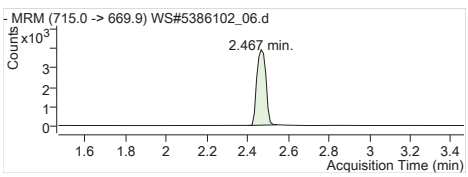


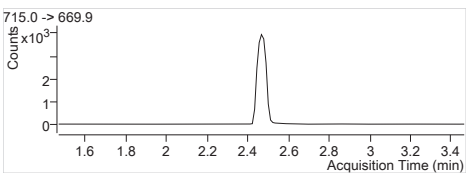
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



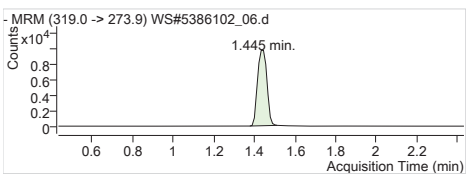


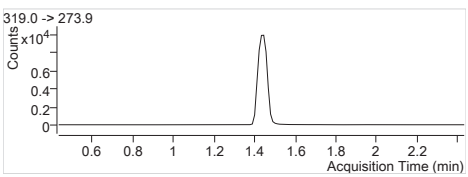
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



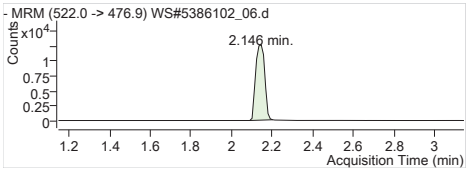


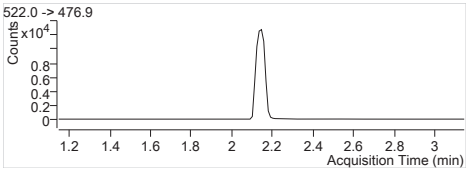
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



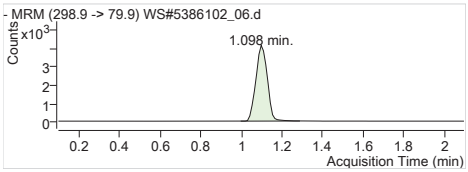


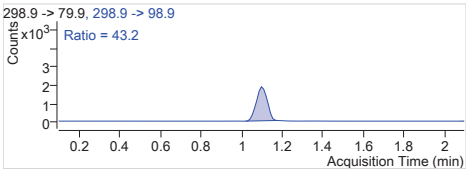
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



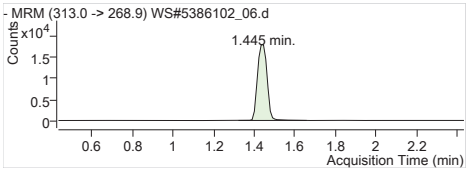


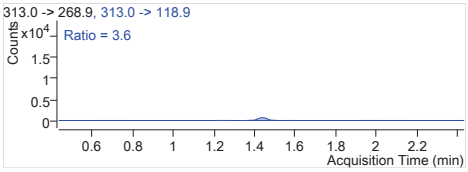
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



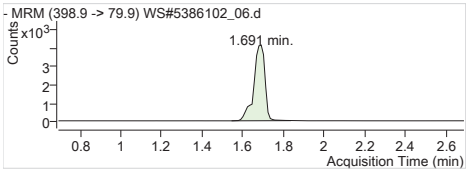


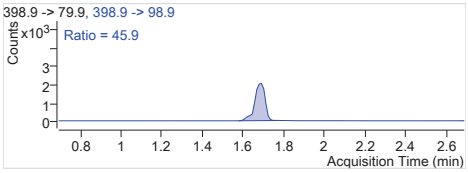
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 24.32 µg/L
Area ratio: 10.32115
Sample type: Calibration



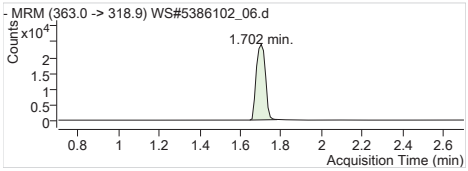


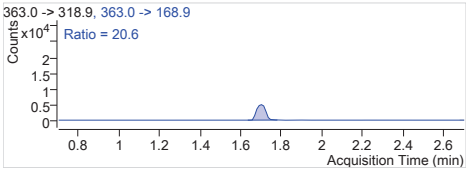
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.445 (1.434)
Calc. conc. 24.55 µg/L
Area ratio: 9.96851
Sample type: Calibration



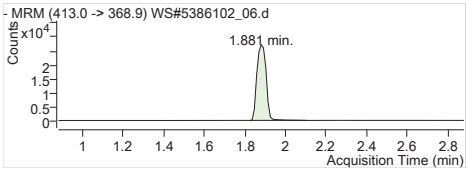


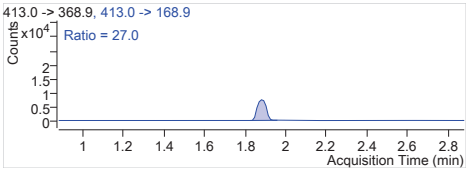
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 24.55 µg/L
Area ratio: 10.17051
Sample type: Calibration



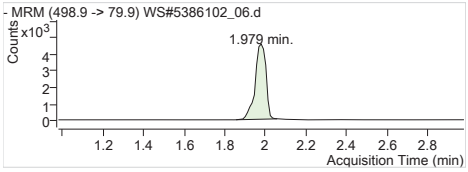


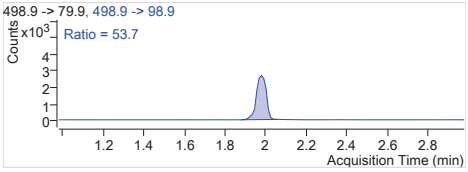
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 24.38 µg/L
Area ratio: 9.66564
Sample type: Calibration



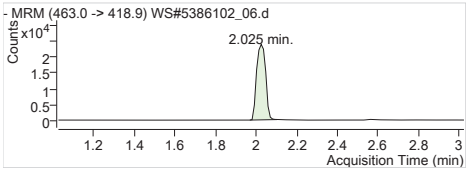


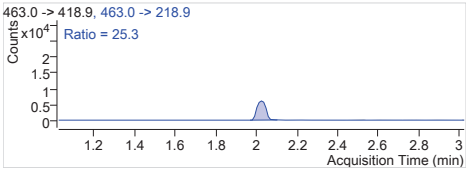
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 24.12 µg/L
Area ratio: 10.06687
Sample type: Calibration



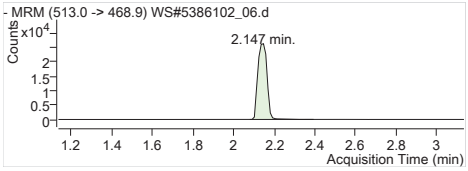


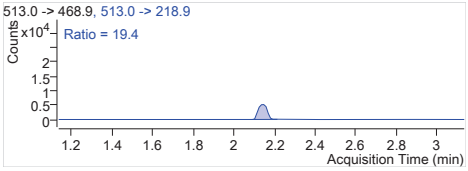
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 24.26 µg/L
Area ratio: 8.92604
Sample type: Calibration



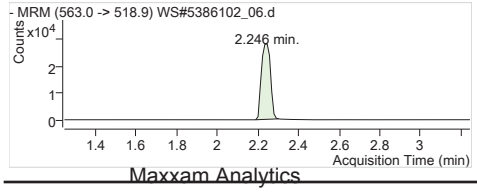


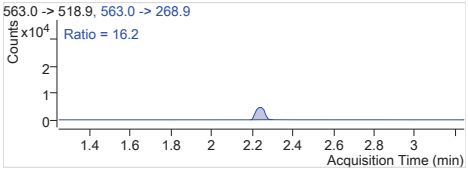
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 24.05 µg/L
Area ratio: 8.78490
Sample type: Calibration



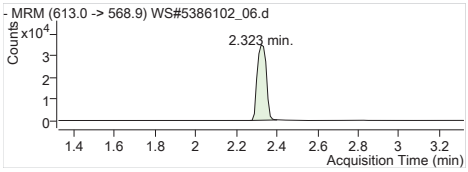


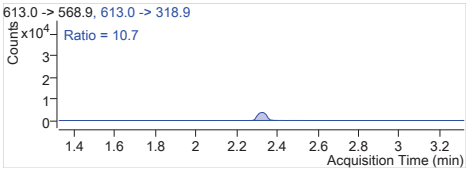
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.135)
Calc. conc. 24.68 µg/L
Area ratio: 11.93866
Sample type: Calibration



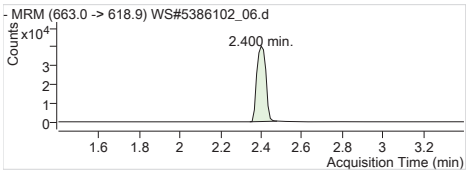


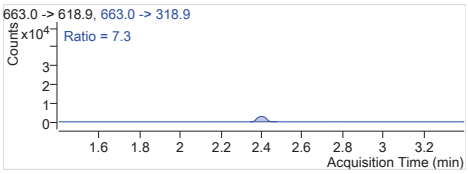
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 24.56 µg/L
Area ratio: 11.51959
Sample type: Calibration



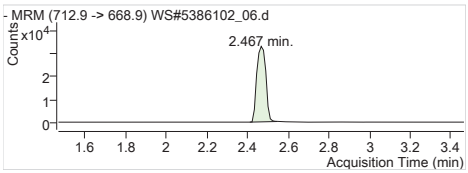


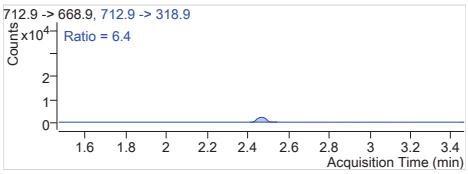
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.323 (2.323)
Calc. conc.	23.73 µg/L
Area ratio:	9.87780
Sample type:	Calibration



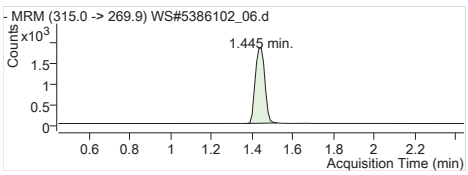


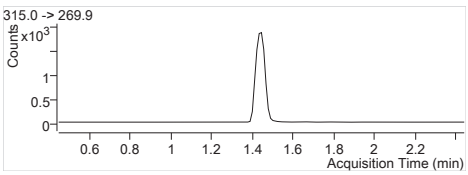
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.400 (2.400)
Calc. conc.	25.22 µg/L
Area ratio:	10.42396
Sample type:	Calibration



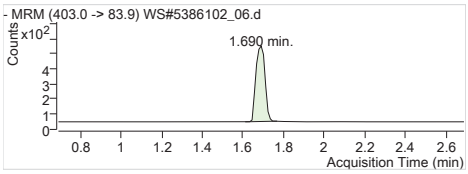


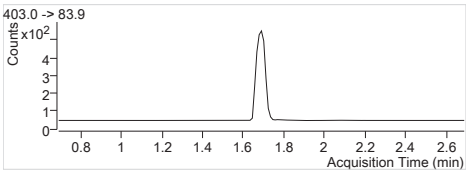
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	24.54 µg/L
Area ratio:	8.56344
Sample type:	Calibration



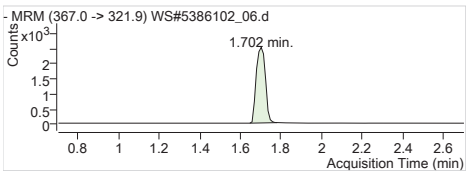


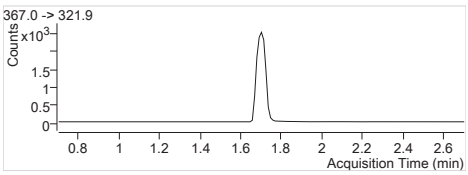
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.445 (1.445)
Calc. conc.	97.01 µg/L
Area ratio:	0.18852
Sample type:	Calibration



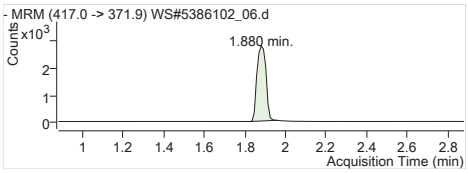


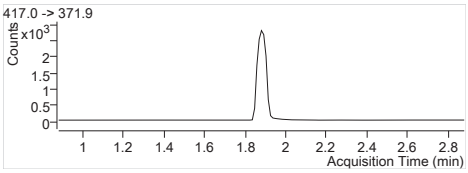
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	99.60 µg/L
Area ratio:	0.04952
Sample type:	Calibration



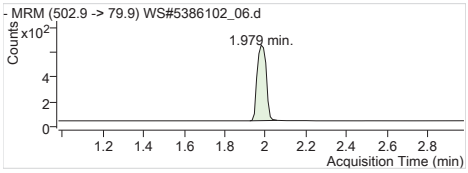


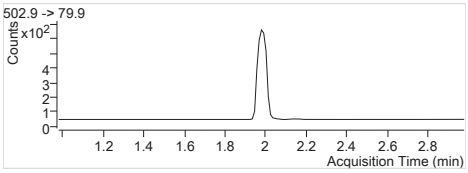
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.702 (1.702)
Calc. conc.	97.07 µg/L
Area ratio:	0.24702
Sample type:	Calibration



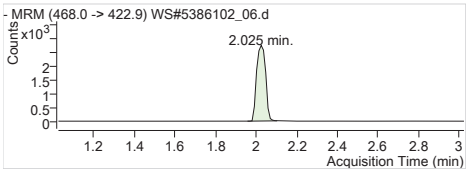


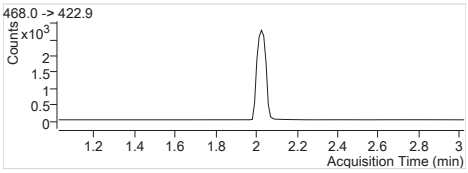
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.880 (1.881)
Calc. conc.	100.25 µg/L
Area ratio:	0.26914
Sample type:	Calibration



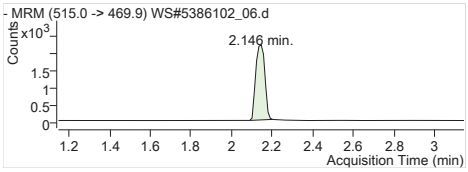


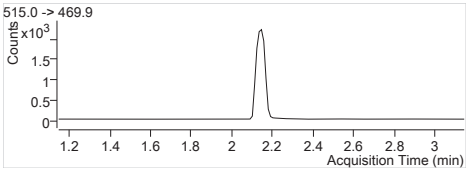
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	99.24 µg/L
Area ratio:	0.06009
Sample type:	Calibration



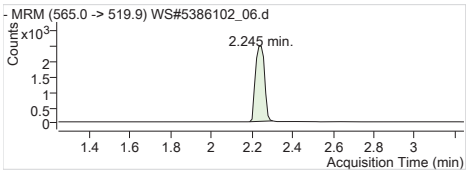


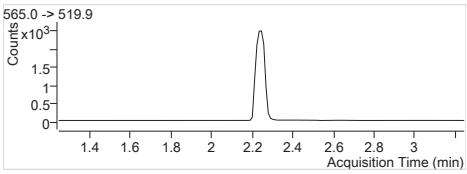
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.025 (2.025)
Calc. conc.	99.97 µg/L
Area ratio:	0.26787
Sample type:	Calibration



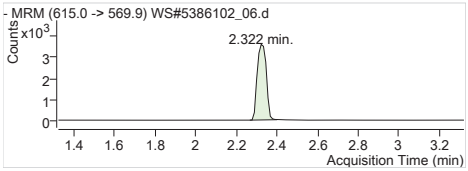


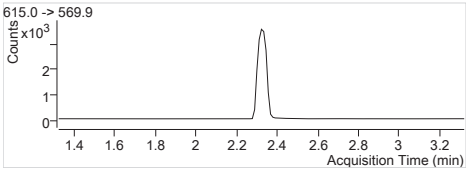
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 100.66 µg/L
Area ratio: 0.17132
Sample type: Calibration



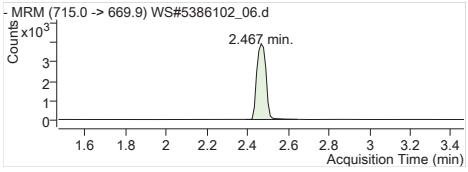


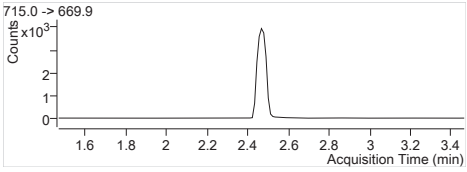
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 95.35 µg/L
Area ratio: 0.19245
Sample type: Calibration



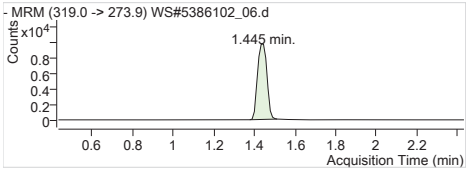


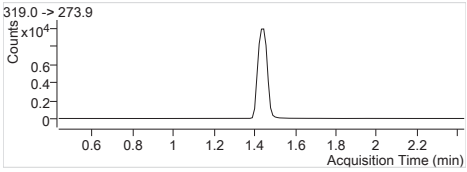
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 99.79 µg/L
Area ratio: 0.27962
Sample type: Calibration



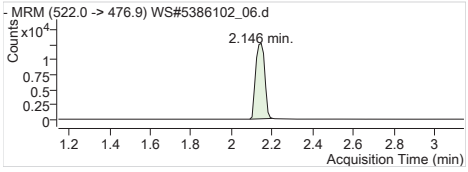


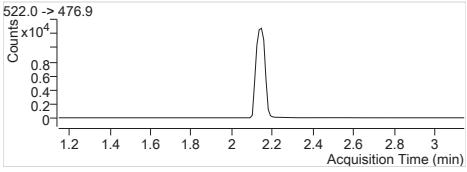
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 96.98 µg/L
Area ratio: 0.31000
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.445 (1.434)
Calc. conc. 99.31 µg/L
Area ratio: 0
Sample type: Calibration





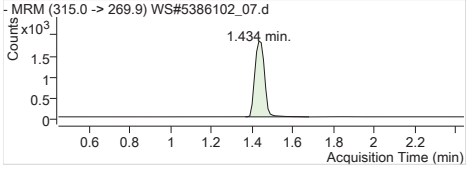
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 97.14 µg/L
Area ratio: 0
Sample type: Calibration

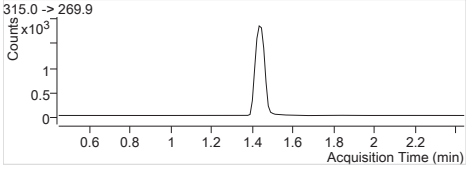
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5386102_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-D4
Acq. Date	2018/02/08 3:36:28 AM	**Injection Volume**	Per Method
Sample Annotation	-		

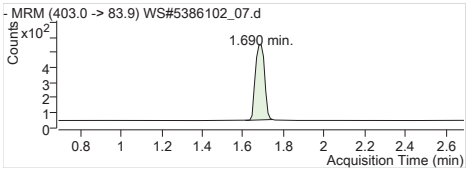
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5939	1.43	1 µg/L		
MPFHxS	1579	1.69	1 µg/L		
MPFHpA	7788	1.70	1 µg/L		
MPFOA	8175	1.88	1 µg/L		
MPFOS	1856	1.98	1 µg/L		
MPFNA	8278	2.02	1 µg/L		
MPFDA	6390	2.15	1 µg/L		
MPFUnA	7714	2.25	1 µg/L		
MPFDoA	10472	2.32	1 µg/L		
MPFTeDA	12420	2.47	1 µg/L		
13C6-PFHxA IS	31071	1.43	1 µg/L		
13C9-PFDA IS	38348	2.15	1 µg/L		

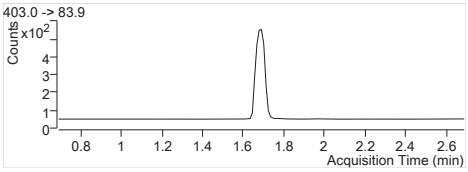
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	28114	1.10	41.70	41.92 µg/L	100.52
PFHxA 1	103000	1.43	41.70	42.64 µg/L	102.26
PFHxS 1	27387	1.68	41.70	41.91 µg/L	100.51
PFHpA 1	131039	1.70	41.70	42.39 µg/L	101.66
PFOA 1	146836	1.88	41.70	42.93 µg/L	102.95
PFOS 1	28723	1.98	41.70	41.99 µg/L	100.68
PFNA 1	128982	2.03	41.70	42.62 µg/L	102.20
PFDA 1	138781	2.15	41.70	44.90 µg/L	107.67
PFUnA 1	155746	2.25	41.70	42.96 µg/L	103.03
PFDoA 1	189906	2.32	41.70	43.51 µg/L	104.34
PFTrDA 1	216546	2.40	41.70	42.11 µg/L	100.99
PFTeDA 1	184279	2.47	41.70	42.48 µg/L	101.87
13C2-PFHxA	5939	1.43	100.00	98.36 µg/L	98.36
18O2-PFHxS	1579	1.69	100.00	102.21 µg/L	102.21
13C4-PFHpA	7788	1.70	100.00	98.50 µg/L	98.50
13C4-PFOA	8175	1.88	100.00	98.00 µg/L	98.00
13C4-PFOS	1856	1.98	100.00	98.66 µg/L	98.66
13C5-PFNA	8278	2.02	100.00	99.43 µg/L	99.43
13C2-PFDA	6297	2.15	100.00	96.47 µg/L	96.47
13C2-PFUnA	7714	2.25	100.00	99.66 µg/L	99.66
13C2-PFDoA	10472	2.32	100.00	97.45 µg/L	97.45
13C2-PFTeDA	12610	2.47	100.00	102.87 µg/L	102.87
13C6-PFHxA	31071	1.43	100.00	97.95 µg/L	97.95
13C9-PFDA	38348	2.15	100.00	94.56 µg/L	94.56



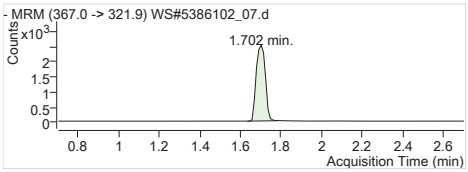


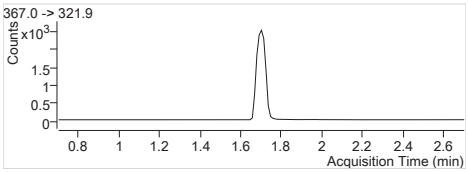
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.445)
Concentration: 1 µg/L
Sample type: Calibration



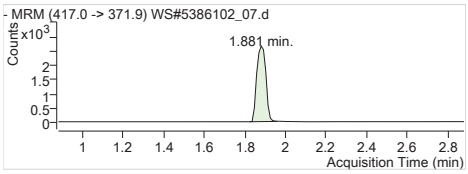


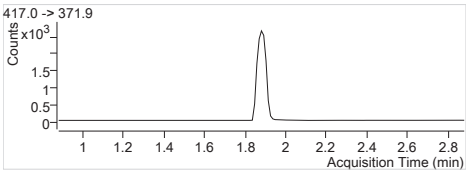
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



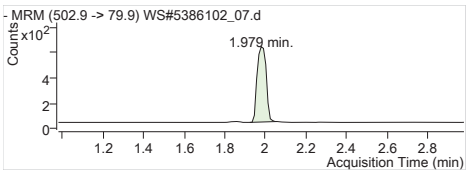


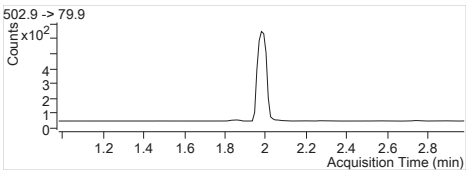
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Calibration



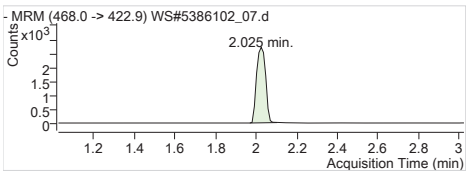


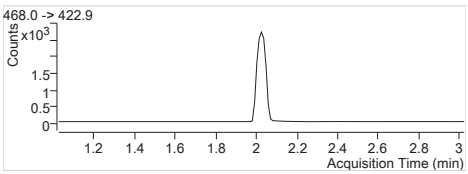
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



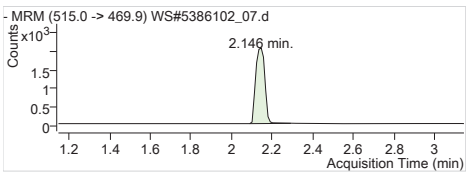


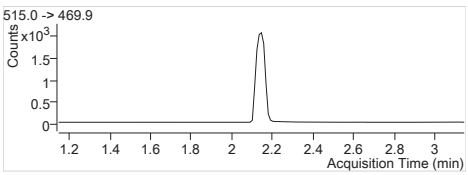
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



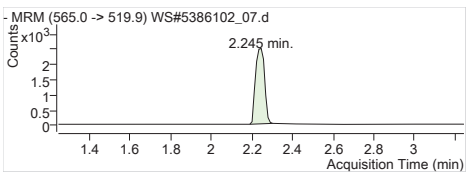


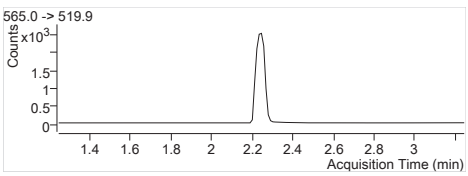
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Calibration



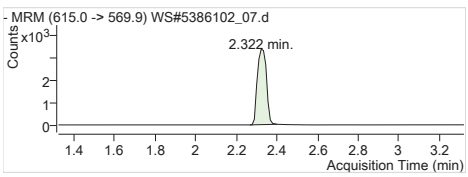


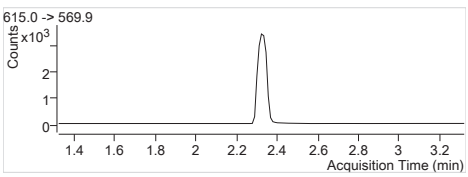
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



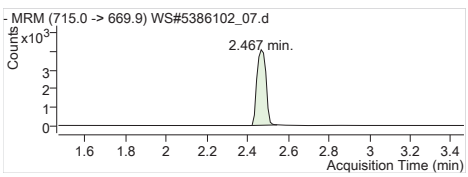


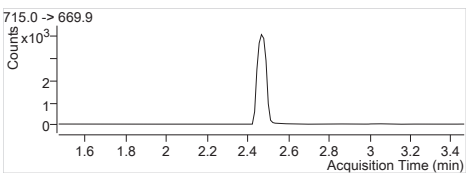
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: Calibration



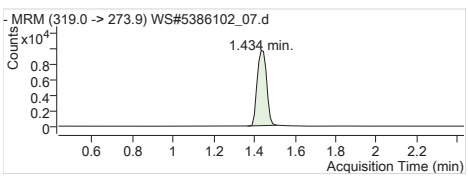


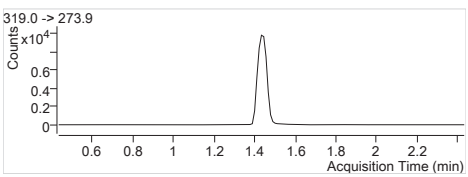
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



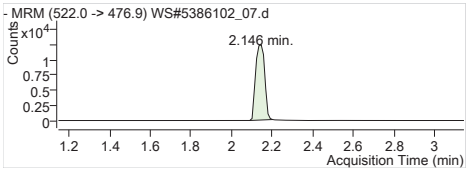


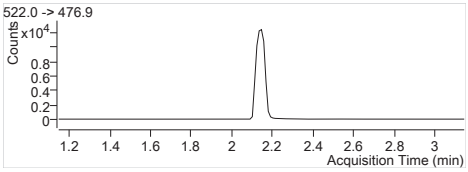
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



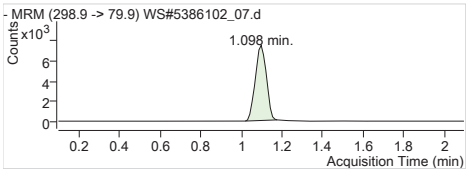


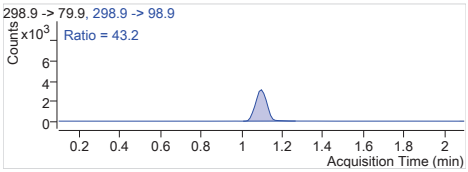
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



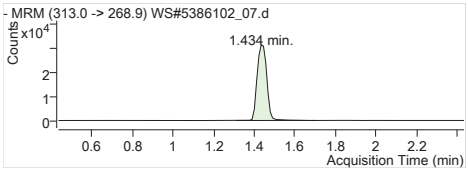


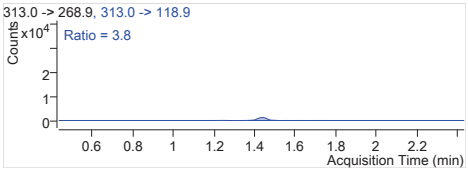
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



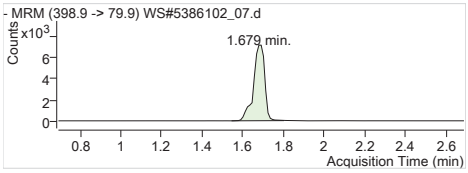


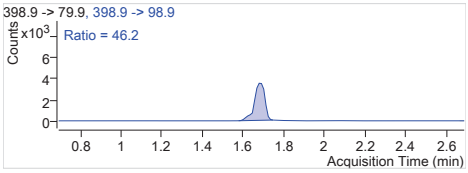
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 41.92 µg/L
Area ratio: 17.80494
Sample type: Calibration



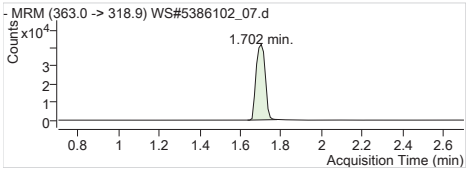


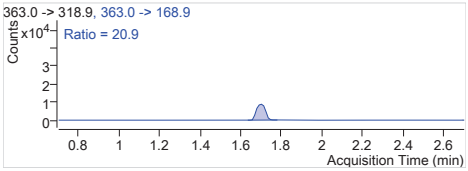
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 42.64 µg/L
Area ratio: 17.34299
Sample type: Calibration



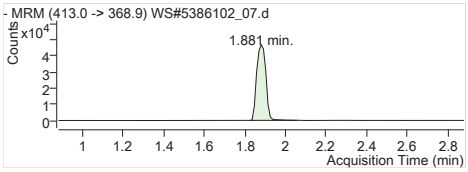


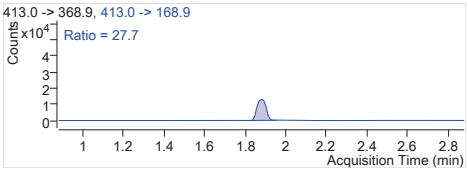
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 41.91 µg/L
Area ratio: 17.34452
Sample type: Calibration



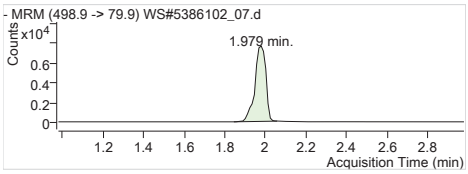


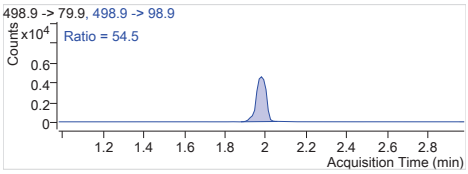
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 42.39 µg/L
Area ratio: 16.82576
Sample type: Calibration



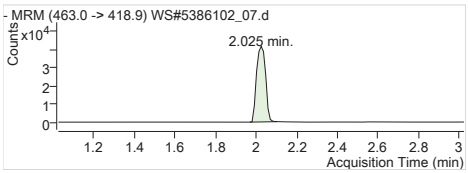


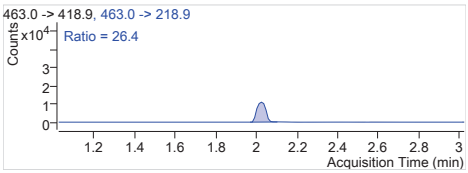
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 42.93 µg/L
Area ratio: 17.96159
Sample type: Calibration



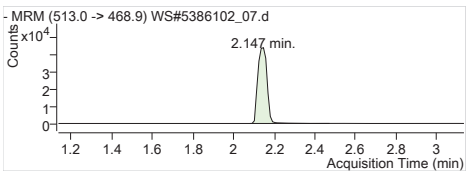


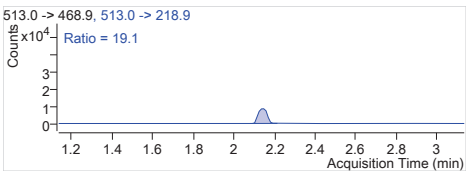
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 41.99 µg/L
Area ratio: 15.47575
Sample type: Calibration



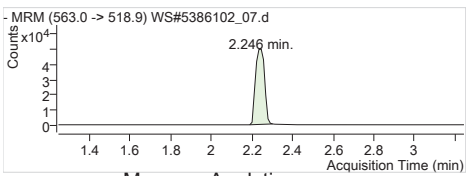


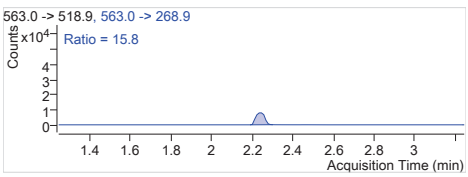
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 42.62 µg/L
Area ratio: 15.58130
Sample type: Calibration



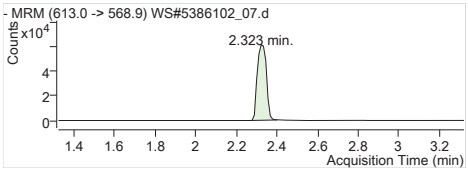


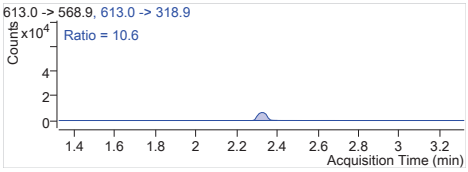
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.135)
Calc. conc. 44.90 µg/L
Area ratio: 21.71847
Sample type: Calibration



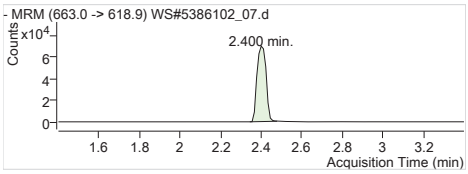


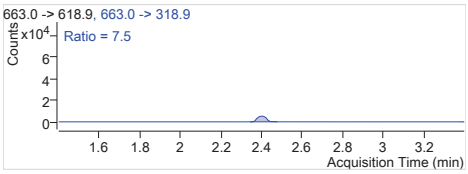
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 42.96 µg/L
Area ratio: 20.19004
Sample type: Calibration



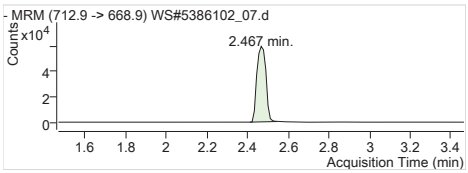


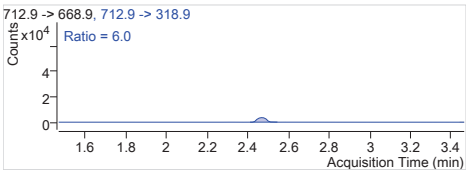
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 43.51 µg/L
Area ratio: 18.13464
Sample type: Calibration



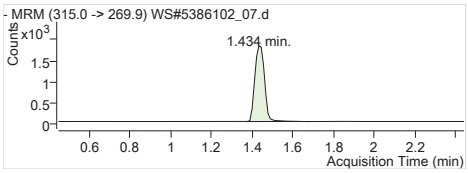


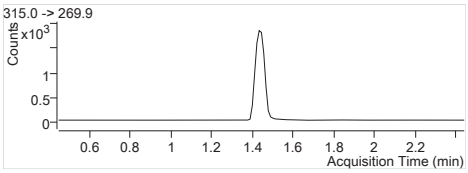
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 42.11 µg/L
Area ratio: 17.43527
Sample type: Calibration



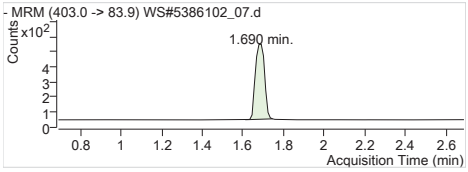


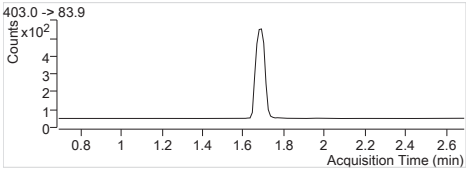
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 42.48 µg/L
Area ratio: 14.83728
Sample type: Calibration



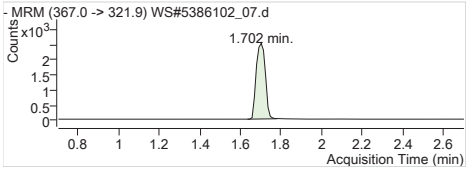


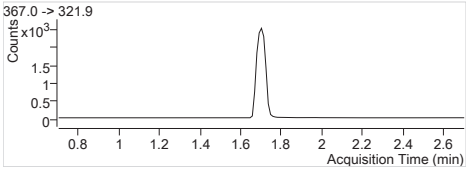
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 98.36 µg/L
Area ratio: 0.19114
Sample type: Calibration



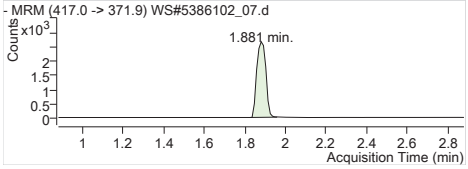


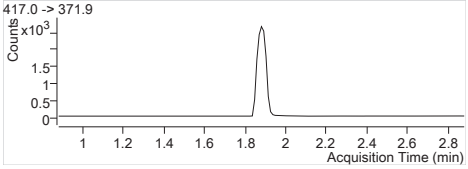
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 102.21 µg/L
Area ratio: 0.05082
Sample type: Calibration



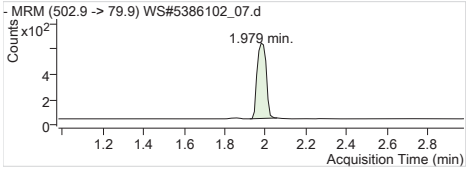


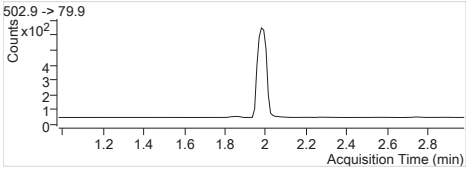
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 98.50 µg/L
Area ratio: 0.25065
Sample type: Calibration



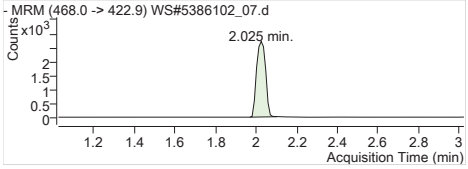


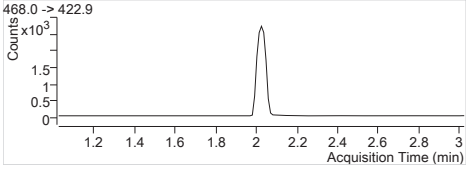
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 98.00 µg/L
Area ratio: 0.26311
Sample type: Calibration



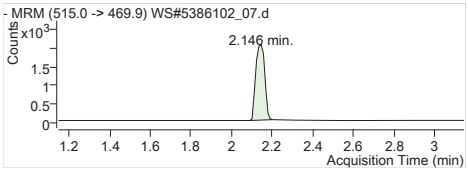


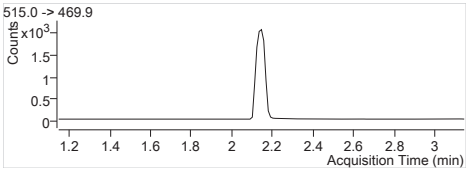
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 98.66 µg/L
Area ratio: 0.05973
Sample type: Calibration



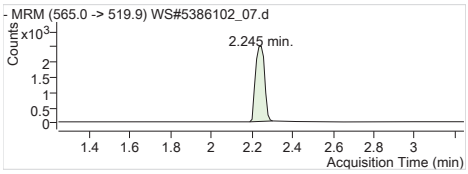


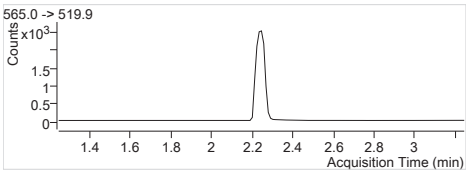
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 99.43 µg/L
Area ratio: 0.26642
Sample type: Calibration



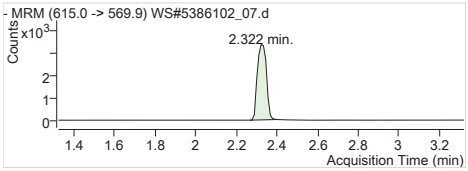


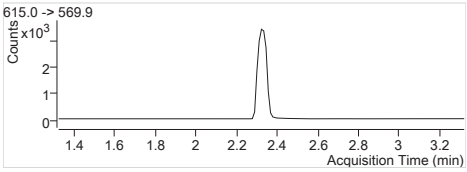
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 96.47 µg/L
Area ratio: 0.16421
Sample type: Calibration



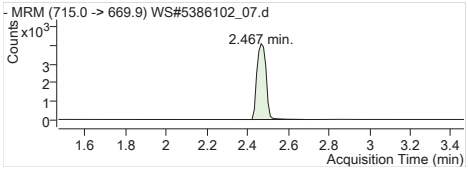


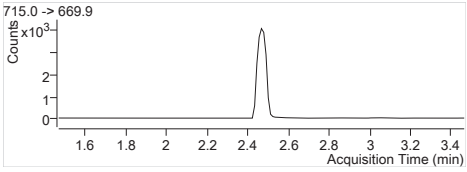
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 99.66 µg/L
Area ratio: 0.20116
Sample type: Calibration



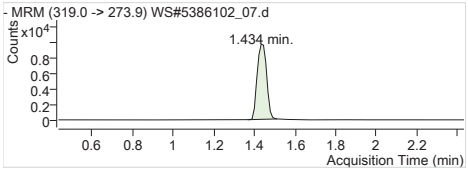


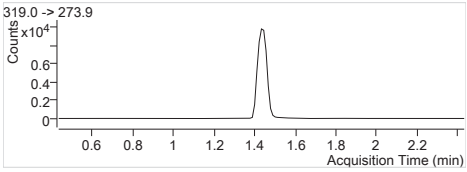
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 97.45 µg/L
Area ratio: 0.27308
Sample type: Calibration



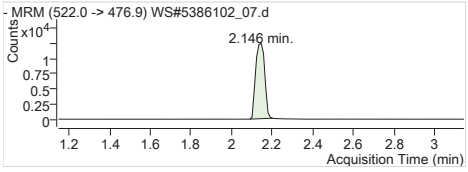


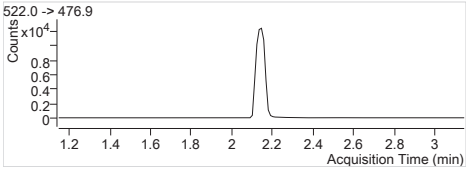
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 102.87 µg/L
Area ratio: 0.32883
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 97.95 µg/L
Area ratio: 0
Sample type: Calibration





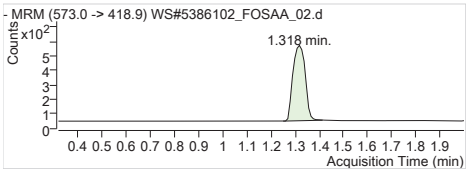
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 94.56 µg/L
Area ratio: 0
Sample type: Calibration

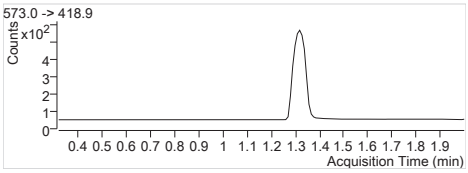
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C8
Acq. Date	2018/02/08 9:36:26 AM	**Injection Volume**	Per Method
Sample Annotation	-		

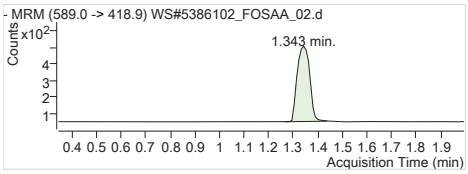
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1843	1.32	1 µg/L		
D5-EtFOSAA IS	1621	1.34	1 µg/L		
13C9-PFDA IS	34372	0.92	1 µg/L		

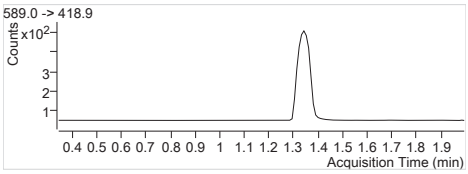
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	533	1.31	0.83	0.82 µg/L	98.22
EtFOSAA 1	524	1.34	0.83	0.83 µg/L	99.82
D3-MeFOSAA	1860	1.32	100.00	101.70 µg/L	101.70
D5-EtFOSAA	1637	1.34	100.00	103.15 µg/L	103.15
13C9-PFDA	33632	0.92	100.00	100.67 µg/L	100.67



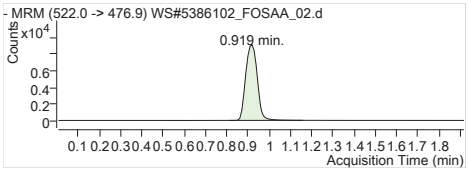


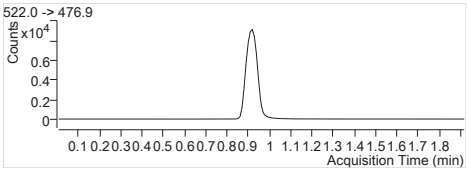
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



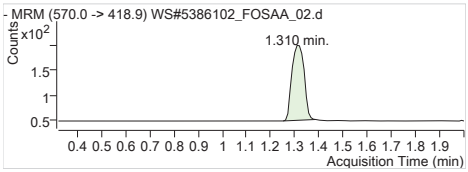


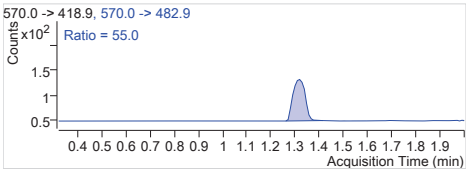
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



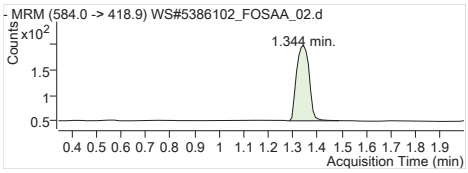


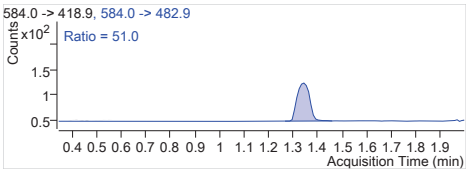
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Calibration



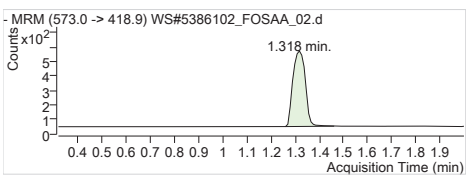


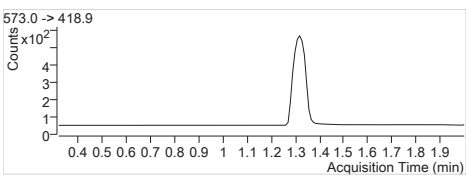
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.319)
Calc. conc. 0.82 µg/L
Area ratio: 0.28920
Sample type: Calibration



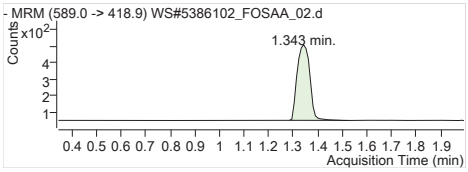


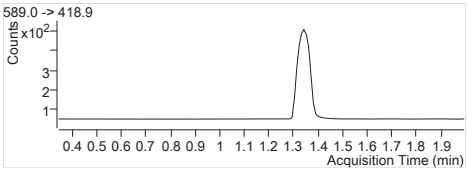
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.83 µg/L
Area ratio: 0.32326
Sample type: Calibration



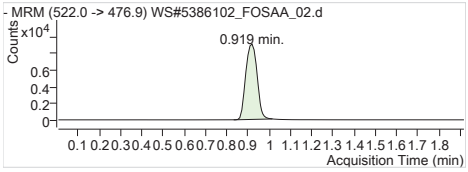


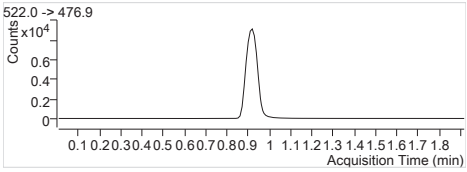
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 101.70 µg/L
Area ratio: 0.05411
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	103.15 µg/L
Area ratio:	0.04763
Sample type:	Calibration





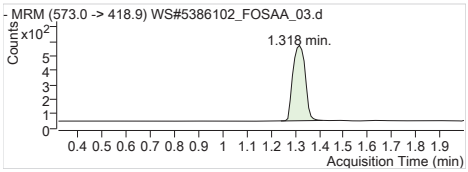
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	100.67 µg/L
Area ratio:	0
Sample type:	Calibration

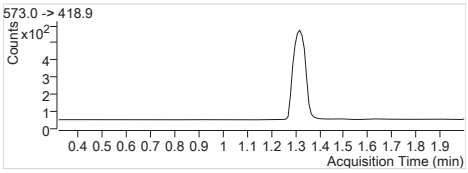
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_EToxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C9
Acq. Date	2018/02/08 9:38:51 AM	**Injection Volume**	Per Method
Sample Annotation	-		

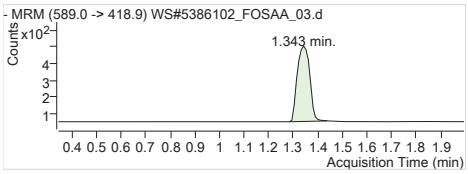
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1858	1.32	1 µg/L		
D5-EtFOSAA IS	1605	1.34	1 µg/L		
13C9-PFDA IS	35042	0.92	1 µg/L		

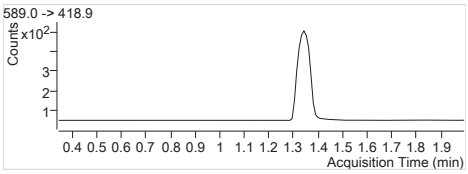
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	1154	1.32	1.70	1.75 µg/L	102.98
EtFOSAA 1	1119	1.34	1.70	1.71 µg/L	100.74
D3-MeFOSAA	1854	1.32	100.00	99.43 µg/L	99.43
D5-EtFOSAA	1625	1.34	100.00	100.44 µg/L	100.44
13C9-PFDA	34091	0.92	100.00	102.05 µg/L	102.05



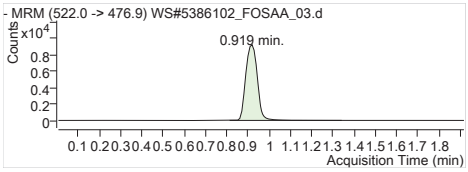


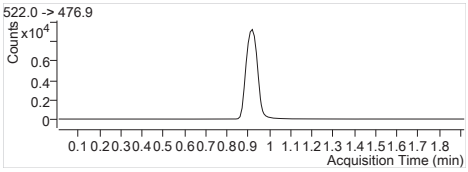
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



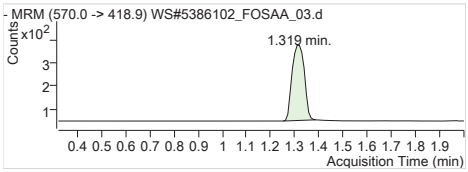


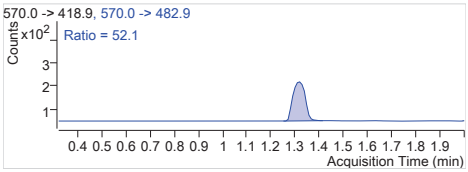
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



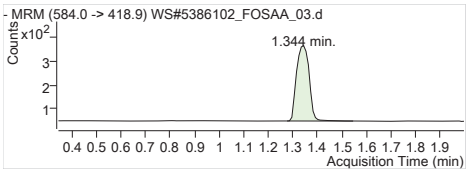


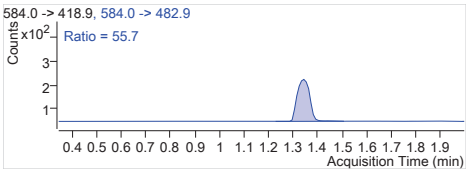
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Calibration



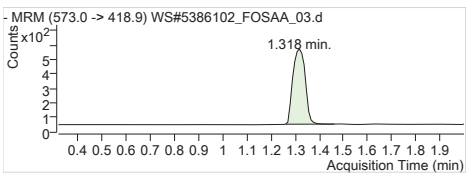


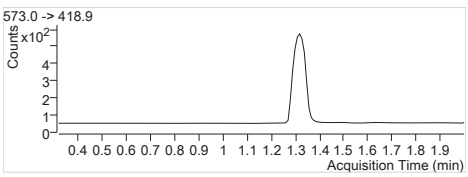
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 1.75 µg/L
Area ratio: 0.62110
Sample type: Calibration



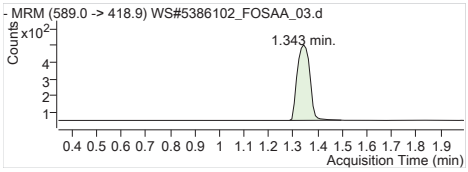


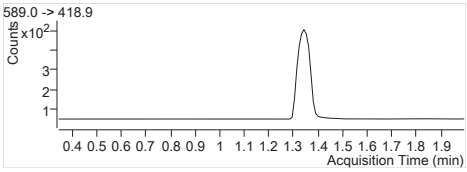
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 1.71 µg/L
Area ratio: 0.69720
Sample type: Calibration



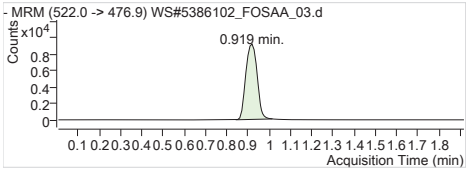


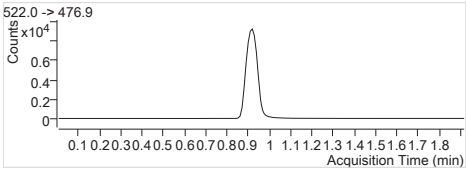
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 99.43 µg/L
Area ratio: 0.05291
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	100.44 µg/L
Area ratio:	0.04637
Sample type:	Calibration





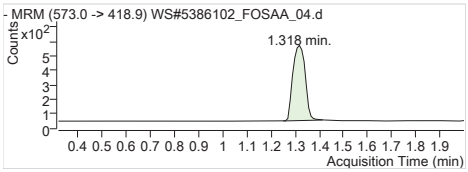
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	102.05 µg/L
Area ratio:	0
Sample type:	Calibration

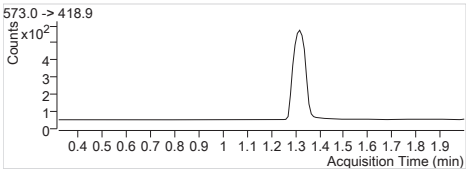
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_EToxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D1
Acq. Date	2018/02/08 9:41:15 AM	**Injection Volume**	Per Method
Sample Annotation	-		

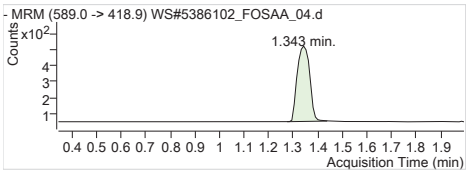
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1853	1.32	1 µg/L		
D5-EtFOSAA IS	1661	1.34	1 µg/L		
13C9-PFDA IS	34265	0.92	1 µg/L		

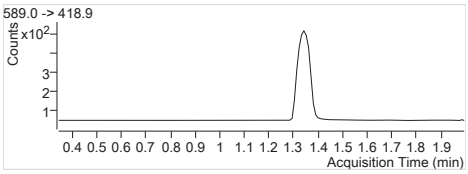
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	3426	1.32	5.00	5.21 µg/L	104.22
EtFOSAA 1	3469	1.34	5.00	5.00 µg/L	100.04
D3-MeFOSAA	1876	1.32	100.00	102.89 µg/L	102.89
D5-EtFOSAA	1672	1.34	100.00	105.68 µg/L	105.68
13C9-PFDA	33520	0.92	100.00	100.34 µg/L	100.34



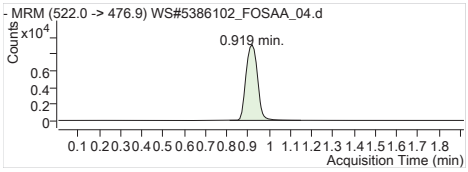


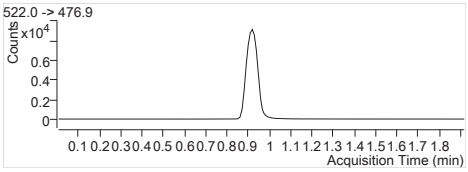
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



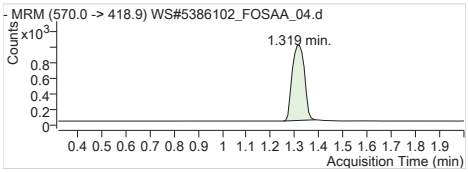


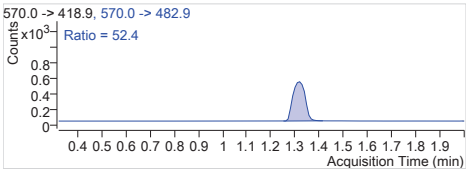
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



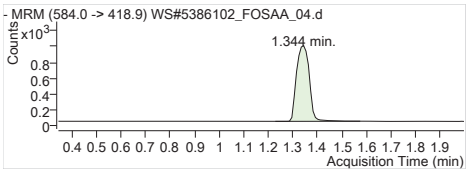


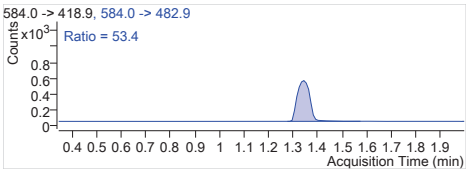
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Calibration



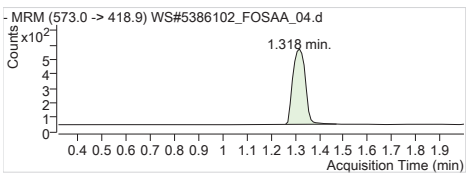


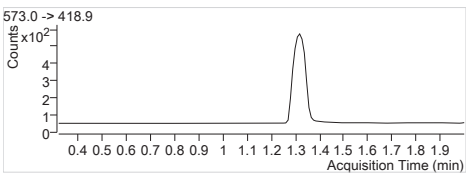
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 5.21 µg/L
Area ratio: 1.84889
Sample type: Calibration



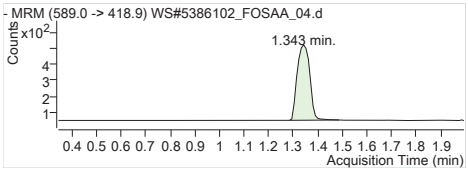


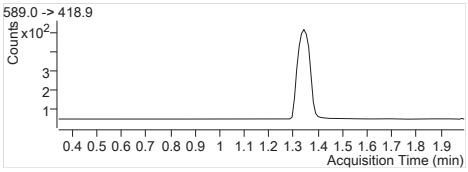
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 5.00 µg/L
Area ratio: 2.08850
Sample type: Calibration



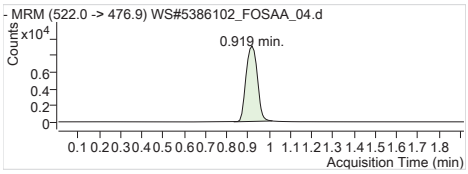


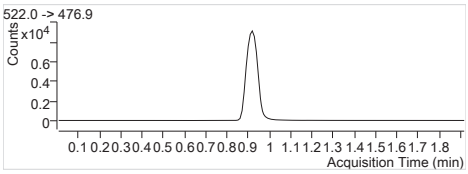
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 102.89 µg/L
Area ratio: 0.05475
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	105.68 µg/L
Area ratio:	0.04880
Sample type:	Calibration





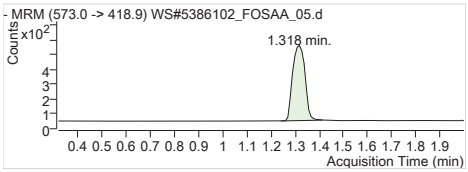
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	100.34 µg/L
Area ratio:	0
Sample type:	Calibration

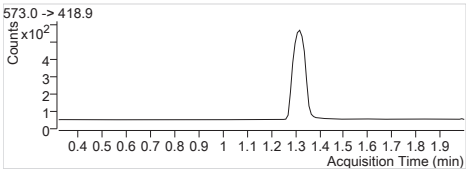
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D2
Acq. Date	2018/02/08 9:43:38 AM	**Injection Volume**	Per Method
Sample Annotation	-		

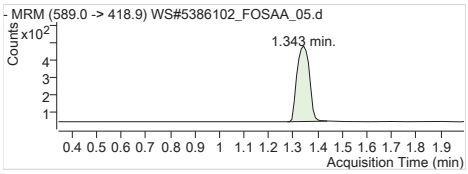
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1826	1.32	1 µg/L		
D5-EtFOSAA IS	1512	1.34	1 µg/L		
13C9-PFDA IS	35317	0.92	1 µg/L		

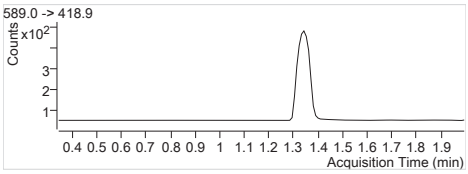
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7653	1.32	12.50	11.81 µg/L	94.50
EtFOSAA 1	7698	1.34	12.50	12.10 µg/L	96.81
D3-MeFOSAA	1843	1.32	100.00	98.07 µg/L	98.07
D5-EtFOSAA	1516	1.34	100.00	92.97 µg/L	92.97
13C9-PFDA	34558	0.92	100.00	103.44 µg/L	103.44



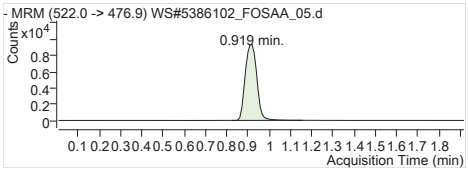


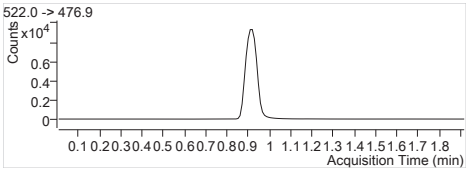
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



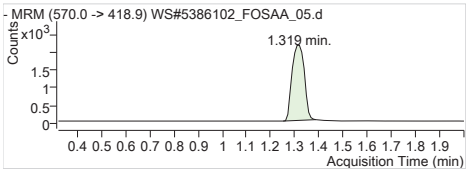


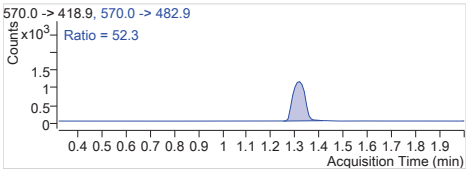
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



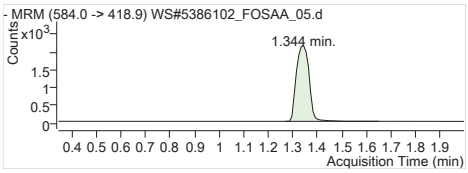


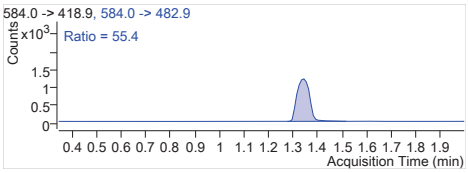
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Calibration



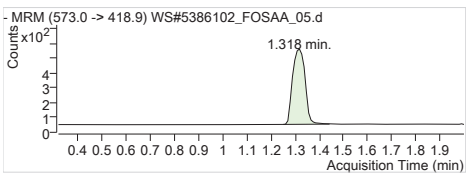


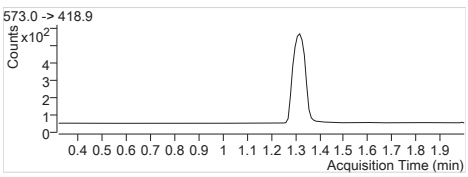
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 11.81 µg/L
Area ratio: 4.19113
Sample type: Calibration



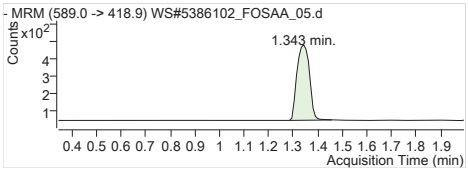


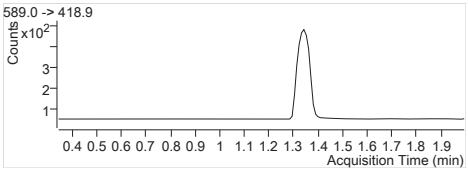
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 12.10 µg/L
Area ratio: 5.09127
Sample type: Calibration



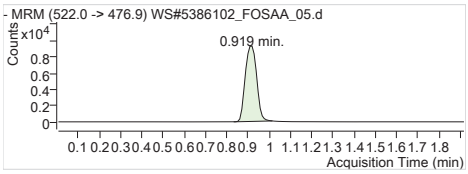


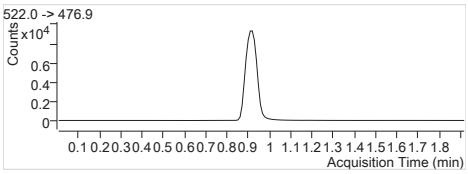
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 98.07 µg/L
Area ratio: 0.05218
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	92.97 µg/L
Area ratio:	0.04293
Sample type:	Calibration





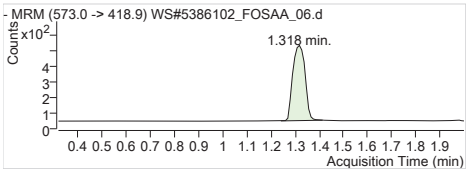
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	103.44 µg/L
Area ratio:	0
Sample type:	Calibration

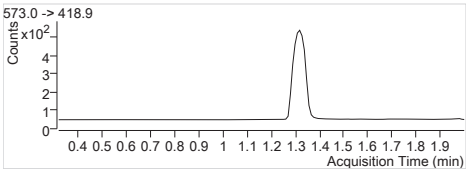
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D3
Acq. Date	2018/02/08 9:46:01 AM	**Injection Volume**	Per Method
Sample Annotation	-		

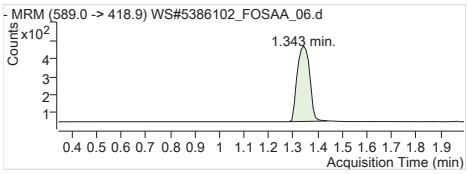
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1712	1.32	1 µg/L		
D5-EtFOSAA IS	1482	1.34	1 µg/L		
13C9-PFDA IS	32411	0.91	1 µg/L		

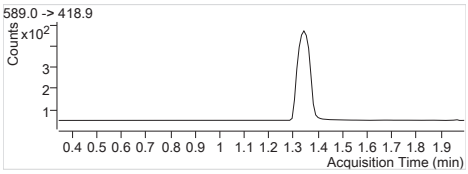
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	14992	1.32	25.00	24.68 µg/L	98.73
EtFOSAA 1	15337	1.34	25.00	24.53 µg/L	98.12
D3-MeFOSAA	1720	1.32	100.00	99.73 µg/L	99.73
D5-EtFOSAA	1504	1.34	100.00	100.50 µg/L	100.50
13C9-PFDA	32642	0.91	100.00	97.71 µg/L	97.71



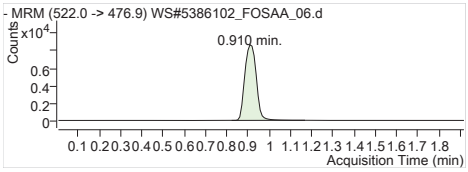


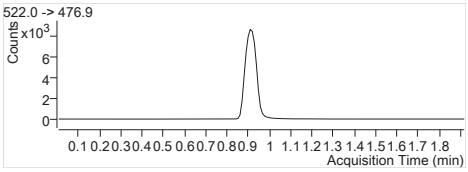
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



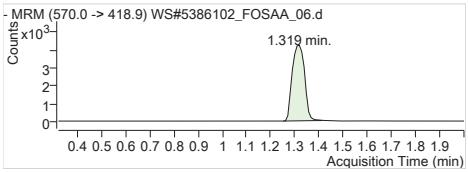


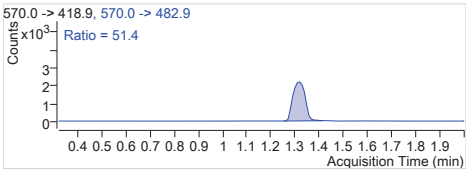
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



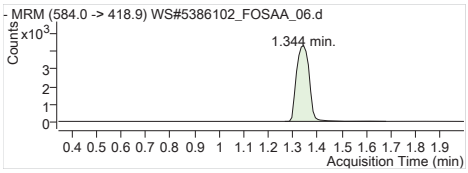


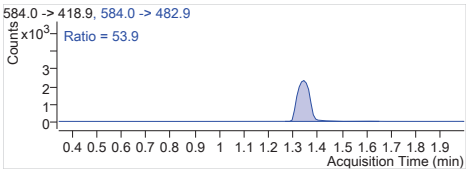
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.919)
Concentration: 1 µg/L
Sample type: Calibration



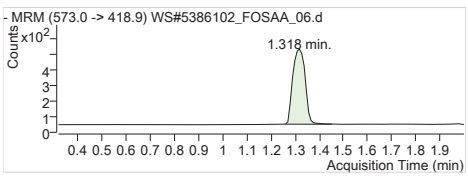


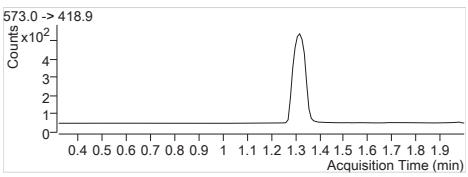
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 24.68 µg/L
Area ratio: 8.75701
Sample type: Calibration



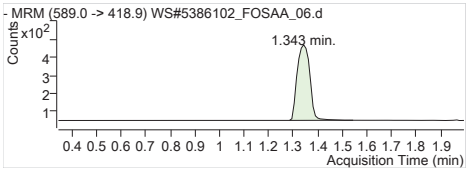


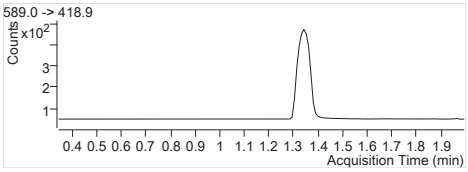
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 24.53 µg/L
Area ratio: 10.34885
Sample type: Calibration



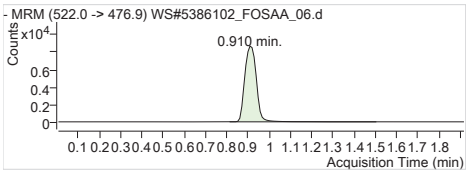


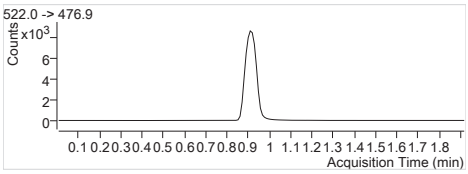
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 99.73 µg/L
Area ratio: 0.05307
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	100.50 µg/L
Area ratio:	0.04640
Sample type:	Calibration





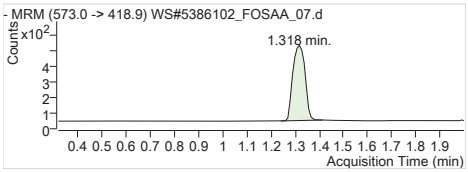
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.919)
Calc. conc.	97.71 µg/L
Area ratio:	0
Sample type:	Calibration

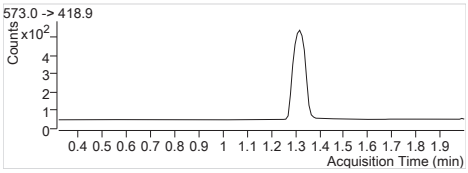
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D4
Acq. Date	2018/02/08 9:48:24 AM	**Injection Volume**	Per Method
Sample Annotation	-		

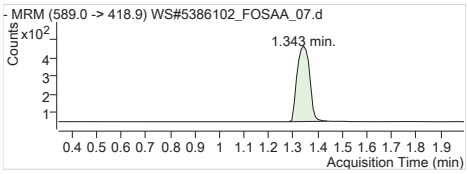
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1707	1.32	1 µg/L		
D5-EtFOSAA IS	1464	1.34	1 µg/L		
13C9-PFDA IS	32713	0.92	1 µg/L		

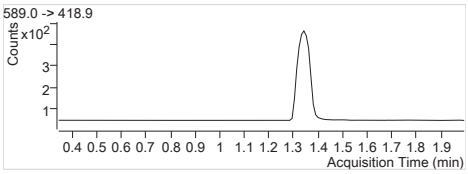
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	25594	1.32	41.70	42.26 µg/L	101.34
EtFOSAA 1	26939	1.34	41.70	43.57 µg/L	104.48
D3-MeFOSAA	1709	1.32	100.00	98.18 µg/L	98.18
D5-EtFOSAA	1469	1.34	100.00	97.26 µg/L	97.26
13C9-PFDA	32000	0.92	100.00	95.79 µg/L	95.79



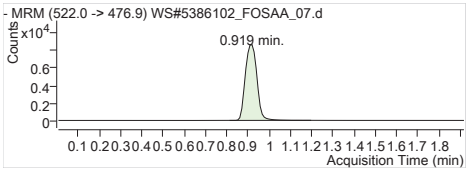


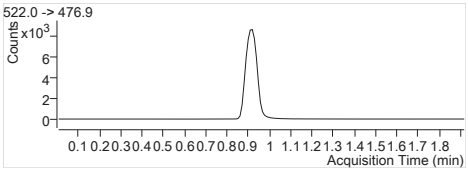
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



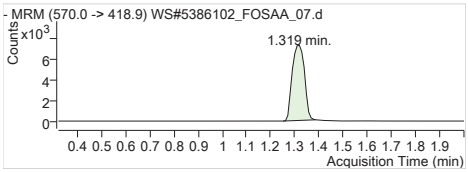


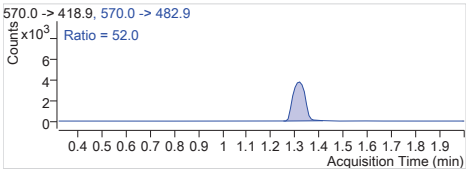
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



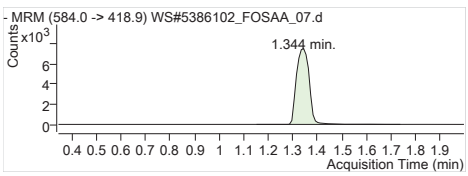


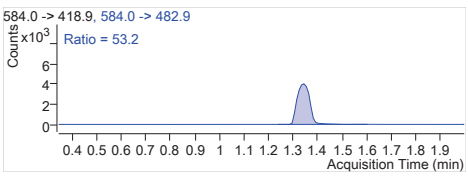
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Calibration



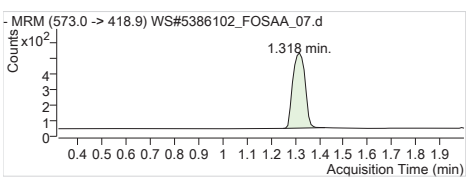


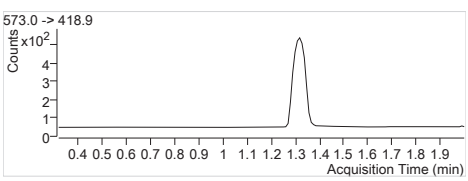
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 42.26 µg/L
Area ratio: 14.99356
Sample type: Calibration



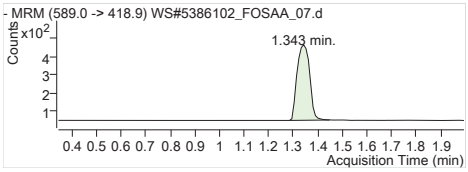


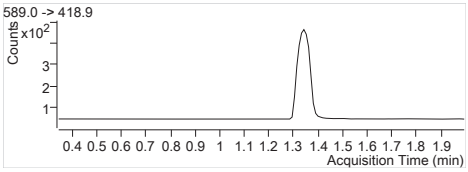
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 43.57 µg/L
Area ratio: 18.40096
Sample type: Calibration



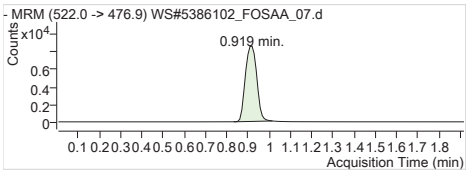


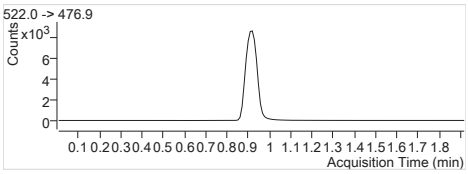
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 98.18 µg/L
Area ratio: 0.05224
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	97.26 µg/L
Area ratio:	0.04491
Sample type:	Calibration





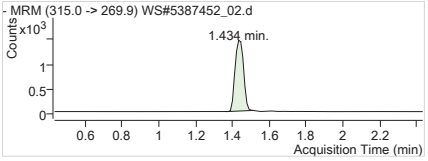
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	95.79 µg/L
Area ratio:	0
Sample type:	Calibration

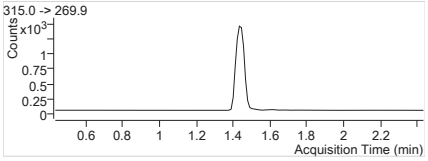
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_ETOxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5387452_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A2
Acq. Date	2018/02/08 12:33:57 AM	**Injection Volume**	Per Method
Sample Annotation	-		

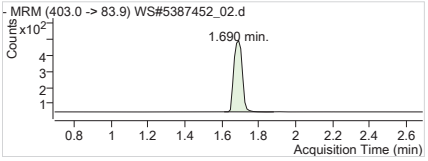
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4559	1.43	1 µg/L		
MPFHxS	1396	1.69	1 µg/L		
MPFHpA	6373	1.70	1 µg/L		
MPFOA	6856	1.88	1 µg/L		
MPFOS	1695	1.98	1 µg/L		
MPFNA	7116	2.02	1 µg/L		
MPFDA	5980	2.15	1 µg/L		
MPFUnA	7142	2.25	1 µg/L		
MPFDoA	9868	2.32	1 µg/L		
MPFTeDA	11104	2.47	1 µg/L		
13C6-PFHxA IS	25110	1.43	1 µg/L		
13C9-PFDA IS	32852	2.15	1 µg/L		

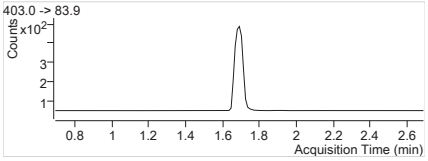
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	630	1.10	0.83	1.04 µg/L	125.90
PFHxA 1	1615	1.43	0.83	0.93 µg/L	112.11
PFHxS 1	592	1.68	0.83	0.93 µg/L	112.55
PFHpA 1	2416	1.70	0.83	0.91 µg/L	109.27
PFOA 1	2435	1.88	0.83	0.93 µg/L	111.59
PFOS 1	533	1.98	0.83	0.93 µg/L	111.66
PFNA 1	2333	2.03	0.83	0.92 µg/L	110.34
PFDA 1	2525	2.15	0.83	0.87 µg/L	104.82
PFUnA 1	2601	2.25	0.83	0.83 µg/L	99.50
PFDoA 1	3371	2.32	0.83	0.88 µg/L	105.61
PFTrDA 1	4438	2.40	0.83	0.91 µg/L	109.33
PFTeDA 1	2231	2.47	0.83	0.81 µg/L	98.03
13C2-PFHxA	4559	1.43	100.00	84.96 µg/L	84.96
18O2-PFHxS	1396	1.69	100.00	95.86 µg/L	95.86
13C4-PFHpA	6373	1.70	100.00	92.04 µg/L	92.04
13C4-PFOA	6856	1.88	100.00	92.03 µg/L	92.03
13C4-PFOS	1695	1.98	100.00	94.41 µg/L	94.41
13C5-PFNA	7117	2.02	100.00	93.49 µg/L	93.49
13C2-PFDA	5792	2.15	100.00	96.71 µg/L	96.71
13C2-PFUnA	7142	2.25	100.00	95.06 µg/L	95.06
13C2-PFDoA	9868	2.32	100.00	96.71 µg/L	96.71
13C2-PFTeDA	11376	2.47	100.00	94.35 µg/L	94.35
13C6-PFHxA	25110	1.43	100.00	107.72 µg/L	107.72
13C9-PFDA	32852	2.15	100.00	104.24 µg/L	104.24



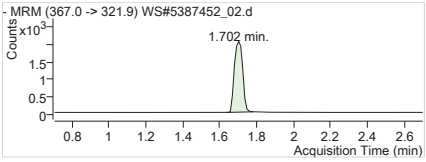


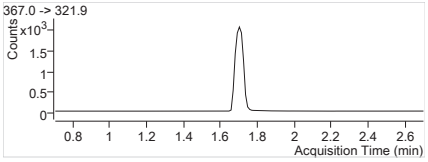
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



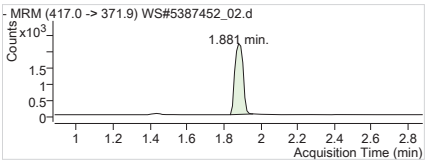


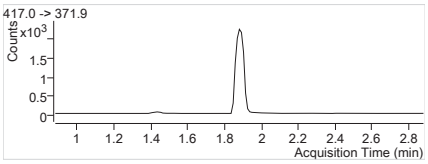
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



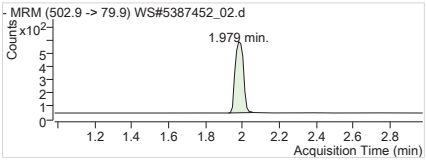


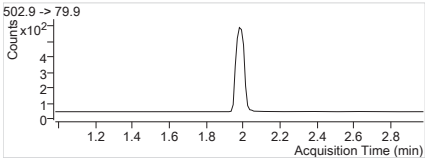
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Calibration



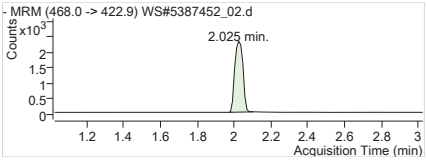


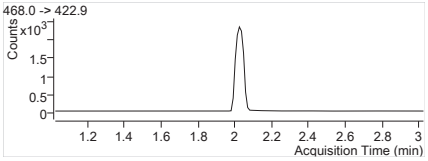
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



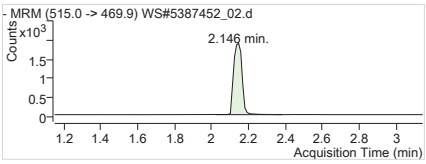


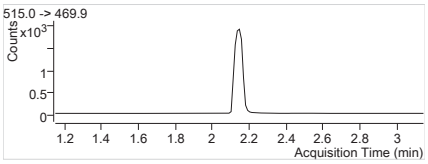
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



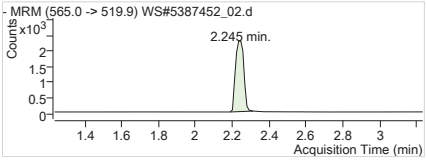


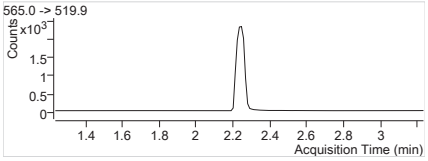
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Calibration



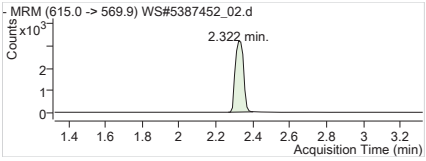


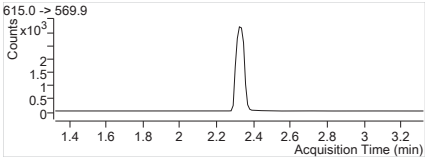
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



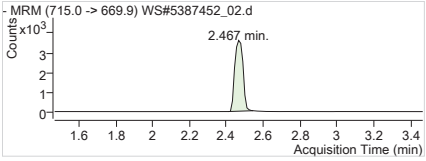


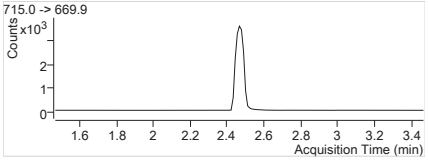
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



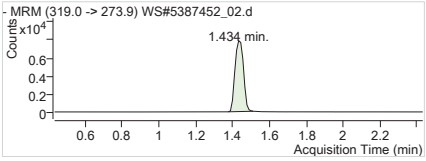


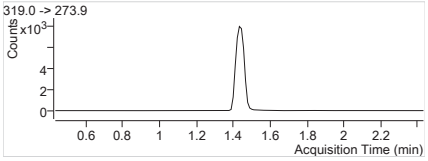
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



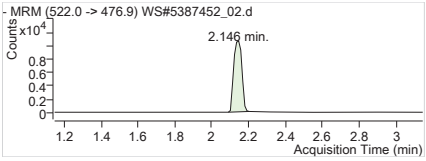


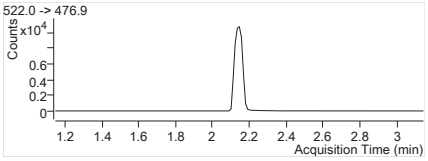
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



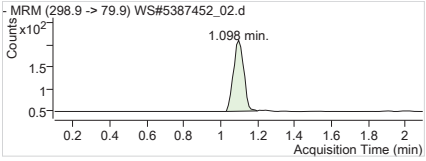


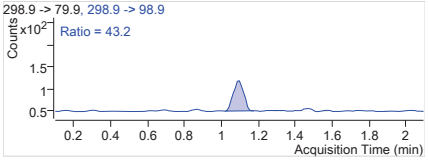
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



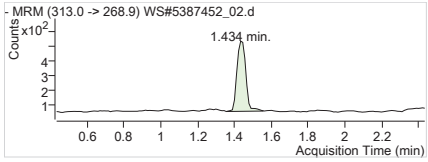


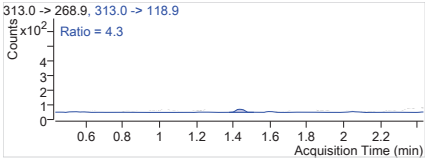
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



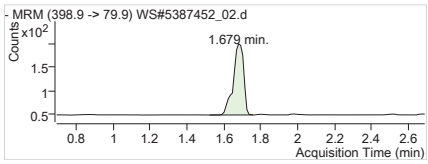


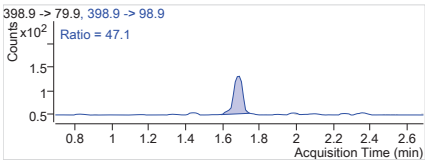
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 1.04 µg/L
Area ratio: 0.45129
Sample type: Calibration



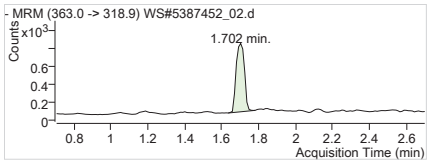


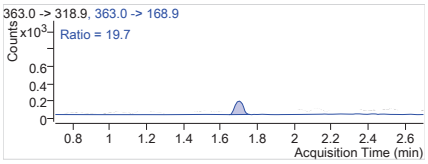
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.93 µg/L
Area ratio: 0.35424
Sample type: Calibration



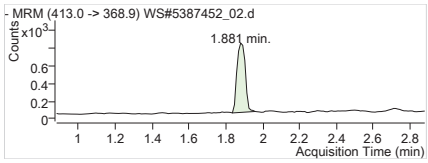


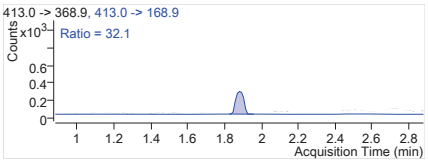
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 0.93 µg/L
Area ratio: 0.42407
Sample type: Calibration



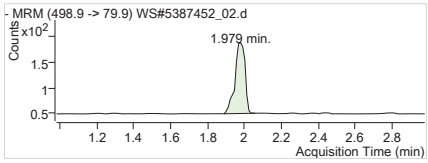


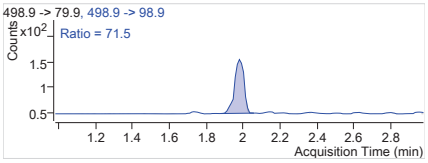
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.91 µg/L
Area ratio: 0.37910
Sample type: Calibration



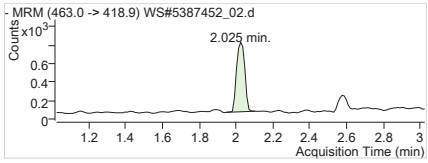


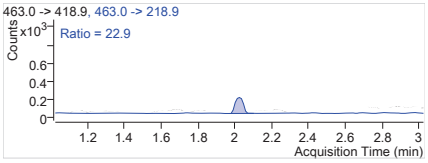
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.93 µg/L
Area ratio: 0.35516
Sample type: Calibration



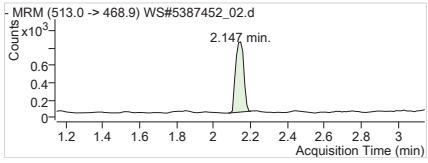


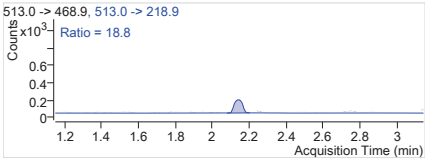
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.93 µg/L
Area ratio: 0.31445
Sample type: Calibration



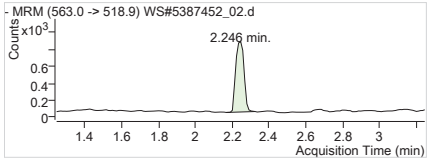


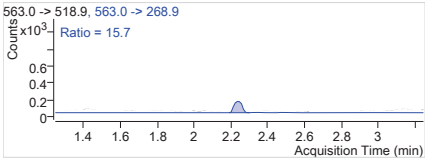
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 0.92 µg/L
Area ratio: 0.32785
Sample type: Calibration



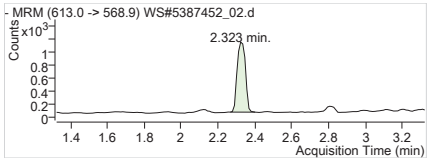


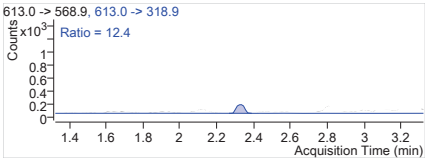
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 0.87 µg/L
Area ratio: 0.42224
Sample type: Calibration



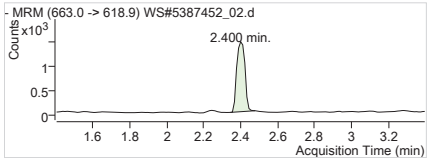


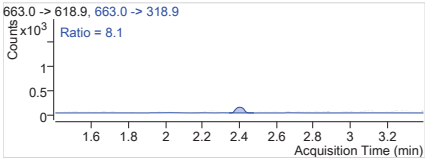
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.83 µg/L
Area ratio: 0.36418
Sample type: Calibration



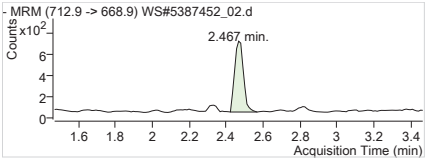


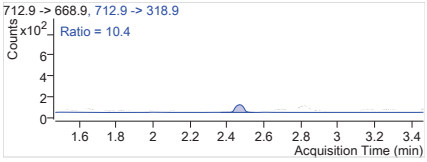
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.88 µg/L
Area ratio: 0.34161
Sample type: Calibration



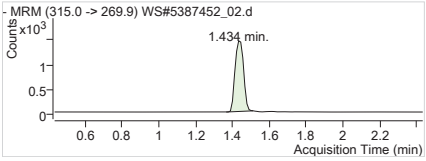


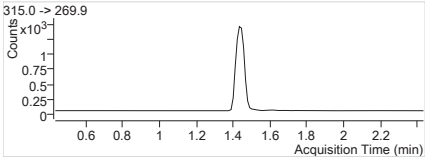
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.91 µg/L
Area ratio: 0.39968
Sample type: Calibration



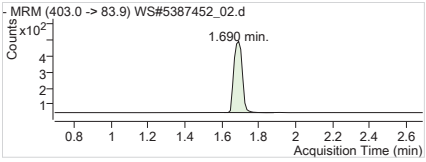


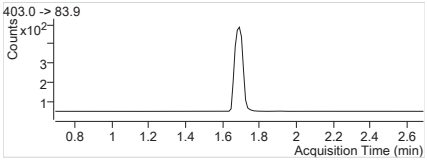
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.81 µg/L
Area ratio: 0.20092
Sample type: Calibration



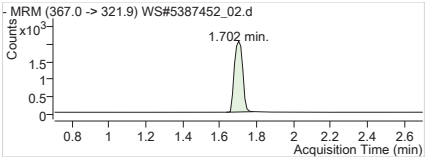


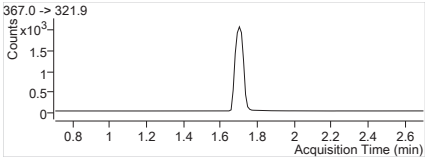
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 84.96 µg/L
Area ratio: 0.18156
Sample type: Calibration



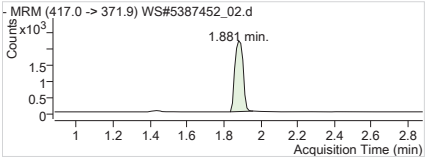


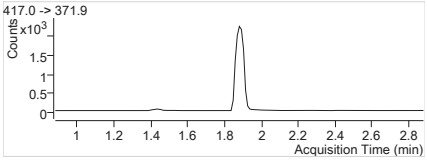
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 95.86 µg/L
Area ratio: 0.05560
Sample type: Calibration



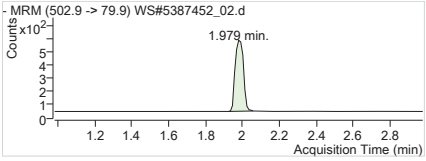


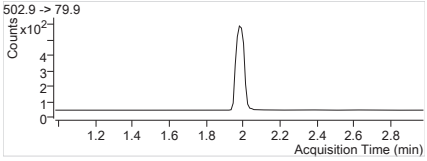
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 92.04 µg/L
Area ratio: 0.25380
Sample type: Calibration



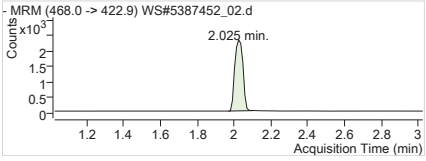


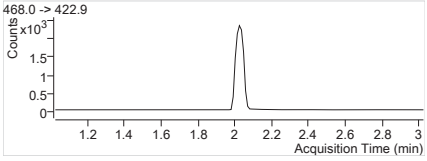
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 92.03 µg/L
Area ratio: 0.27304
Sample type: Calibration



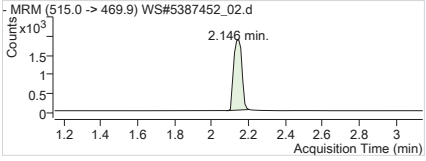


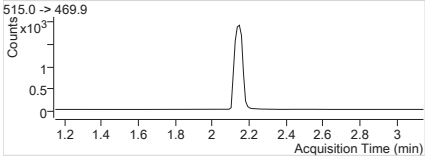
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 94.41 µg/L
Area ratio: 0.06750
Sample type: Calibration



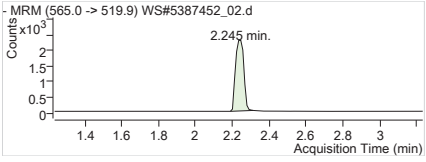


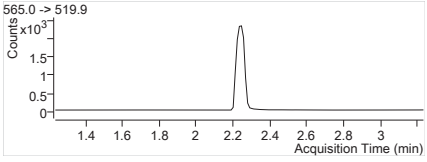
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 93.49 µg/L
Area ratio: 0.28343
Sample type: Calibration



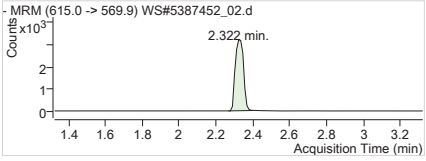


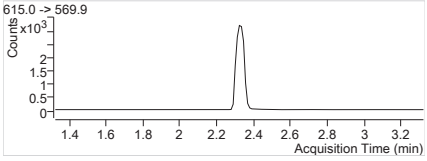
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 96.71 µg/L
Area ratio: 0.17631
Sample type: Calibration



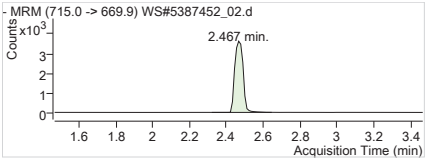


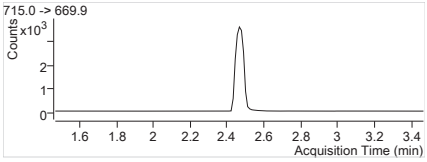
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 95.06 µg/L
Area ratio: 0.21740
Sample type: Calibration



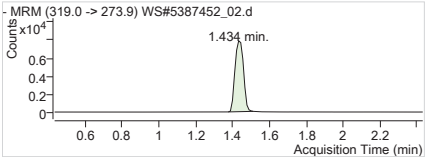


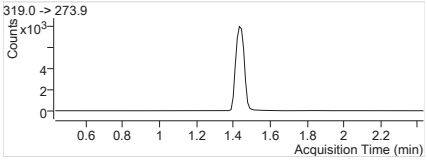
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 96.71 µg/L
Area ratio: 0.30038
Sample type: Calibration



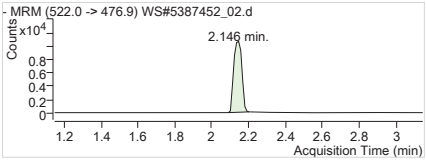


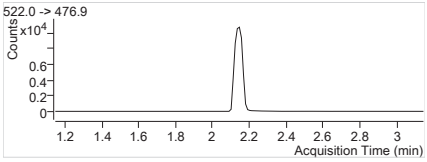
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	94.35 µg/L
Area ratio:	0.34628
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	107.72 µg/L
Area ratio:	0
Sample type:	Calibration





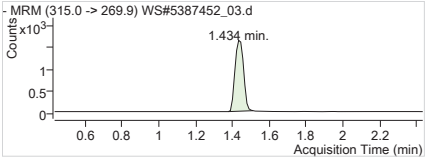
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	104.24 µg/L
Area ratio:	0
Sample type:	Calibration

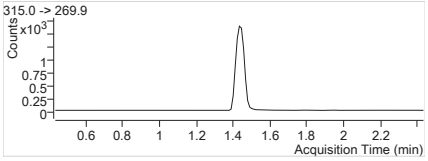
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5387452_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A3
Acq. Date	2018/02/08 12:38:53 AM	**Injection Volume**	Per Method
Sample Annotation	-		

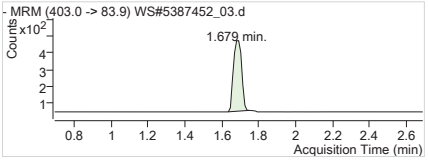
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5165	1.43	1 µg/L		
MPFHxS	1307	1.68	1 µg/L		
MPFHpA	6524	1.70	1 µg/L		
MPFOA	6813	1.88	1 µg/L		
MPFOS	1713	1.98	1 µg/L		
MPFNA	7069	2.02	1 µg/L		
MPFDA	5881	2.15	1 µg/L		
MPFUnA	7057	2.25	1 µg/L		
MPFDoA	10059	2.32	1 µg/L		
MPFTeDA	11635	2.47	1 µg/L		
13C6-PFHxA IS	21438	1.43	1 µg/L		
13C9-PFDA IS	30728	2.15	1 µg/L		

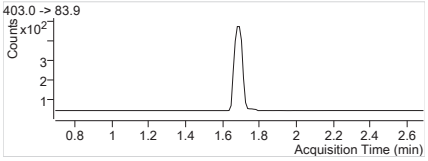
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1025	1.10	1.70	1.68 µg/L	98.55
PFHxA 1	2979	1.43	1.70	1.45 µg/L	85.44
PFHxS 1	1152	1.69	1.70	1.84 µg/L	108.43
PFHpA 1	3810	1.70	1.70	1.41 µg/L	82.92
PFOA 1	4296	1.88	1.70	1.55 µg/L	91.04
PFOS 1	969	1.97	1.70	1.57 µg/L	92.41
PFNA 1	3975	2.03	1.70	1.51 µg/L	88.63
PFDA 1	4490	2.15	1.70	1.52 µg/L	89.67
PFUnA 1	5095	2.25	1.70	1.60 µg/L	94.05
PFDoA 1	5925	2.32	1.70	1.44 µg/L	84.45
PFTrDA 1	7973	2.40	1.70	1.55 µg/L	91.41
PFTeDA 1	6388	2.47	1.70	1.72 µg/L	101.40
13C2-PFHxA	5165	1.43	100.00	112.73 µg/L	112.73
18O2-PFHxS	1307	1.68	100.00	105.12 µg/L	105.12
13C4-PFHpA	6524	1.70	100.00	110.37 µg/L	110.37
13C4-PFOA	6813	1.88	100.00	107.12 µg/L	107.12
13C4-PFOS	1713	1.98	100.00	111.76 µg/L	111.76
13C5-PFNA	7069	2.02	100.00	108.76 µg/L	108.76
13C2-PFDA	5671	2.15	100.00	101.23 µg/L	101.23
13C2-PFUnA	7057	2.25	100.00	100.42 µg/L	100.42
13C2-PFDoA	10059	2.32	100.00	105.39 µg/L	105.39
13C2-PFTeDA	11732	2.47	100.00	104.03 µg/L	104.03
13C6-PFHxA	21438	1.43	100.00	91.97 µg/L	91.97
13C9-PFDA	30728	2.15	100.00	97.50 µg/L	97.50



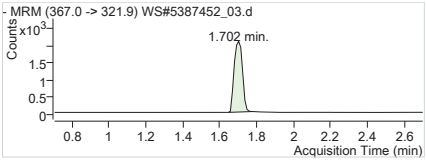


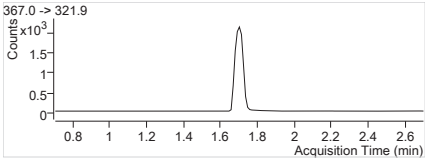
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



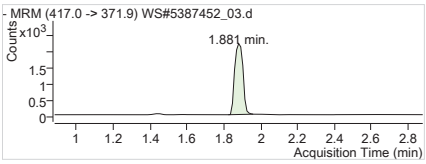


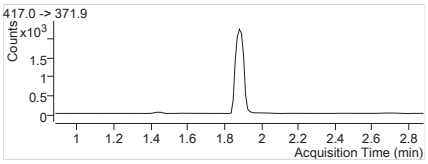
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



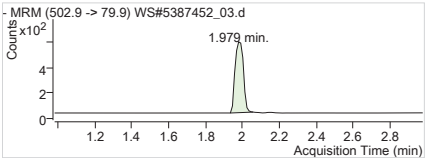


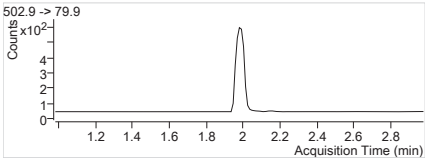
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Calibration



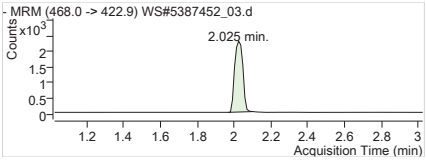


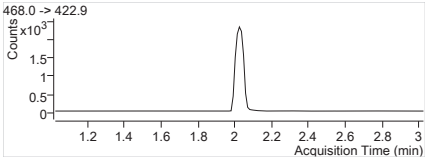
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



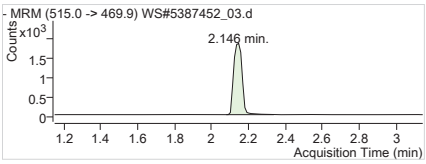


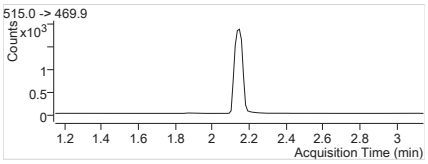
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



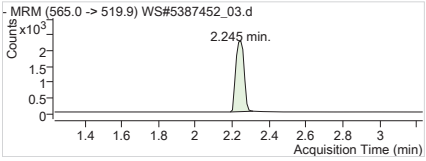


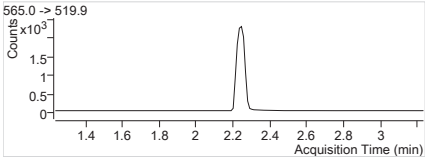
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Calibration



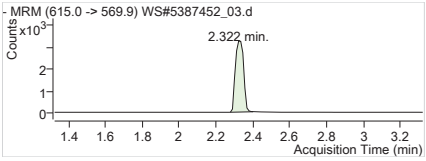


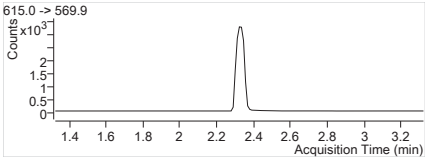
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



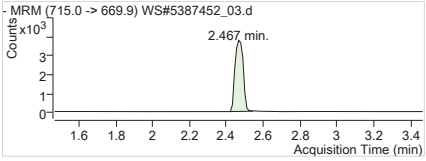


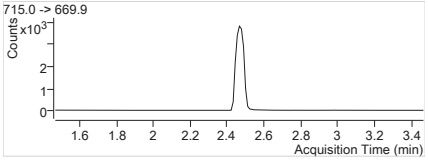
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



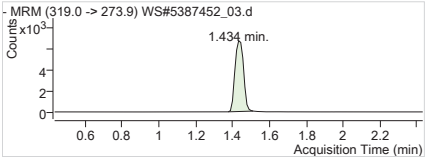


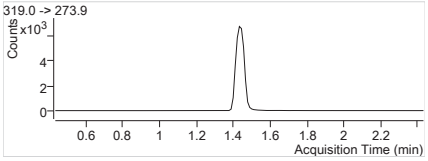
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



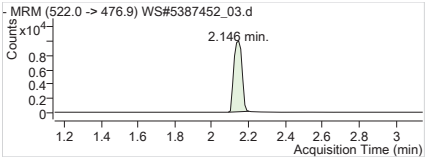


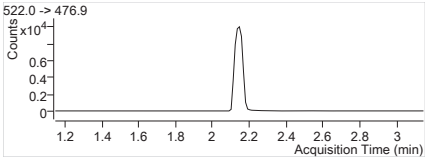
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



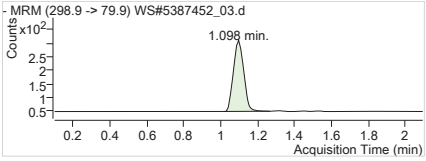


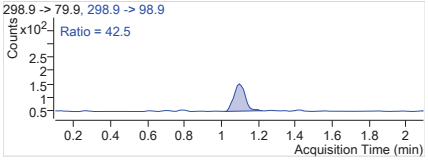
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



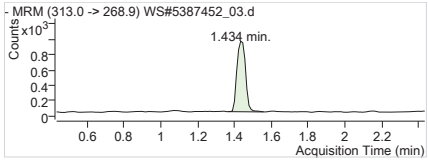


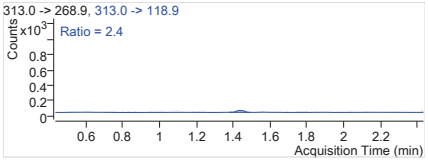
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



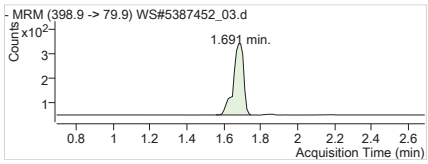


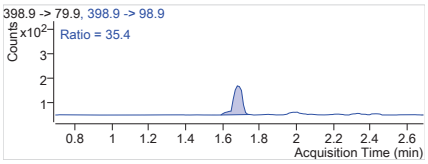
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 1.68 µg/L
Area ratio: 0.78424
Sample type: Calibration



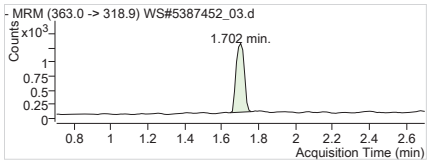


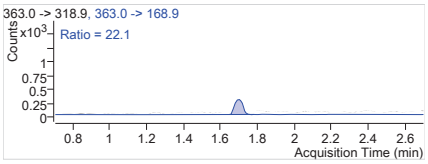
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 1.45 µg/L
Area ratio: 0.57677
Sample type: Calibration



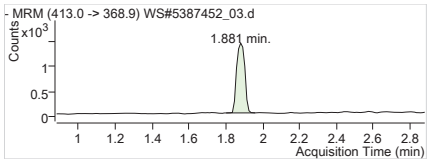


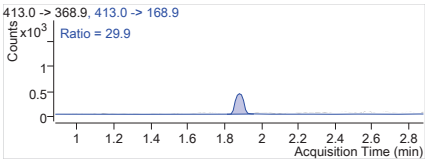
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 1.84 µg/L
Area ratio: 0.88141
Sample type: Calibration



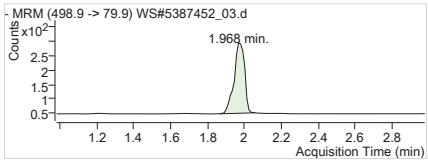


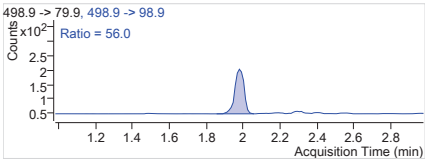
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 1.41 µg/L
Area ratio: 0.58400
Sample type: Calibration



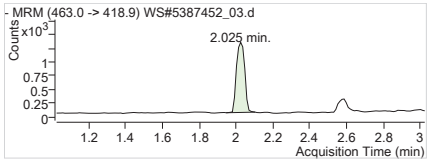


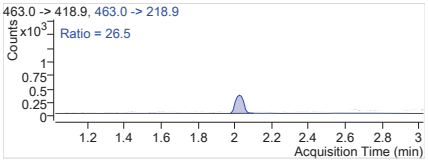
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 1.55 µg/L
Area ratio: 0.63056
Sample type: Calibration



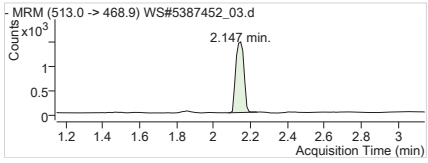


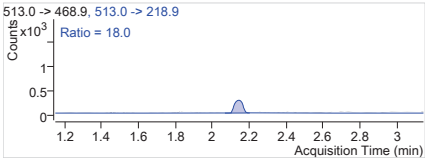
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.979)
Calc. conc. 1.57 µg/L
Area ratio: 0.56567
Sample type: Calibration



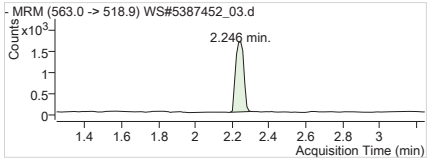


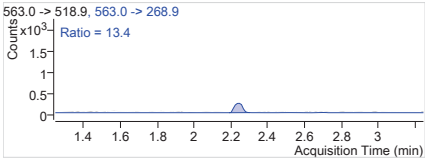
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 1.51 µg/L
Area ratio: 0.56231
Sample type: Calibration



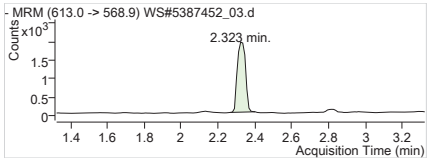


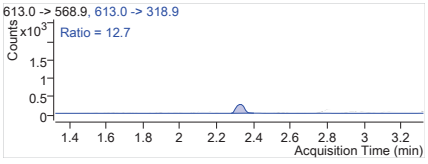
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 1.52 µg/L
Area ratio: 0.76348
Sample type: Calibration



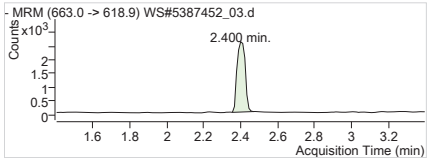


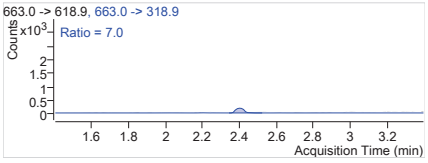
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 1.60 µg/L
Area ratio: 0.72198
Sample type: Calibration



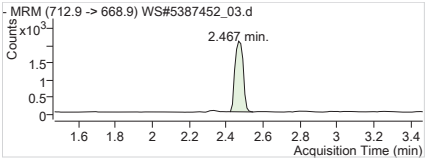


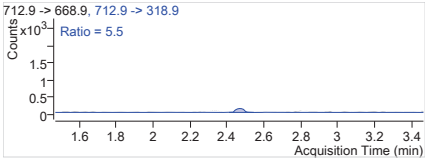
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 1.44 µg/L
Area ratio: 0.58902
Sample type: Calibration



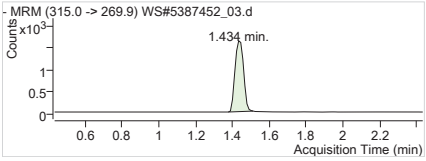


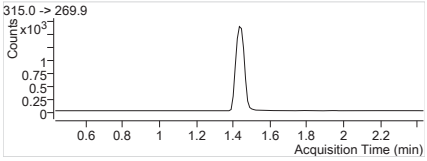
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 1.55 µg/L
Area ratio: 0.68526
Sample type: Calibration



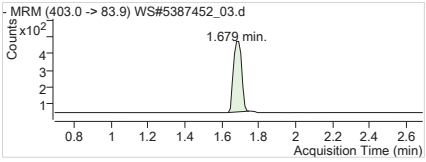


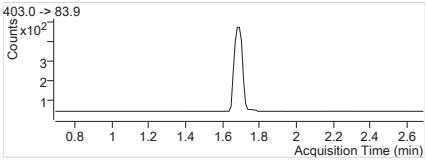
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 1.72 µg/L
Area ratio: 0.54903
Sample type: Calibration



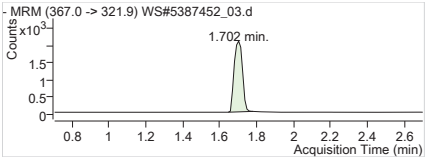


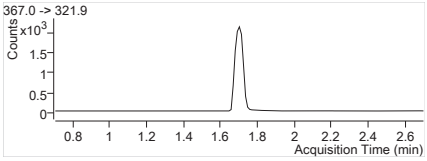
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 112.73 µg/L
Area ratio: 0.24093
Sample type: Calibration



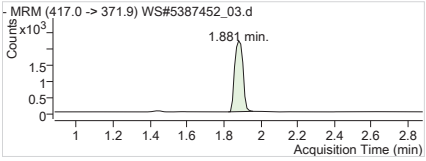


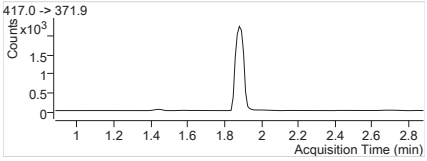
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.690)
Calc. conc. 105.12 µg/L
Area ratio: 0.06097
Sample type: Calibration



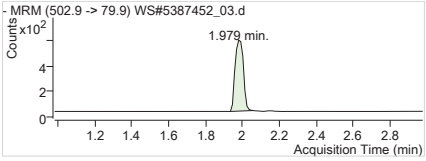


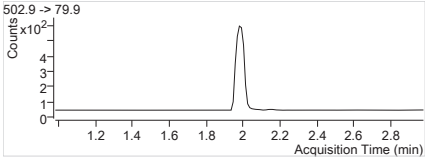
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 110.37 µg/L
Area ratio: 0.30432
Sample type: Calibration



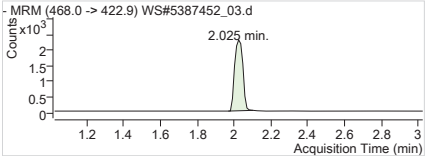


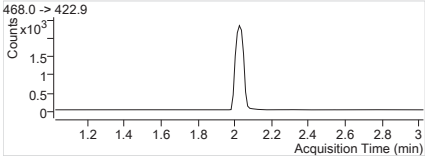
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 107.12 µg/L
Area ratio: 0.31780
Sample type: Calibration



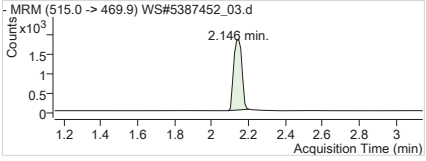


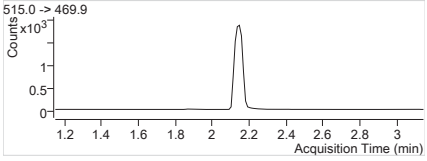
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 111.76 µg/L
Area ratio: 0.07990
Sample type: Calibration



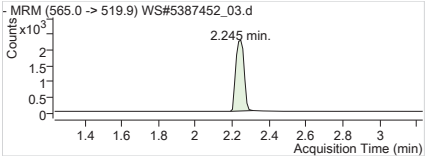


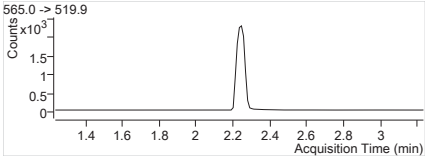
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 108.76 µg/L
Area ratio: 0.32974
Sample type: Calibration



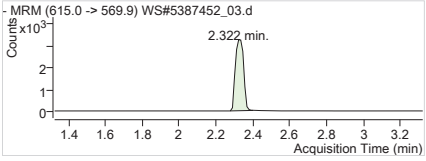


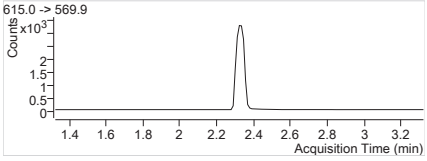
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 101.23 µg/L
Area ratio: 0.18455
Sample type: Calibration



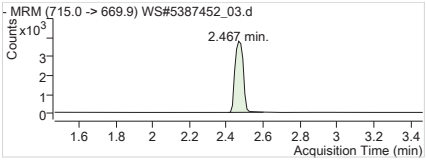


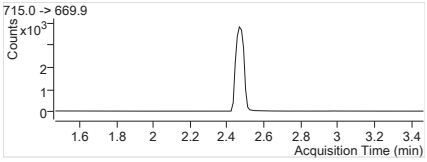
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 100.42 µg/L
Area ratio: 0.22966
Sample type: Calibration



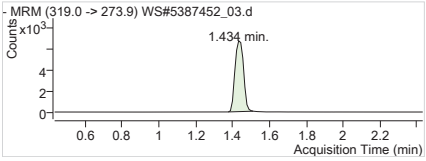


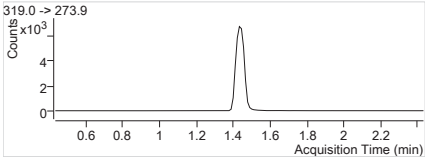
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 105.39 µg/L
Area ratio: 0.32736
Sample type: Calibration



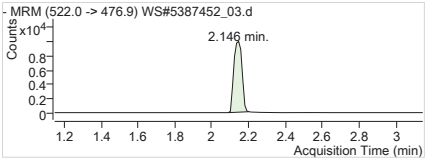


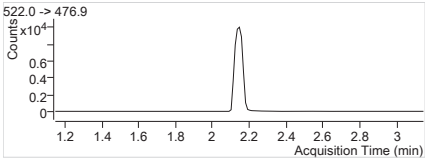
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	104.03 µg/L
Area ratio:	0.38180
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	91.97 µg/L
Area ratio:	0
Sample type:	Calibration





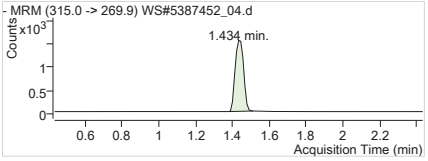
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	97.50 µg/L
Area ratio:	0
Sample type:	Calibration

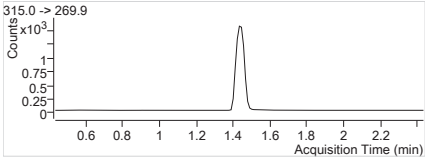
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_ETOxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5387452_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A4
Acq. Date	2018/02/08 12:43:49 AM	**Injection Volume**	Per Method
Sample Annotation	-		

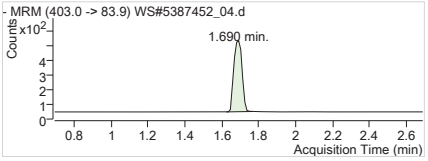
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	4876	1.43	1 µg/L		
MPFHxS	1531	1.69	1 µg/L		
MPFHpA	6092	1.70	1 µg/L		
MPFOA	6894	1.88	1 µg/L		
MPFOS	1659	1.98	1 µg/L		
MPFNA	6904	2.02	1 µg/L		
MPFDA	5825	2.15	1 µg/L		
MPFUnA	7078	2.25	1 µg/L		
MPFDoA	9090	2.32	1 µg/L		
MPFTeDA	11813	2.47	1 µg/L		
13C6-PFHxA IS	22684	1.43	1 µg/L		
13C9-PFDA IS	29920	2.15	1 µg/L		

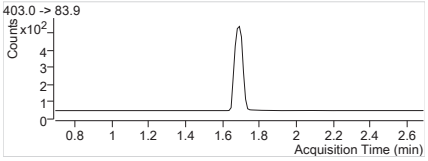
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	3326	1.10	5.00	4.30 µg/L	86.08
PFHxA 1	10403	1.43	5.00	5.10 µg/L	102.07
PFHxS 1	3244	1.69	5.00	4.30 µg/L	86.07
PFHpA 1	12860	1.70	5.00	5.16 µg/L	103.13
PFOA 1	14324	1.88	5.00	4.81 µg/L	96.27
PFOS 1	3069	1.98	5.00	4.86 µg/L	97.28
PFNA 1	13268	2.03	5.00	4.93 µg/L	98.65
PFDA 1	14891	2.15	5.00	4.96 µg/L	99.24
PFUnA 1	16380	2.25	5.00	5.04 µg/L	100.78
PFDoA 1	21231	2.32	5.00	5.38 µg/L	107.65
PFTrDA 1	24953	2.40	5.00	4.79 µg/L	95.71
PFTeDA 1	20767	2.47	5.00	4.88 µg/L	97.69
13C2-PFHxA	4876	1.43	100.00	100.58 µg/L	100.58
18O2-PFHxS	1531	1.69	100.00	116.38 µg/L	116.38
13C4-PFHpA	6092	1.70	100.00	97.40 µg/L	97.40
13C4-PFOA	6894	1.88	100.00	102.44 µg/L	102.44
13C4-PFOS	1659	1.98	100.00	102.29 µg/L	102.29
13C5-PFNA	6903	2.02	100.00	100.37 µg/L	100.37
13C2-PFDA	5727	2.15	100.00	104.99 µg/L	104.99
13C2-PFUnA	7078	2.25	100.00	103.44 µg/L	103.44
13C2-PFDoA	9090	2.32	100.00	97.81 µg/L	97.81
13C2-PFTeDA	12104	2.47	100.00	110.23 µg/L	110.23
13C6-PFHxA	22684	1.43	100.00	97.31 µg/L	97.31
13C9-PFDA	29920	2.15	100.00	94.94 µg/L	94.94



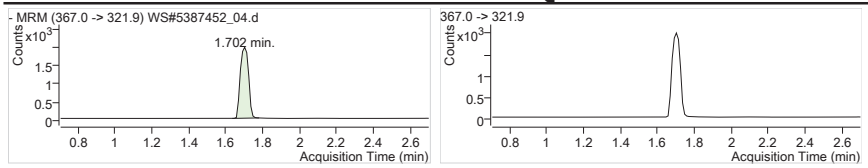


MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration

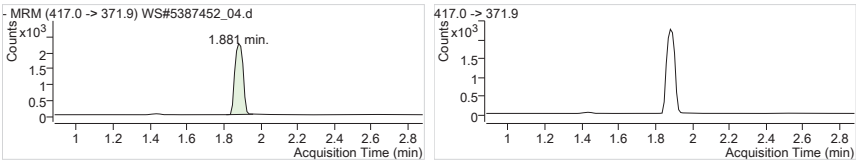




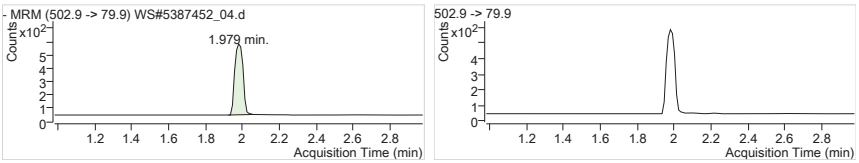
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



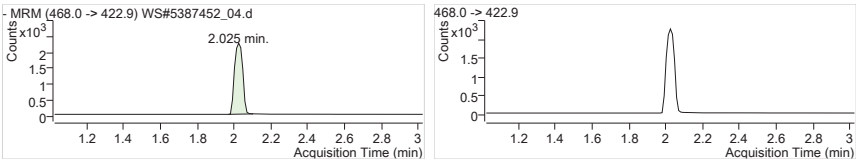
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Calibration



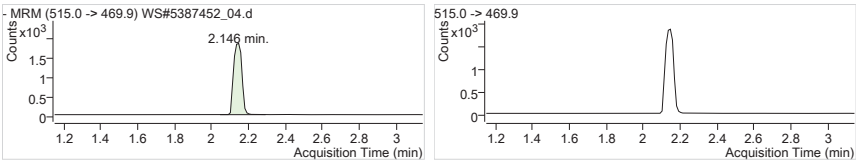
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



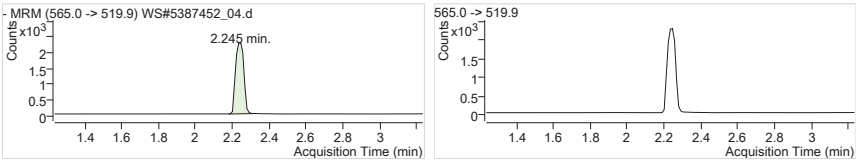
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



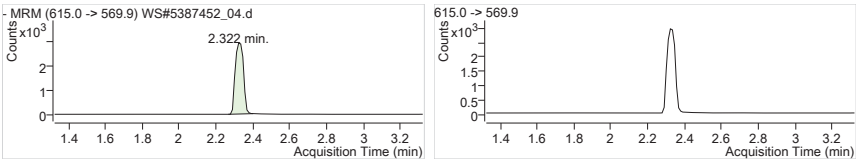
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Calibration



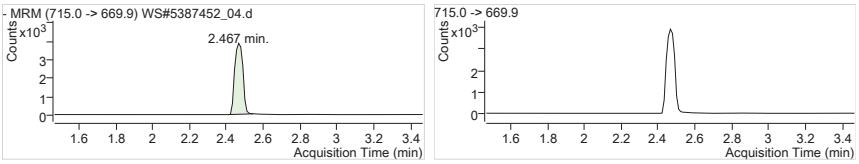
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



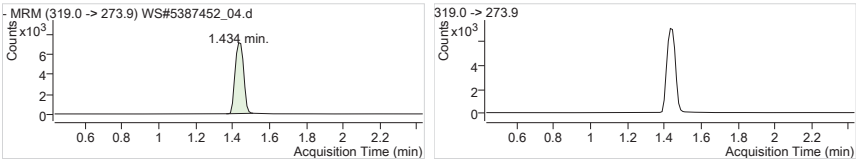
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



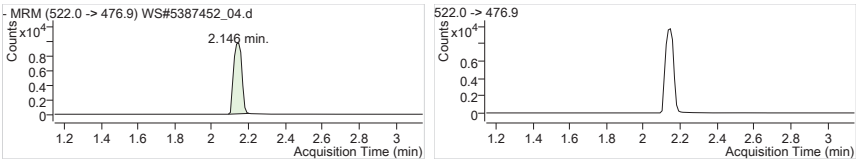
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



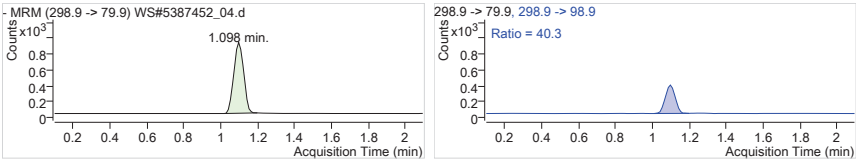
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



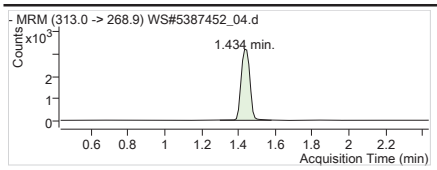
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration

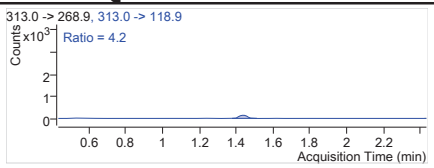


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration

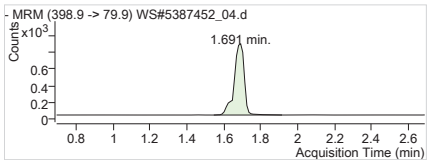


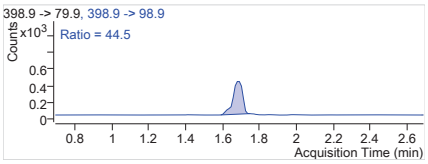
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 4.30 µg/L
Area ratio: 2.17244
Sample type: Calibration



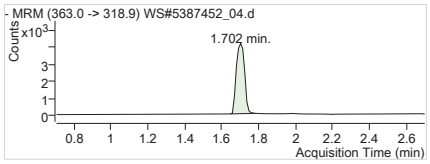


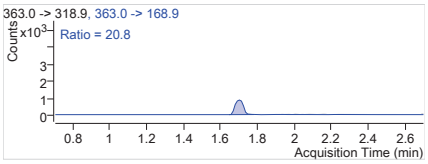
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 5.10 µg/L
Area ratio: 2.13351
Sample type: Calibration



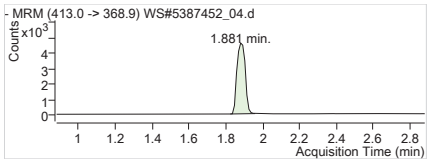


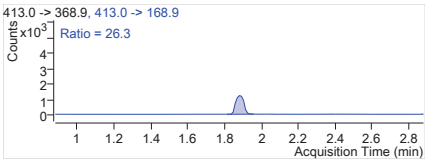
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 4.30 µg/L
Area ratio: 2.11888
Sample type: Calibration



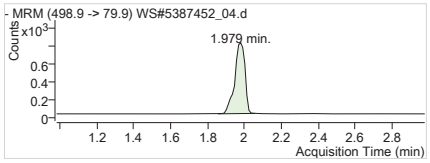


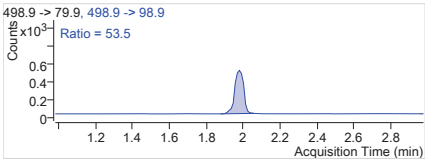
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 5.16 µg/L
Area ratio: 2.11097
Sample type: Calibration



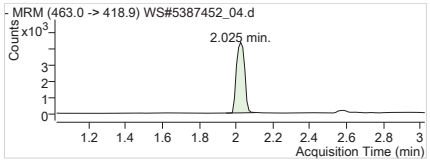


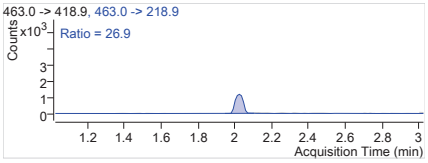
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 4.81 µg/L
Area ratio: 2.07775
Sample type: Calibration



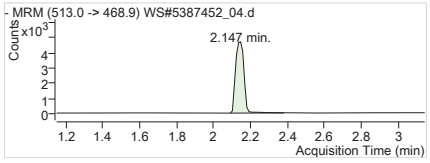


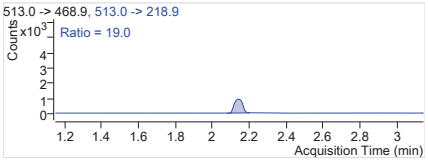
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 4.86 µg/L
Area ratio: 1.84991
Sample type: Calibration



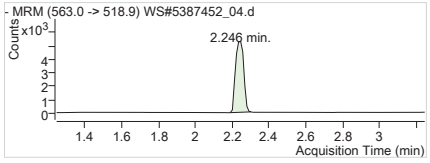


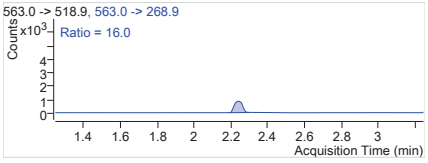
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 4.93 µg/L
Area ratio: 1.92178
Sample type: Calibration



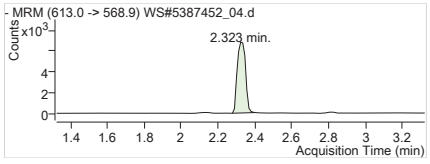


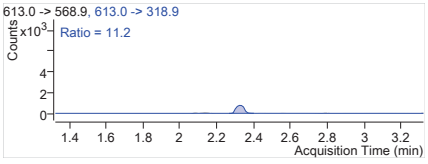
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 4.96 µg/L
Area ratio: 2.55639
Sample type: Calibration



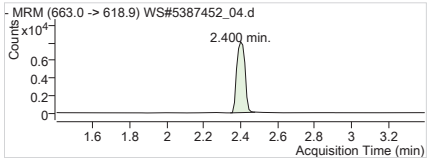


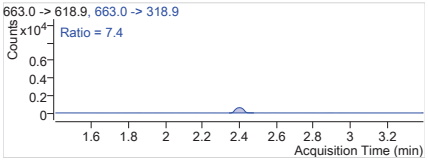
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 5.04 µg/L
Area ratio: 2.31421
Sample type: Calibration



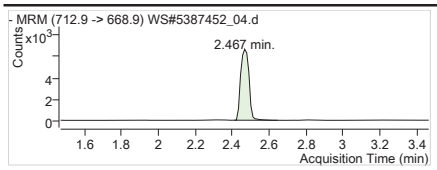


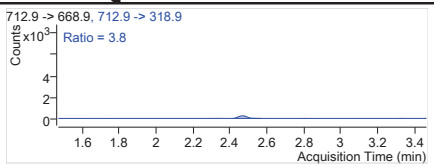
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 5.38 µg/L
Area ratio: 2.33564
Sample type: Calibration



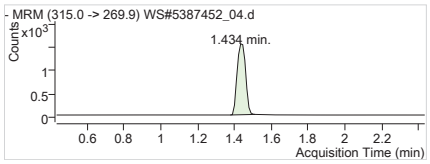


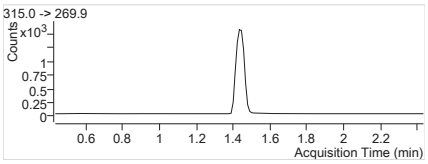
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 4.79 µg/L
Area ratio: 2.11233
Sample type: Calibration



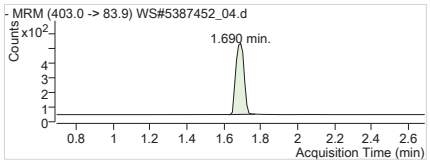


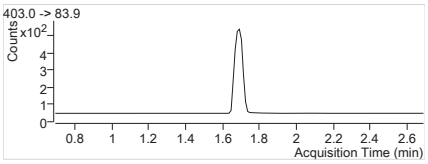
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 4.88 µg/L
Area ratio: 1.75798
Sample type: Calibration



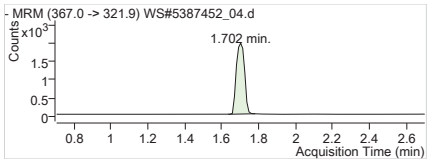


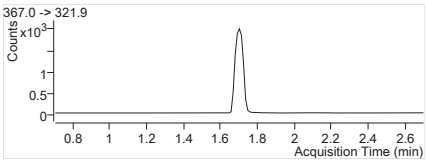
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 100.58 µg/L
Area ratio: 0.21495
Sample type: Calibration



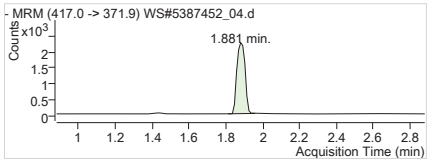


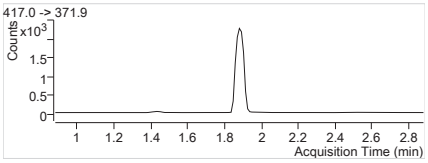
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 116.38 µg/L
Area ratio: 0.06749
Sample type: Calibration



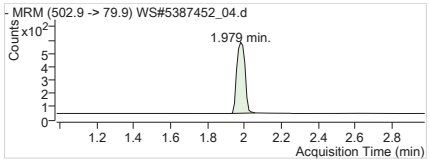


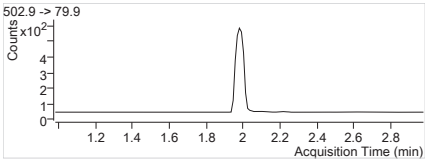
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 97.40 µg/L
Area ratio: 0.26856
Sample type: Calibration



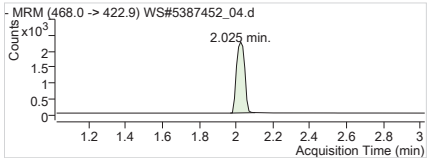


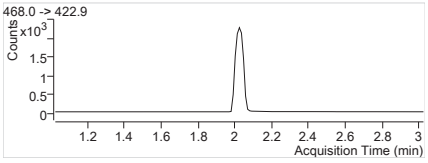
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 102.44 µg/L
Area ratio: 0.30391
Sample type: Calibration



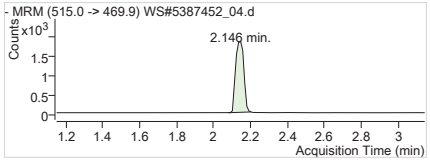


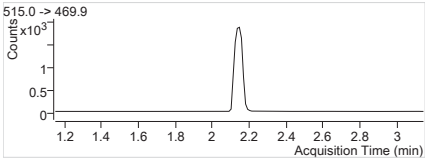
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 102.29 µg/L
Area ratio: 0.07314
Sample type: Calibration



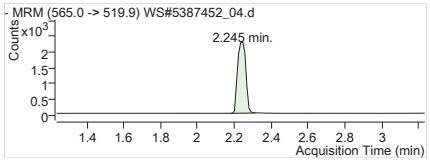


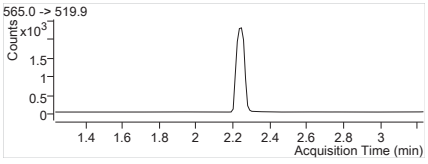
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 100.37 µg/L
Area ratio: 0.30431
Sample type: Calibration



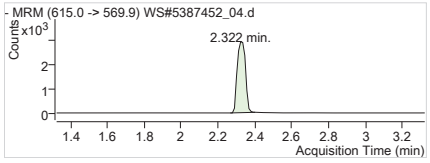


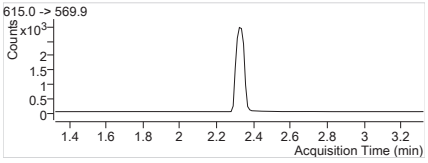
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 104.99 µg/L
Area ratio: 0.19141
Sample type: Calibration



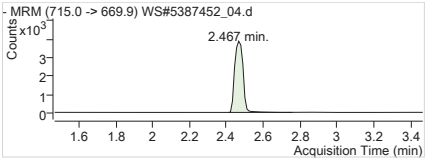


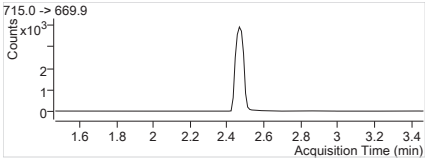
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 103.44 µg/L
Area ratio: 0.23656
Sample type: Calibration



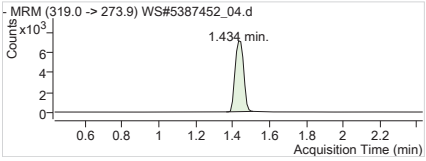


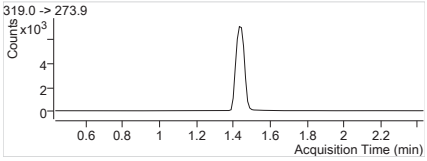
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 97.81 µg/L
Area ratio: 0.30381
Sample type: Calibration



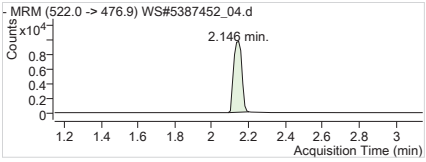


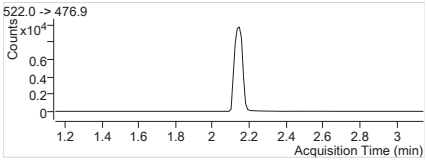
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	110.23 µg/L
Area ratio:	0.40455
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	97.31 µg/L
Area ratio:	0
Sample type:	Calibration





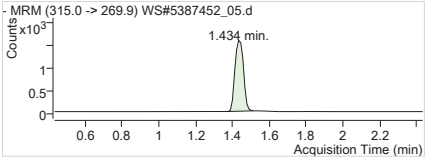
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	94.94 µg/L
Area ratio:	0
Sample type:	Calibration

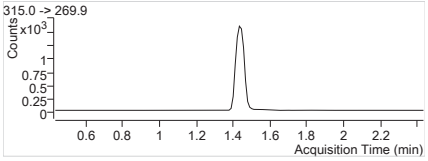
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5387452_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A5
Acq. Date	2018/02/08 12:48:45 AM	**Injection Volume**	Per Method
Sample Annotation	-		

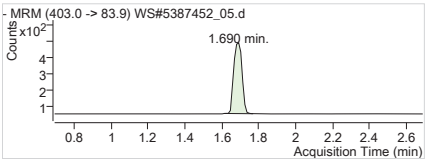
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5002	1.43	1 µg/L		
MPFHxS	1391	1.69	1 µg/L		
MPFHpA	6169	1.70	1 µg/L		
MPFOA	6972	1.88	1 µg/L		
MPFOS	1671	1.98	1 µg/L		
MPFNA	6896	2.02	1 µg/L		
MPFDA	5631	2.15	1 µg/L		
MPFUnA	7200	2.23	1 µg/L		
MPFDoA	10004	2.32	1 µg/L		
MPFTeDA	10994	2.47	1 µg/L		
13C6-PFHxA IS	23335	1.43	1 µg/L		
13C9-PFDA IS	32614	2.15	1 µg/L		

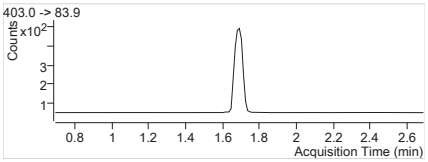
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7848	1.10	12.50	10.87 µg/L	86.98
PFHxA 1	26901	1.43	12.50	12.71 µg/L	101.71
PFHxS 1	7975	1.69	12.50	11.49 µg/L	91.91
PFHpA 1	34432	1.70	12.50	13.67 µg/L	109.37
PFOA 1	38695	1.88	12.50	12.65 µg/L	101.19
PFOS 1	7951	1.98	12.50	12.32 µg/L	98.58
PFNA 1	35389	2.03	12.50	13.02 µg/L	104.17
PFDA 1	39015	2.15	12.50	13.35 µg/L	106.77
PFUnA 1	44426	2.25	12.50	13.37 µg/L	106.96
PFDoA 1	56739	2.32	12.50	12.92 µg/L	103.36
PFTrDA 1	64586	2.40	12.50	13.30 µg/L	106.43
PFTeDA 1	54810	2.47	12.50	13.32 µg/L	106.58
13C2-PFHxA	5002	1.43	100.00	100.30 µg/L	100.30
18O2-PFHxS	1391	1.69	100.00	102.79 µg/L	102.79
13C4-PFHpA	6169	1.70	100.00	95.88 µg/L	95.88
13C4-PFOA	6972	1.88	100.00	100.71 µg/L	100.71
13C4-PFOS	1671	1.98	100.00	100.16 µg/L	100.16
13C5-PFNA	6897	2.02	100.00	97.49 µg/L	97.49
13C2-PFDA	5603	2.15	100.00	94.24 µg/L	94.24
13C2-PFUnA	7200	2.23	100.00	96.53 µg/L	96.53
13C2-PFDoA	10004	2.32	100.00	98.76 µg/L	98.76
13C2-PFTeDA	11109	2.47	100.00	92.81 µg/L	92.81
13C6-PFHxA	23335	1.43	100.00	100.10 µg/L	100.10
13C9-PFDA	32614	2.15	100.00	103.49 µg/L	103.49



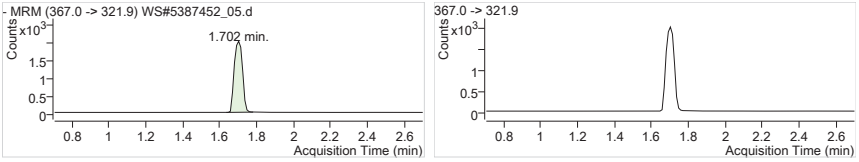


MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration

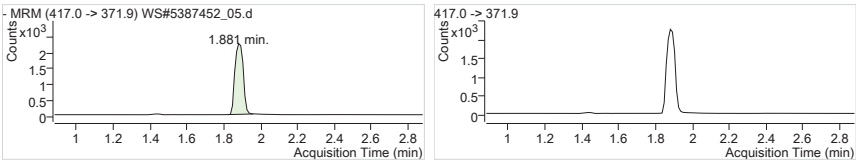




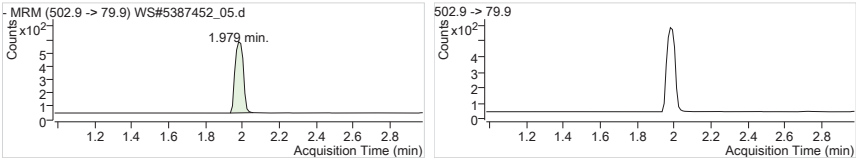
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



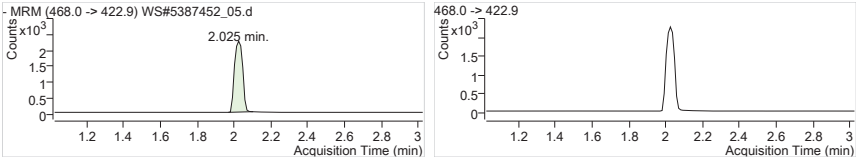
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Calibration



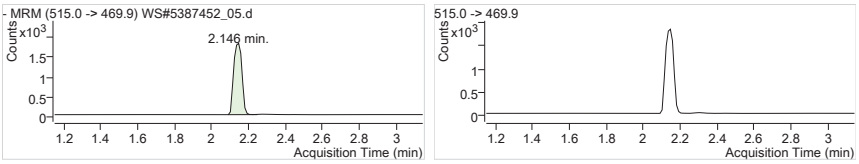
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



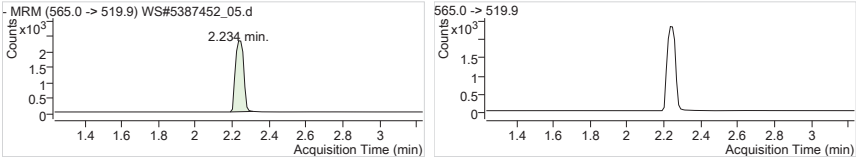
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



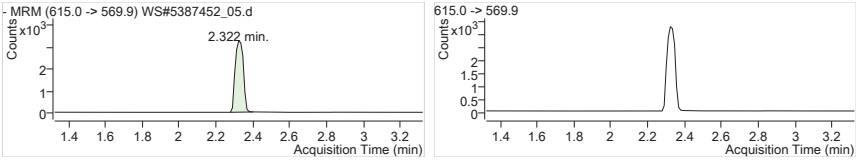
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Calibration



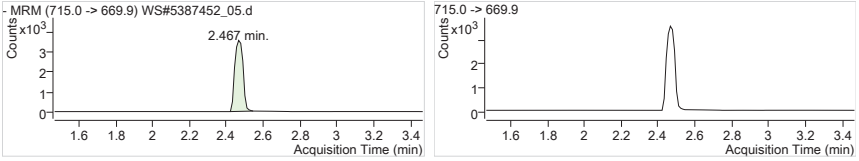
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



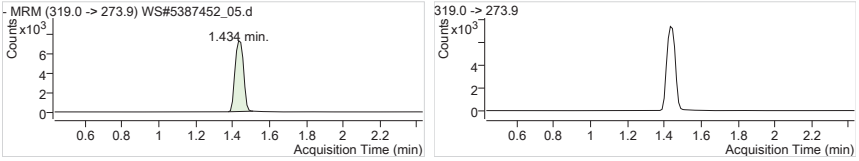
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



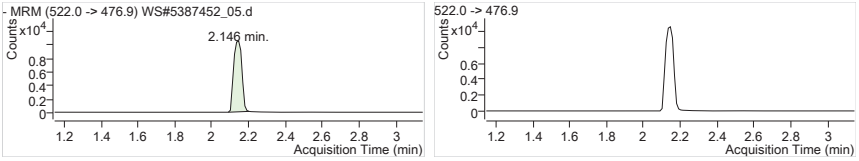
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



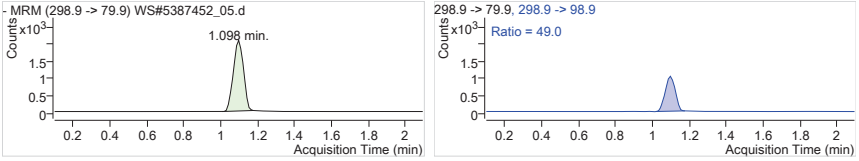
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



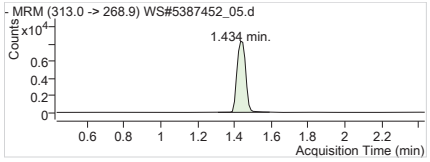
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration

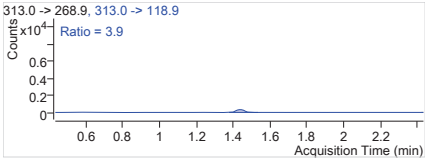


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration

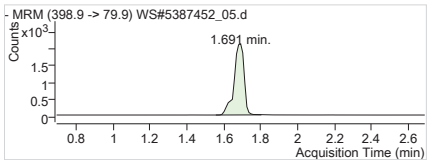


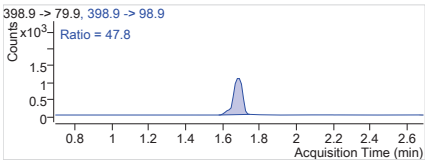
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 10.87 µg/L
Area ratio: 5.64198
Sample type: Calibration



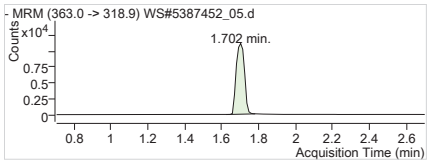


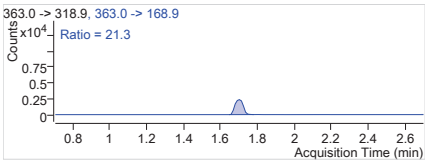
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 12.71 µg/L
Area ratio: 5.37805
Sample type: Calibration



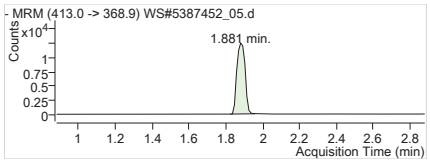


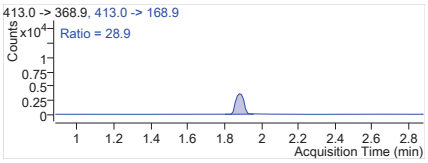
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 11.49 µg/L
Area ratio: 5.73329
Sample type: Calibration



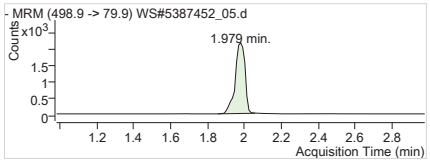


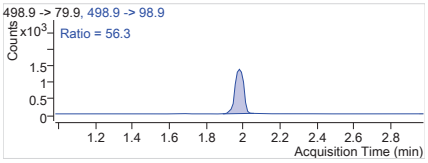
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 13.67 µg/L
Area ratio: 5.58146
Sample type: Calibration



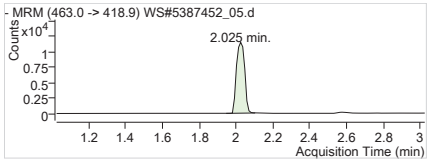


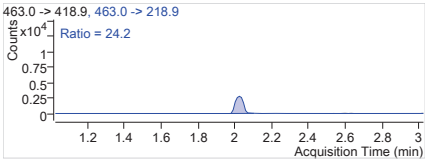
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 12.65 µg/L
Area ratio: 5.55006
Sample type: Calibration



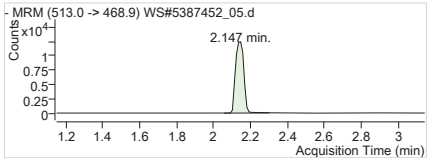


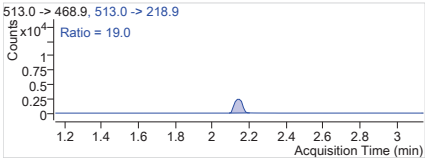
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 12.32 µg/L
Area ratio: 4.75823
Sample type: Calibration



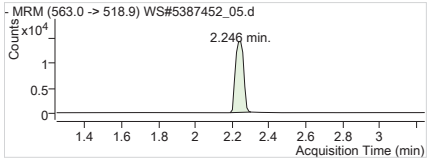


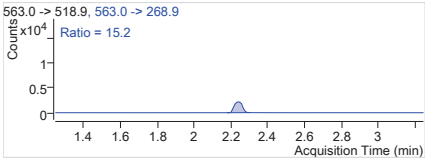
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 13.02 µg/L
Area ratio: 5.13182
Sample type: Calibration



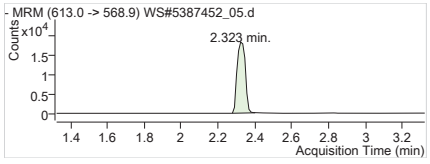


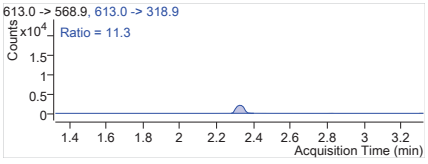
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 13.35 µg/L
Area ratio: 6.92861
Sample type: Calibration



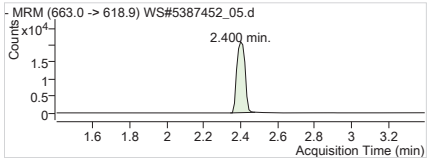


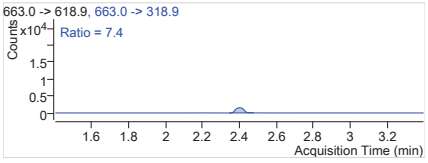
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 13.37 µg/L
Area ratio: 6.17028
Sample type: Calibration



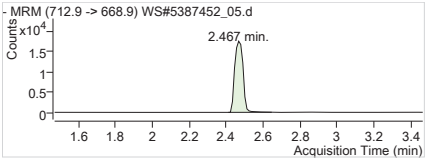


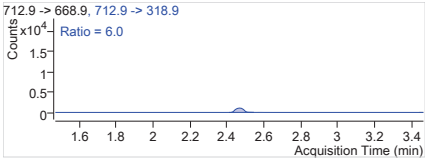
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 12.92 µg/L
Area ratio: 5.67163
Sample type: Calibration



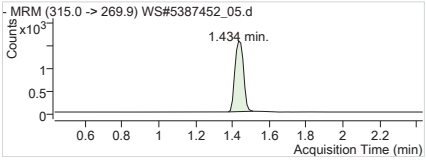


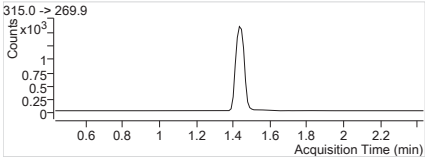
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 13.30 µg/L
Area ratio: 5.87466
Sample type: Calibration



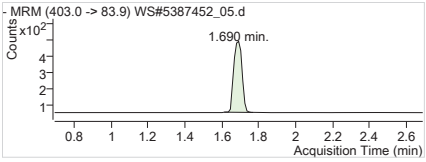


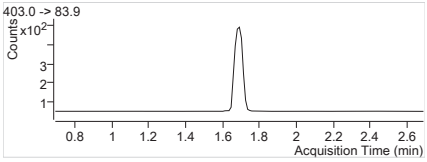
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 13.32 µg/L
Area ratio: 4.98545
Sample type: Calibration



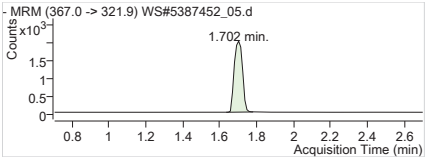


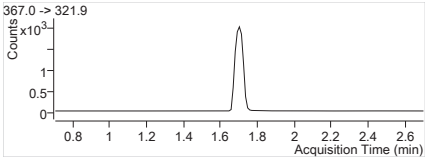
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 100.30 µg/L
Area ratio: 0.21436
Sample type: Calibration



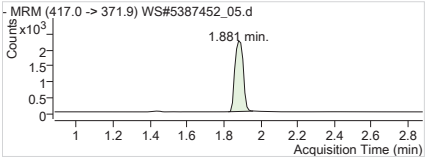


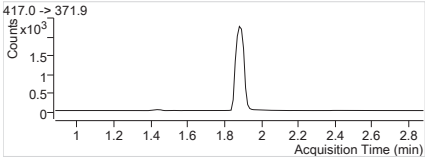
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 102.79 µg/L
Area ratio: 0.05961
Sample type: Calibration



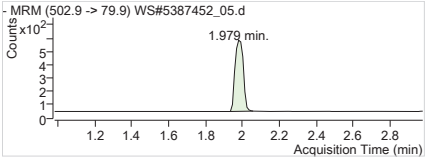


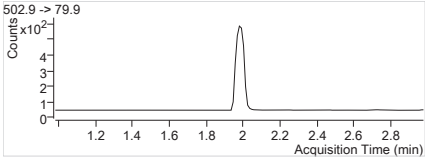
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 95.88 µg/L
Area ratio: 0.26437
Sample type: Calibration



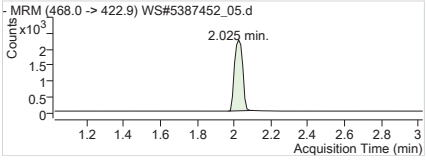


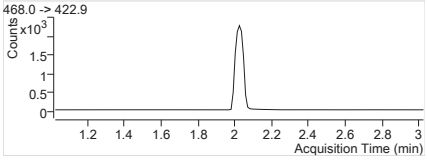
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 100.71 µg/L
Area ratio: 0.29878
Sample type: Calibration



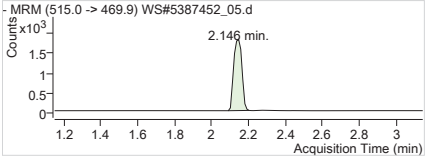


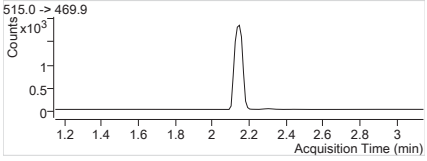
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 100.16 µg/L
Area ratio: 0.07161
Sample type: Calibration



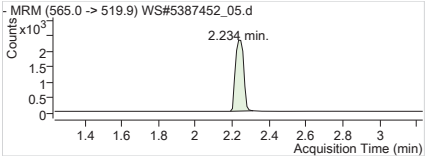


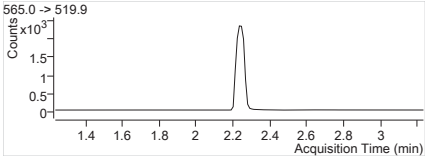
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 97.49 µg/L
Area ratio: 0.29556
Sample type: Calibration



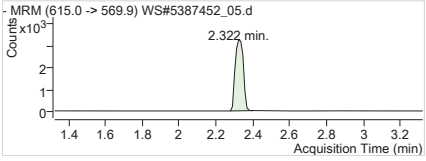


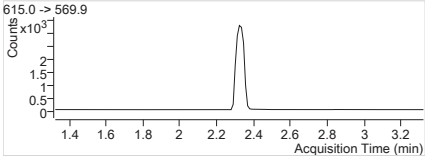
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 94.24 µg/L
Area ratio: 0.17180
Sample type: Calibration



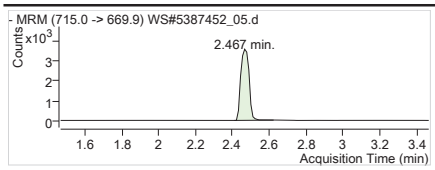


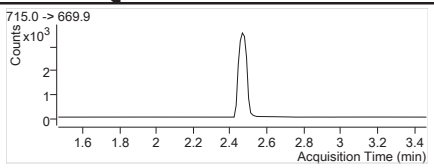
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 96.53 µg/L
Area ratio: 0.22076
Sample type: Calibration



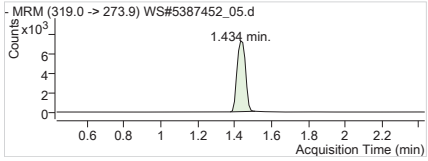


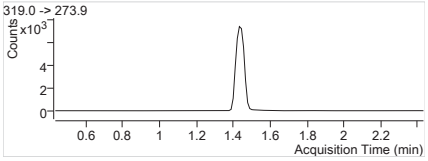
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 98.76 µg/L
Area ratio: 0.30674
Sample type: Calibration



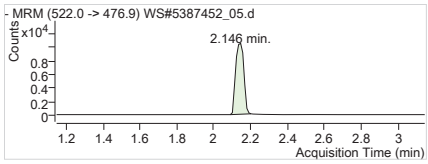


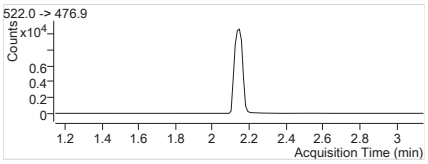
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	92.81 µg/L
Area ratio:	0.34062
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	100.10 µg/L
Area ratio:	0
Sample type:	Calibration





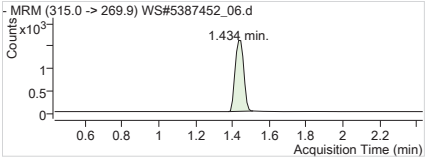
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	103.49 µg/L
Area ratio:	0
Sample type:	Calibration

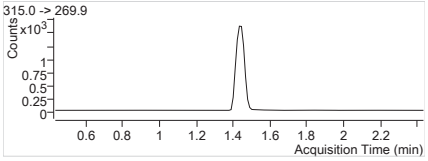
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5387452_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A6
Acq. Date	2018/02/08 12:53:41 AM	**Injection Volume**	Per Method
Sample Annotation	-		

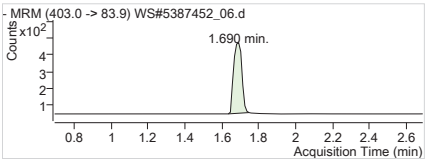
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5110	1.43	1 µg/L		
MPFHxS	1312	1.69	1 µg/L		
MPFHpA	6809	1.70	1 µg/L		
MPFOA	6917	1.88	1 µg/L		
MPFOS	1585	1.98	1 µg/L		
MPFNA	7188	2.02	1 µg/L		
MPFDA	6293	2.15	1 µg/L		
MPFUnA	7242	2.25	1 µg/L		
MPFDoA	9733	2.32	1 µg/L		
MPFTeDA	11460	2.47	1 µg/L		
13C6-PFHxA IS	23887	1.43	1 µg/L		
13C9-PFDA IS	31422	2.15	1 µg/L		

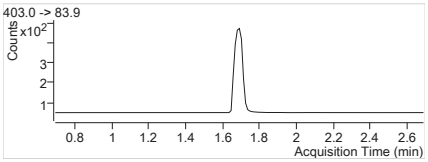
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	16055	1.10	25.00	23.36 µg/L	93.44
PFHxA 1	53000	1.43	25.00	24.43 µg/L	97.70
PFHxS 1	15424	1.68	25.00	23.46 µg/L	93.85
PFHpA 1	65942	1.70	25.00	23.74 µg/L	94.96
PFOA 1	75645	1.88	25.00	24.80 µg/L	99.21
PFOS 1	15086	1.98	25.00	24.53 µg/L	98.11
PFNA 1	69362	2.03	25.00	24.41 µg/L	97.62
PFDA 1	76350	2.15	25.00	23.32 µg/L	93.30
PFUnA 1	84983	2.25	25.00	25.39 µg/L	101.57
PFDoA 1	108150	2.32	25.00	25.21 µg/L	100.85
PFTrDA 1	121362	2.40	25.00	23.98 µg/L	95.93
PFTeDA 1	102897	2.47	25.00	23.76 µg/L	95.05
13C2-PFHxA	5110	1.43	100.00	100.10 µg/L	100.10
18O2-PFHxS	1312	1.69	100.00	94.71 µg/L	94.71
13C4-PFHpA	6809	1.70	100.00	103.38 µg/L	103.38
13C4-PFOA	6917	1.88	100.00	97.61 µg/L	97.61
13C4-PFOS	1585	1.98	100.00	92.81 µg/L	92.81
13C5-PFNA	7189	2.02	100.00	99.27 µg/L	99.27
13C2-PFDA	6133	2.15	100.00	107.06 µg/L	107.06
13C2-PFUnA	7242	2.25	100.00	100.78 µg/L	100.78
13C2-PFDoA	9733	2.32	100.00	99.73 µg/L	99.73
13C2-PFTeDA	11568	2.47	100.00	100.31 µg/L	100.31
13C6-PFHxA	23887	1.43	100.00	102.47 µg/L	102.47
13C9-PFDA	31422	2.15	100.00	99.71 µg/L	99.71



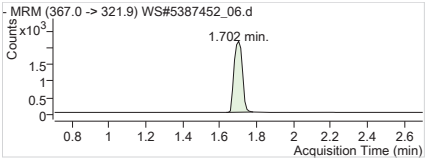


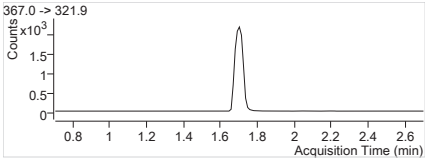
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



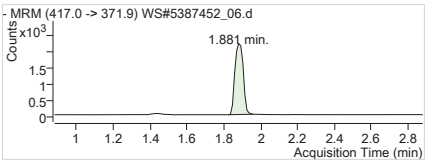


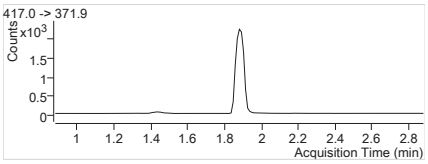
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



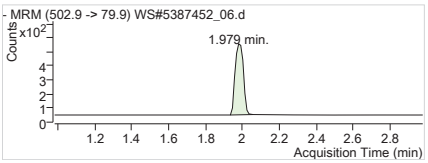


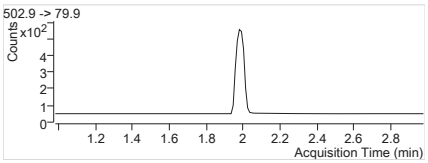
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Calibration



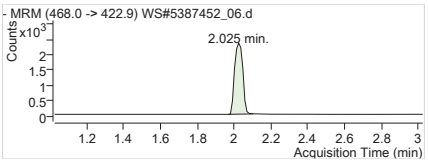


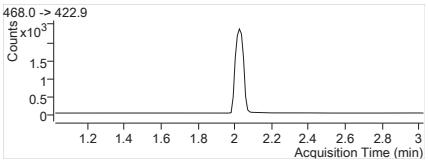
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



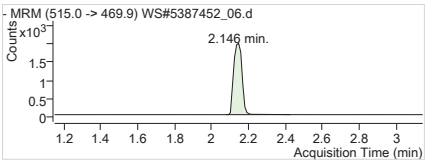


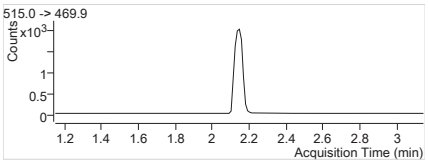
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



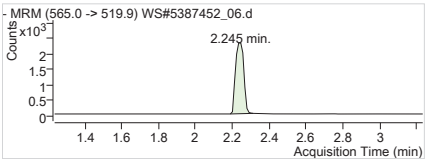


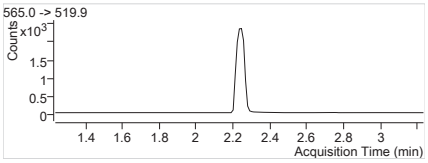
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Calibration



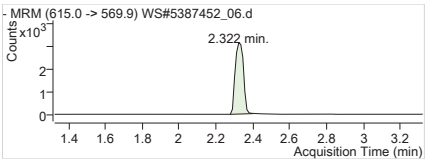


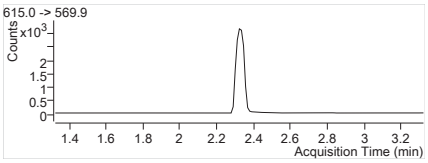
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



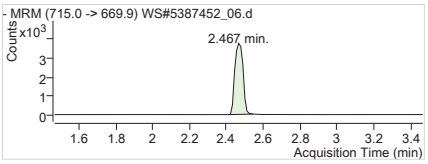


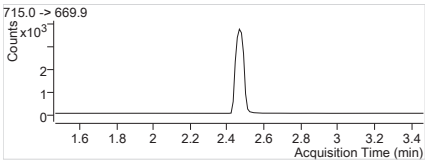
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



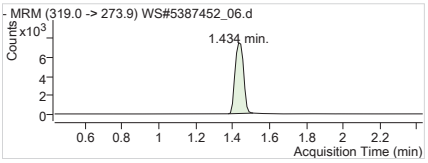


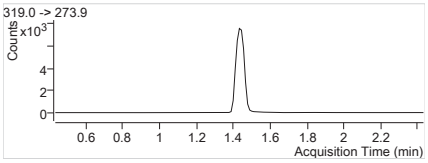
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



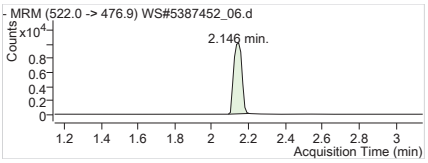


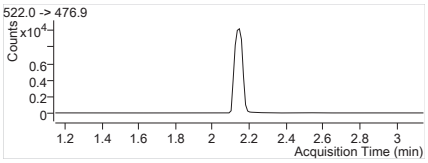
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



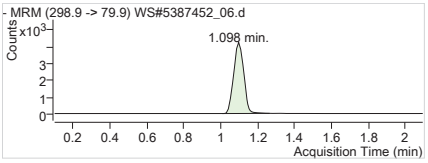


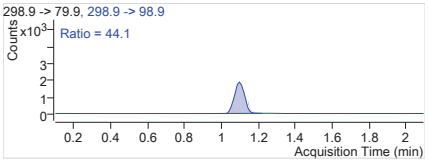
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



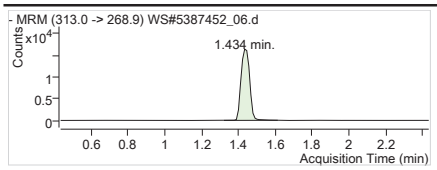


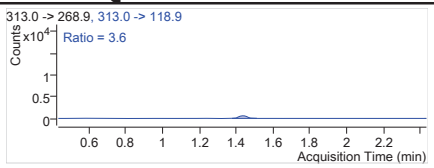
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



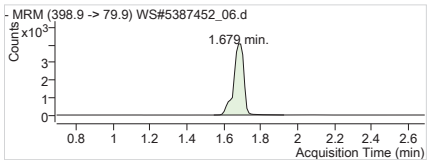


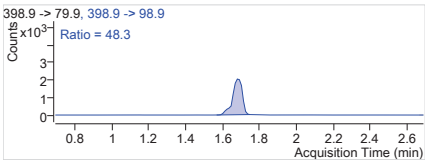
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 23.36 µg/L
Area ratio: 12.23704
Sample type: Calibration



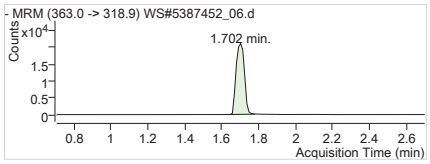


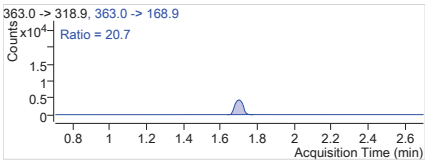
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 24.43 µg/L
Area ratio: 10.37182
Sample type: Calibration



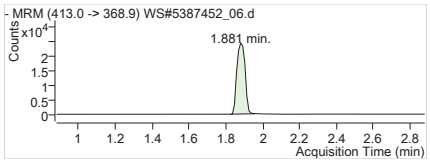


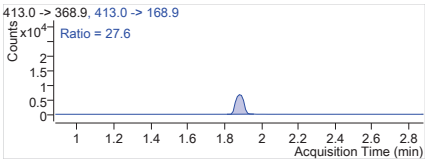
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 23.46 µg/L
Area ratio: 11.75610
Sample type: Calibration



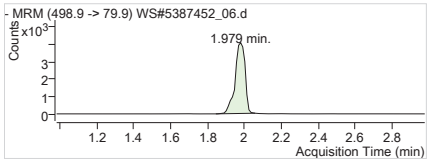


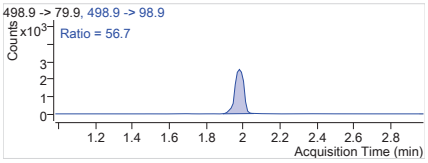
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 23.74 µg/L
Area ratio: 9.68454
Sample type: Calibration



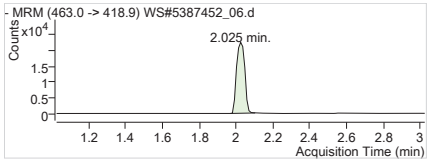


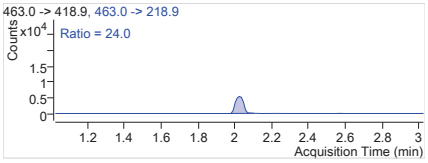
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 24.80 µg/L
Area ratio: 10.93610
Sample type: Calibration



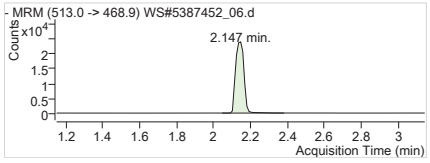


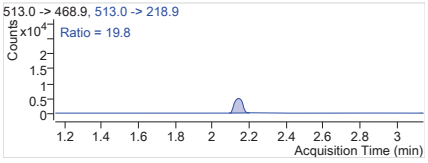
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 24.53 µg/L
Area ratio: 9.51798
Sample type: Calibration



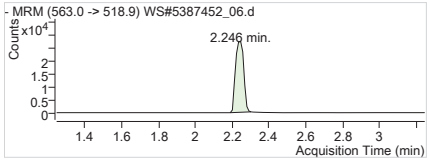


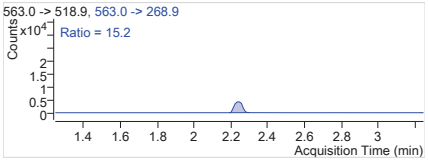
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 24.41 µg/L
Area ratio: 9.64969
Sample type: Calibration



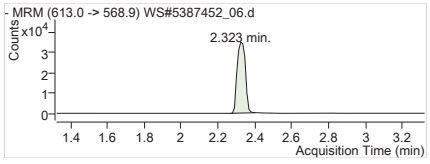


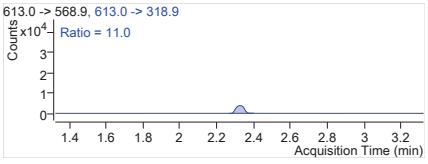
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 23.32 µg/L
Area ratio: 12.13253
Sample type: Calibration



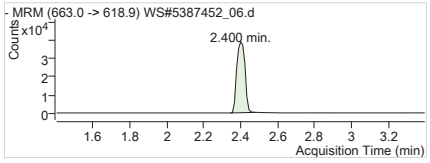


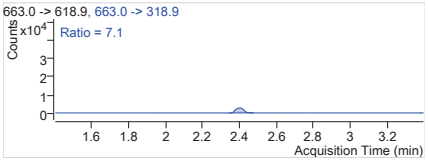
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 25.39 µg/L
Area ratio: 11.73474
Sample type: Calibration



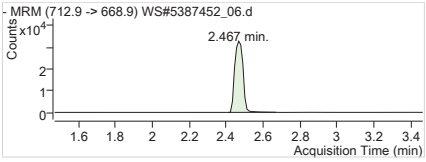


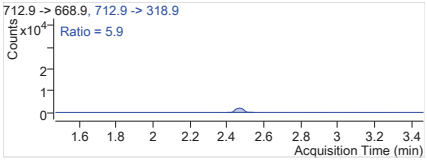
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 25.21 µg/L
Area ratio: 11.11168
Sample type: Calibration



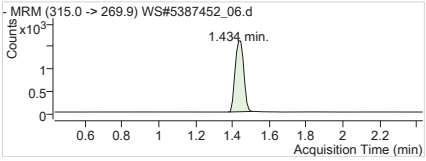


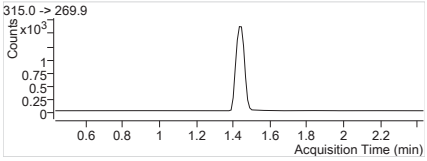
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 23.98 µg/L
Area ratio: 10.59005
Sample type: Calibration



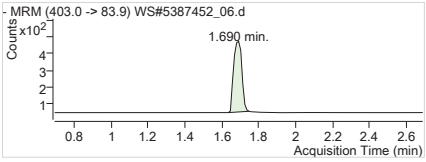


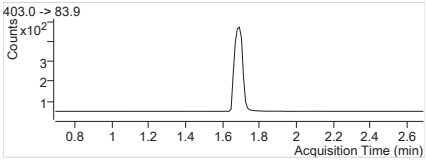
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 23.76 µg/L
Area ratio: 8.97880
Sample type: Calibration



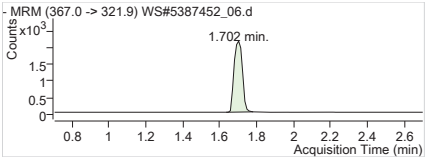


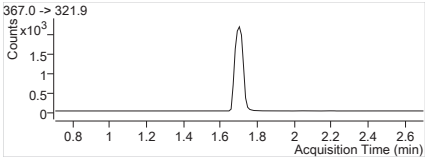
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 100.10 µg/L
Area ratio: 0.21392
Sample type: Calibration



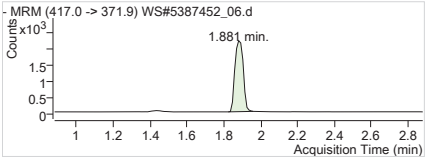


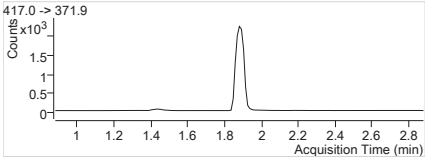
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 94.71 µg/L
Area ratio: 0.05493
Sample type: Calibration



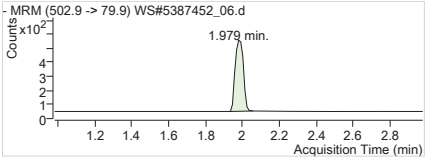


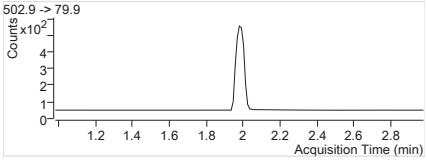
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 103.38 µg/L
Area ratio: 0.28505
Sample type: Calibration



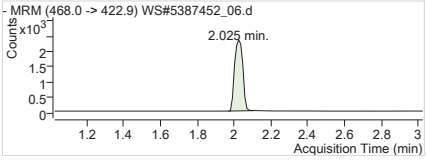


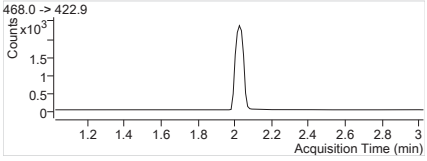
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 97.61 µg/L
Area ratio: 0.28957
Sample type: Calibration



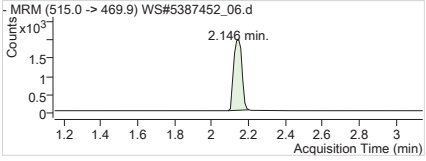


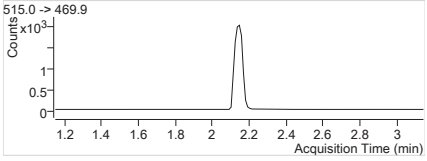
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 92.81 µg/L
Area ratio: 0.06635
Sample type: Calibration



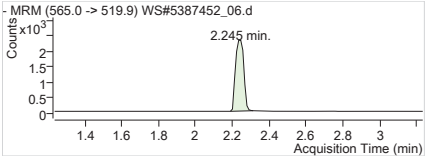


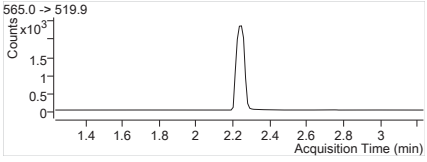
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 99.27 µg/L
Area ratio: 0.30096
Sample type: Calibration



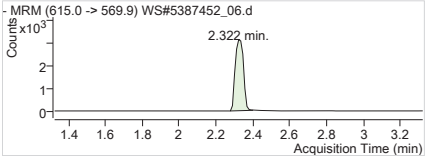


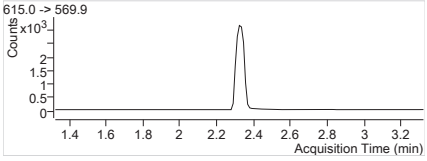
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 107.06 µg/L
Area ratio: 0.19518
Sample type: Calibration



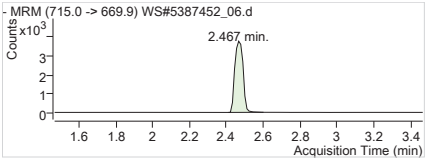


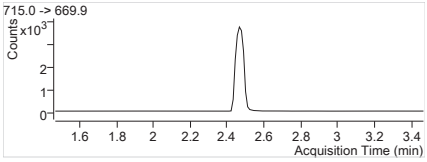
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 100.78 µg/L
Area ratio: 0.23048
Sample type: Calibration



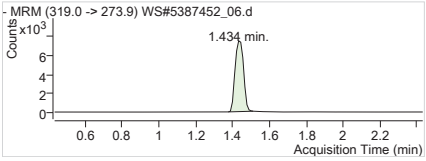


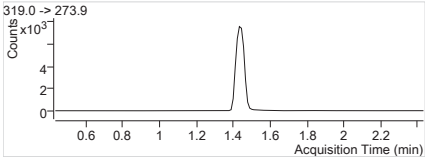
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 99.73 µg/L
Area ratio: 0.30975
Sample type: Calibration



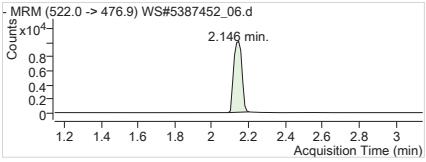


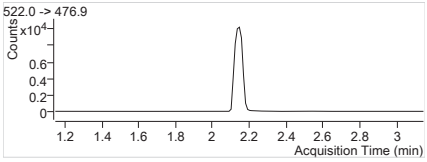
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	100.31 µg/L
Area ratio:	0.36815
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	102.47 µg/L
Area ratio:	0
Sample type:	Calibration





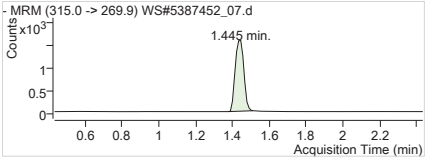
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	99.71 µg/L
Area ratio:	0
Sample type:	Calibration

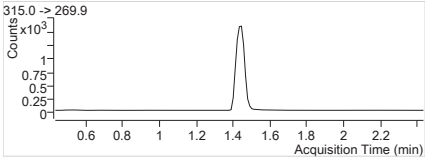
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5387452_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A7
Acq. Date	2018/02/08 12:58:37 AM	**Injection Volume**	Per Method
Sample Annotation	-		

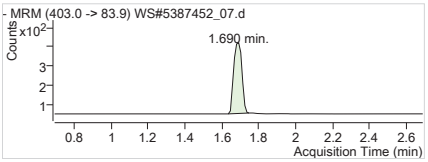
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5070	1.44	1 µg/L		
MPFHxS	1156	1.69	1 µg/L		
MPFHpA	6516	1.70	1 µg/L		
MPFOA	6951	1.88	1 µg/L		
MPFOS	1650	1.98	1 µg/L		
MPFNA	7142	2.02	1 µg/L		
MPFDA	5563	2.14	1 µg/L		
MPFUnA	7486	2.23	1 µg/L		
MPFDoA	9957	2.32	1 µg/L		
MPFTeDA	11158	2.47	1 µg/L		
13C6-PFHxA IS	23411	1.43	1 µg/L		
13C9-PFDA IS	31550	2.13	1 µg/L		

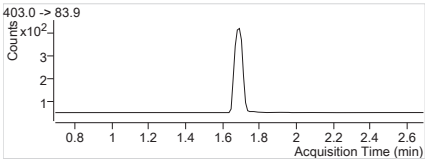
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	27647	1.10	41.70	45.47 µg/L	109.05
PFHxA 1	90803	1.43	41.70	42.10 µg/L	100.97
PFHxS 1	25940	1.69	41.70	44.70 µg/L	107.19
PFHpA 1	111191	1.70	41.70	41.85 µg/L	100.35
PFOA 1	128958	1.88	41.70	41.99 µg/L	100.70
PFOS 1	27280	1.98	41.70	42.52 µg/L	101.96
PFNA 1	118639	2.03	41.70	41.95 µg/L	100.60
PFDA 1	128311	2.15	41.70	44.29 µg/L	106.20
PFUnA 1	140199	2.23	41.70	40.50 µg/L	97.13
PFDoA 1	179777	2.32	41.70	40.90 µg/L	98.09
PFTrDA 1	207931	2.40	41.70	42.20 µg/L	101.19
PFTeDA 1	178968	2.47	41.70	42.22 µg/L	101.25
13C2-PFHxA	5070	1.44	100.00	101.33 µg/L	101.33
18O2-PFHxS	1156	1.69	100.00	85.14 µg/L	85.14
13C4-PFHpA	6516	1.70	100.00	100.94 µg/L	100.94
13C4-PFOA	6951	1.88	100.00	100.08 µg/L	100.08
13C4-PFOS	1650	1.98	100.00	98.58 µg/L	98.58
13C5-PFNA	7142	2.02	100.00	100.62 µg/L	100.62
13C2-PFDA	5508	2.14	100.00	95.76 µg/L	95.76
13C2-PFUnA	7486	2.23	100.00	103.75 µg/L	103.75
13C2-PFDoA	9957	2.32	100.00	101.61 µg/L	101.61
13C2-PFTeDA	11377	2.47	100.00	98.26 µg/L	98.26
13C6-PFHxA	23411	1.43	100.00	100.43 µg/L	100.43
13C9-PFDA	31550	2.13	100.00	100.11 µg/L	100.11



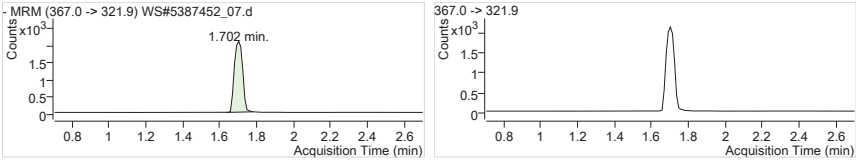


MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.434)
Concentration: 1 µg/L
Sample type: Calibration

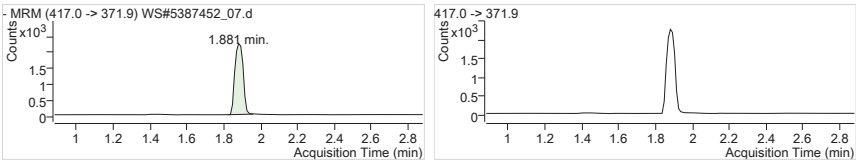




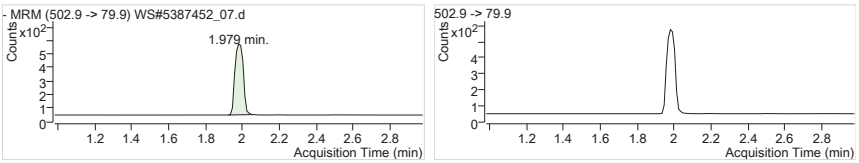
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Calibration



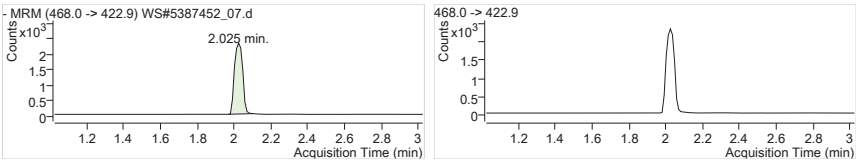
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Calibration



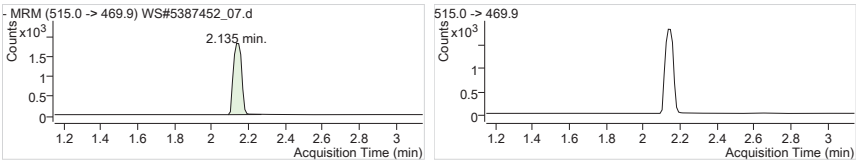
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



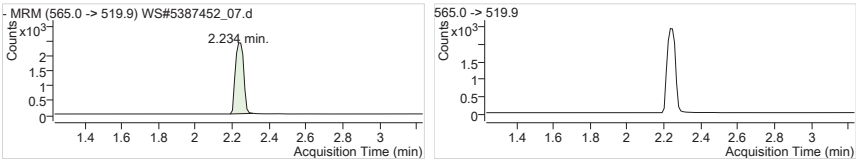
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



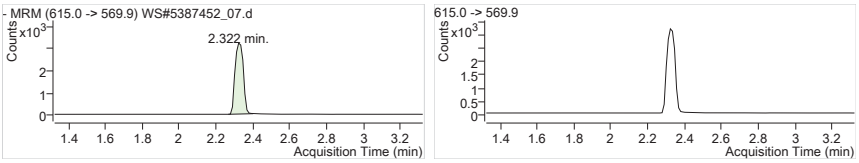
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Calibration



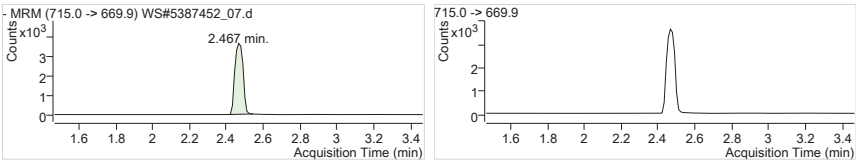
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: Calibration



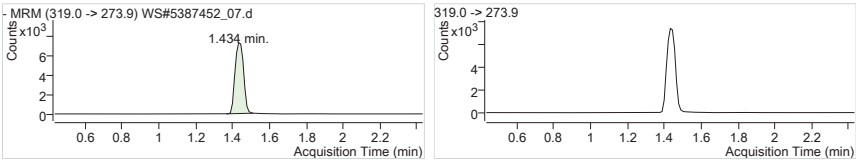
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



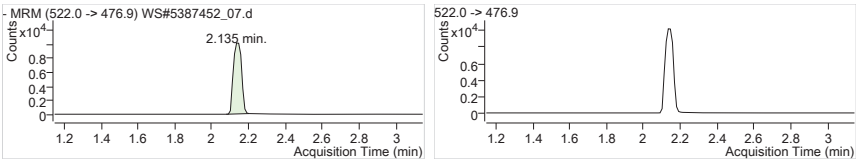
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



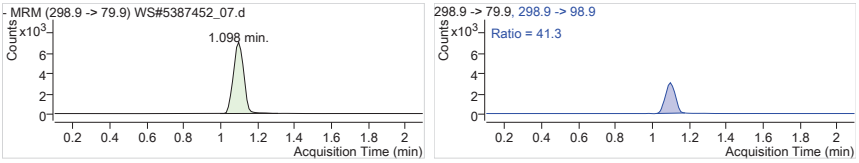
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



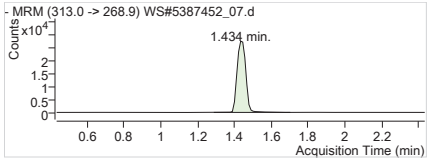
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration

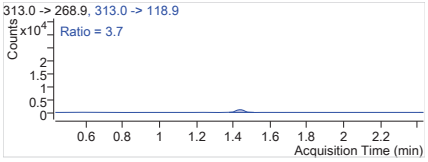


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: Calibration

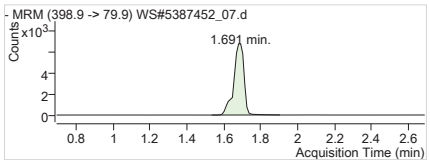


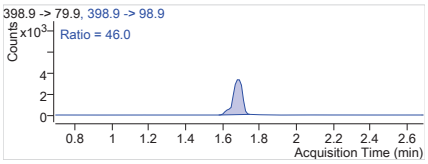
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 45.47 µg/L
Area ratio: 23.91609
Sample type: Calibration



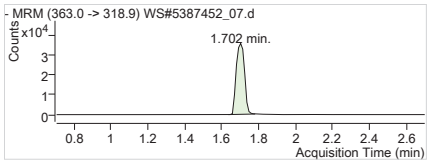


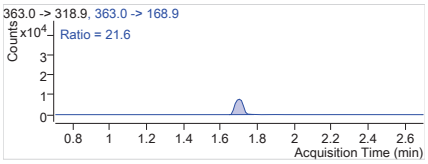
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 42.10 µg/L
Area ratio: 17.90986
Sample type: Calibration



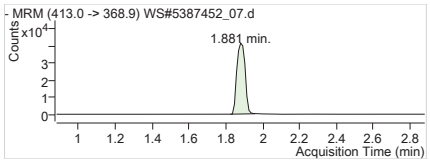


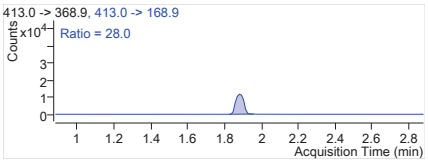
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 44.70 µg/L
Area ratio: 22.43945
Sample type: Calibration



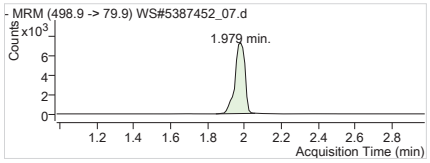


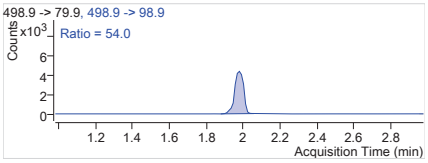
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 41.85 µg/L
Area ratio: 17.06430
Sample type: Calibration



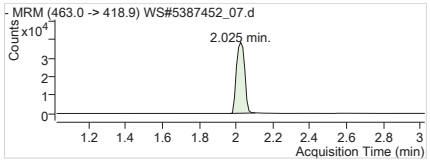


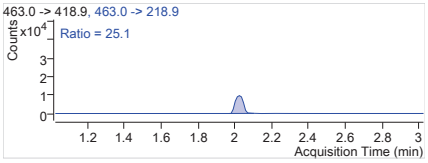
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 41.99 µg/L
Area ratio: 18.55244
Sample type: Calibration



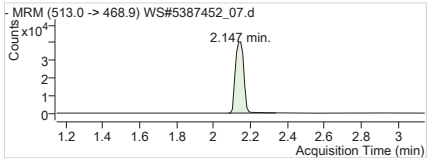


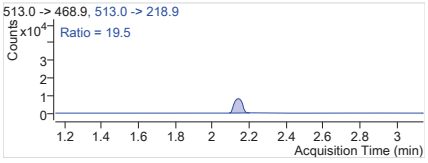
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 42.52 µg/L
Area ratio: 16.53333
Sample type: Calibration



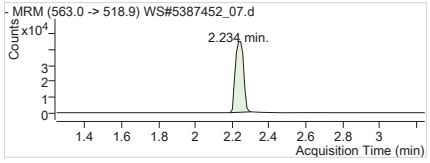


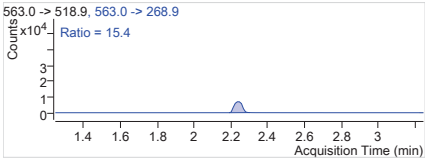
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 41.95 µg/L
Area ratio: 16.61145
Sample type: Calibration



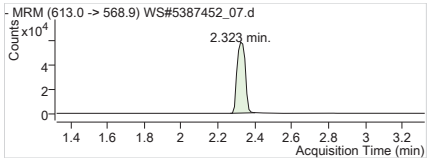


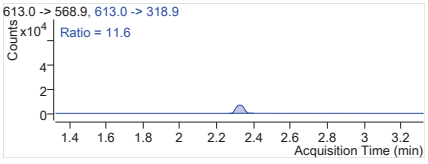
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 44.29 µg/L
Area ratio: 23.06507
Sample type: Calibration



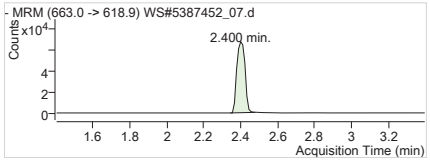


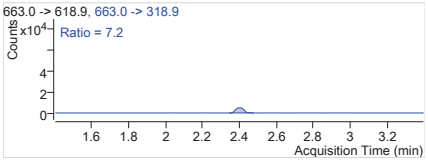
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.246)
Calc. conc. 40.50 µg/L
Area ratio: 18.72816
Sample type: Calibration



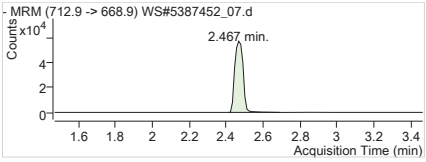


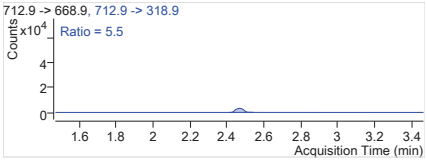
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 40.90 µg/L
Area ratio: 18.05534
Sample type: Calibration



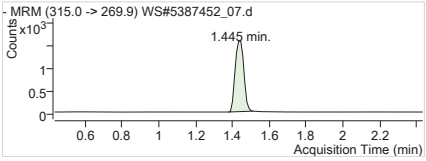


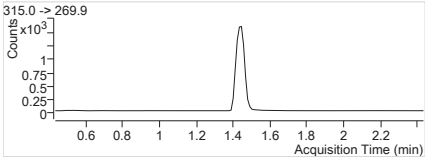
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 42.20 µg/L
Area ratio: 18.63515
Sample type: Calibration



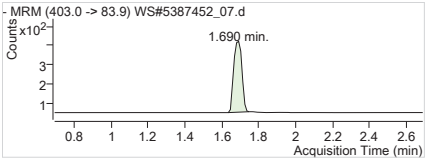


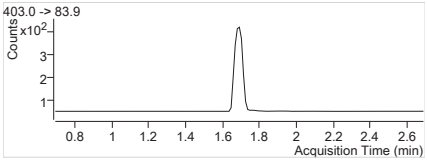
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 42.22 µg/L
Area ratio: 16.03943
Sample type: Calibration



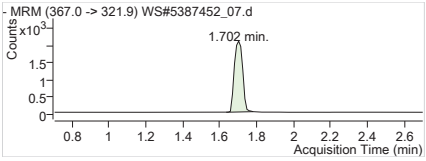


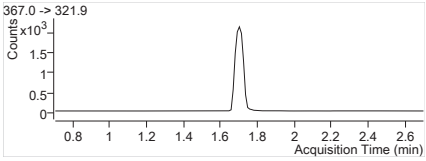
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.434)
Calc. conc. 101.33 µg/L
Area ratio: 0.21656
Sample type: Calibration



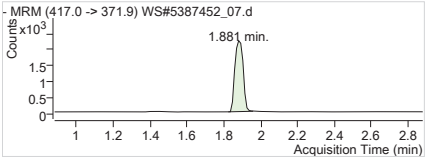


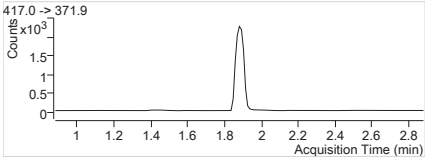
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 85.14 µg/L
Area ratio: 0.04938
Sample type: Calibration



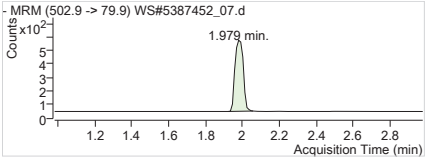


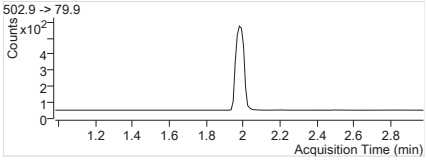
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 100.94 µg/L
Area ratio: 0.27833
Sample type: Calibration



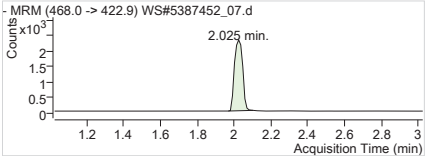


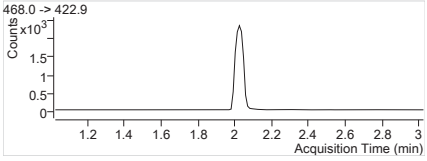
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 100.08 µg/L
Area ratio: 0.29691
Sample type: Calibration



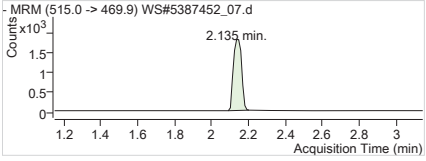


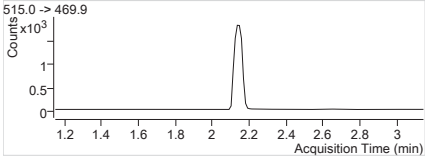
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 98.58 µg/L
Area ratio: 0.07048
Sample type: Calibration



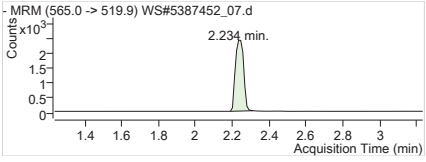


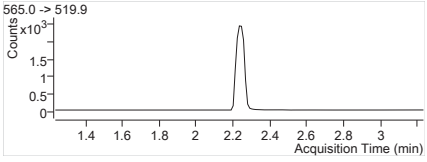
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 100.62 µg/L
Area ratio: 0.30507
Sample type: Calibration



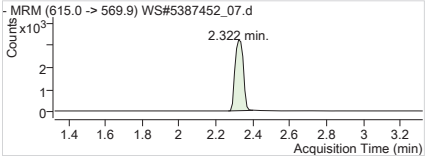


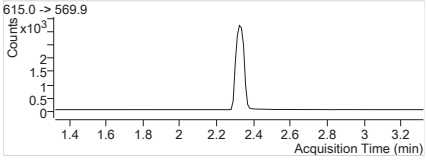
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 95.76 µg/L
Area ratio: 0.17458
Sample type: Calibration



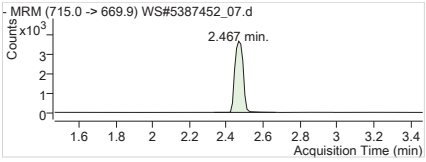


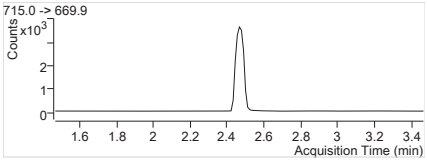
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 103.75 µg/L
Area ratio: 0.23727
Sample type: Calibration



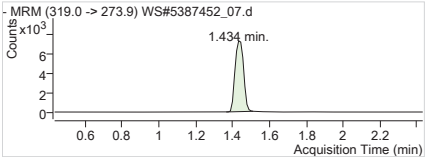


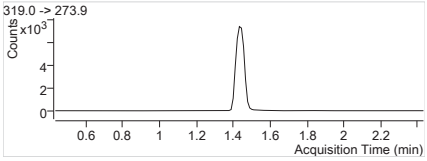
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 101.61 µg/L
Area ratio: 0.31559
Sample type: Calibration



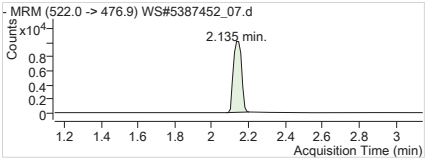


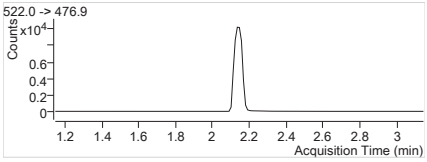
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	98.26 µg/L
Area ratio:	0.36060
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	100.43 µg/L
Area ratio:	0
Sample type:	Calibration





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.146)
Calc. conc.	100.11 µg/L
Area ratio:	0
Sample type:	Calibration

Quantitation Results

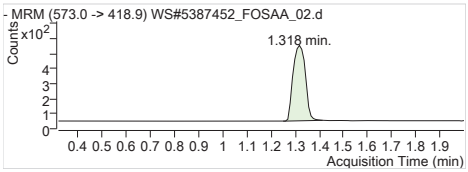
Agilent Technologies

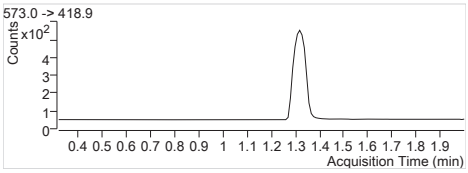
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A2
Acq. Date	2018/02/08 8:19:12 AM	**Injection Volume**	Per Method
Sample Annotation	-		

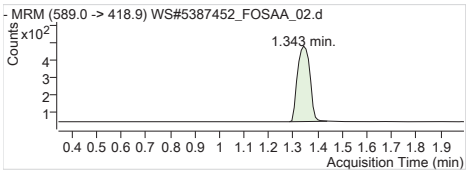
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1783	1.32	1 µg/L		
D5-EtFOSAA IS	1531	1.34	1 µg/L		
13C9-PFDA IS	33302	0.92	1 µg/L		

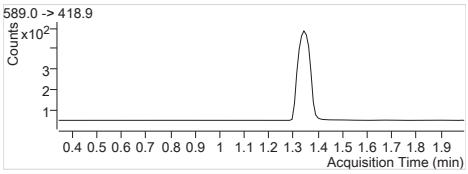
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	600	1.32	0.83	0.87 µg/L	105.22
EtFOSAA 1	546	1.34	0.83	0.86 µg/L	103.85
D3-MeFOSAA	1795	1.32	100.00	96.12 µg/L	96.12
D5-EtFOSAA	1554	1.34	100.00	97.19 µg/L	97.19
13C9-PFDA	32495	0.92	100.00	110.02 µg/L	110.02



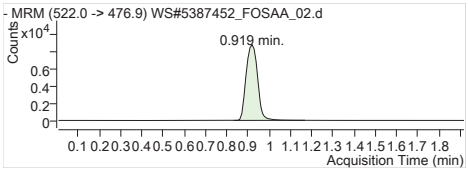


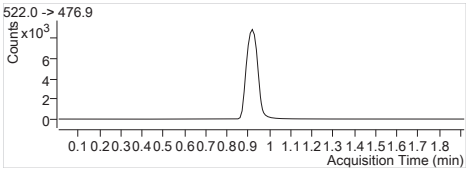
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



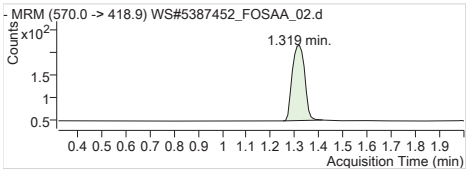


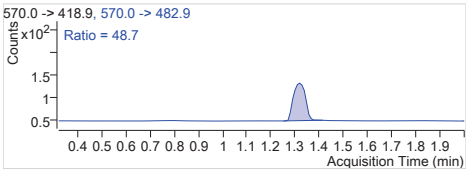
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



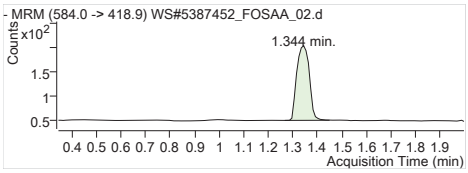


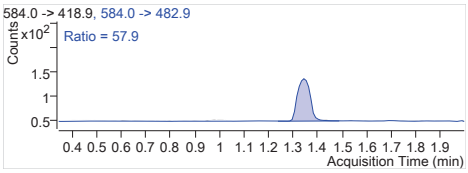
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Calibration



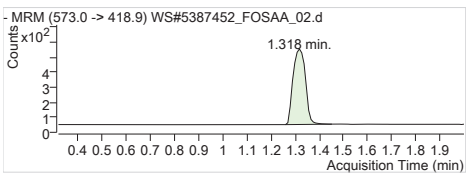


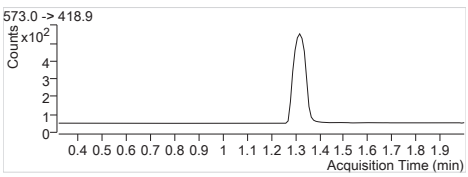
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 0.87 µg/L
Area ratio: 0.33651
Sample type: Calibration



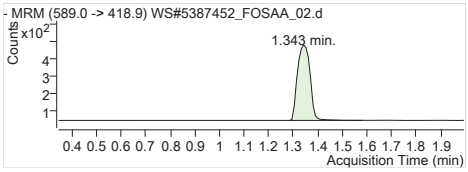


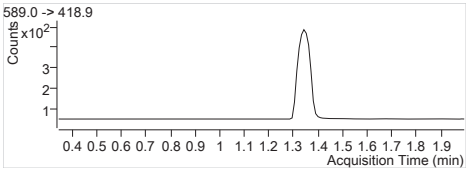
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.86 µg/L
Area ratio: 0.35663
Sample type: Calibration



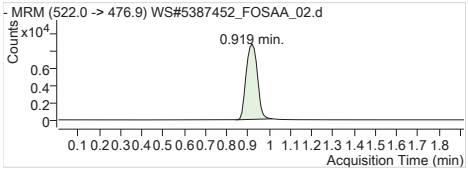


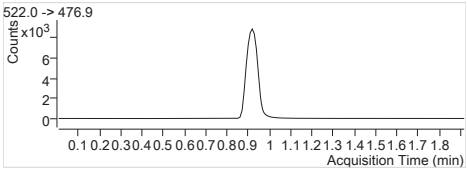
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 96.12 µg/L
Area ratio: 0.05390
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	97.19 µg/L
Area ratio:	0.04666
Sample type:	Calibration





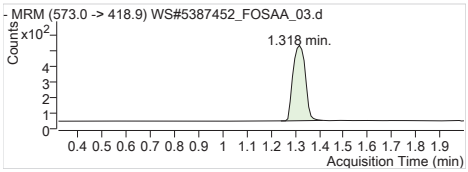
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	110.02 µg/L
Area ratio:	0
Sample type:	Calibration

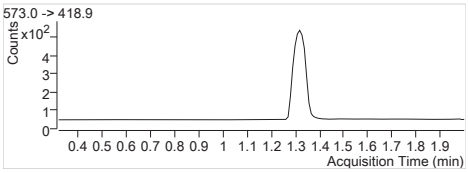
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A3
Acq. Date	2018/02/08 8:21:37 AM	**Injection Volume**	Per Method
Sample Annotation	-		

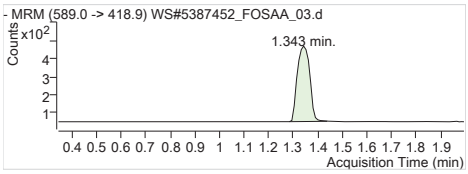
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1724	1.32	1 µg/L		
D5-EtFOSAA IS	1478	1.34	1 µg/L		
13C9-PFDA IS	29428	0.92	1 µg/L		

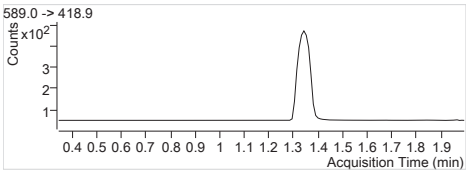
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	989	1.32	1.70	1.51 µg/L	88.91
EtFOSAA 1	993	1.34	1.70	1.57 µg/L	92.17
D3-MeFOSAA	1732	1.32	100.00	104.95 µg/L	104.95
D5-EtFOSAA	1486	1.34	100.00	105.17 µg/L	105.17
13C9-PFDA	28730	0.92	100.00	97.27 µg/L	97.27



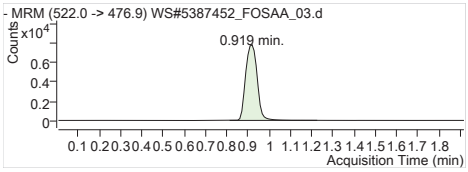


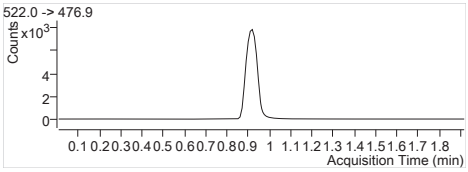
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



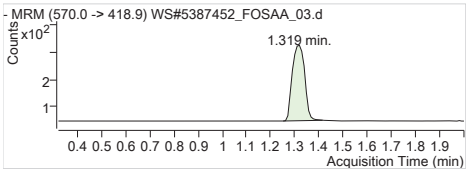


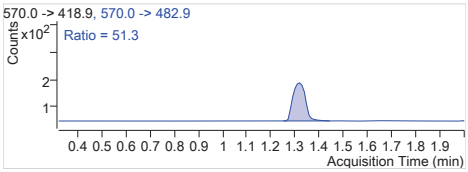
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



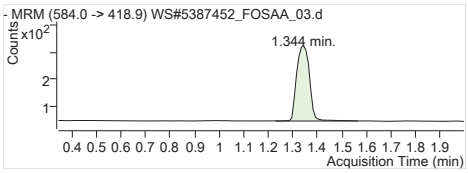


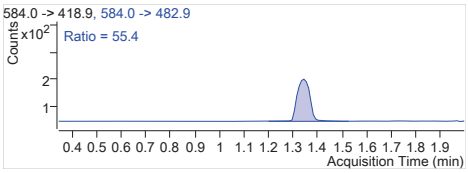
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Calibration



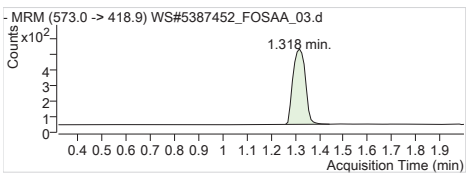


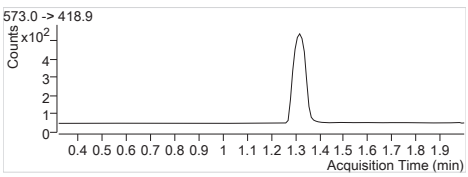
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 1.51 µg/L
Area ratio: 0.57367
Sample type: Calibration



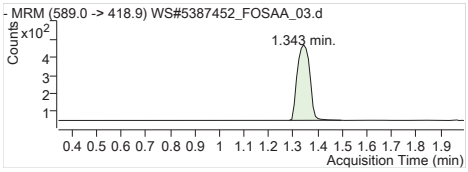


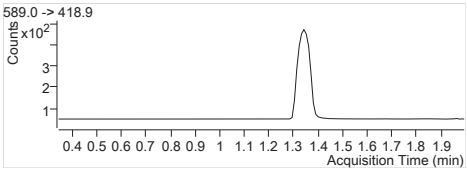
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 1.57 µg/L
Area ratio: 0.67185
Sample type: Calibration



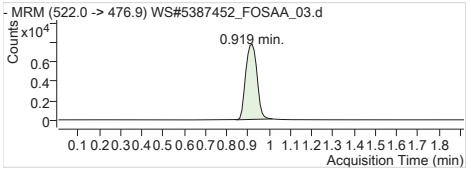


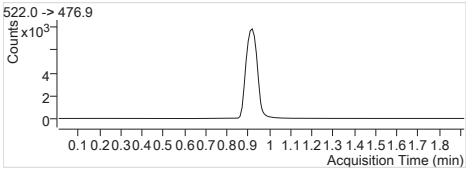
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 104.95 µg/L
Area ratio: 0.05886
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	105.17 µg/L
Area ratio:	0.05050
Sample type:	Calibration





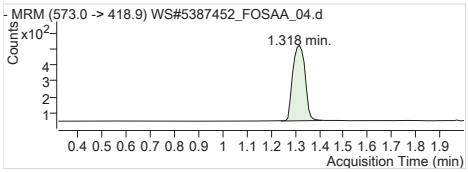
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	97.27 µg/L
Area ratio:	0
Sample type:	Calibration

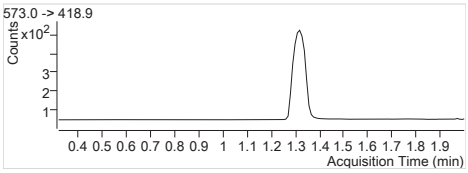
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A4
Acq. Date	2018/02/08 8:24:02 AM	**Injection Volume**	Per Method
Sample Annotation	-		

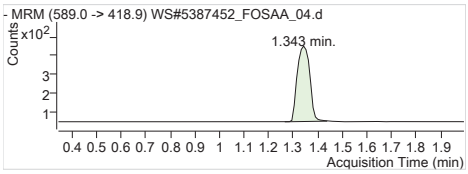
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1677	1.32	1 µg/L		
D5-EtFOSAA IS	1420	1.34	1 µg/L		
13C9-PFDA IS	28943	0.91	1 µg/L		

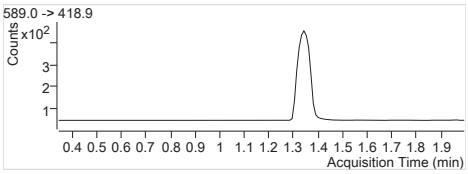
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	3091	1.32	5.00	4.93 µg/L	98.56
EtFOSAA 1	3026	1.34	5.00	4.83 µg/L	96.59
D3-MeFOSAA	1677	1.32	100.00	103.32 µg/L	103.32
D5-EtFOSAA	1435	1.34	100.00	103.26 µg/L	103.26
13C9-PFDA	28975	0.91	100.00	98.10 µg/L	98.10



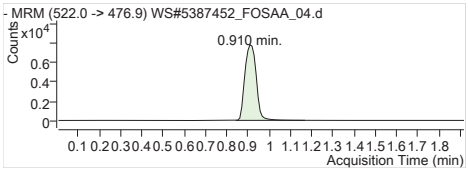


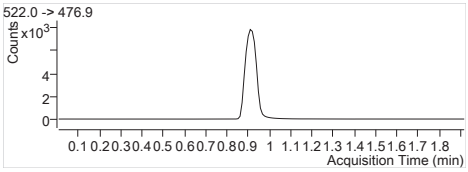
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



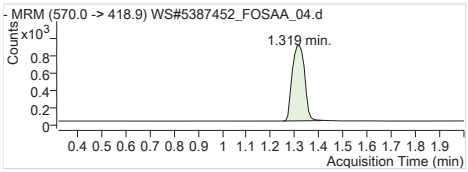


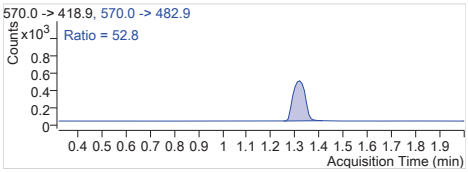
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



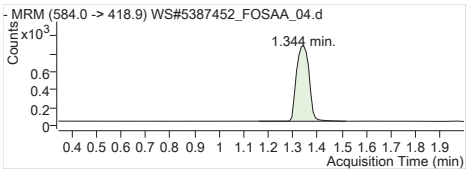


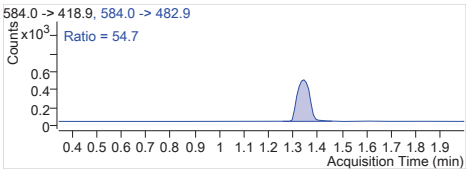
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.919)
Concentration: 1 µg/L
Sample type: Calibration



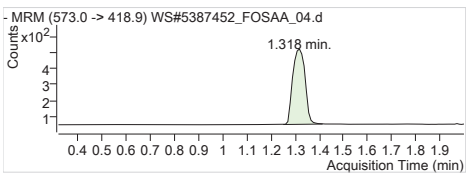


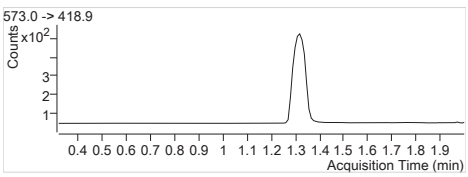
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 4.93 µg/L
Area ratio: 1.84317
Sample type: Calibration



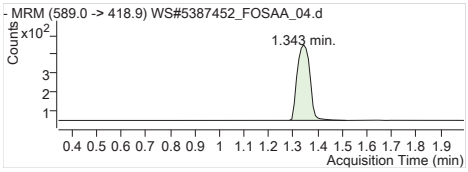


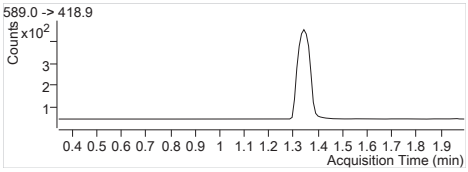
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 4.83 µg/L
Area ratio: 2.13099
Sample type: Calibration



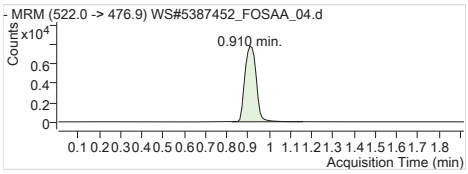


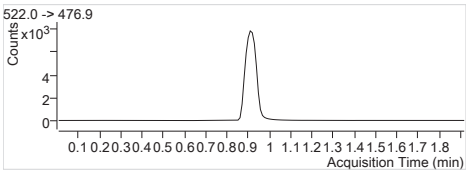
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 103.32 µg/L
Area ratio: 0.05794
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	103.26 µg/L
Area ratio:	0.04958
Sample type:	Calibration





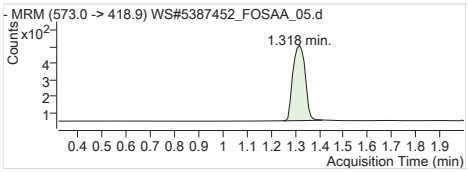
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.919)
Calc. conc.	98.10 µg/L
Area ratio:	0
Sample type:	Calibration

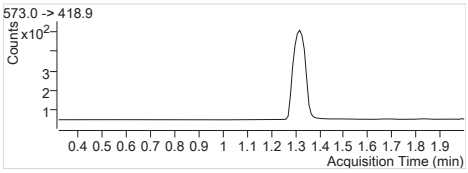
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_EToxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A5
Acq. Date	2018/02/08 8:26:27 AM	**Injection Volume**	Per Method
Sample Annotation	-		

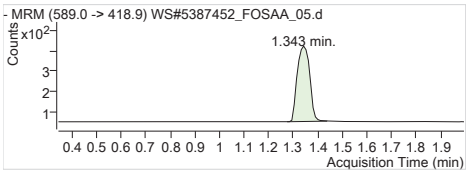
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1614	1.32	1 µg/L		
D5-EtFOSAA IS	1322	1.34	1 µg/L		
13C9-PFDA IS	30088	0.92	1 µg/L		

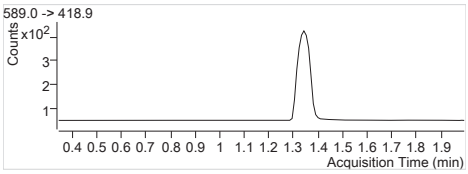
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7953	1.32	12.50	13.23 µg/L	105.82
EtFOSAA 1	7991	1.34	12.50	13.58 µg/L	108.65
D3-MeFOSAA	1624	1.32	100.00	96.25 µg/L	96.25
D5-EtFOSAA	1323	1.34	100.00	91.58 µg/L	91.58
13C9-PFDA	29446	0.92	100.00	99.70 µg/L	99.70



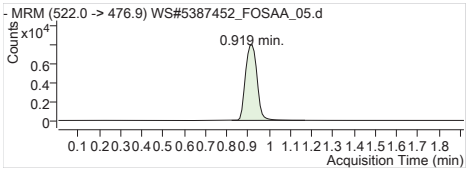


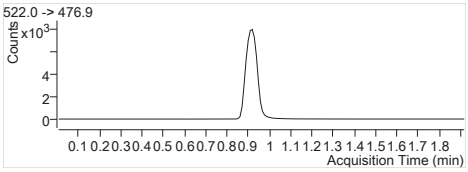
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



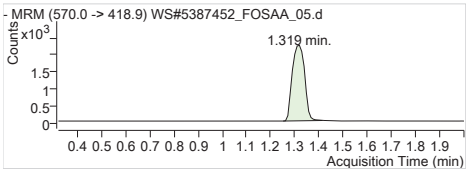


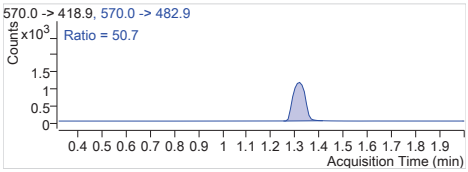
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



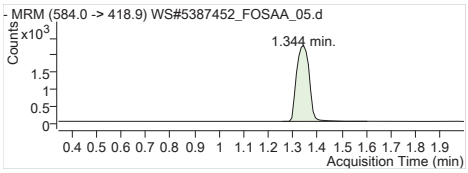


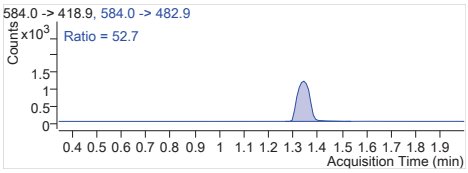
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Calibration



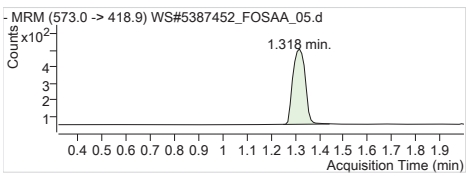


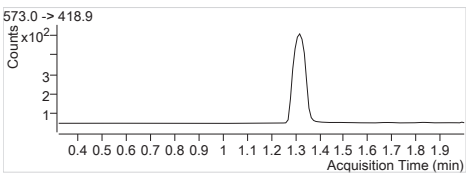
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 13.23 µg/L
Area ratio: 4.92751
Sample type: Calibration



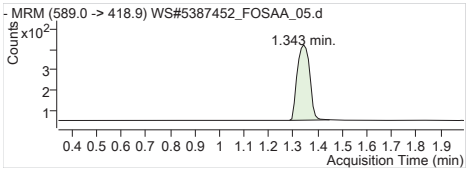


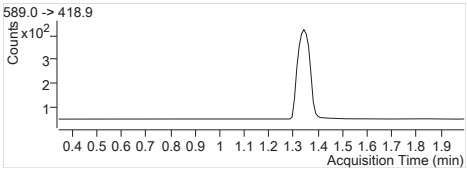
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 13.58 µg/L
Area ratio: 6.04463
Sample type: Calibration



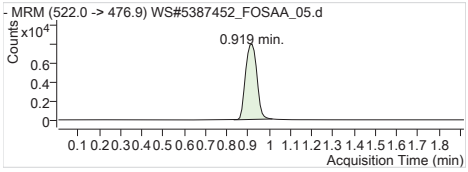


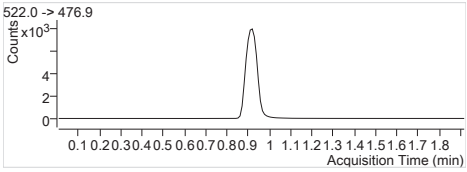
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 96.25 µg/L
Area ratio: 0.05398
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	91.58 µg/L
Area ratio:	0.04397
Sample type:	Calibration





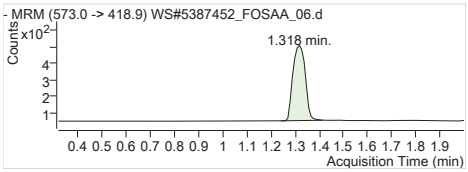
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	99.70 µg/L
Area ratio:	0
Sample type:	Calibration

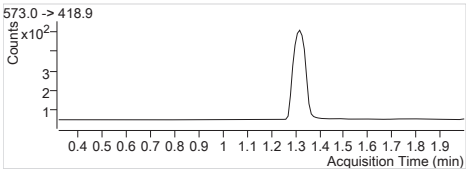
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A6
Acq. Date	2018/02/08 8:28:51 AM	**Injection Volume**	Per Method
Sample Annotation	-		

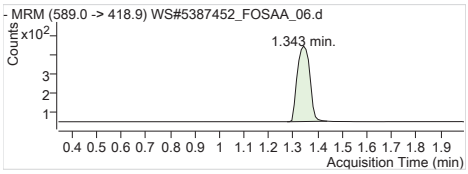
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1620	1.32	1 µg/L		
D5-EtFOSAA IS	1397	1.34	1 µg/L		
13C9-PFDA IS	29747	0.92	1 µg/L		

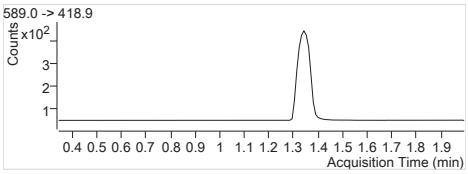
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	15271	1.32	25.00	25.33 µg/L	101.34
EtFOSAA 1	15525	1.34	25.00	24.92 µg/L	99.66
D3-MeFOSAA	1621	1.32	100.00	97.17 µg/L	97.17
D5-EtFOSAA	1406	1.34	100.00	98.44 µg/L	98.44
13C9-PFDA	29045	0.92	100.00	98.34 µg/L	98.34



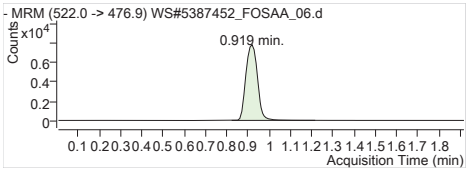


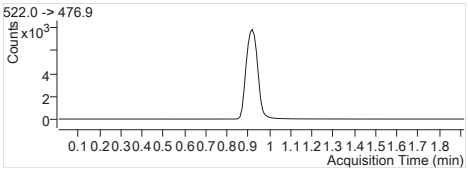
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



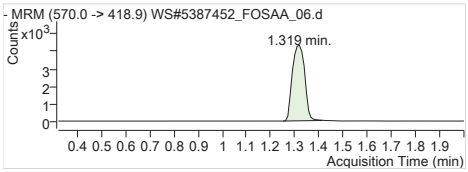


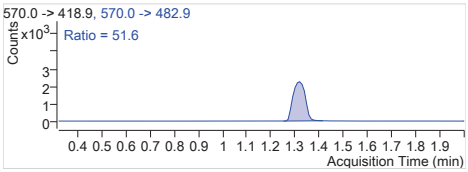
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



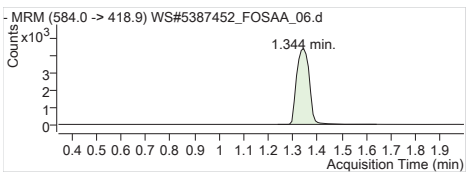


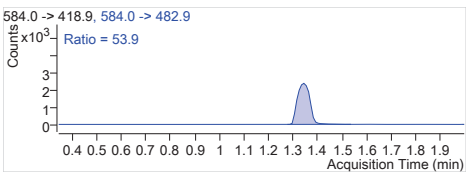
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: Calibration



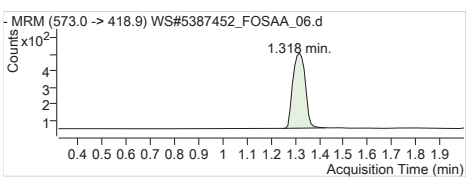


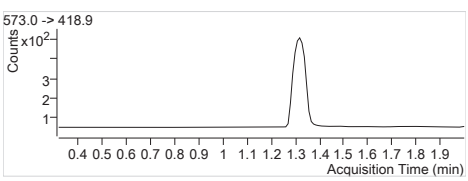
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 25.33 µg/L
Area ratio: 9.42654
Sample type: Calibration



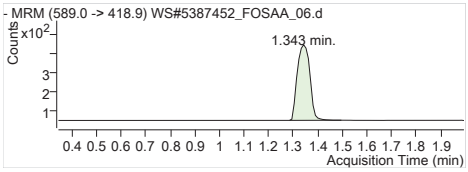


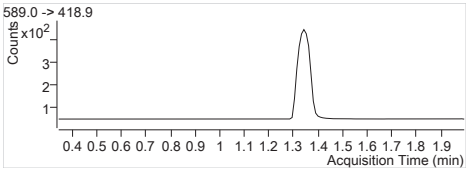
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 24.92 µg/L
Area ratio: 11.11310
Sample type: Calibration



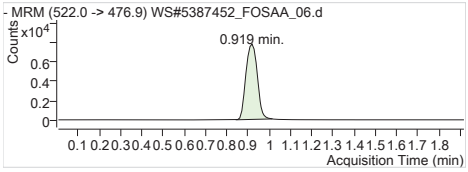


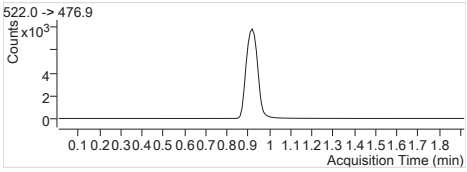
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 97.17 µg/L
Area ratio: 0.05449
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	98.44 µg/L
Area ratio:	0.04727
Sample type:	Calibration





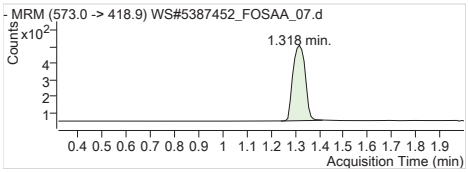
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	98.34 µg/L
Area ratio:	0
Sample type:	Calibration

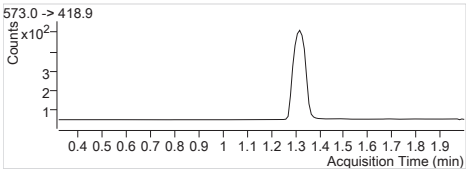
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A7
Acq. Date	2018/02/08 8:31:15 AM	**Injection Volume**	Per Method
Sample Annotation	-		

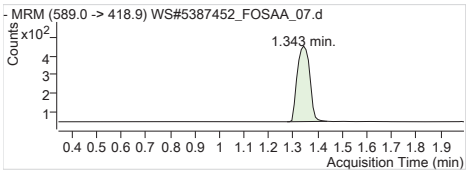
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1629	1.32	1 µg/L		
D5-EtFOSAA IS	1424	1.34	1 µg/L		
13C9-PFDA IS	28515	0.91	1 µg/L		

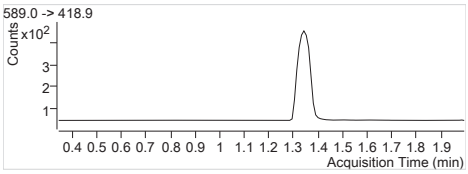
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	25300	1.32	41.70	41.76 µg/L	100.15
EtFOSAA 1	26270	1.34	41.70	41.32 µg/L	99.08
D3-MeFOSAA	1634	1.32	100.00	102.18 µg/L	102.18
D5-EtFOSAA	1429	1.34	100.00	104.37 µg/L	104.37
13C9-PFDA	28522	0.91	100.00	96.57 µg/L	96.57



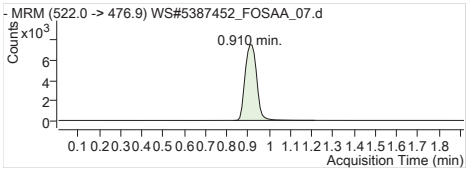


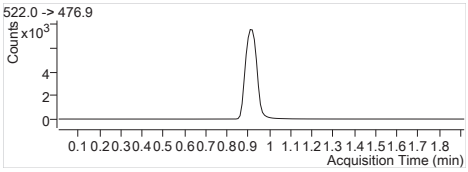
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



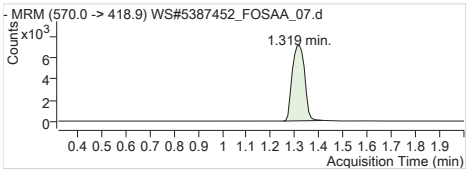


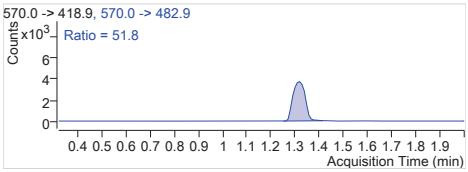
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



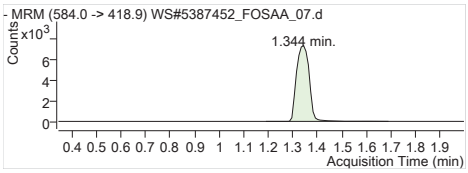


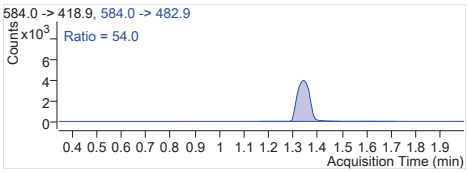
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.919)
Concentration: 1 µg/L
Sample type: Calibration



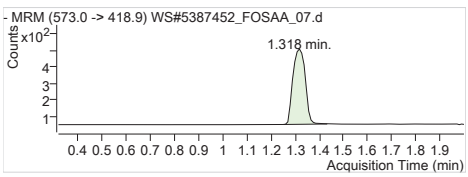


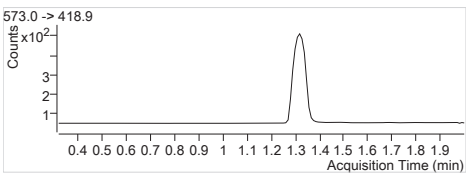
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 41.76 µg/L
Area ratio: 15.53100
Sample type: Calibration



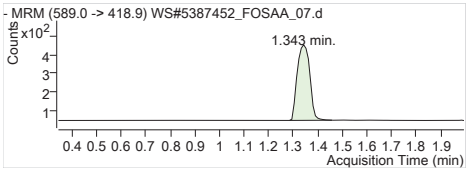


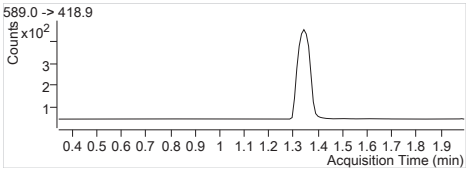
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 41.32 µg/L
Area ratio: 18.44803
Sample type: Calibration



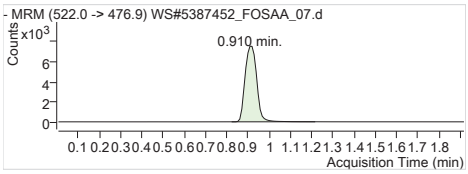


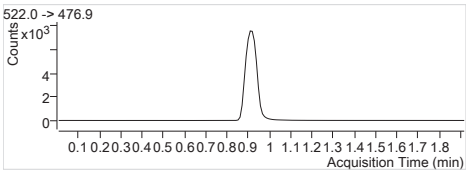
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 102.18 µg/L
Area ratio: 0.05730
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	104.37 µg/L
Area ratio:	0.05011
Sample type:	Calibration





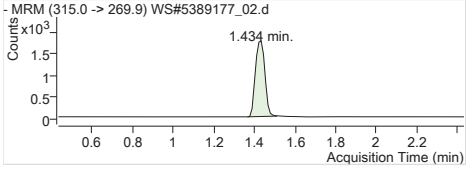
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.919)
Calc. conc.	96.57 µg/L
Area ratio:	0
Sample type:	Calibration

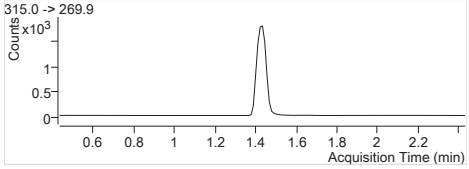
Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5389177_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A2
Acq. Date	2018/02/09 12:02:22 AM	**Injection Volume**	Per Method
Sample Annotation	-		

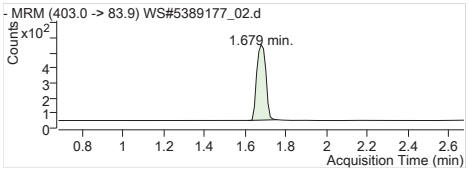
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5649	1.43	1 µg/L		
MPFHxS	1572	1.68	1 µg/L		
MPFHpA	8169	1.69	1 µg/L		
MPFOA	8766	1.88	1 µg/L		
MPFOS	1804	1.98	1 µg/L		
MPFNA	8961	2.01	1 µg/L		
MPFDA	6984	2.14	1 µg/L		
MPFUnA	8534	2.23	1 µg/L		
MPFDoA	11444	2.32	1 µg/L		
MPFTeDA	13008	2.47	1 µg/L		
13C6-PFHxA IS	21986	1.43	1 µg/L		
13C9-PFDA IS	30410	2.13	1 µg/L		

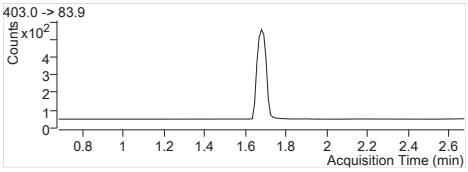
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	671	1.09	0.83	0.92 µg/L	111.31
PFHxA 1	2012	1.43	0.83	0.97 µg/L	116.84
PFHxS 1	549	1.68	0.83	0.90 µg/L	108.66
PFHpA 1	2767	1.69	0.83	0.91 µg/L	109.72
PFOA 1	3259	1.88	0.83	0.88 µg/L	106.25
PFOS 1	595	1.97	0.83	1.00 µg/L	120.37
PFNA 1	2670	2.01	0.83	0.86 µg/L	103.07
PFDA 1	2811	2.14	0.83	0.94 µg/L	113.13
PFUnA 1	3172	2.23	0.83	0.93 µg/L	111.47
PFDoA 1	4275	2.32	0.83	0.95 µg/L	114.56
PFTrDA 1	5032	2.40	0.83	0.93 µg/L	111.51
PFTeDA 1	3842	2.47	0.83	0.91 µg/L	109.64
13C2-PFHxA	5649	1.43	100.00	91.64 µg/L	91.64
18O2-PFHxS	1572	1.68	100.00	98.98 µg/L	98.98
13C4-PFHpA	8169	1.69	100.00	99.64 µg/L	99.64
13C4-PFOA	8766	1.88	100.00	99.93 µg/L	99.93
13C4-PFOS	1804	1.98	100.00	92.64 µg/L	92.64
13C5-PFNA	8961	2.01	100.00	101.32 µg/L	101.32
13C2-PFDA	6916	2.14	100.00	90.29 µg/L	90.29
13C2-PFUnA	8534	2.23	100.00	93.42 µg/L	93.42
13C2-PFDoA	11444	2.32	100.00	94.96 µg/L	94.96
13C2-PFTeDA	13430	2.47	100.00	93.11 µg/L	93.11
13C6-PFHxA	21986	1.43	100.00	102.70 µg/L	102.70
13C9-PFDA	30410	2.13	100.00	106.41 µg/L	106.41



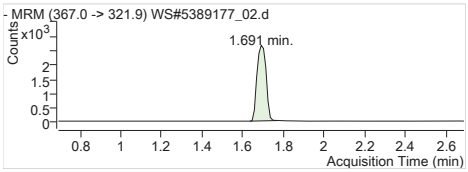


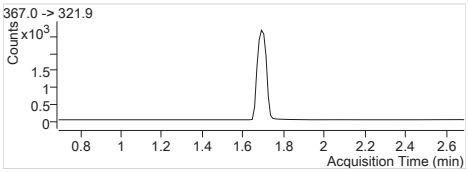
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



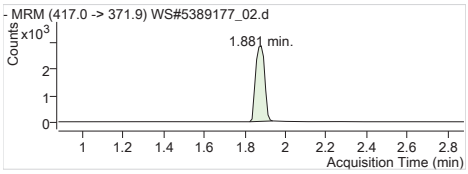


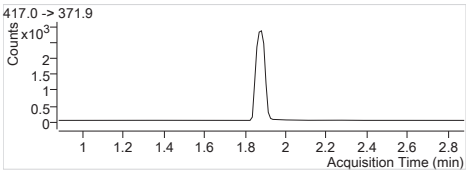
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



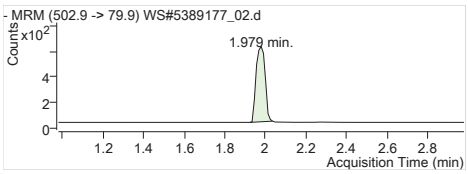


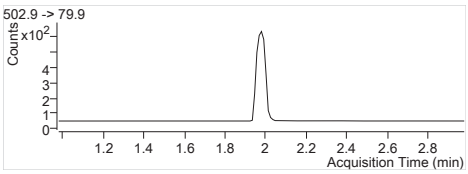
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



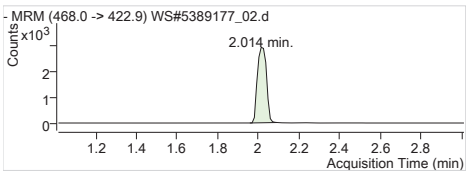


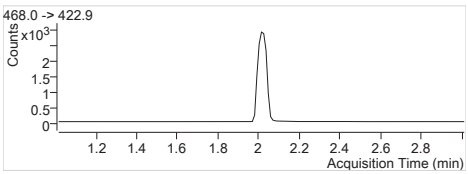
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



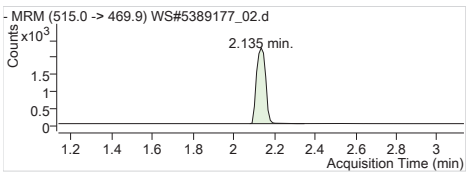


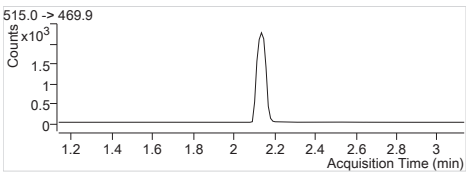
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



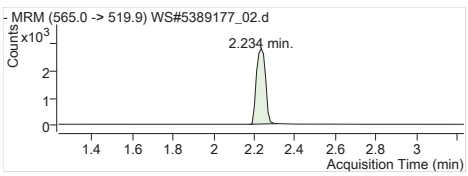


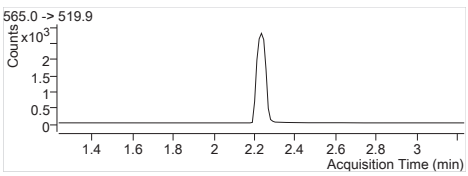
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



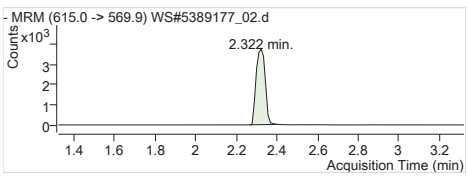


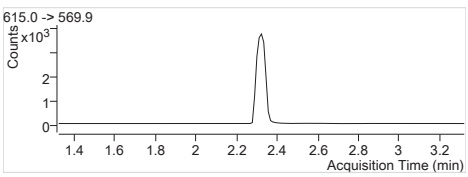
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



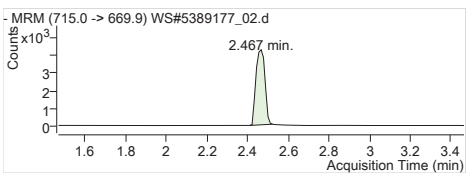


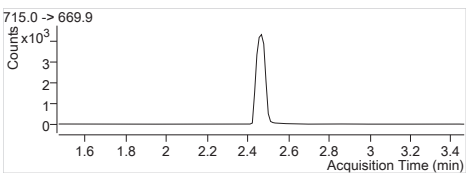
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



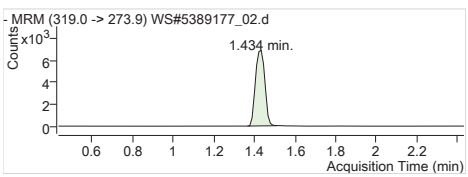


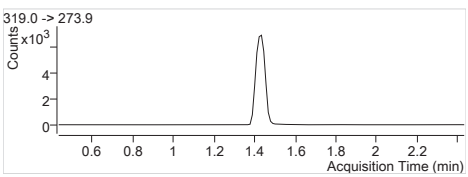
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



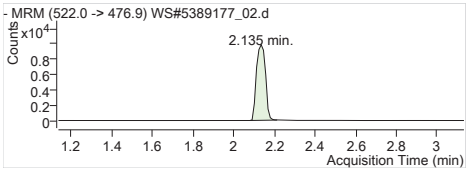


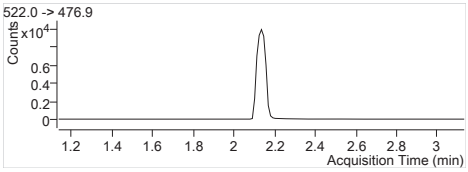
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



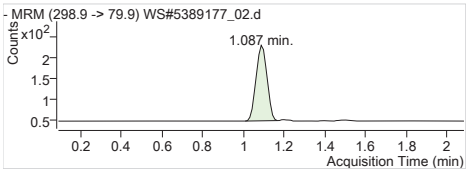


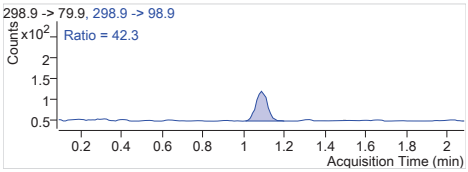
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



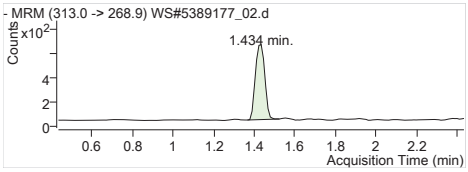


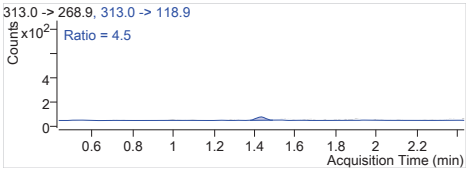
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



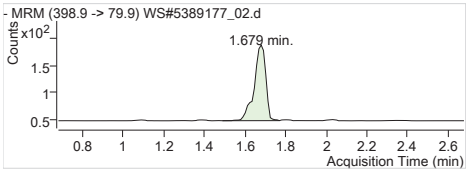


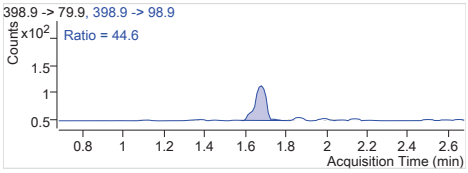
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.92 µg/L
Area ratio: 0.42684
Sample type: Calibration



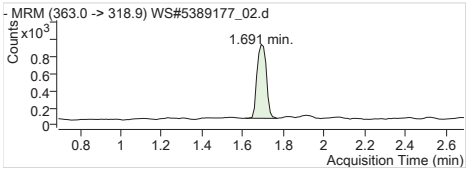


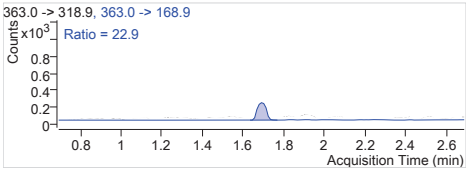
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.97 µg/L
Area ratio: 0.35617
Sample type: Calibration



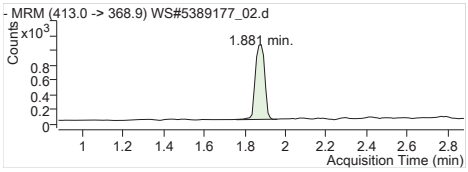


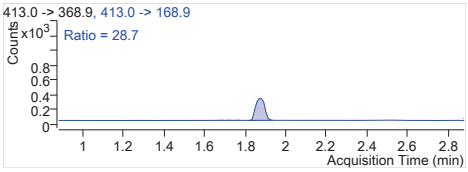
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.90 µg/L
Area ratio: 0.34924
Sample type: Calibration



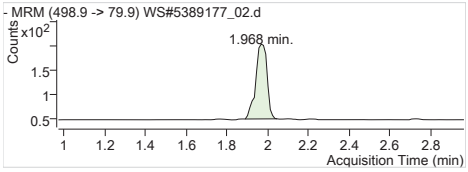


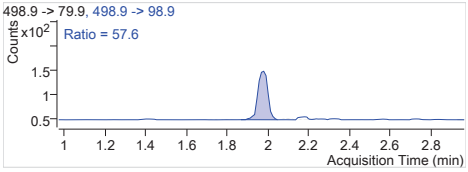
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.91 µg/L
Area ratio: 0.33872
Sample type: Calibration



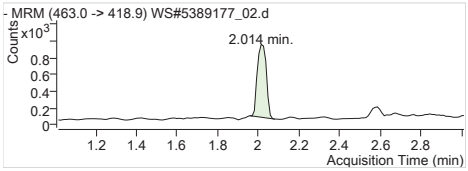


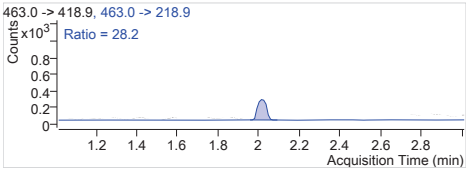
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.88 µg/L
Area ratio: 0.37178
Sample type: Calibration



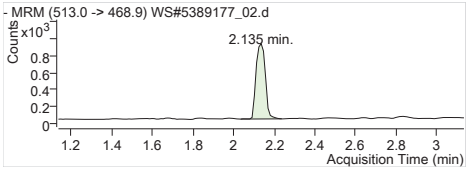


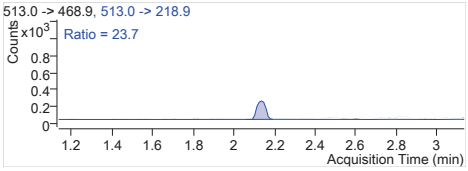
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 1.00 µg/L
Area ratio: 0.32982
Sample type: Calibration



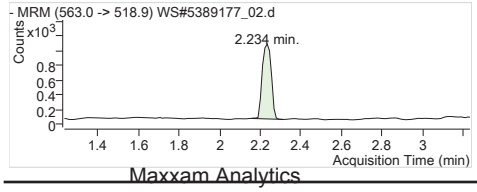


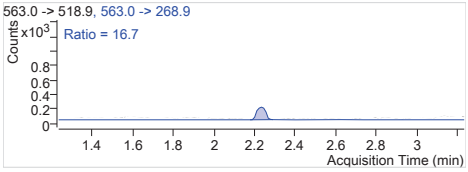
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.86 µg/L
Area ratio: 0.29796
Sample type: Calibration



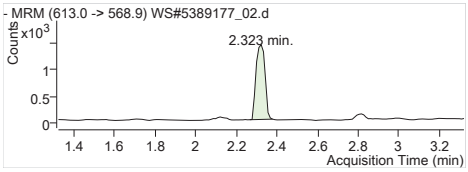


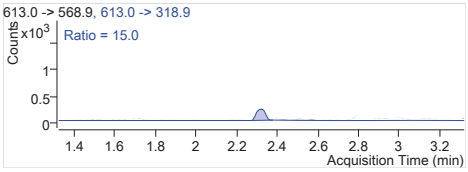
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.94 µg/L
Area ratio: 0.40249
Sample type: Calibration



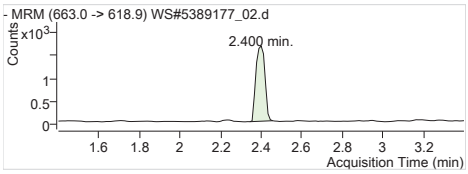


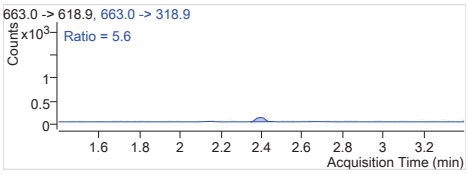
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.93 µg/L
Area ratio: 0.37169
Sample type: Calibration



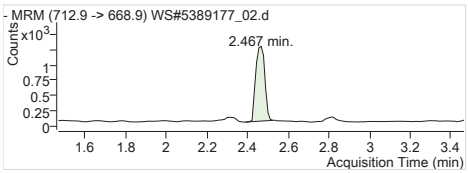


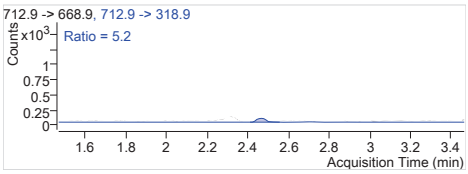
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.95 µg/L
Area ratio: 0.37356
Sample type: Calibration



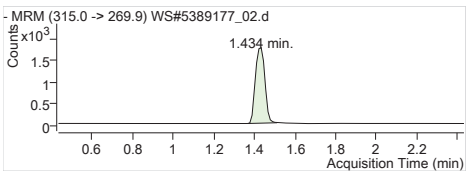


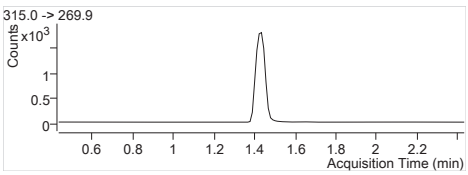
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.93 µg/L
Area ratio: 0.38684
Sample type: Calibration



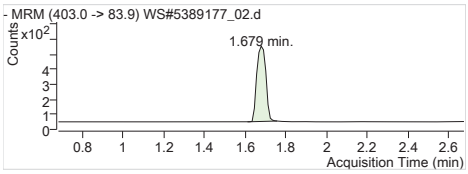


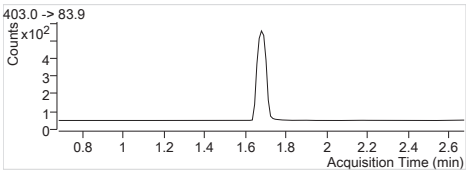
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.91 µg/L
Area ratio: 0.29536
Sample type: Calibration



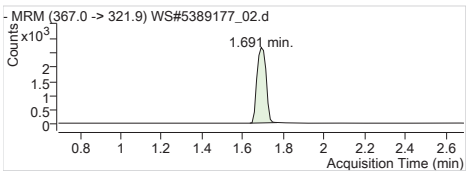


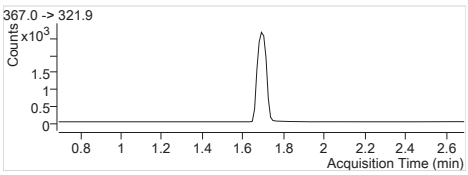
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 91.64 µg/L
Area ratio: 0.25694
Sample type: Calibration



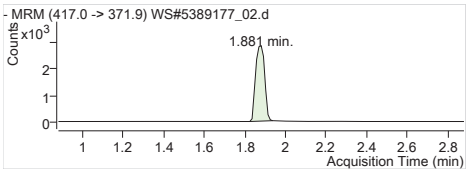


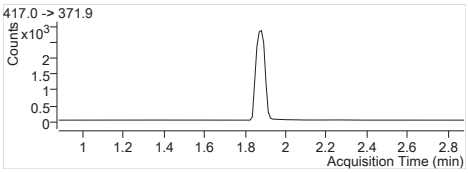
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 98.98 µg/L
Area ratio: 0.07150
Sample type: Calibration



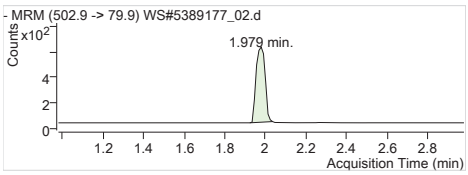


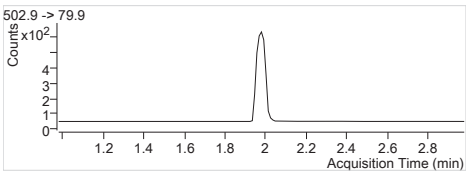
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 99.64 µg/L
Area ratio: 0.37155
Sample type: Calibration



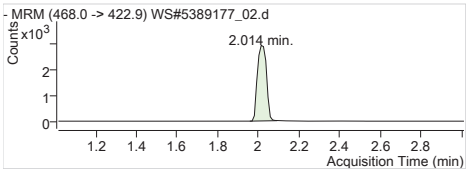


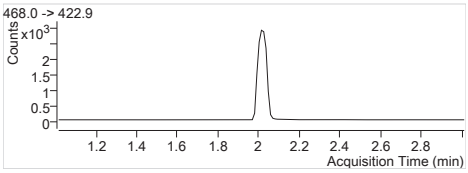
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 99.93 µg/L
Area ratio: 0.39871
Sample type: Calibration



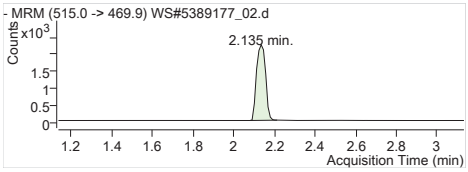


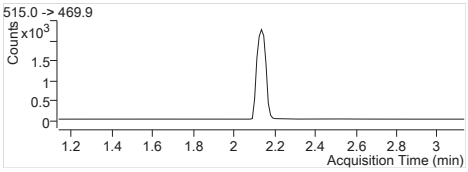
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 92.64 µg/L
Area ratio: 0.08205
Sample type: Calibration



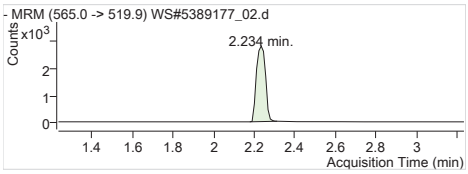


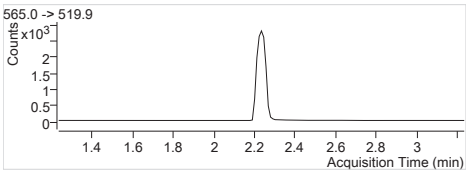
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 101.32 µg/L
Area ratio: 0.40758
Sample type: Calibration



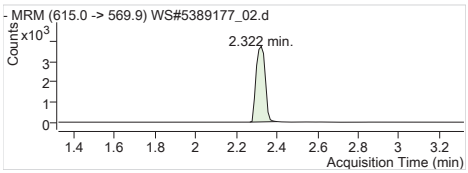


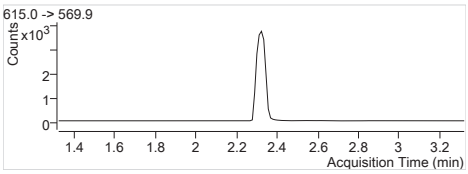
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 90.29 µg/L
Area ratio: 0.22743
Sample type: Calibration



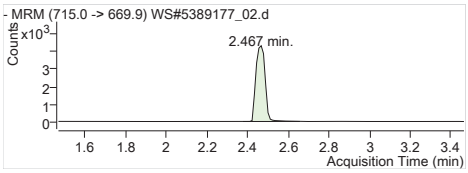


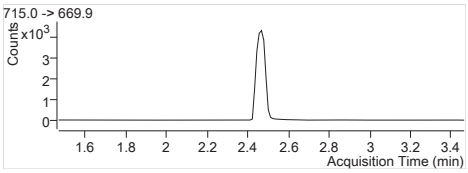
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 93.42 µg/L
Area ratio: 0.28063
Sample type: Calibration



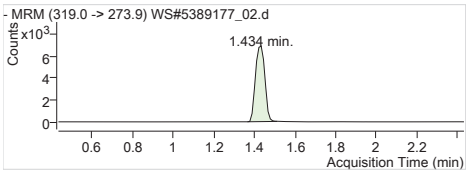


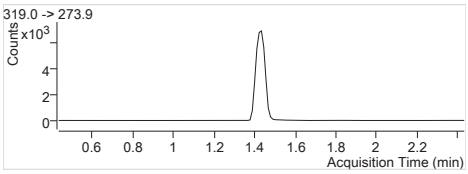
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 94.96 µg/L
Area ratio: 0.37632
Sample type: Calibration



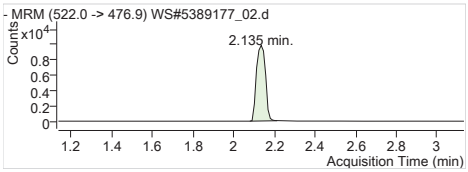


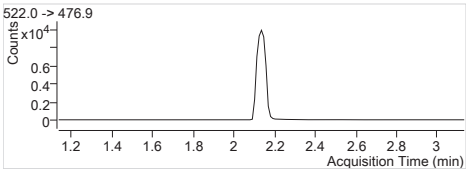
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 93.11 µg/L
Area ratio: 0.44163
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 102.70 µg/L
Area ratio: 0
Sample type: Calibration





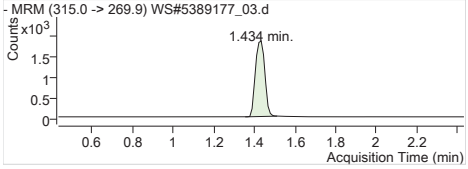
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 106.41 µg/L
Area ratio: 0
Sample type: Calibration

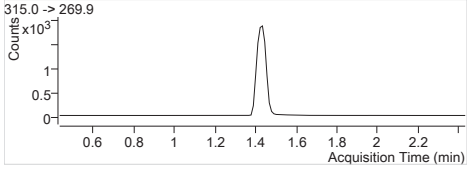
Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5389177_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A3
Acq. Date	2018/02/09 12:07:17 AM	**Injection Volume**	Per Method
Sample Annotation	-		

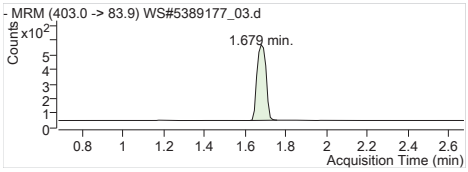
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5951	1.43	1 µg/L		
MPFHxS	1613	1.68	1 µg/L		
MPFHpA	7618	1.69	1 µg/L		
MPFOA	8393	1.88	1 µg/L		
MPFOS	1953	1.98	1 µg/L		
MPFNA	8592	2.01	1 µg/L		
MPFDA	7403	2.14	1 µg/L		
MPFUnA	8354	2.23	1 µg/L		
MPFDoA	11214	2.32	1 µg/L		
MPFTeDA	13452	2.47	1 µg/L		
13C6-PFHxA IS	20032	1.43	1 µg/L		
13C9-PFDA IS	26332	2.13	1 µg/L		

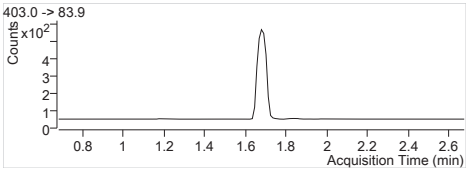
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1069	1.09	1.70	1.44 µg/L	84.50
PFHxA 1	3269	1.43	1.70	1.43 µg/L	84.28
PFHxS 1	918	1.68	1.70	1.39 µg/L	81.70
PFHpA 1	4633	1.69	1.70	1.56 µg/L	91.73
PFOA 1	5039	1.88	1.70	1.42 µg/L	83.46
PFOS 1	1026	1.97	1.70	1.51 µg/L	88.88
PFNA 1	5021	2.01	1.70	1.61 µg/L	94.68
PFDA 1	4944	2.14	1.70	1.49 µg/L	87.49
PFUnA 1	5409	2.23	1.70	1.54 µg/L	90.86
PFDoA 1	6898	2.32	1.70	1.50 µg/L	88.30
PFTrDA 1	7954	2.40	1.70	1.43 µg/L	84.18
PFTeDA 1	6692	2.47	1.70	1.48 µg/L	87.01
13C2-PFHxA	5951	1.43	100.00	105.96 µg/L	105.96
18O2-PFHxS	1613	1.68	100.00	111.47 µg/L	111.47
13C4-PFHpA	7618	1.69	100.00	101.98 µg/L	101.98
13C4-PFOA	8393	1.88	100.00	105.01 µg/L	105.01
13C4-PFOS	1953	1.98	100.00	110.07 µg/L	110.07
13C5-PFNA	8592	2.01	100.00	106.63 µg/L	106.63
13C2-PFDA	7300	2.14	100.00	110.06 µg/L	110.06
13C2-PFUnA	8354	2.23	100.00	105.61 µg/L	105.61
13C2-PFDoA	11214	2.32	100.00	107.46 µg/L	107.46
13C2-PFTeDA	13789	2.47	100.00	110.41 µg/L	110.41
13C6-PFHxA	20032	1.43	100.00	93.57 µg/L	93.57
13C9-PFDA	26332	2.13	100.00	92.14 µg/L	92.14



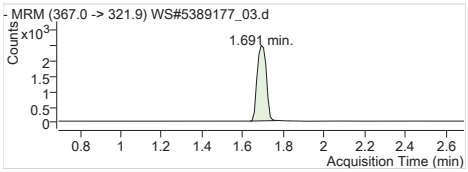


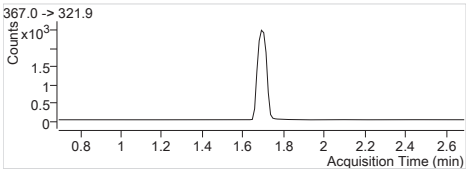
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



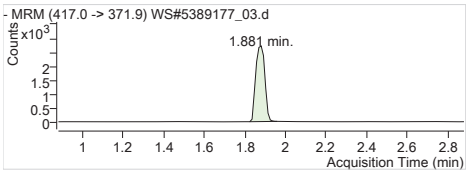


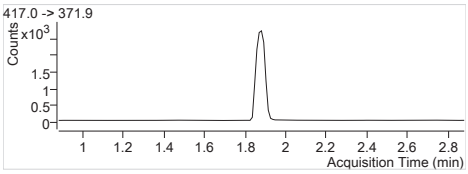
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



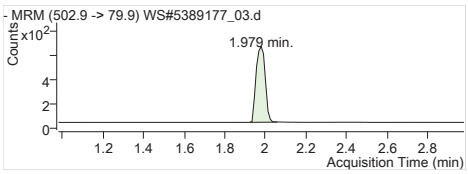


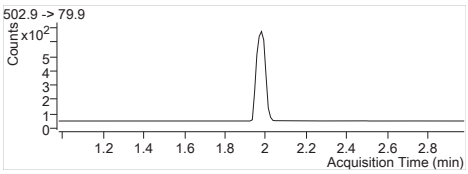
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



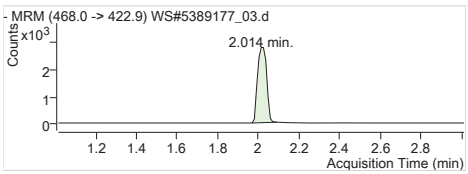


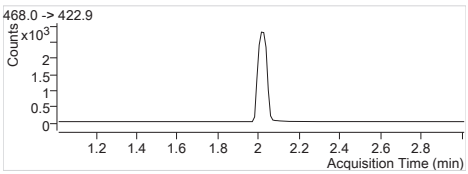
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



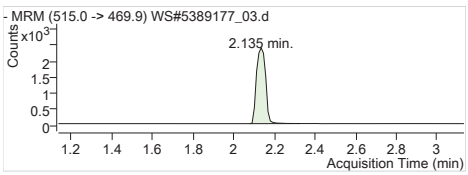


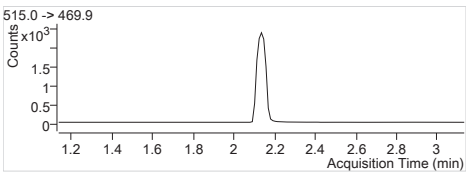
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



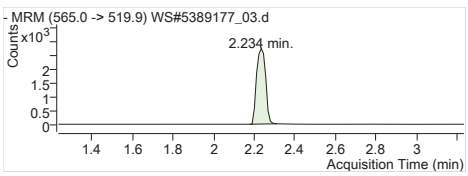


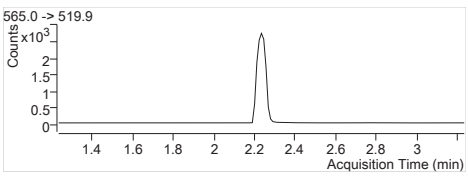
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



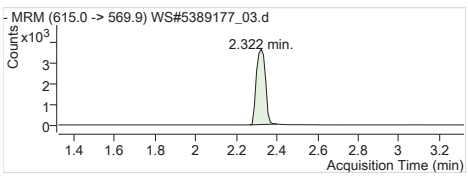


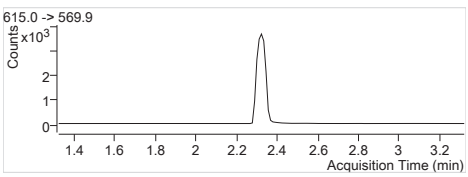
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



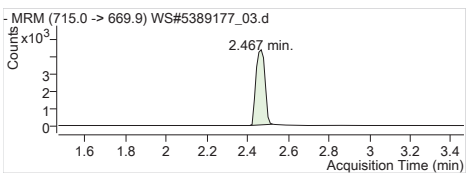


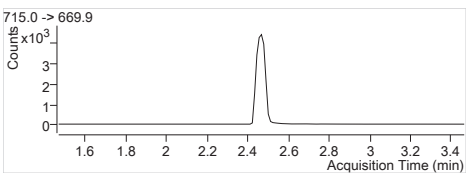
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



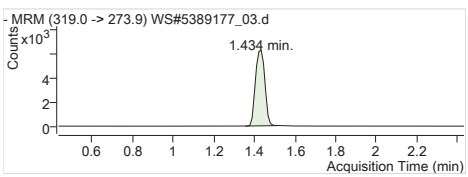


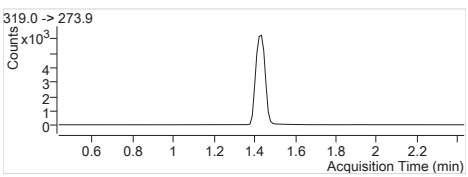
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



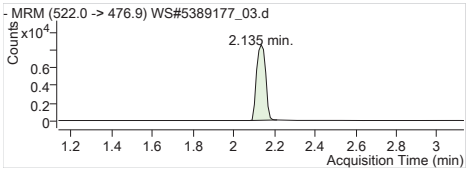


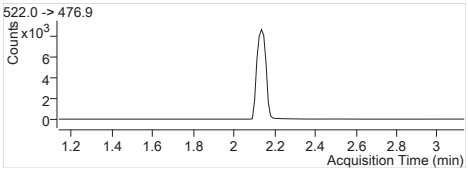
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



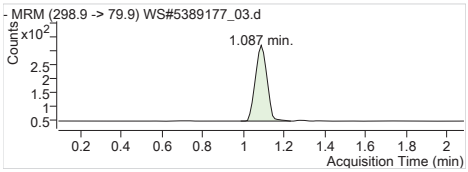


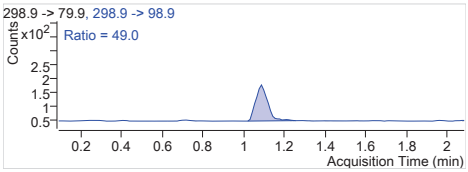
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



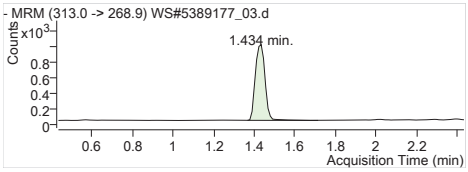


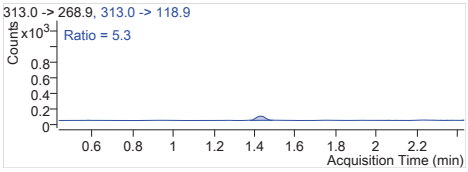
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



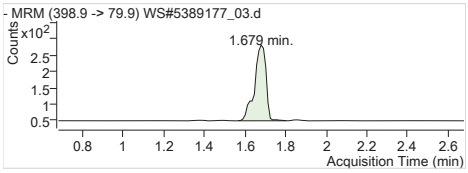


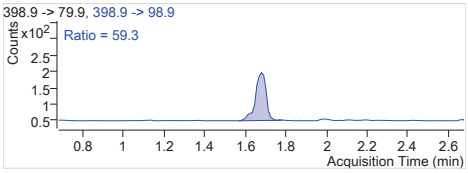
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 1.44 µg/L
Area ratio: 0.66274
Sample type: Calibration



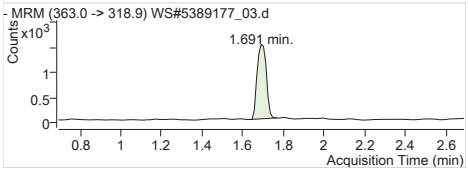


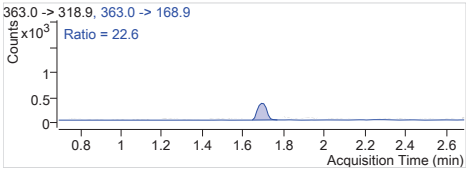
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 1.43 µg/L
Area ratio: 0.54932
Sample type: Calibration



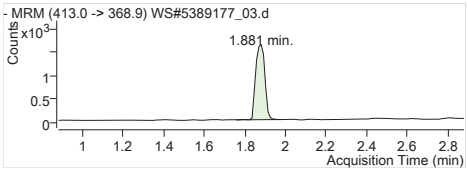


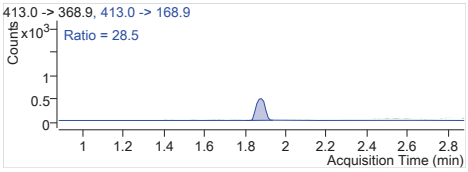
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 1.39 µg/L
Area ratio: 0.56913
Sample type: Calibration



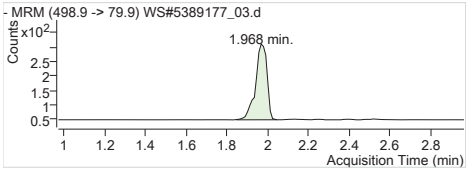


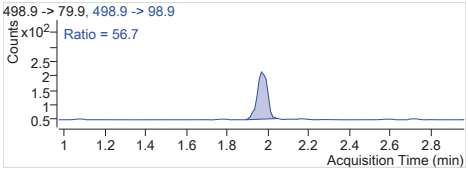
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 1.56 µg/L
Area ratio: 0.60816
Sample type: Calibration



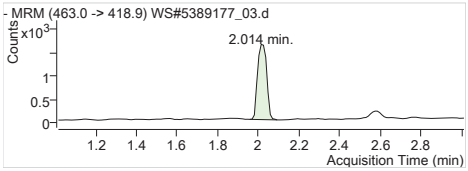


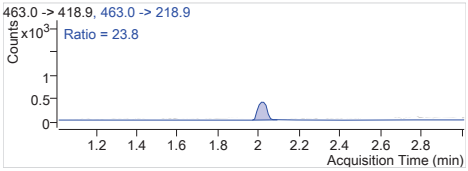
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 1.42 µg/L
Area ratio: 0.60038
Sample type: Calibration



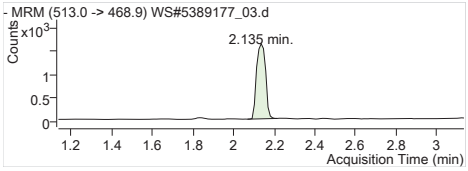


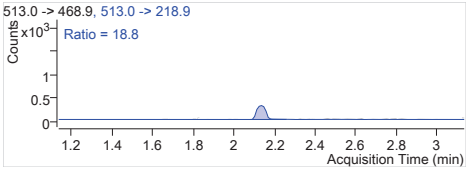
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 1.51 µg/L
Area ratio: 0.52535
Sample type: Calibration



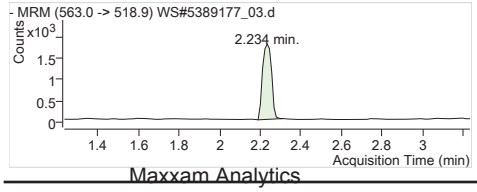


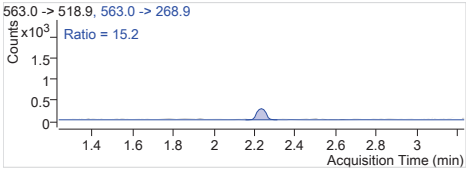
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 1.61 µg/L
Area ratio: 0.58438
Sample type: Calibration



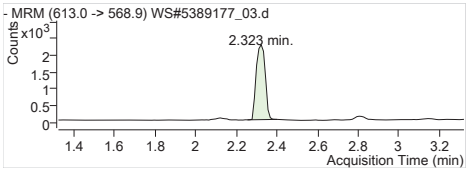


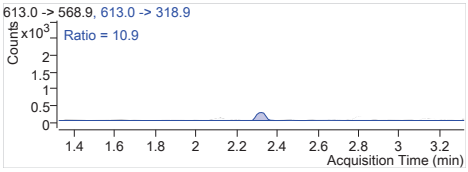
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 1.49 µg/L
Area ratio: 0.66784
Sample type: Calibration



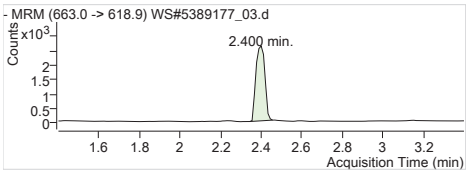


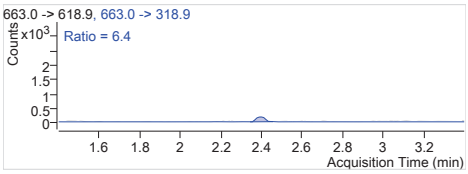
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 1.54 µg/L
Area ratio: 0.64747
Sample type: Calibration



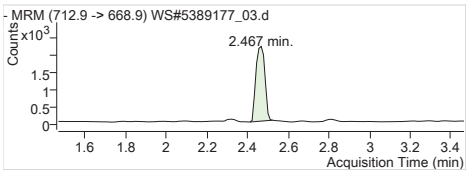


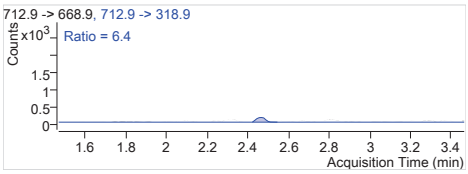
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 1.50 µg/L
Area ratio: 0.61512
Sample type: Calibration



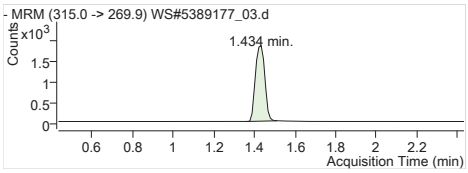


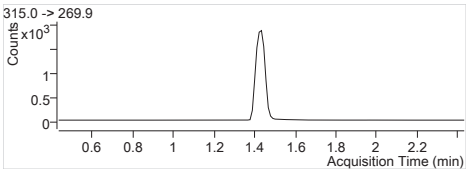
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 1.43 µg/L
Area ratio: 0.59129
Sample type: Calibration



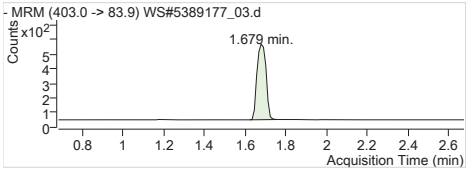


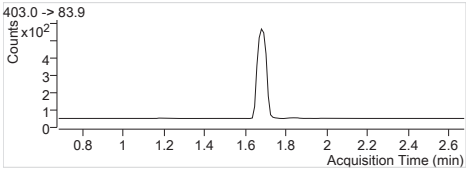
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 1.48 µg/L
Area ratio: 0.49747
Sample type: Calibration



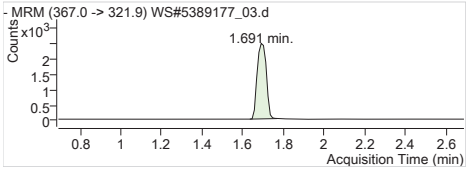


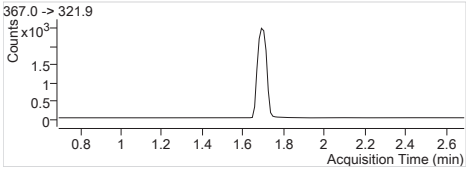
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 105.96 µg/L
Area ratio: 0.29707
Sample type: Calibration



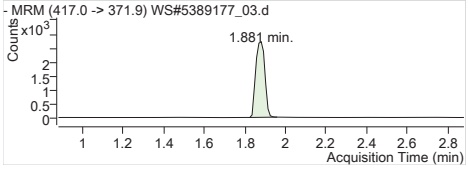


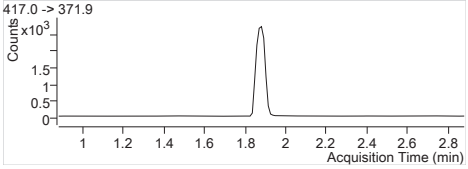
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 111.47 µg/L
Area ratio: 0.08052
Sample type: Calibration



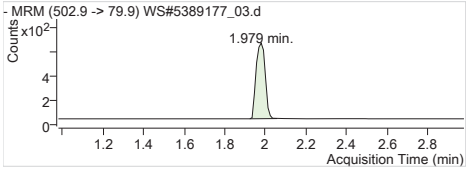


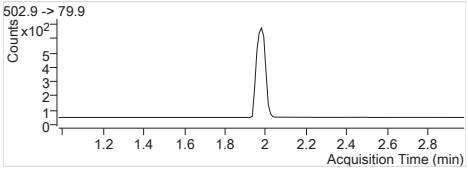
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 101.98 µg/L
Area ratio: 0.38029
Sample type: Calibration



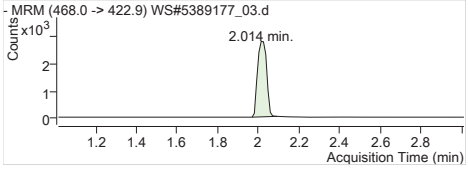


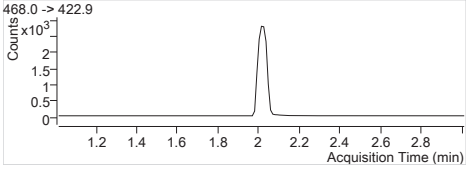
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 105.01 µg/L
Area ratio: 0.41898
Sample type: Calibration



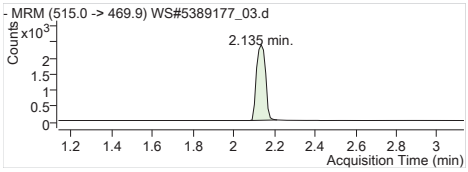


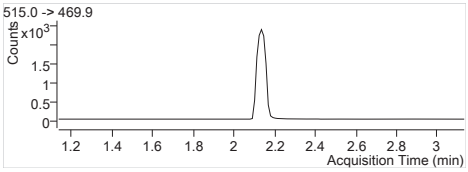
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 110.07 µg/L
Area ratio: 0.09749
Sample type: Calibration



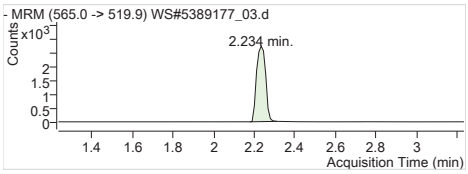


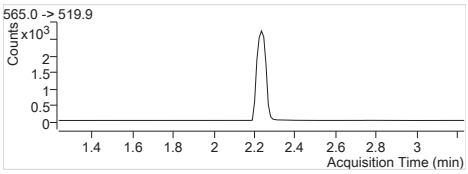
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 106.63 µg/L
Area ratio: 0.42891
Sample type: Calibration



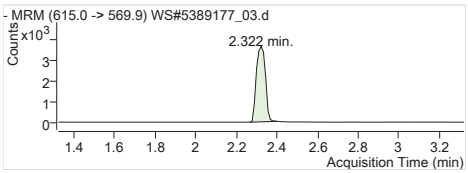


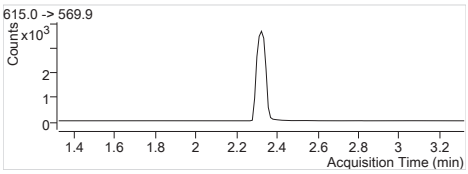
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 110.06 µg/L
Area ratio: 0.27723
Sample type: Calibration



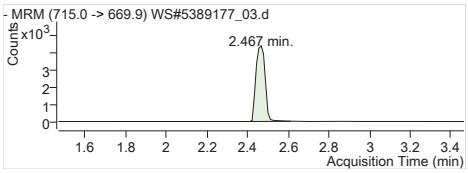


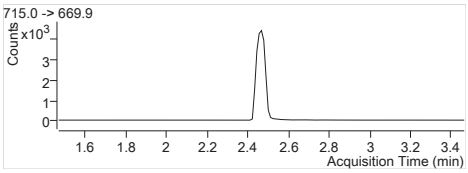
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 105.61 µg/L
Area ratio: 0.31726
Sample type: Calibration



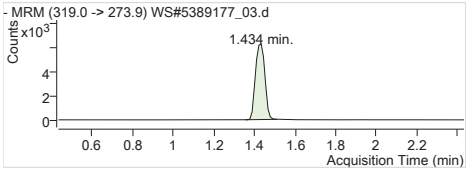


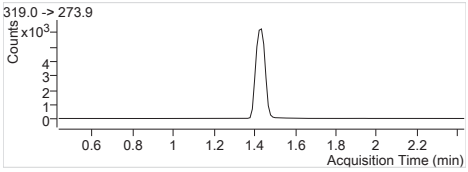
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 107.46 µg/L
Area ratio: 0.42587
Sample type: Calibration



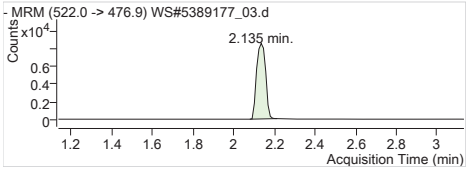


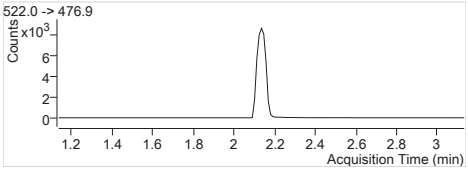
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 110.41 µg/L
Area ratio: 0.52366
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 93.57 µg/L
Area ratio: 0
Sample type: Calibration





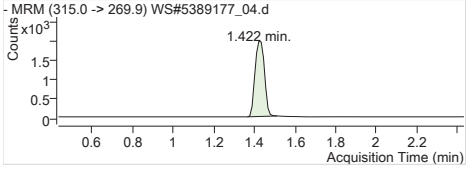
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 92.14 µg/L
Area ratio: 0
Sample type: Calibration

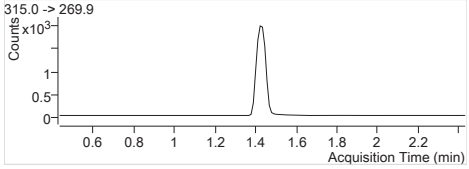
Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5389177_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A4
Acq. Date	2018/02/09 12:12:13 AM	**Injection Volume**	Per Method
Sample Annotation	-		

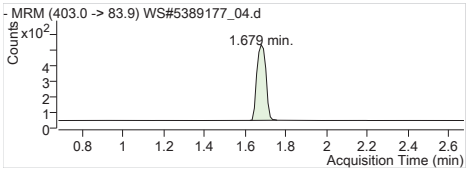
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6243	1.42	1 µg/L		
MPFHxS	1518	1.68	1 µg/L		
MPFHpA	8635	1.69	1 µg/L		
MPFOA	8733	1.88	1 µg/L		
MPFOS	2049	1.98	1 µg/L		
MPFNA	8904	2.02	1 µg/L		
MPFDA	7461	2.14	1 µg/L		
MPFUnA	8919	2.23	1 µg/L		
MPFDoA	11510	2.32	1 µg/L		
MPFTeDA	13182	2.47	1 µg/L		
13C6-PFHxA IS	22277	1.42	1 µg/L		
13C9-PFDA IS	30779	2.13	1 µg/L		

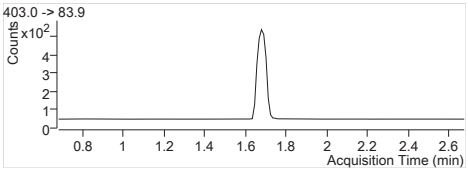
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	3685	1.09	5.00	5.27 µg/L	105.42
PFHxA 1	12687	1.42	5.00	4.99 µg/L	99.75
PFHxS 1	3558	1.68	5.00	5.32 µg/L	106.38
PFHpA 1	16651	1.69	5.00	4.74 µg/L	94.76
PFOA 1	19009	1.88	5.00	5.12 µg/L	102.42
PFOS 1	3653	1.97	5.00	4.80 µg/L	96.06
PFNA 1	16269	2.01	5.00	4.88 µg/L	97.63
PFDA 1	17521	2.14	5.00	4.96 µg/L	99.21
PFUnA 1	18843	2.23	5.00	4.84 µg/L	96.71
PFDoA 1	24541	2.32	5.00	4.96 µg/L	99.14
PFTrDA 1	27534	2.40	5.00	5.13 µg/L	102.66
PFTeDA 1	23878	2.47	5.00	5.18 µg/L	103.59
13C2-PFHxA	6243	1.42	100.00	99.96 µg/L	99.96
18O2-PFHxS	1518	1.68	100.00	94.33 µg/L	94.33
13C4-PFHpA	8635	1.69	100.00	103.94 µg/L	103.94
13C4-PFOA	8733	1.88	100.00	98.25 µg/L	98.25
13C4-PFOS	2049	1.98	100.00	103.85 µg/L	103.85
13C5-PFNA	8903	2.02	100.00	99.35 µg/L	99.35
13C2-PFDA	7332	2.14	100.00	94.57 µg/L	94.57
13C2-PFUnA	8919	2.23	100.00	96.46 µg/L	96.46
13C2-PFDoA	11510	2.32	100.00	94.36 µg/L	94.36
13C2-PFTeDA	13535	2.47	100.00	92.71 µg/L	92.71
13C6-PFHxA	22277	1.42	100.00	104.06 µg/L	104.06
13C9-PFDA	30779	2.13	100.00	107.70 µg/L	107.70



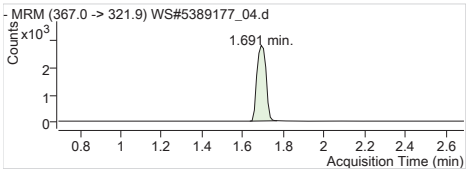


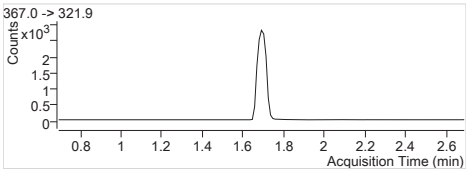
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



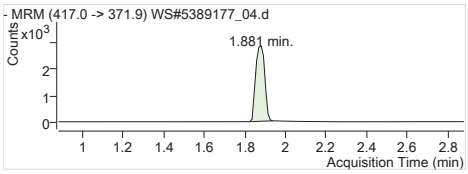


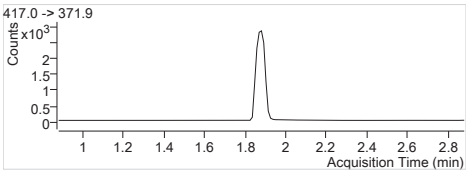
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



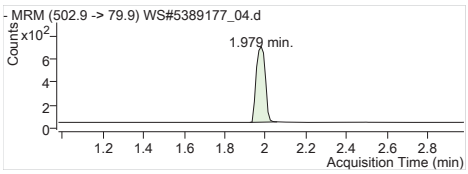


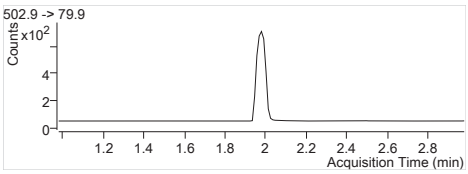
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



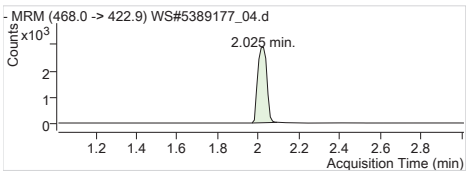


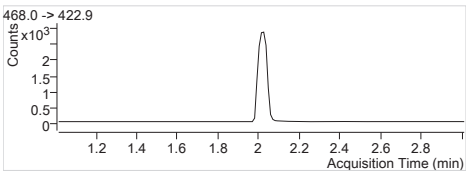
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



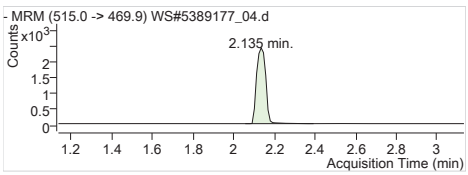


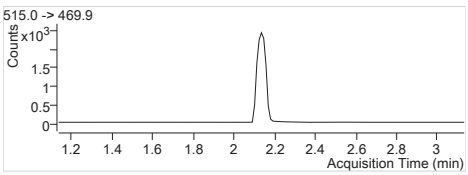
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



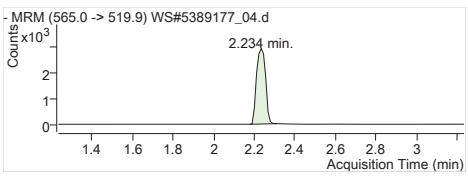


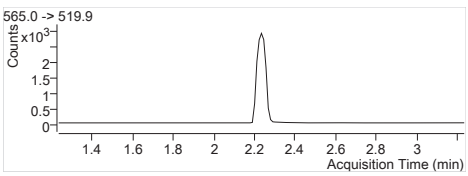
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



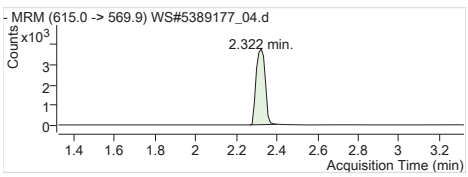


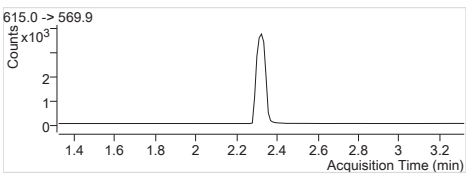
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



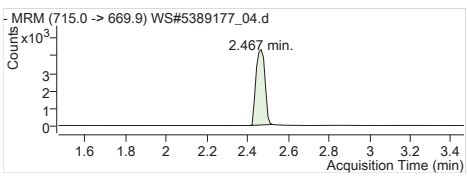


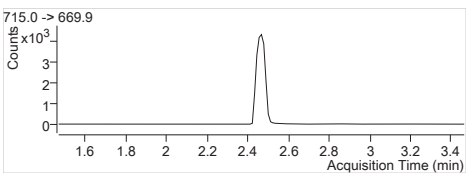
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



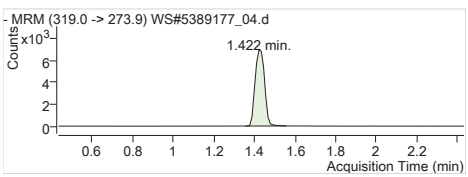


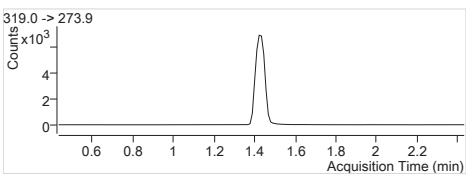
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



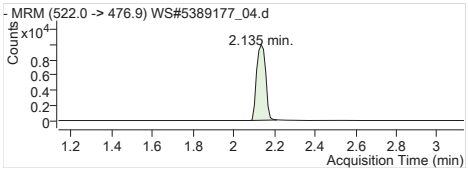


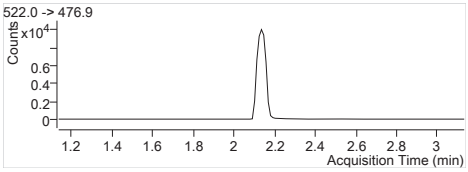
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



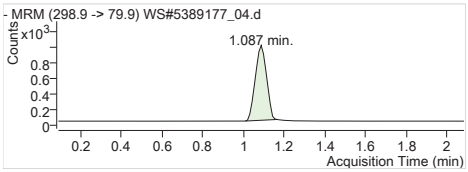


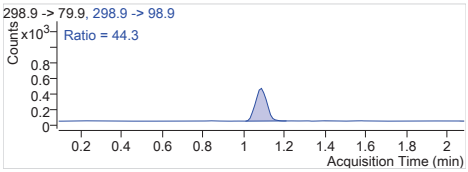
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



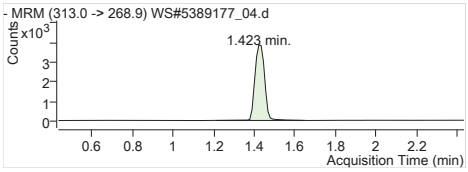


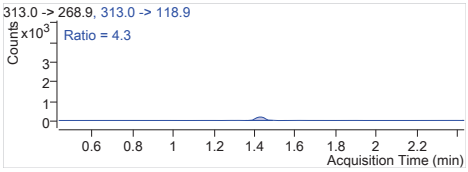
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



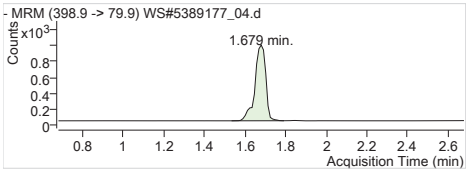


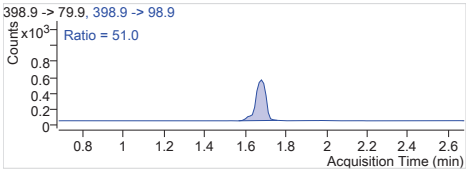
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 5.27 µg/L
Area ratio: 2.42754
Sample type: Calibration



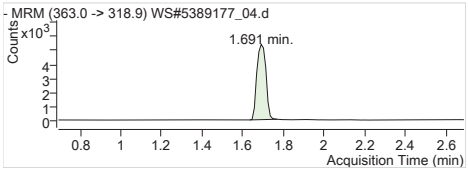


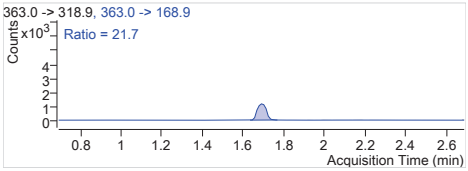
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.434)
Calc. conc. 4.99 µg/L
Area ratio: 2.03220
Sample type: Calibration



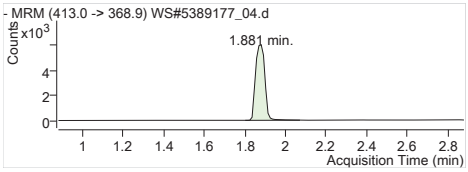


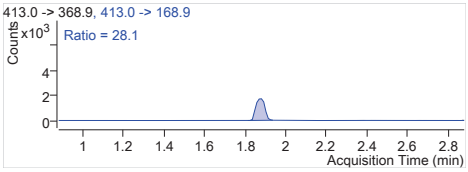
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 5.32 µg/L
Area ratio: 2.34387
Sample type: Calibration



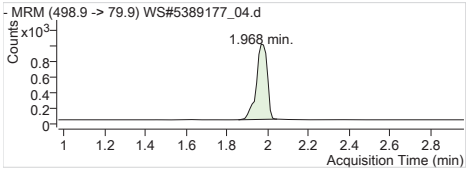


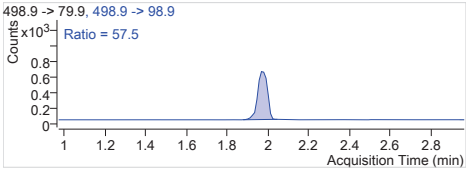
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 4.74 µg/L
Area ratio: 1.92831
Sample type: Calibration



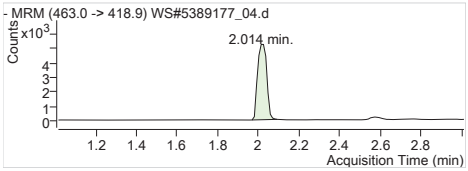


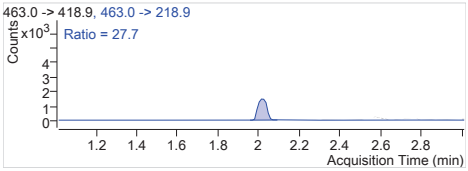
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 5.12 µg/L
Area ratio: 2.17669
Sample type: Calibration



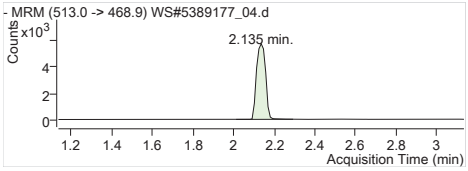


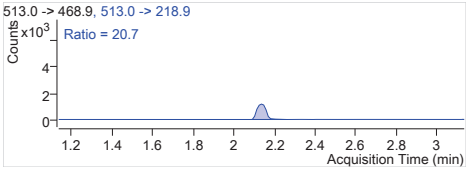
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 4.80 µg/L
Area ratio: 1.78282
Sample type: Calibration



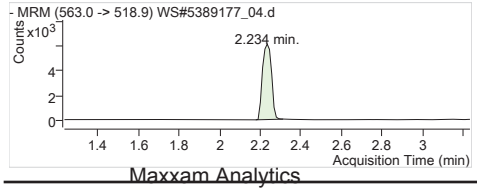


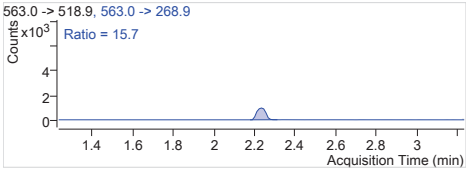
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 4.88 µg/L
Area ratio: 1.82716
Sample type: Calibration



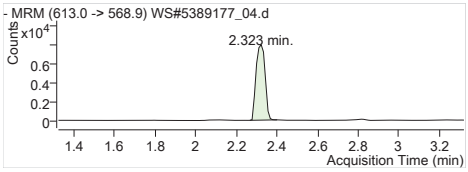


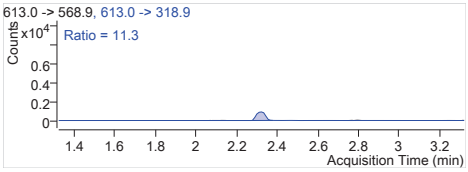
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 4.96 µg/L
Area ratio: 2.34834
Sample type: Calibration



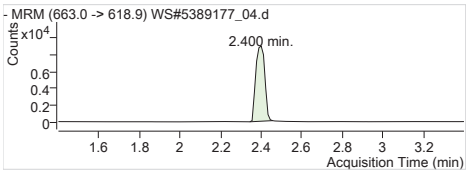


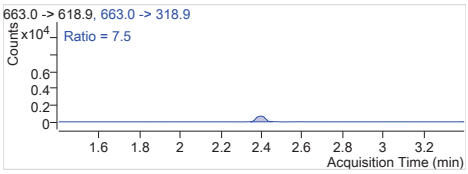
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 4.84 µg/L
Area ratio: 2.11268
Sample type: Calibration



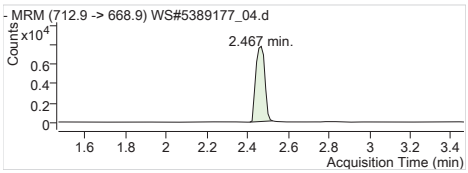


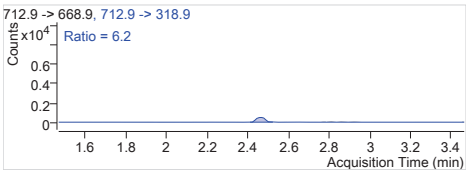
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 4.96 µg/L
Area ratio: 2.13215
Sample type: Calibration



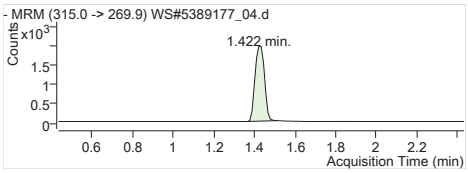


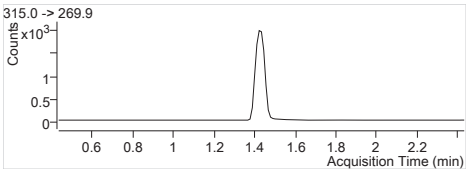
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 5.13 µg/L
Area ratio: 2.08876
Sample type: Calibration



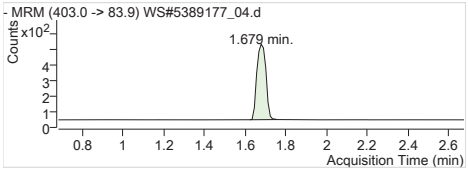


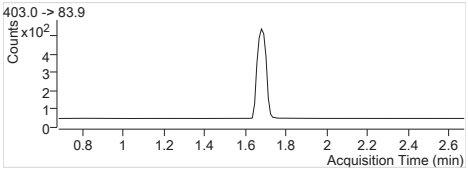
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 5.18 µg/L
Area ratio: 1.81141
Sample type: Calibration



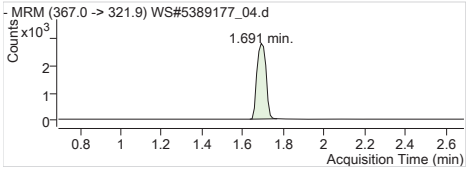


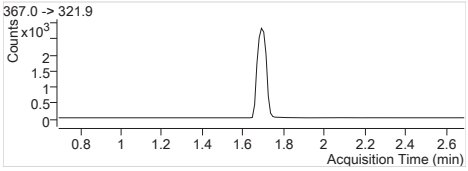
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.434)
Calc. conc. 99.96 µg/L
Area ratio: 0.28024
Sample type: Calibration



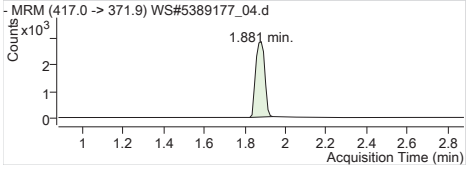


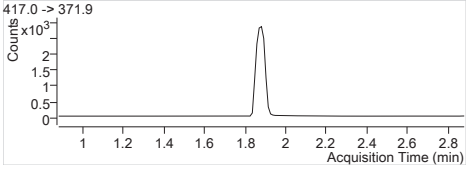
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 94.33 µg/L
Area ratio: 0.06814
Sample type: Calibration



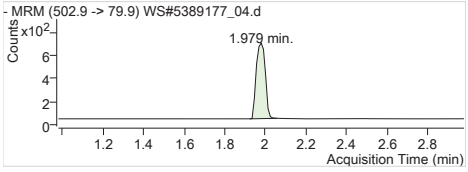


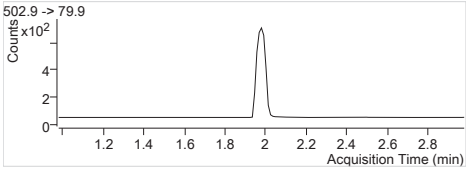
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 103.94 µg/L
Area ratio: 0.38762
Sample type: Calibration



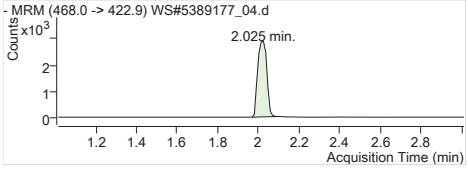


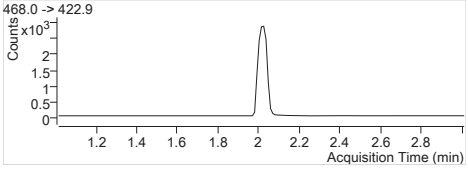
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 98.25 µg/L
Area ratio: 0.39202
Sample type: Calibration



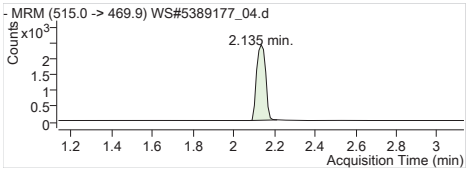


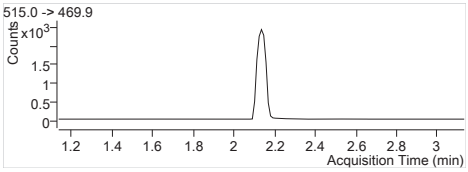
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 103.85 µg/L
Area ratio: 0.09198
Sample type: Calibration



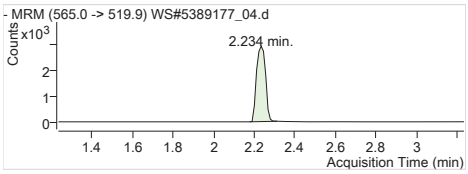


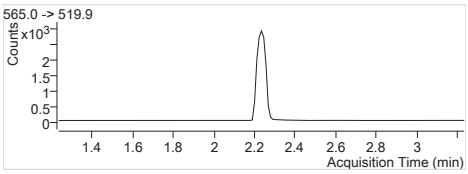
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.014)
Calc. conc. 99.35 µg/L
Area ratio: 0.39965
Sample type: Calibration



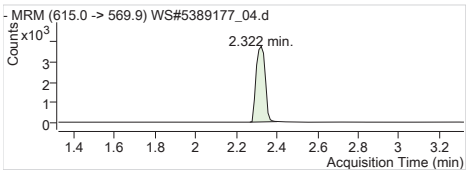


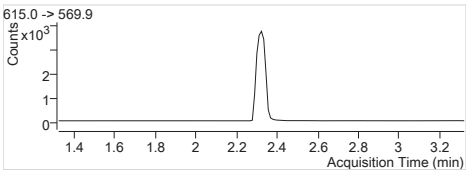
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 94.57 µg/L
Area ratio: 0.23821
Sample type: Calibration



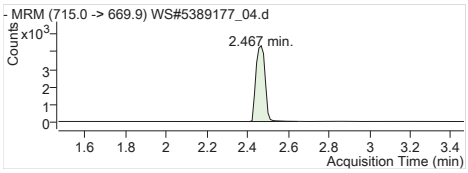


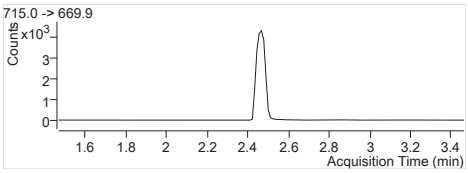
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 96.46 µg/L
Area ratio: 0.28978
Sample type: Calibration



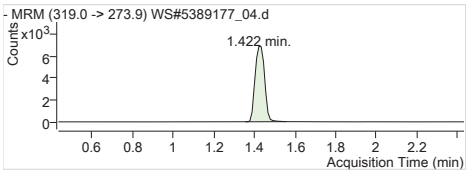


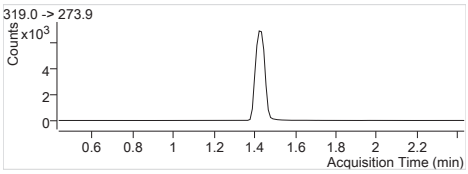
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 94.36 µg/L
Area ratio: 0.37396
Sample type: Calibration



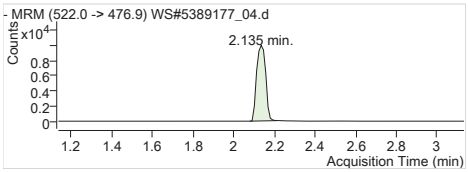


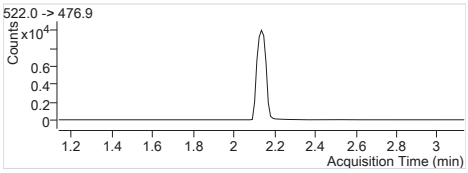
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 92.71 µg/L
Area ratio: 0.43975
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.434)
Calc. conc. 104.06 µg/L
Area ratio: 0
Sample type: Calibration





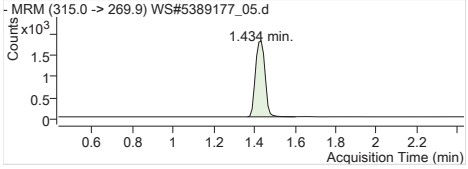
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 107.70 µg/L
Area ratio: 0
Sample type: Calibration

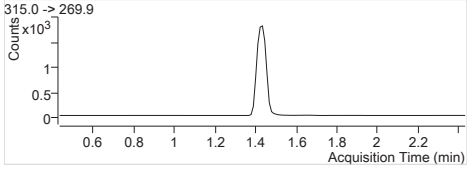
Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5389177_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A5
Acq. Date	2018/02/09 12:17:10 AM	**Injection Volume**	Per Method
Sample Annotation	-		

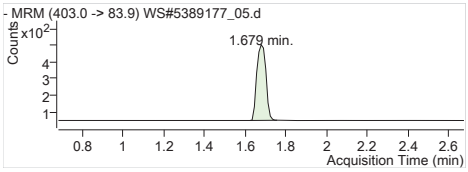
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5858	1.43	1 µg/L		
MPFHxS	1427	1.68	1 µg/L		
MPFHpA	7672	1.69	1 µg/L		
MPFOA	7823	1.88	1 µg/L		
MPFOS	1917	1.98	1 µg/L		
MPFNA	8068	2.01	1 µg/L		
MPFDA	7309	2.14	1 µg/L		
MPFUnA	8409	2.23	1 µg/L		
MPFDoA	11608	2.32	1 µg/L		
MPFTeDA	12552	2.47	1 µg/L		
13C6-PFHxA IS	21649	1.43	1 µg/L		
13C9-PFDA IS	28437	2.13	1 µg/L		

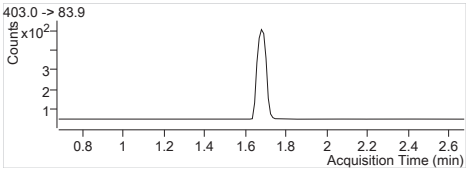
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8679	1.09	12.50	13.21 µg/L	105.69
PFHxA 1	30119	1.43	12.50	12.44 µg/L	99.53
PFHxS 1	8749	1.68	12.50	13.71 µg/L	109.65
PFHpA 1	41071	1.69	12.50	12.98 µg/L	103.87
PFOA 1	46159	1.88	12.50	13.87 µg/L	110.94
PFOS 1	8207	1.97	12.50	11.34 µg/L	90.75
PFNA 1	40186	2.01	12.50	13.18 µg/L	105.48
PFDA 1	43587	2.14	12.50	12.43 µg/L	99.45
PFUnA 1	47185	2.23	12.50	12.69 µg/L	101.55
PFDoA 1	60873	2.32	12.50	12.05 µg/L	96.36
PFTrDA 1	66039	2.40	12.50	12.98 µg/L	103.81
PFTeDA 1	56621	2.47	12.50	12.78 µg/L	102.25
13C2-PFHxA	5858	1.43	100.00	96.51 µg/L	96.51
18O2-PFHxS	1427	1.68	100.00	91.25 µg/L	91.25
13C4-PFHpA	7672	1.69	100.00	95.03 µg/L	95.03
13C4-PFOA	7823	1.88	100.00	90.57 µg/L	90.57
13C4-PFOS	1917	1.98	100.00	99.97 µg/L	99.97
13C5-PFNA	8067	2.01	100.00	92.64 µg/L	92.64
13C2-PFDA	7177	2.14	100.00	100.20 µg/L	100.20
13C2-PFUnA	8409	2.23	100.00	98.44 µg/L	98.44
13C2-PFDoA	11608	2.32	100.00	103.00 µg/L	103.00
13C2-PFTeDA	12838	2.47	100.00	95.18 µg/L	95.18
13C6-PFHxA	21649	1.43	100.00	101.12 µg/L	101.12
13C9-PFDA	28437	2.13	100.00	99.51 µg/L	99.51



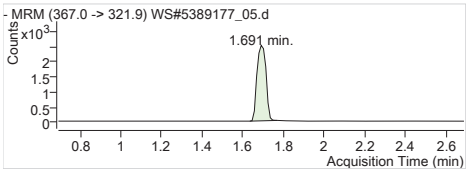


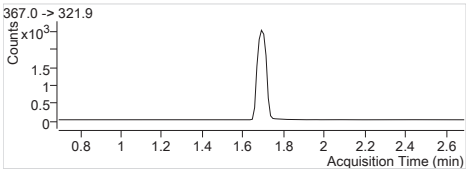
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



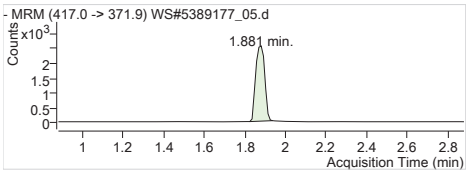


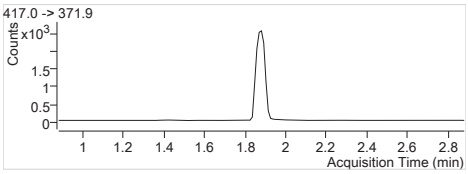
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



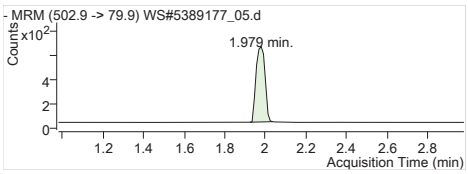


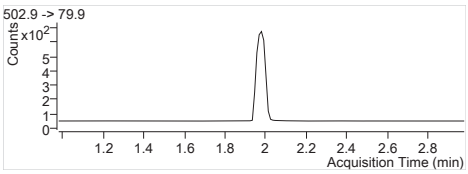
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



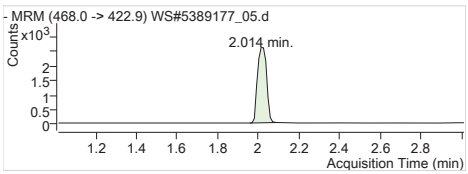


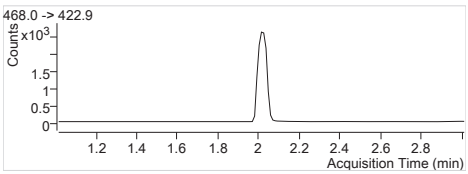
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



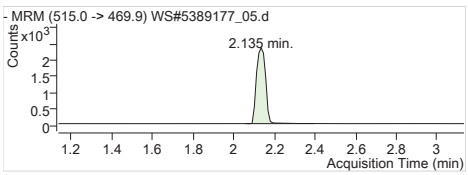


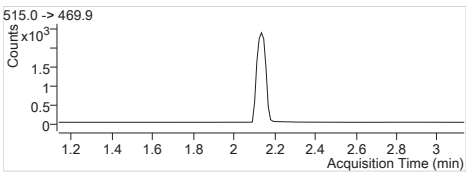
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



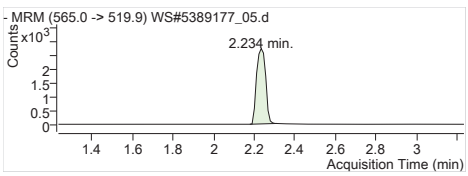


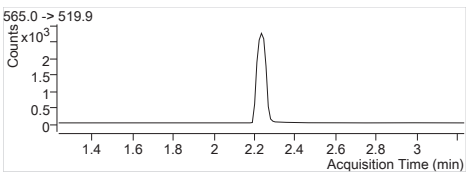
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



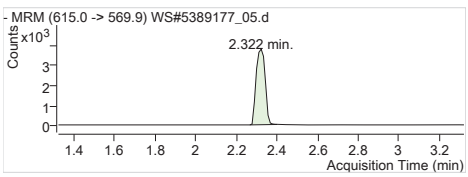


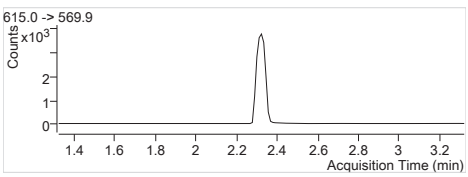
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



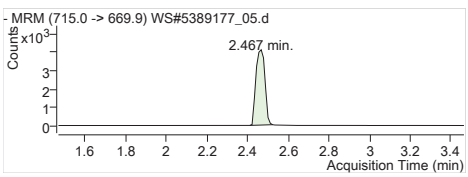


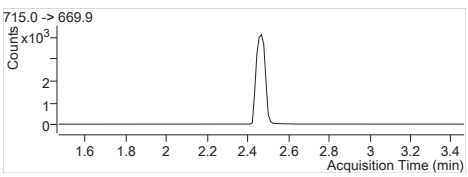
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



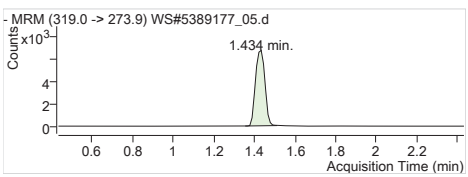


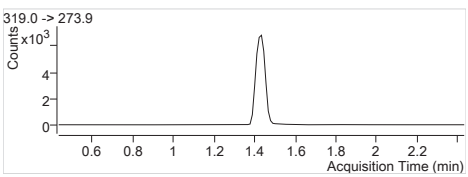
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



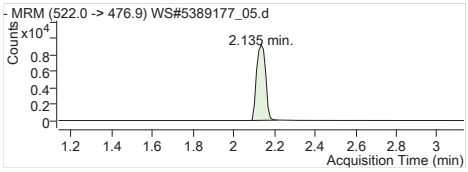


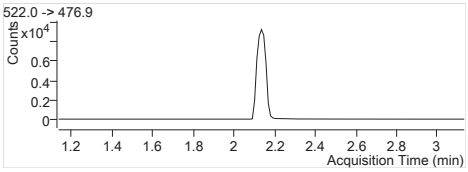
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



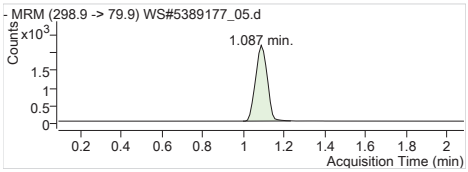


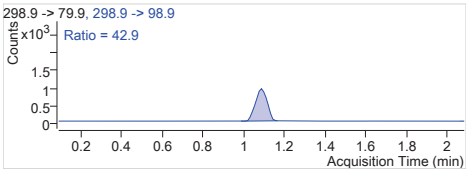
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



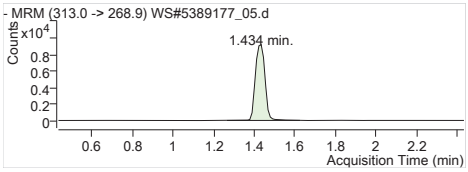


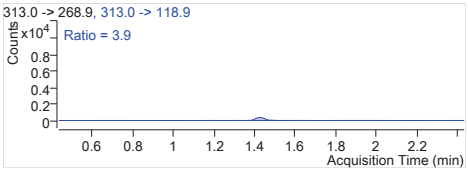
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



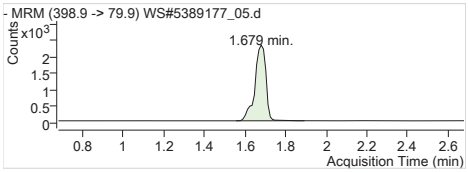


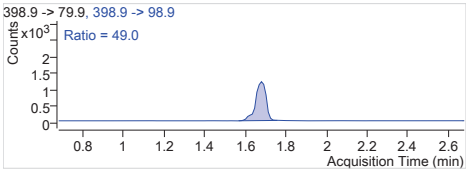
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 13.21 µg/L
Area ratio: 6.08199
Sample type: Calibration



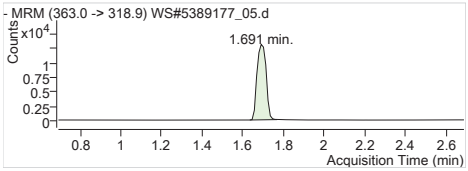


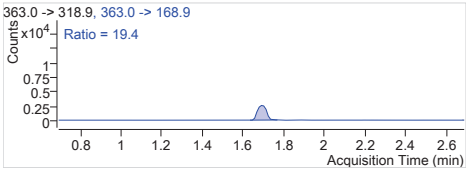
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 12.44 µg/L
Area ratio: 5.14152
Sample type: Calibration



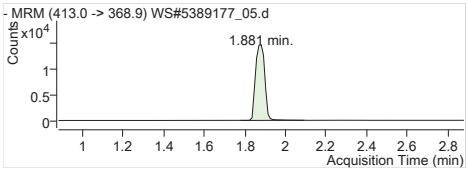


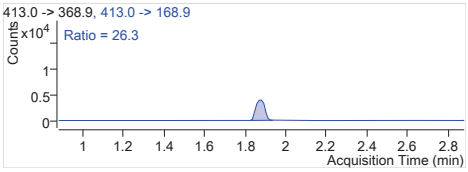
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 13.71 µg/L
Area ratio: 6.13104
Sample type: Calibration



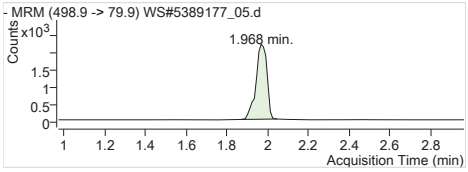


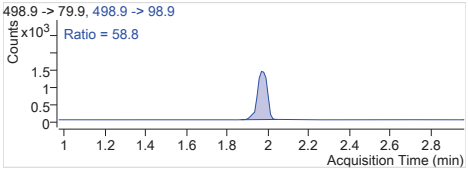
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.98 µg/L
Area ratio: 5.35336
Sample type: Calibration



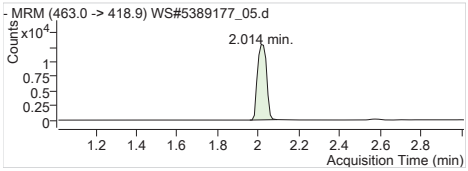


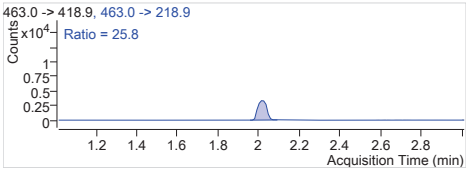
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 13.87 µg/L
Area ratio: 5.90042
Sample type: Calibration



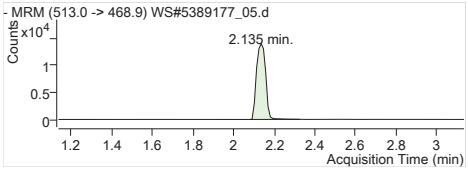


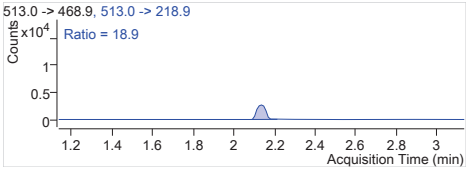
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 11.34 µg/L
Area ratio: 4.28117
Sample type: Calibration



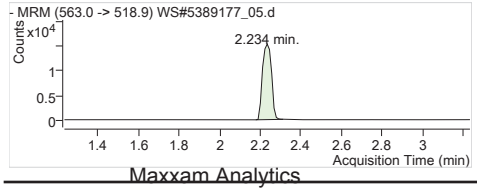


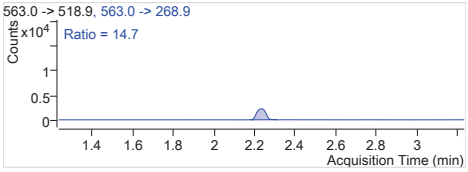
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 13.18 µg/L
Area ratio: 4.98091
Sample type: Calibration



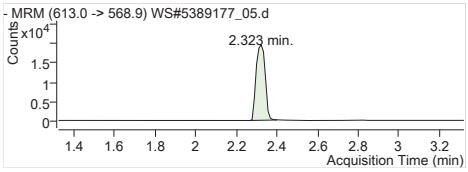


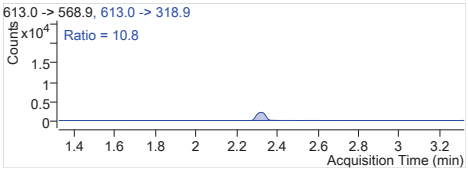
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 12.43 µg/L
Area ratio: 5.96347
Sample type: Calibration



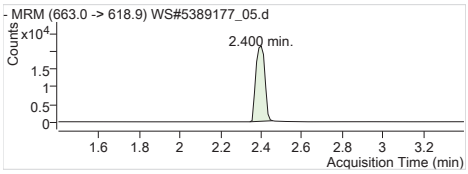


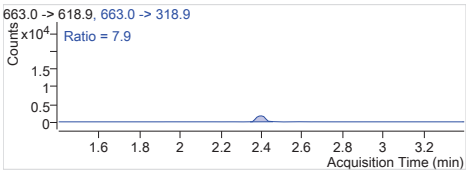
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 12.69 µg/L
Area ratio: 5.61125
Sample type: Calibration



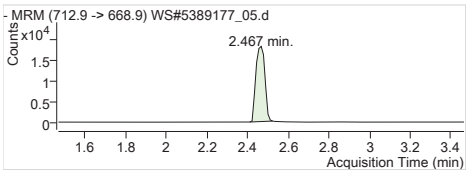


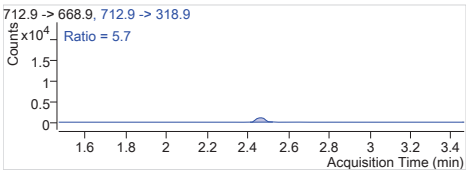
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 12.05 µg/L
Area ratio: 5.24406
Sample type: Calibration



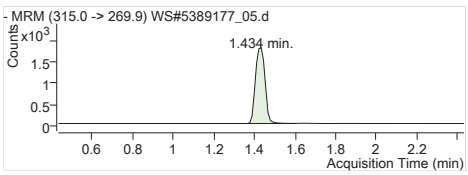


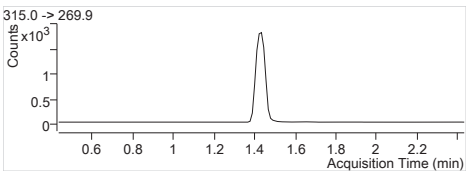
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 12.98 µg/L
Area ratio: 5.26123
Sample type: Calibration



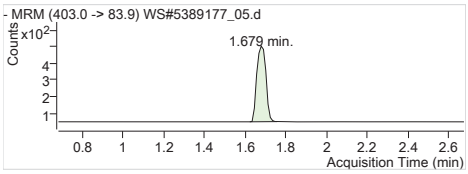


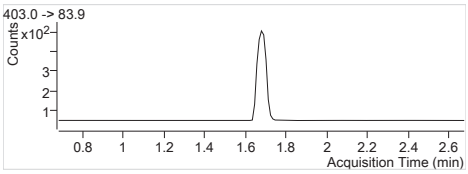
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 12.78 µg/L
Area ratio: 4.51091
Sample type: Calibration



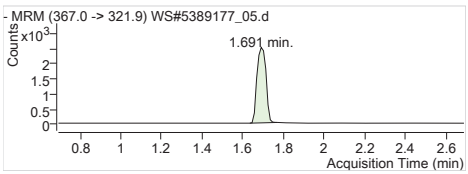


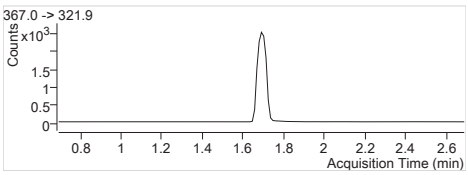
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 96.51 µg/L
Area ratio: 0.27059
Sample type: Calibration



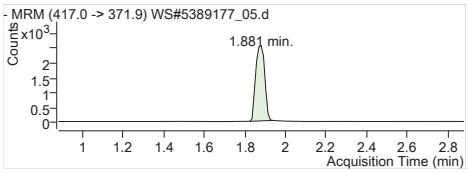


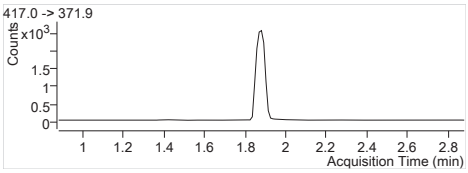
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 91.25 µg/L
Area ratio: 0.06592
Sample type: Calibration



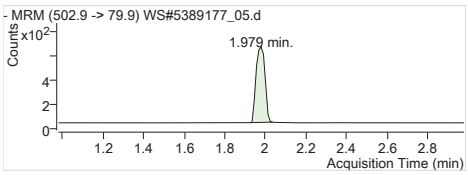


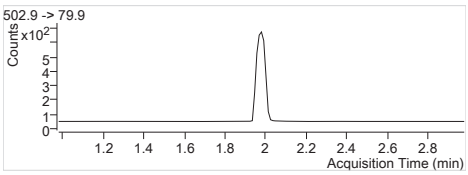
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 95.03 µg/L
Area ratio: 0.35438
Sample type: Calibration



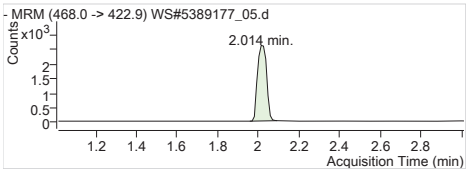


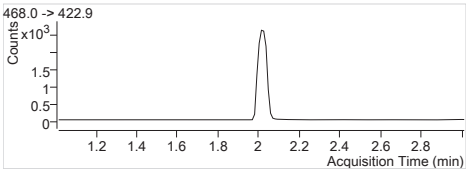
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 90.57 µg/L
Area ratio: 0.36136
Sample type: Calibration



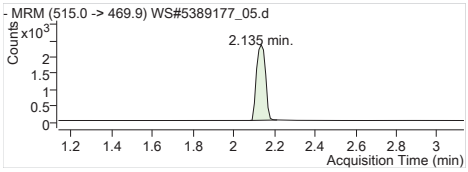


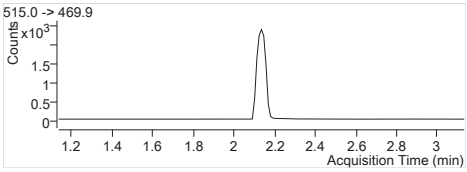
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 99.97 µg/L
Area ratio: 0.08855
Sample type: Calibration



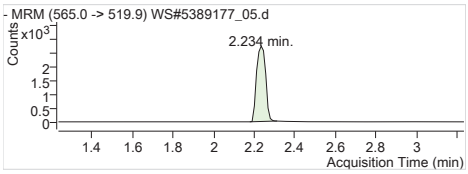


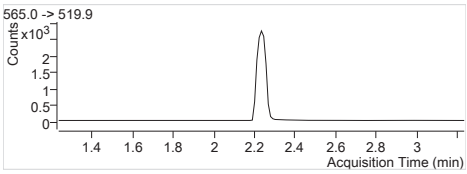
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 92.64 µg/L
Area ratio: 0.37263
Sample type: Calibration



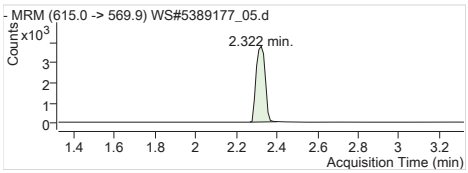


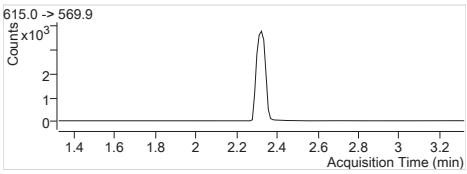
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 100.20 µg/L
Area ratio: 0.25238
Sample type: Calibration



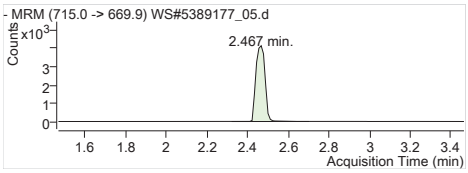


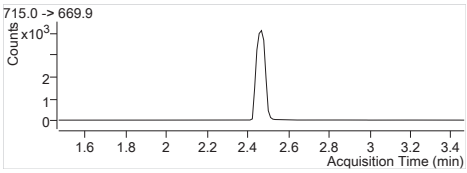
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 98.44 µg/L
Area ratio: 0.29571
Sample type: Calibration



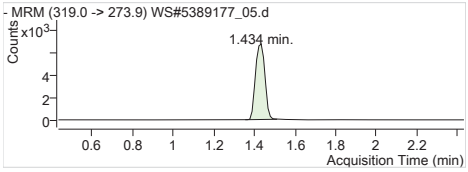


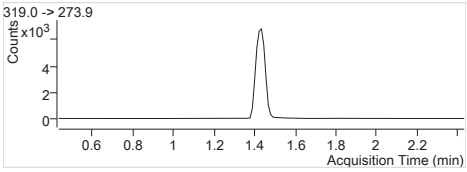
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 103.00 µg/L
Area ratio: 0.40820
Sample type: Calibration



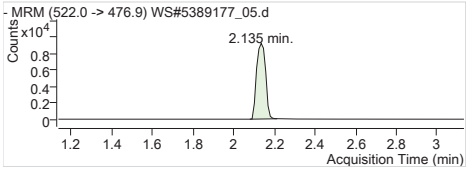


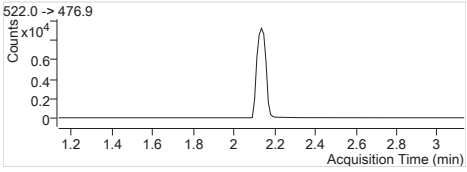
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 95.18 µg/L
Area ratio: 0.45145
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 101.12 µg/L
Area ratio: 0
Sample type: Calibration





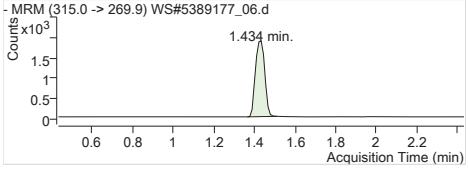
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 99.51 µg/L
Area ratio: 0
Sample type: Calibration

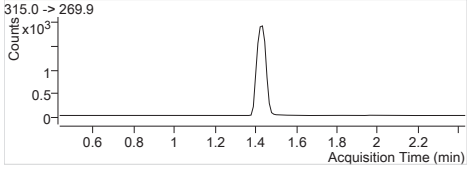
Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5389177_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A6
Acq. Date	2018/02/09 12:22:06 AM	**Injection Volume**	Per Method
Sample Annotation	-		

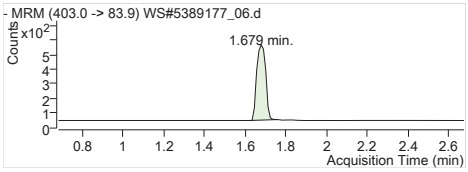
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5985	1.43	1 µg/L		
MPFHxS	1588	1.68	1 µg/L		
MPFHpA	7697	1.69	1 µg/L		
MPFOA	8325	1.88	1 µg/L		
MPFOS	1757	1.98	1 µg/L		
MPFNA	8273	2.01	1 µg/L		
MPFDA	6911	2.14	1 µg/L		
MPFUnA	8225	2.23	1 µg/L		
MPFDoA	10477	2.32	1 µg/L		
MPFTeDA	12863	2.47	1 µg/L		
13C6-PFHxA IS	20825	1.43	1 µg/L		
13C9-PFDA IS	26760	2.13	1 µg/L		

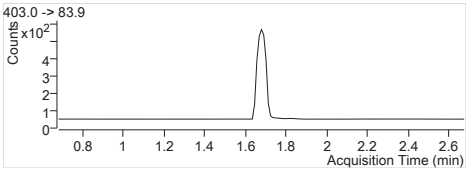
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	16004	1.09	25.00	21.89 µg/L	87.58
PFHxA 1	60745	1.43	25.00	24.45 µg/L	97.79
PFHxS 1	16354	1.68	25.00	22.93 µg/L	91.74
PFHpA 1	80239	1.69	25.00	25.19 µg/L	100.78
PFOA 1	88474	1.88	25.00	24.97 µg/L	99.88
PFOS 1	16958	1.97	25.00	25.40 µg/L	101.62
PFNA 1	79008	2.01	25.00	25.21 µg/L	100.86
PFDA 1	83684	2.14	25.00	25.13 µg/L	100.53
PFUnA 1	89716	2.23	25.00	24.59 µg/L	98.36
PFDoA 1	115272	2.32	25.00	25.16 µg/L	100.65
PFTrDA 1	126598	2.40	25.00	24.30 µg/L	97.21
PFTeDA 1	108923	2.47	25.00	23.92 µg/L	95.70
13C2-PFHxA	5985	1.43	100.00	102.51 µg/L	102.51
18O2-PFHxS	1588	1.68	100.00	105.57 µg/L	105.57
13C4-PFHpA	7697	1.69	100.00	99.11 µg/L	99.11
13C4-PFOA	8325	1.88	100.00	100.19 µg/L	100.19
13C4-PFOS	1757	1.98	100.00	95.26 µg/L	95.26
13C5-PFNA	8273	2.01	100.00	98.76 µg/L	98.76
13C2-PFDA	6772	2.14	100.00	100.47 µg/L	100.47
13C2-PFUnA	8225	2.23	100.00	102.32 µg/L	102.32
13C2-PFDoA	10477	2.32	100.00	98.79 µg/L	98.79
13C2-PFTeDA	13265	2.47	100.00	104.51 µg/L	104.51
13C6-PFHxA	20825	1.43	100.00	97.27 µg/L	97.27
13C9-PFDA	26760	2.13	100.00	93.64 µg/L	93.64



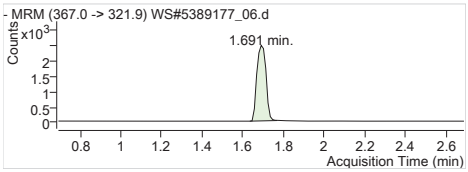


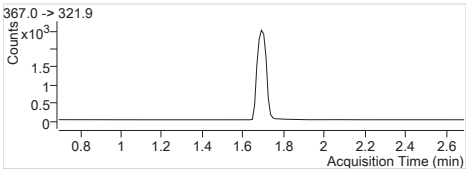
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



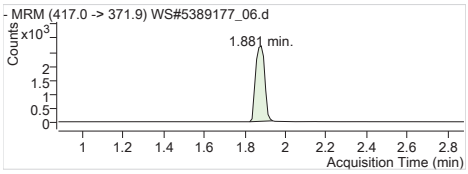


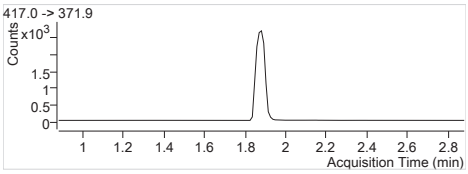
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



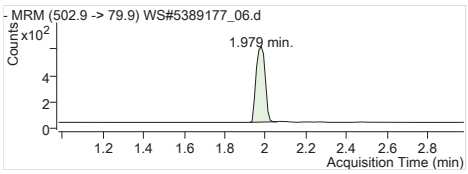


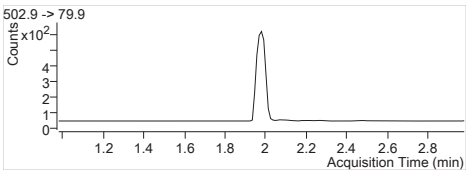
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



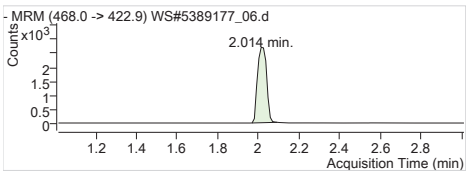


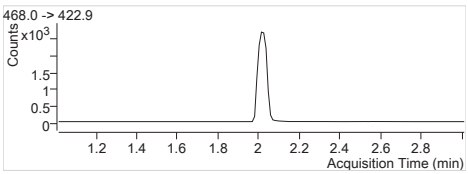
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



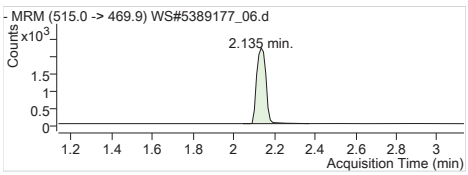


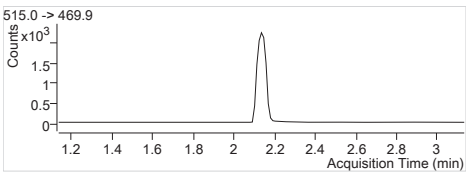
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



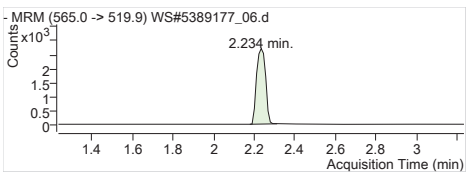


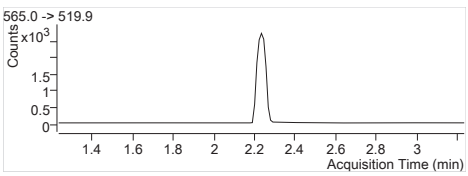
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



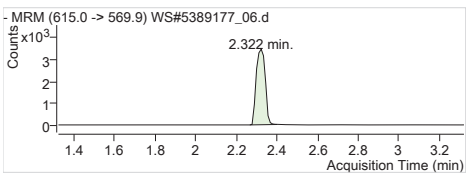


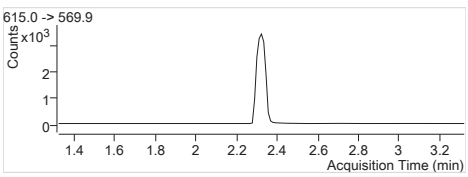
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



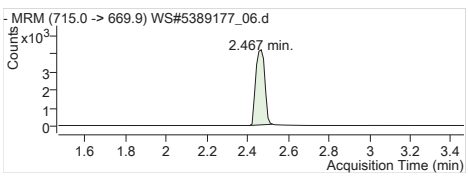


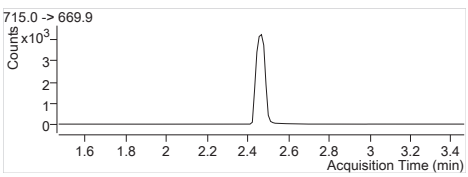
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



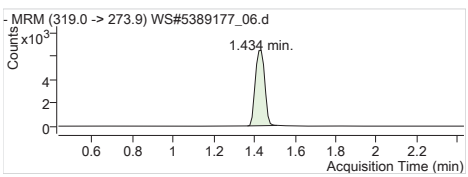


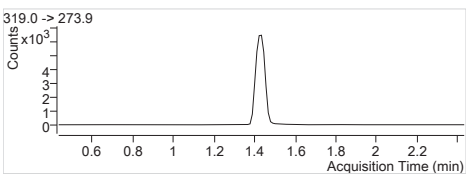
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



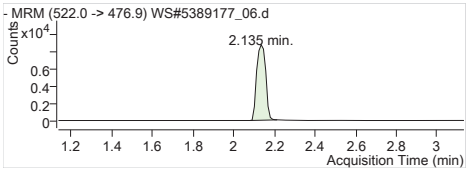


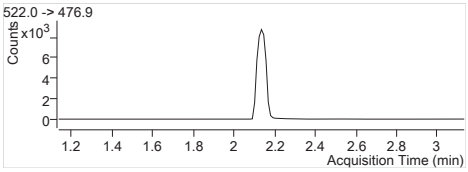
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



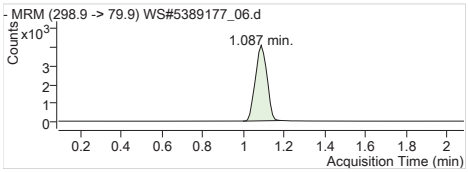


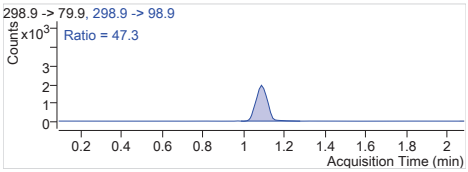
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



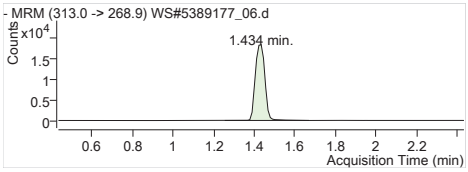


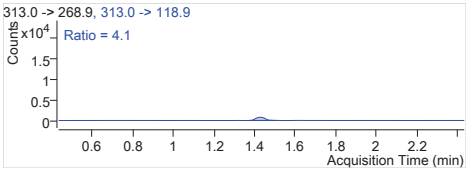
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



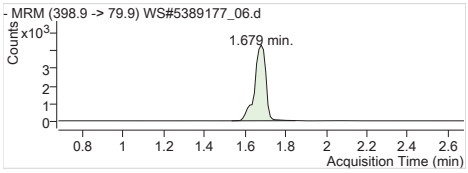


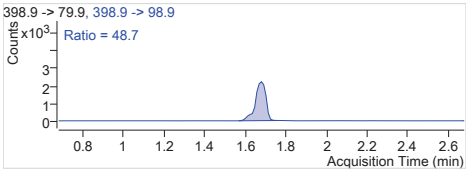
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 21.89 µg/L
Area ratio: 10.07809
Sample type: Calibration



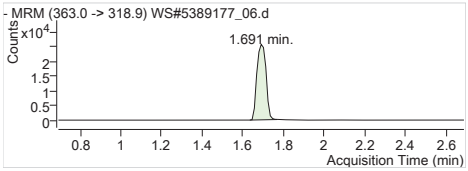


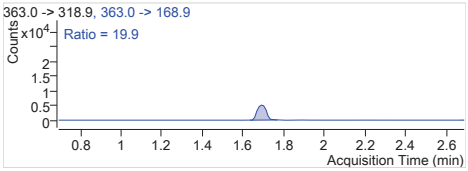
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 24.45 µg/L
Area ratio: 10.14954
Sample type: Calibration



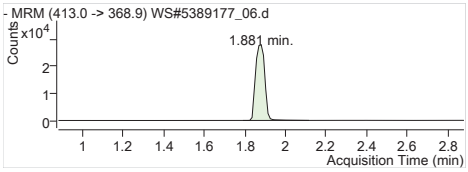


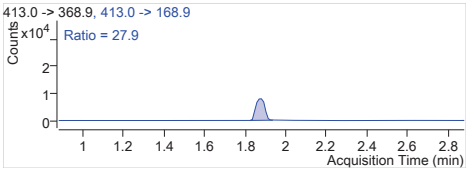
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 22.93 µg/L
Area ratio: 10.29849
Sample type: Calibration



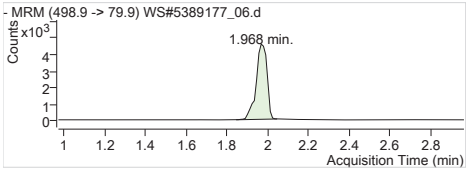


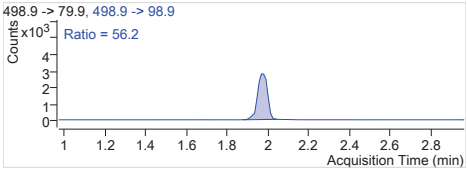
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 25.19 µg/L
Area ratio: 10.42471
Sample type: Calibration



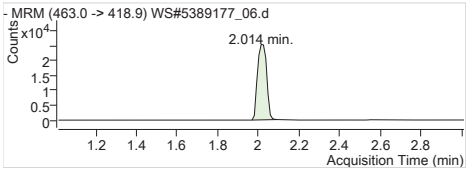


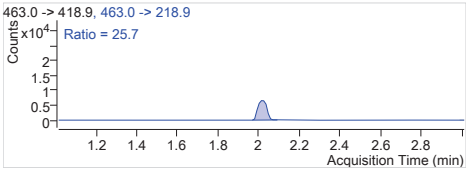
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 24.97 µg/L
Area ratio: 10.62751
Sample type: Calibration



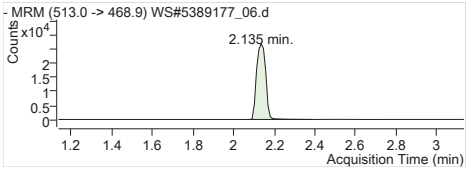


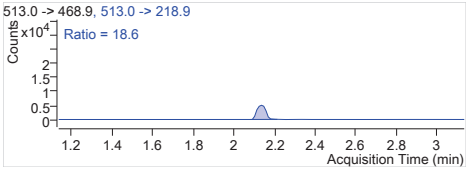
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 25.40 µg/L
Area ratio: 9.65168
Sample type: Calibration



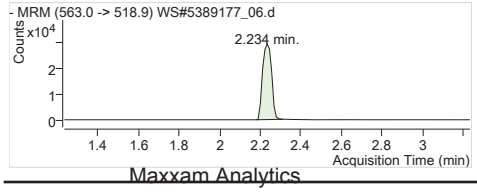


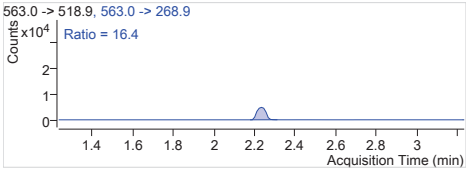
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 25.21 µg/L
Area ratio: 9.55010
Sample type: Calibration



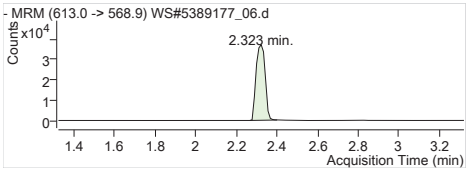


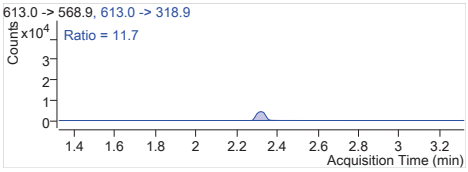
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 25.13 µg/L
Area ratio: 12.10881
Sample type: Calibration



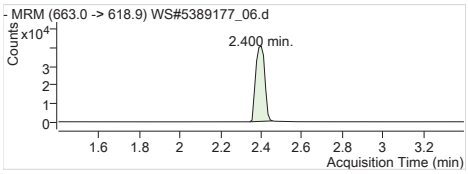


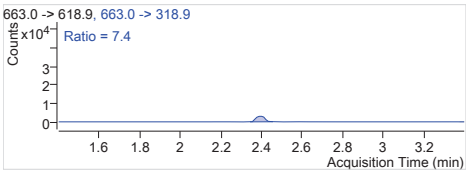
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 24.59 µg/L
Area ratio: 10.90772
Sample type: Calibration



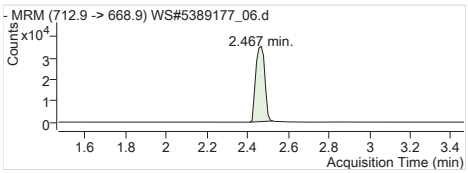


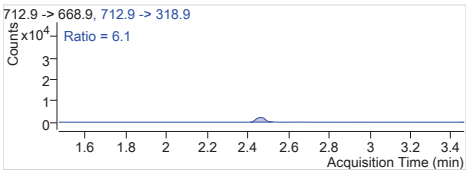
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 25.16 µg/L
Area ratio: 11.00239
Sample type: Calibration



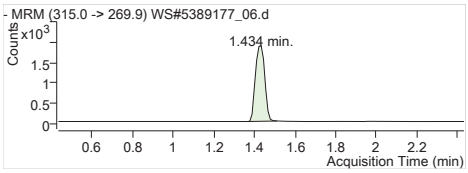


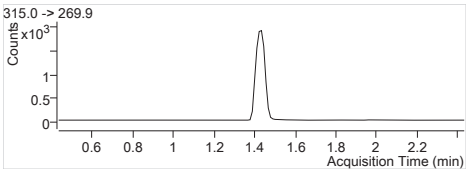
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 24.30 µg/L
Area ratio: 9.84203
Sample type: Calibration



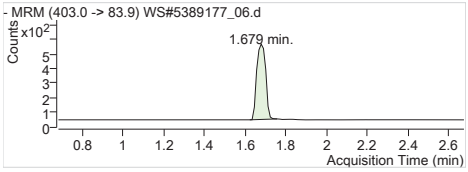


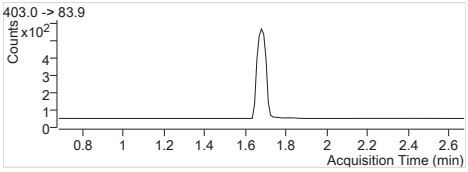
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 23.92 µg/L
Area ratio: 8.46793
Sample type: Calibration



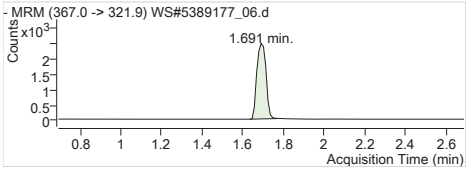


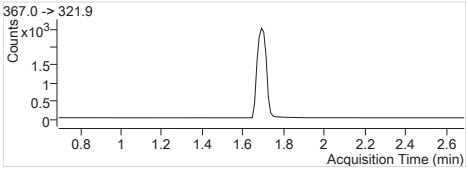
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 102.51 µg/L
Area ratio: 0.28739
Sample type: Calibration



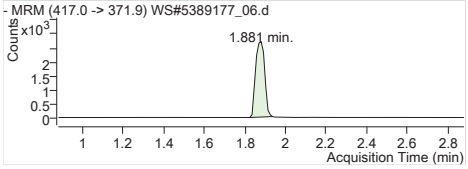


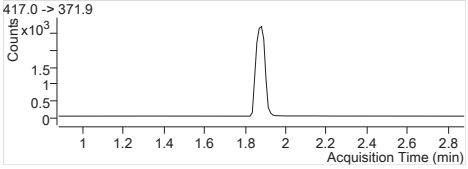
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 105.57 µg/L
Area ratio: 0.07625
Sample type: Calibration



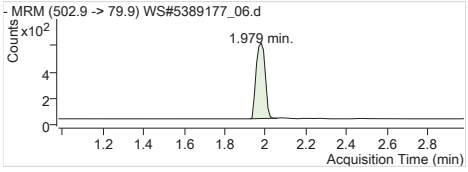


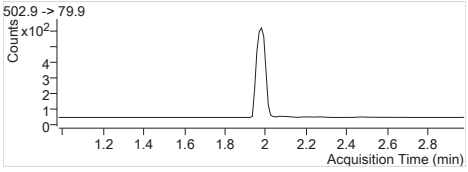
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 99.11 µg/L
Area ratio: 0.36960
Sample type: Calibration



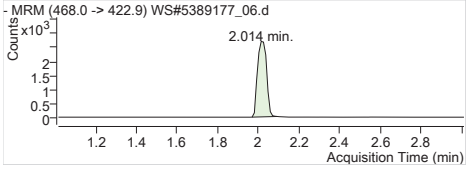


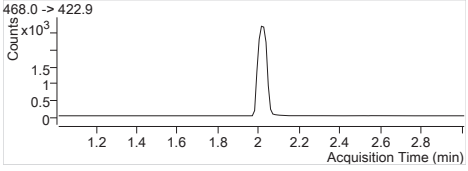
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 100.19 µg/L
Area ratio: 0.39976
Sample type: Calibration



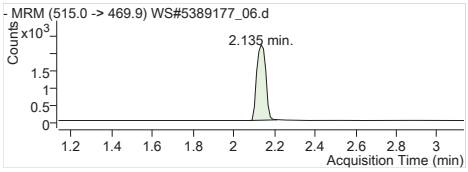


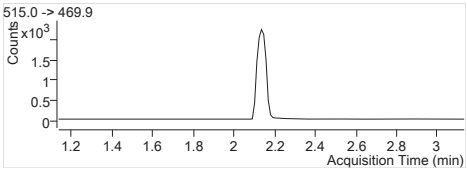
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 95.26 µg/L
Area ratio: 0.08437
Sample type: Calibration



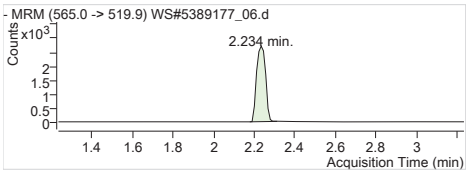


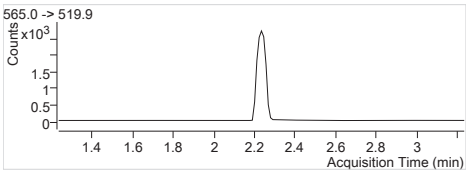
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 98.76 µg/L
Area ratio: 0.39726
Sample type: Calibration



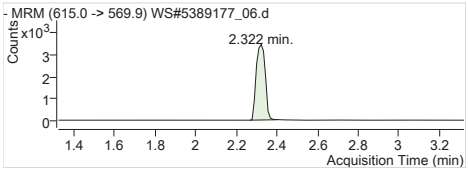


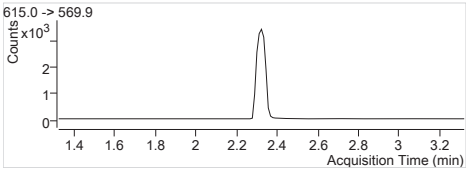
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 100.47 µg/L
Area ratio: 0.25306
Sample type: Calibration



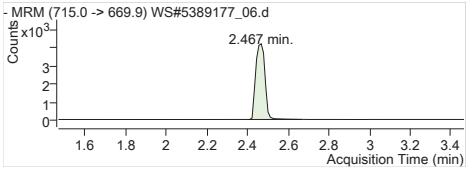


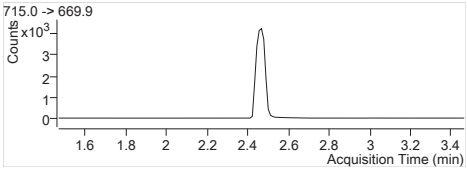
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 102.32 µg/L
Area ratio: 0.30736
Sample type: Calibration



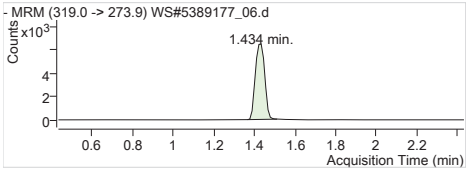


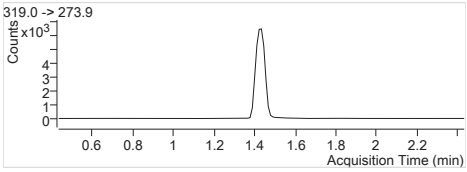
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 98.79 µg/L
Area ratio: 0.39152
Sample type: Calibration



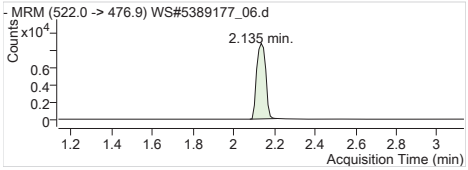


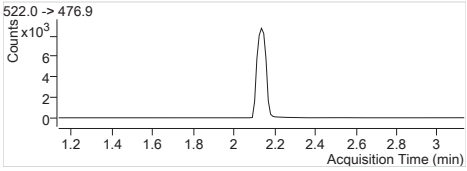
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 104.51 µg/L
Area ratio: 0.49570
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 97.27 µg/L
Area ratio: 0
Sample type: Calibration





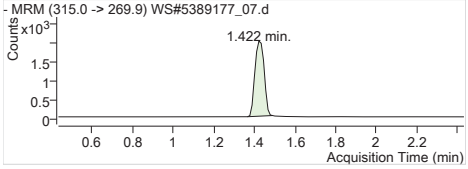
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 93.64 µg/L
Area ratio: 0
Sample type: Calibration

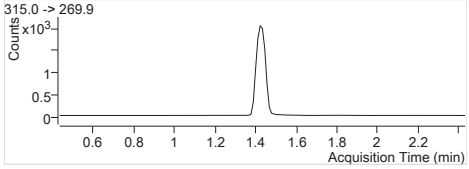
Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5389177_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A7
Acq. Date	2018/02/09 12:27:02 AM	**Injection Volume**	Per Method
Sample Annotation	-		

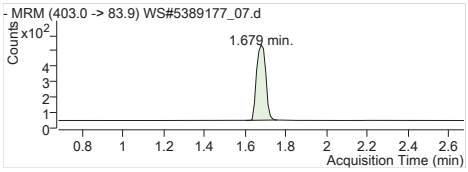
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6287	1.42	1 µg/L		
MPFHxS	1541	1.68	1 µg/L		
MPFHpA	8110	1.69	1 µg/L		
MPFOA	9175	1.88	1 µg/L		
MPFOS	1886	1.98	1 µg/L		
MPFNA	8857	2.01	1 µg/L		
MPFDA	7627	2.14	1 µg/L		
MPFUnA	8962	2.23	1 µg/L		
MPFDoA	11555	2.32	1 µg/L		
MPFTeDA	13813	2.47	1 µg/L		
13C6-PFHxA IS	21682	1.42	1 µg/L		
13C9-PFDA IS	28751	2.13	1 µg/L		

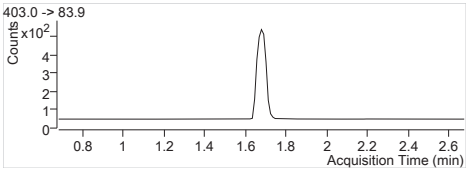
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	31202	1.09	41.70	43.99 µg/L	105.50
PFHxA 1	111030	1.42	41.70	42.45 µg/L	101.80
PFHxS 1	29470	1.68	41.70	42.48 µg/L	101.87
PFHpA 1	138947	1.69	41.70	41.34 µg/L	99.15
PFOA 1	158054	1.88	41.70	40.47 µg/L	97.05
PFOS 1	30641	1.97	41.70	42.67 µg/L	102.32
PFNA 1	137642	2.01	41.70	40.99 µg/L	98.29
PFDA 1	153798	2.14	41.70	41.78 µg/L	100.19
PFUnA 1	167796	2.23	41.70	42.14 µg/L	101.06
PFDoA 1	213116	2.32	41.70	42.11 µg/L	100.99
PFTrDA 1	234625	2.40	41.70	41.96 µg/L	100.63
PFTeDA 1	207867	2.47	41.70	42.46 µg/L	101.81
13C2-PFHxA	6287	1.42	100.00	103.42 µg/L	103.42
18O2-PFHxS	1541	1.68	100.00	98.39 µg/L	98.39
13C4-PFHpA	8110	1.69	100.00	100.30 µg/L	100.30
13C4-PFOA	9175	1.88	100.00	106.06 µg/L	106.06
13C4-PFOS	1886	1.98	100.00	98.21 µg/L	98.21
13C5-PFNA	8835	2.01	100.00	101.30 µg/L	101.30
13C2-PFDA	7561	2.14	100.00	104.41 µg/L	104.41
13C2-PFUnA	8962	2.23	100.00	103.76 µg/L	103.76
13C2-PFDoA	11555	2.32	100.00	101.41 µg/L	101.41
13C2-PFTeDA	14192	2.47	100.00	104.07 µg/L	104.07
13C6-PFHxA	21682	1.42	100.00	101.28 µg/L	101.28
13C9-PFDA	28751	2.13	100.00	100.60 µg/L	100.60



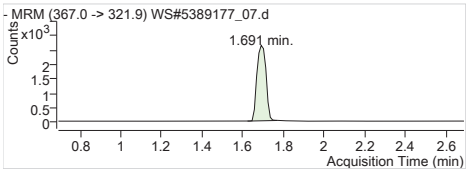


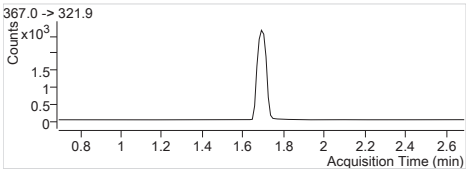
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



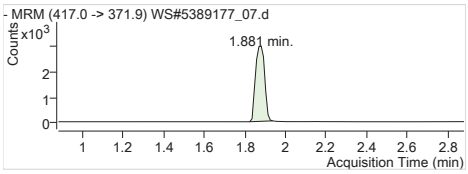


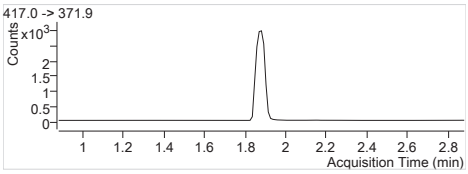
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



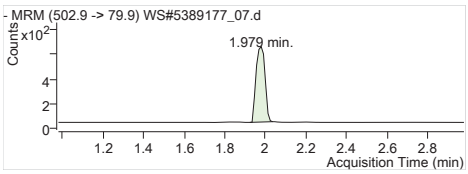


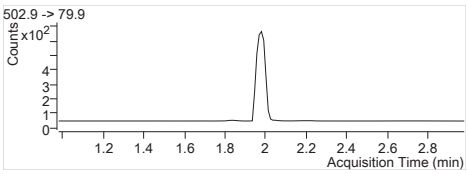
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



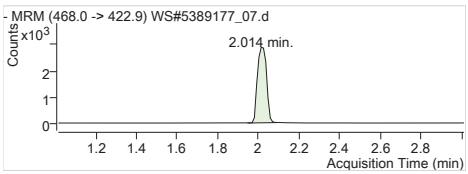


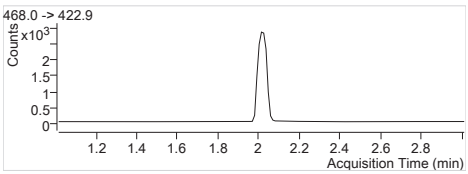
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



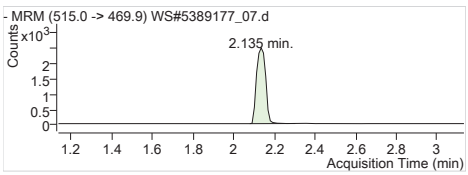


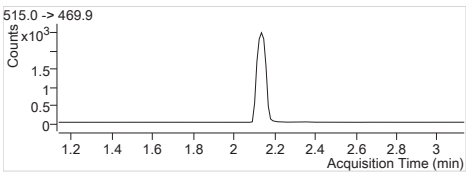
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



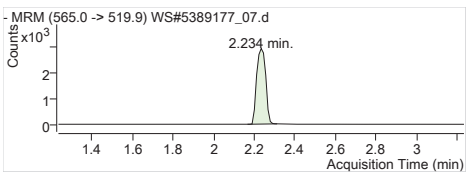


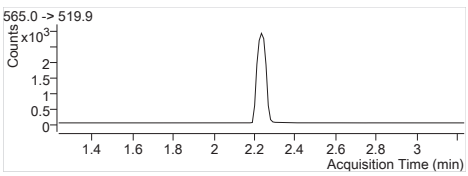
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



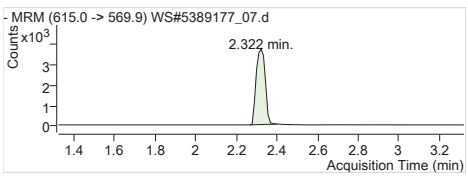


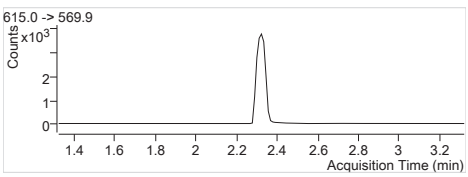
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



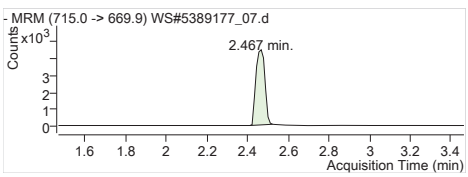


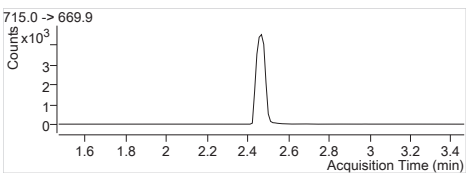
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



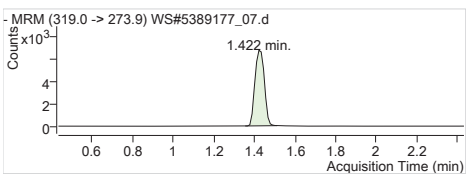


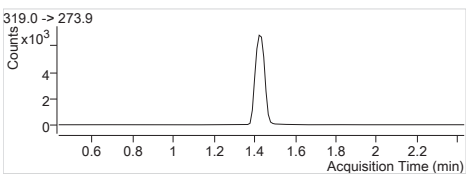
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



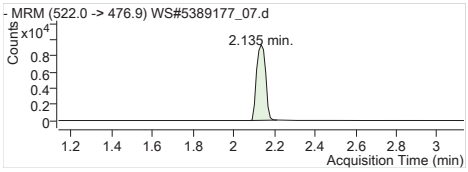


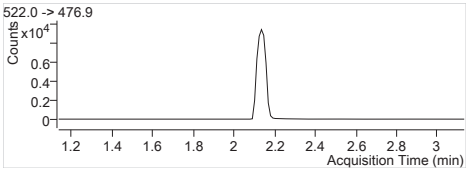
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



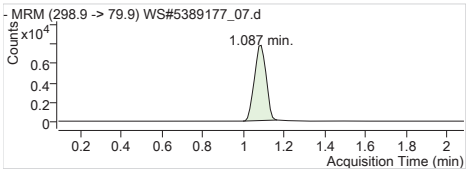


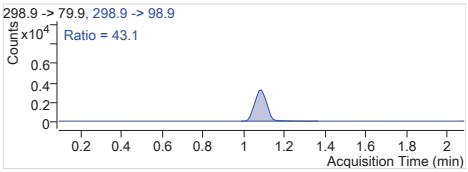
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.434)
Concentration: 1 µg/L
Sample type: Calibration



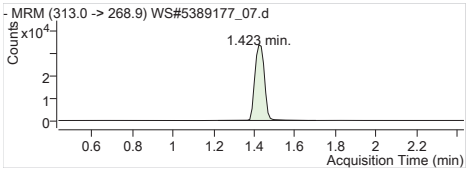


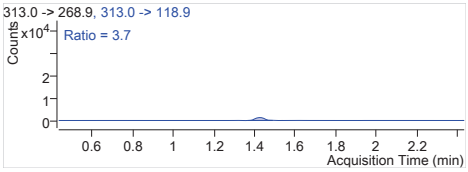
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



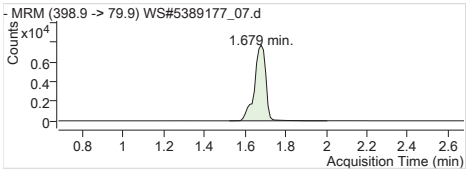


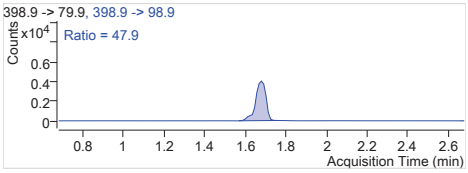
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 43.99 µg/L
Area ratio: 20.24789
Sample type: Calibration



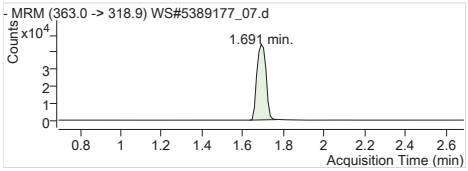


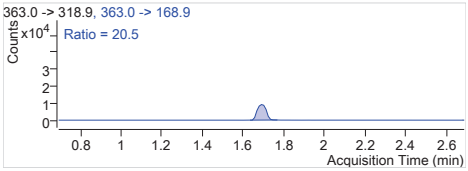
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.434)
Calc. conc. 42.45 µg/L
Area ratio: 17.66025
Sample type: Calibration



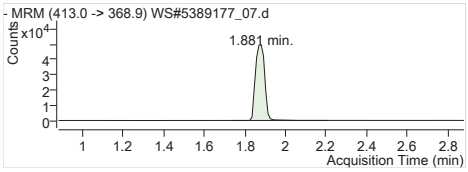


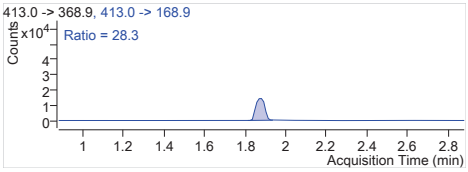
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 42.48 µg/L
Area ratio: 19.12395
Sample type: Calibration



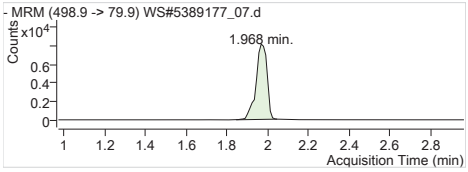


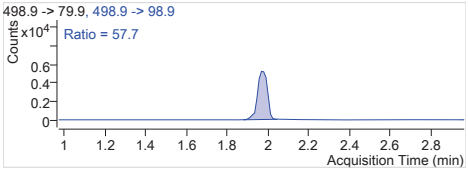
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 41.34 µg/L
Area ratio: 17.13280
Sample type: Calibration



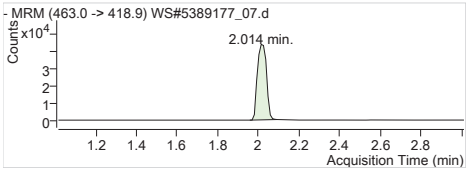


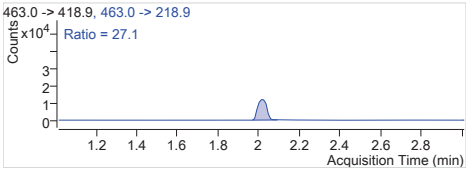
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 40.47 µg/L
Area ratio: 17.22659
Sample type: Calibration



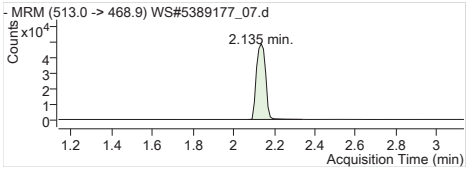


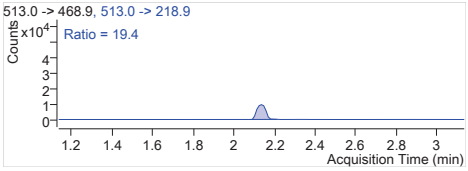
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 42.67 µg/L
Area ratio: 16.24655
Sample type: Calibration



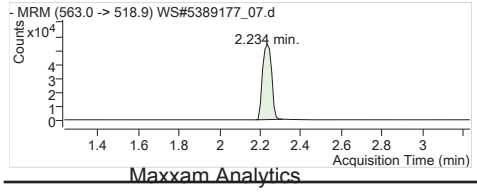


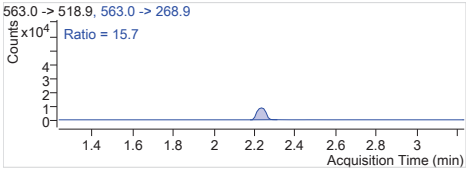
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 40.99 µg/L
Area ratio: 15.54048
Sample type: Calibration



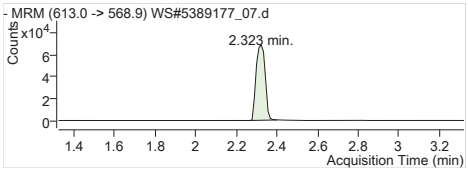


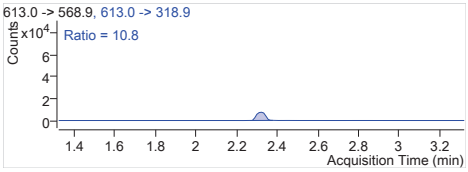
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 41.78 µg/L
Area ratio: 20.16494
Sample type: Calibration



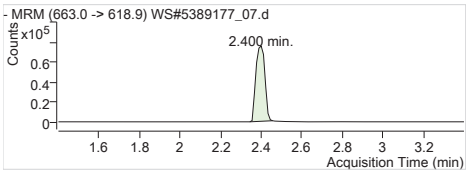


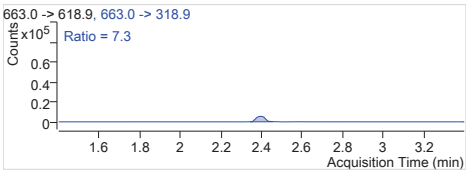
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 42.14 µg/L
Area ratio: 18.72305
Sample type: Calibration



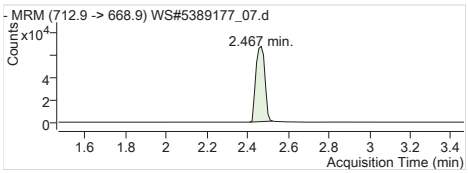


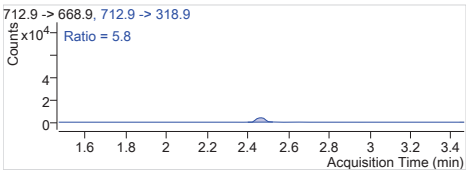
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.323 (2.323)
Calc. conc.	42.11 µg/L
Area ratio:	18.44362
Sample type:	Calibration



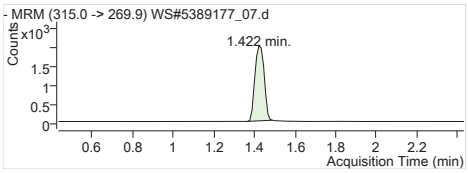


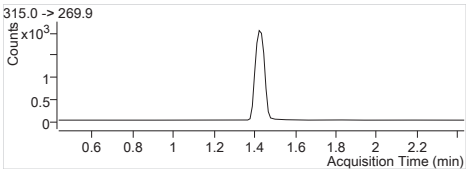
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.400 (2.400)
Calc. conc.	41.96 µg/L
Area ratio:	16.98581
Sample type:	Calibration



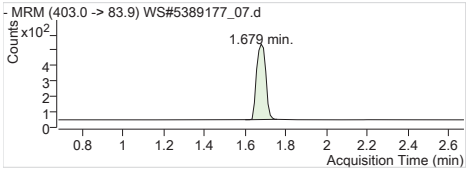


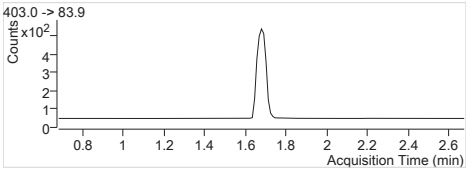
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	42.46 µg/L
Area ratio:	15.04865
Sample type:	Calibration



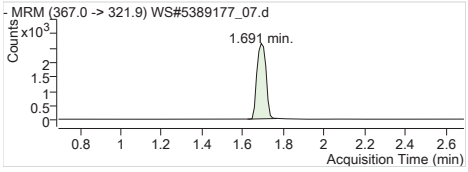


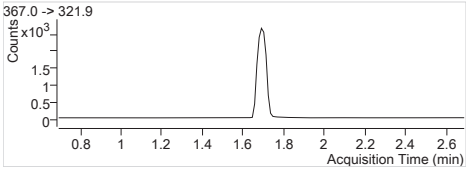
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.422 (1.434)
Calc. conc.	103.42 µg/L
Area ratio:	0.28996
Sample type:	Calibration



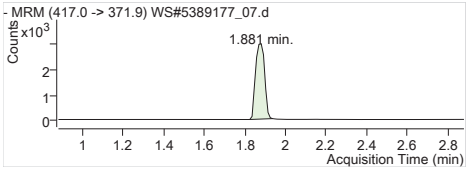


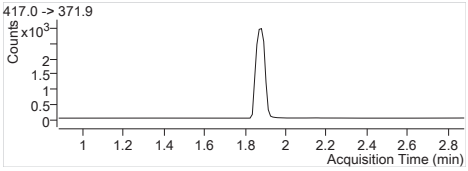
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	98.39 µg/L
Area ratio:	0.07107
Sample type:	Calibration



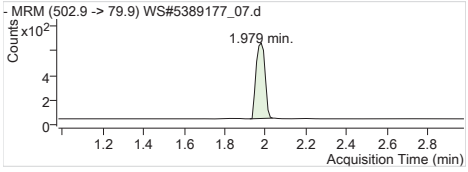


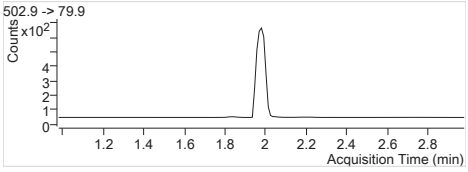
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	100.30 µg/L
Area ratio:	0.37404
Sample type:	Calibration



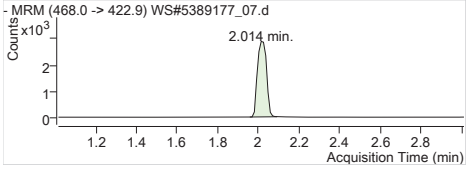


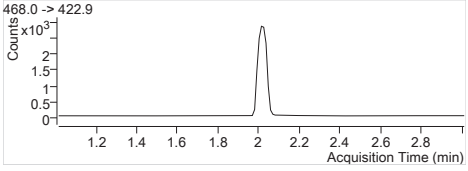
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	106.06 µg/L
Area ratio:	0.42316
Sample type:	Calibration



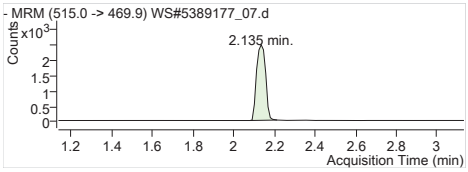


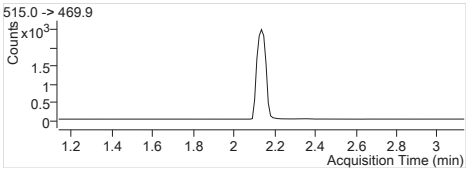
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	98.21 µg/L
Area ratio:	0.08698
Sample type:	Calibration



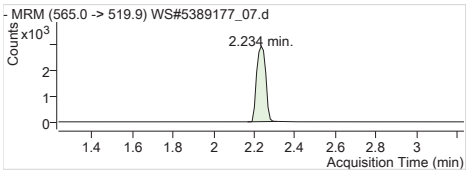


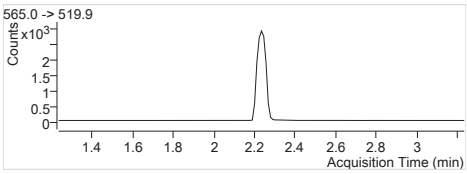
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	101.30 µg/L
Area ratio:	0.40748
Sample type:	Calibration



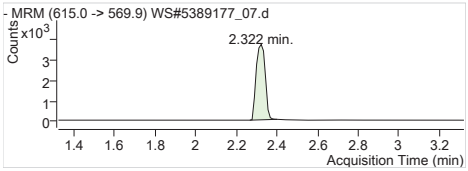


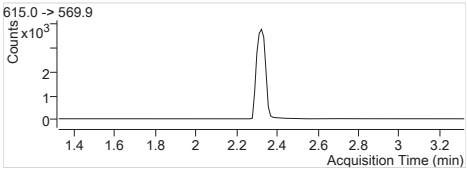
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 104.41 µg/L
Area ratio: 0.26298
Sample type: Calibration



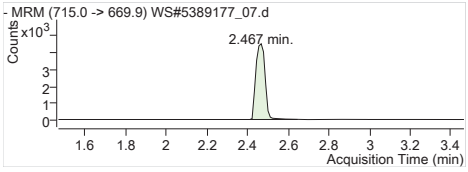


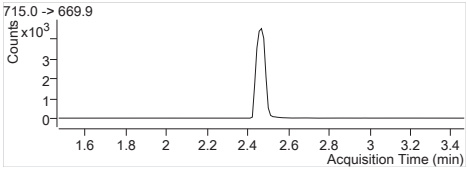
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 103.76 µg/L
Area ratio: 0.31171
Sample type: Calibration



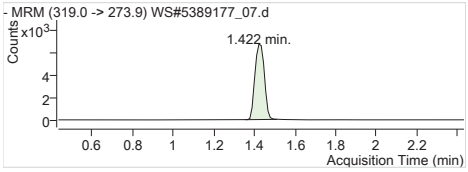


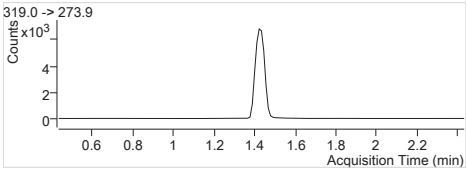
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 101.41 µg/L
Area ratio: 0.40190
Sample type: Calibration



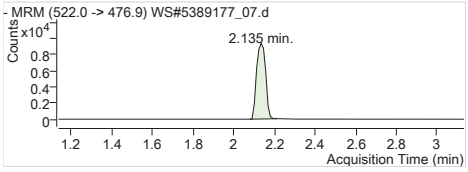


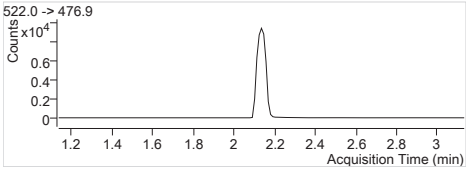
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 104.07 µg/L
Area ratio: 0.49362
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.434)
Calc. conc. 101.28 µg/L
Area ratio: 0
Sample type: Calibration





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 100.60 µg/L
Area ratio: 0
Sample type: Calibration

Quantitation Results

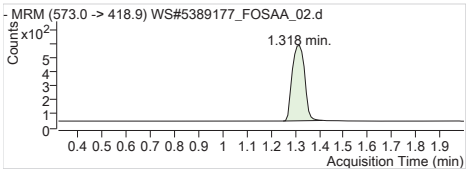
Agilent Technologies

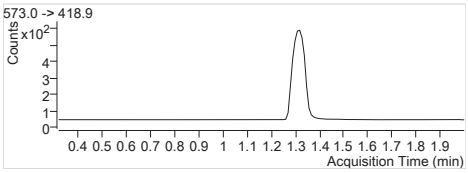
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A2
Acq. Date	2018/02/08 6:03:55 PM	**Injection Volume**	Per Method
Sample Annotation	-		

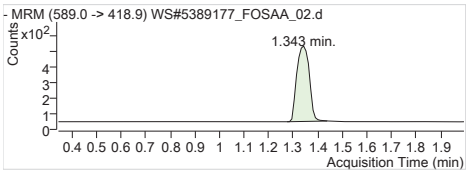
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1945	1.32	1 µg/L		
D5-EtFOSAA IS	1717	1.34	1 µg/L		
13C9-PFDA IS	24326	0.91	1 µg/L		

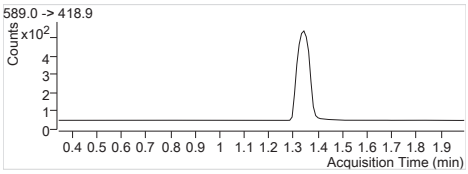
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	646	1.31	0.83	0.88 µg/L	106.40
EtFOSAA 1	675	1.34	0.83	0.90 µg/L	108.56
D3-MeFOSAA	1957	1.32	100.00	96.57 µg/L	96.57
D5-EtFOSAA	1746	1.34	100.00	94.58 µg/L	94.58
13C9-PFDA	23559	0.91	100.00	108.80 µg/L	108.80



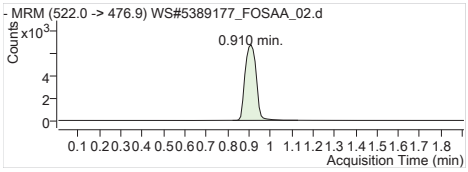


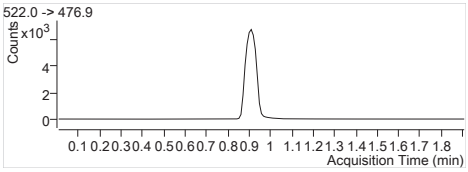
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



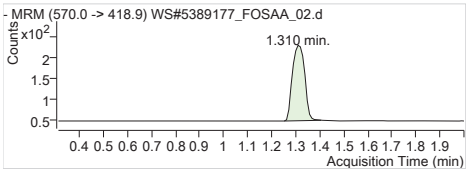


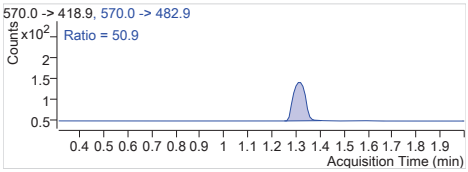
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



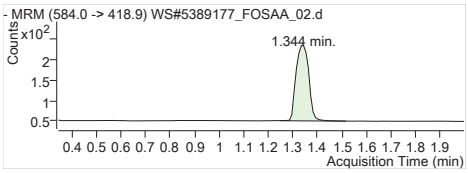


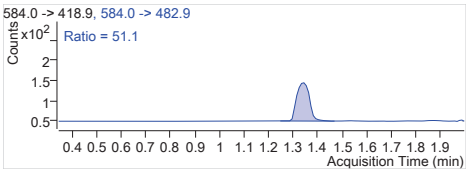
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: Calibration



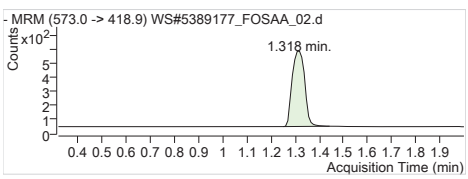


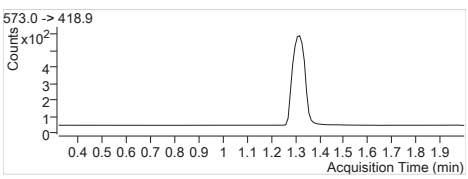
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.88 µg/L
Area ratio: 0.33213
Sample type: Calibration



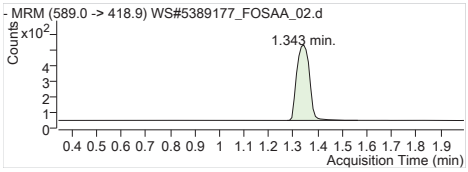


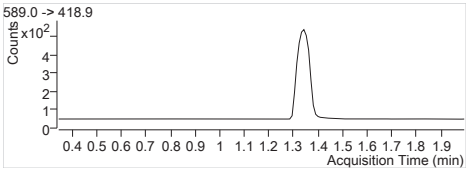
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.90 µg/L
Area ratio: 0.39313
Sample type: Calibration



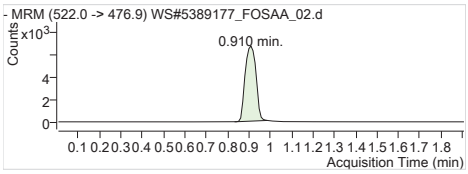


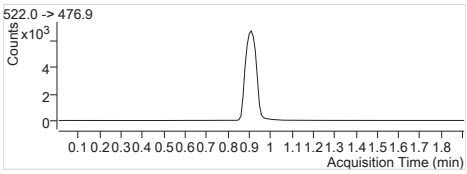
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 96.57 µg/L
Area ratio: 0.08045
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	94.58 µg/L
Area ratio:	0.07178
Sample type:	Calibration





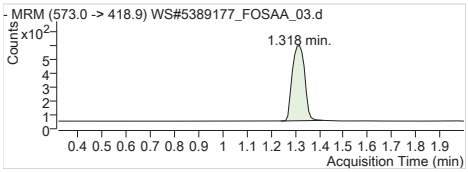
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	108.80 µg/L
Area ratio:	0
Sample type:	Calibration

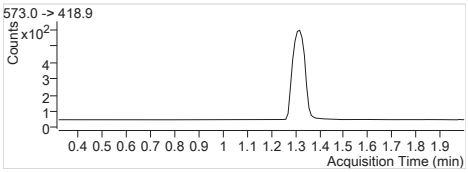
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A3
Acq. Date	2018/02/08 6:06:20 PM	**Injection Volume**	Per Method
Sample Annotation	-		

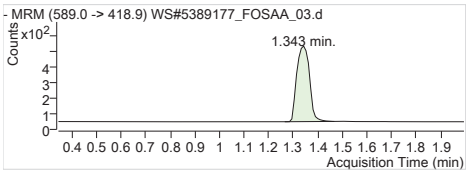
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1946	1.32	1 µg/L		
D5-EtFOSAA IS	1752	1.34	1 µg/L		
13C9-PFDA IS	21526	0.91	1 µg/L		

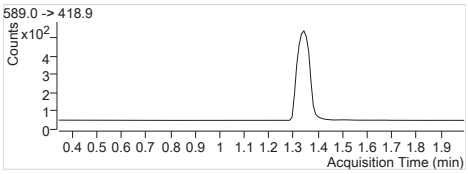
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	1054	1.31	1.70	1.46 µg/L	85.80
EtFOSAA 1	1039	1.34	1.70	1.38 µg/L	80.90
D3-MeFOSAA	1964	1.32	100.00	109.52 µg/L	109.52
D5-EtFOSAA	1752	1.34	100.00	107.25 µg/L	107.25
13C9-PFDA	20838	0.91	100.00	96.23 µg/L	96.23



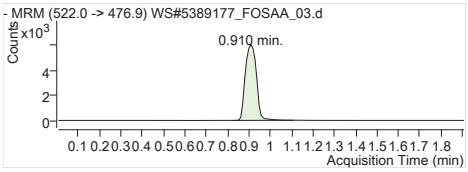


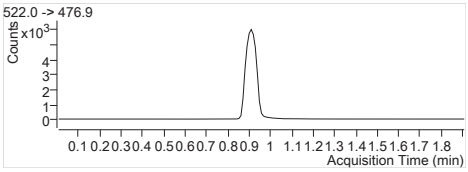
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



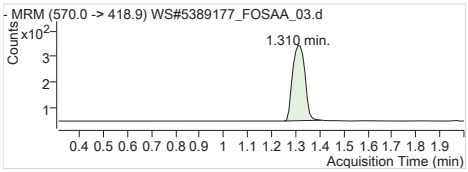


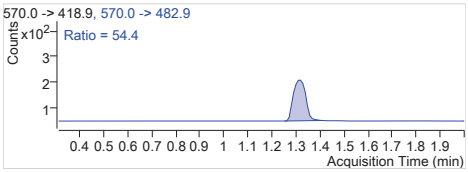
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



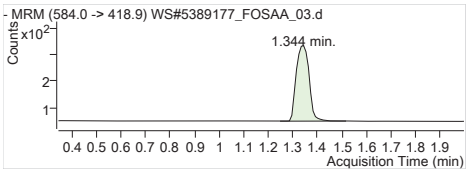


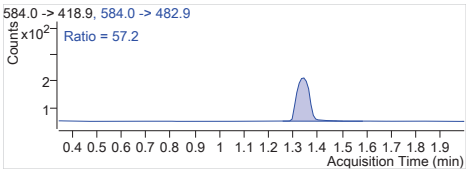
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: Calibration



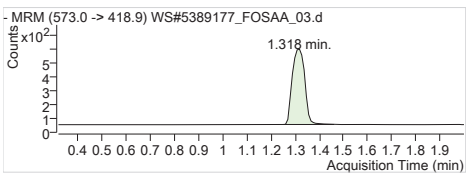


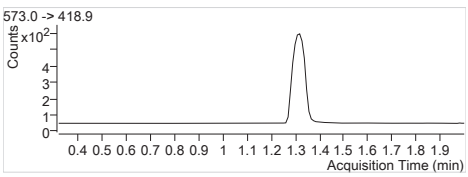
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 1.46 µg/L
Area ratio: 0.54162
Sample type: Calibration



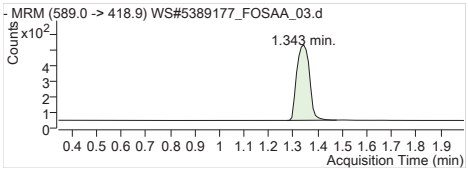


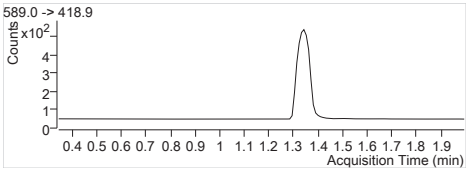
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 1.38 µg/L
Area ratio: 0.59304
Sample type: Calibration



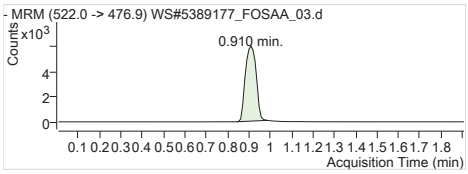


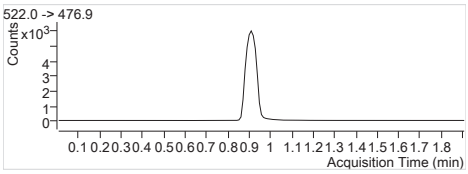
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 109.52 µg/L
Area ratio: 0.09124
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	107.25 µg/L
Area ratio:	0.08139
Sample type:	Calibration





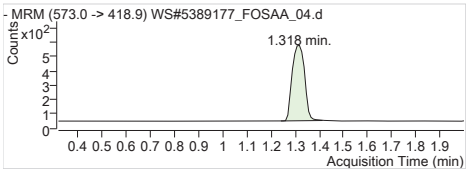
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	96.23 µg/L
Area ratio:	0
Sample type:	Calibration

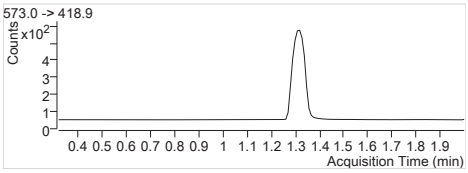
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A4
Acq. Date	2018/02/08 6:08:45 PM	**Injection Volume**	Per Method
Sample Annotation	-		

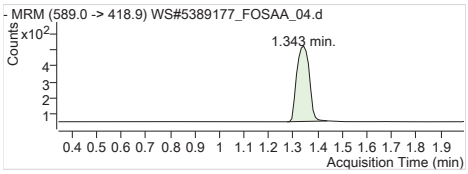
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1882	1.32	1 µg/L		
D5-EtFOSAA IS	1690	1.34	1 µg/L		
13C9-PFDA IS	23563	0.91	1 µg/L		

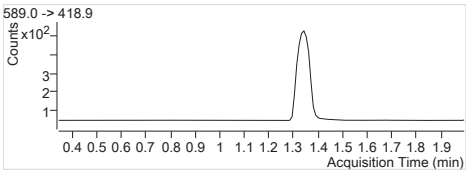
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	3499	1.31	5.00	5.08 µg/L	101.57
EtFOSAA 1	3674	1.34	5.00	5.13 µg/L	102.52
D3-MeFOSAA	1900	1.32	100.00	96.79 µg/L	96.79
D5-EtFOSAA	1731	1.34	100.00	96.80 µg/L	96.80
13C9-PFDA	22696	0.91	100.00	104.82 µg/L	104.82



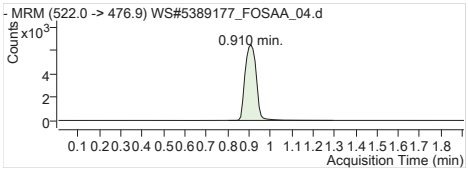


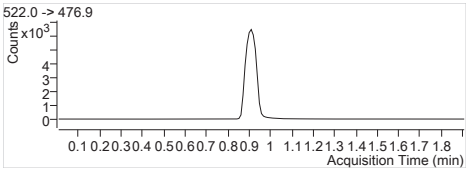
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



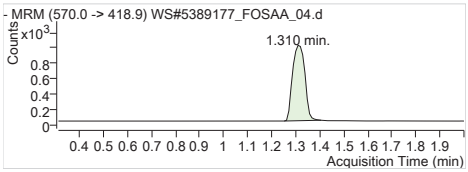


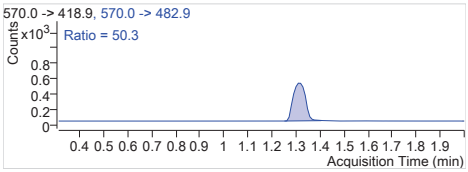
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



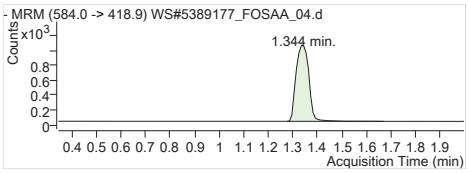


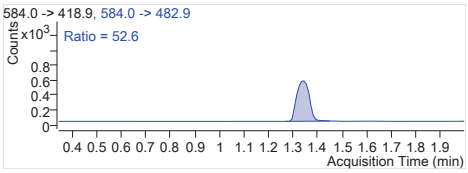
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: Calibration



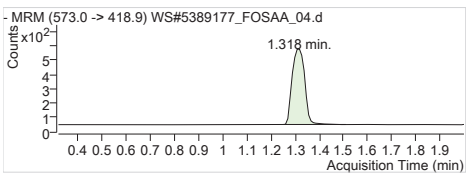


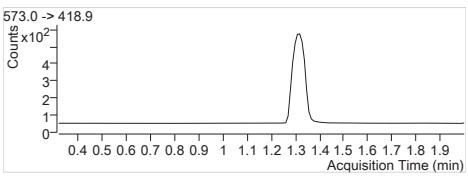
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 5.08 µg/L
Area ratio: 1.85919
Sample type: Calibration



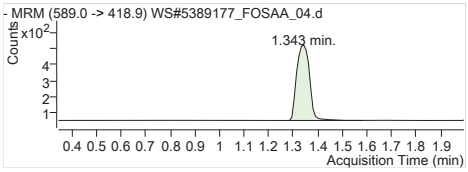


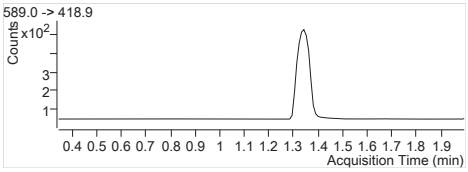
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 5.13 µg/L
Area ratio: 2.17396
Sample type: Calibration



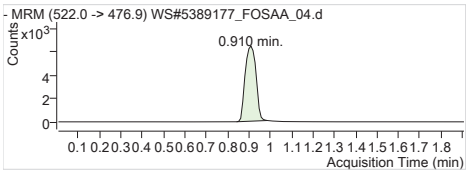


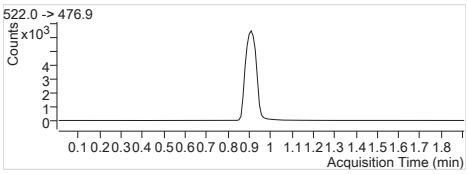
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 96.79 µg/L
Area ratio: 0.08063
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	96.80 µg/L
Area ratio:	0.07346
Sample type:	Calibration





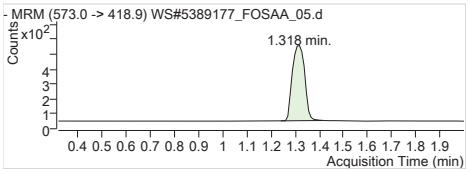
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	104.82 µg/L
Area ratio:	0
Sample type:	Calibration

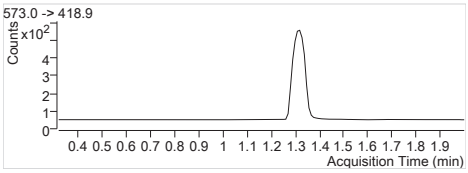
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_EToxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A5
Acq. Date	2018/02/08 6:11:11 PM	**Injection Volume**	Per Method
Sample Annotation	-		

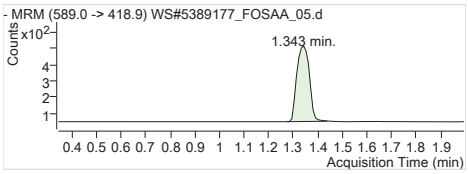
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1811	1.32	1 µg/L		
D5-EtFOSAA IS	1646	1.34	1 µg/L		
13C9-PFDA IS	22636	0.91	1 µg/L		

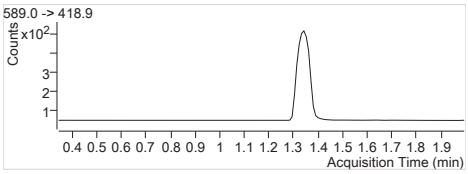
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8486	1.31	12.50	12.84 µg/L	102.75
EtFOSAA 1	9022	1.34	12.50	12.97 µg/L	103.78
D3-MeFOSAA	1815	1.32	100.00	96.25 µg/L	96.25
D5-EtFOSAA	1657	1.34	100.00	96.46 µg/L	96.46
13C9-PFDA	21791	0.91	100.00	100.64 µg/L	100.64



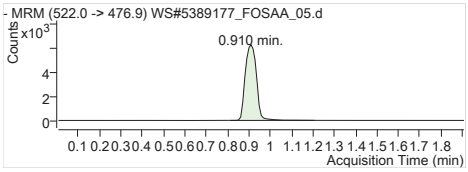


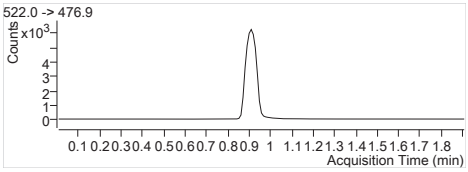
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



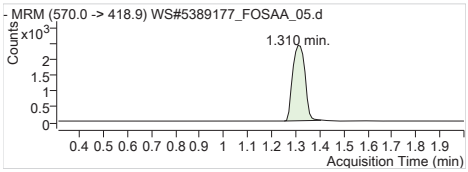


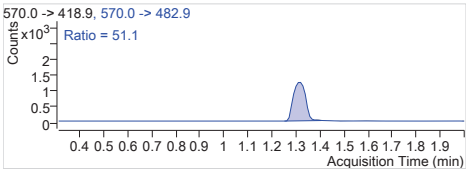
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



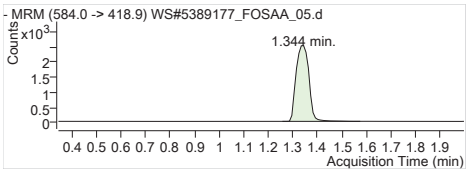


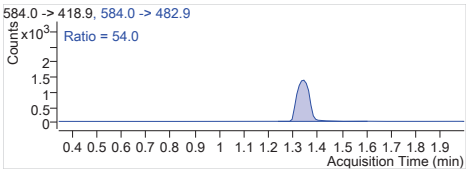
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: Calibration



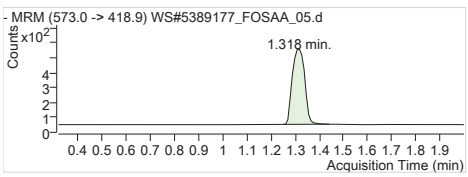


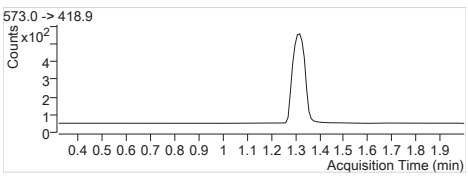
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 12.84 µg/L
Area ratio: 4.68581
Sample type: Calibration



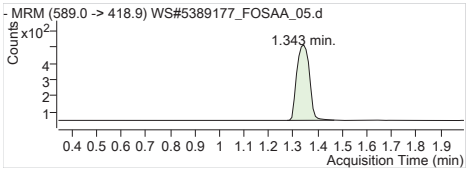


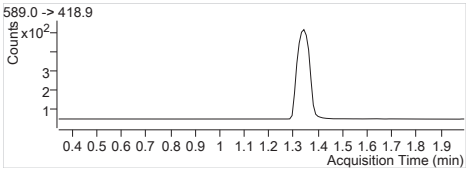
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 12.97 µg/L
Area ratio: 5.48117
Sample type: Calibration



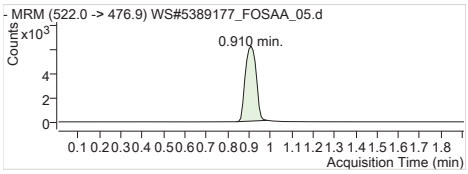


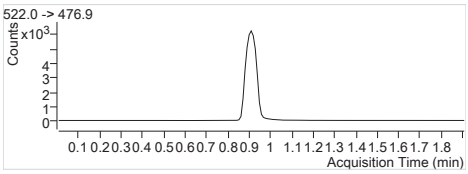
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 96.25 µg/L
Area ratio: 0.08018
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	96.46 µg/L
Area ratio:	0.07320
Sample type:	Calibration





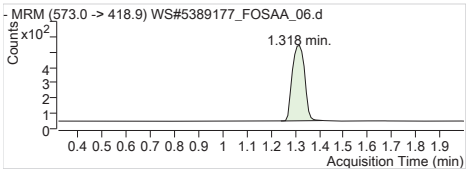
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	100.64 µg/L
Area ratio:	0
Sample type:	Calibration

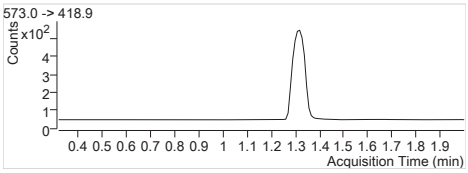
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A6
Acq. Date	2018/02/08 6:13:35 PM	**Injection Volume**	Per Method
Sample Annotation	-		

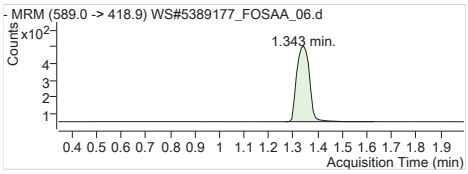
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1762	1.32	1 µg/L		
D5-EtFOSAA IS	1647	1.34	1 µg/L		
13C9-PFDA IS	21784	0.91	1 µg/L		

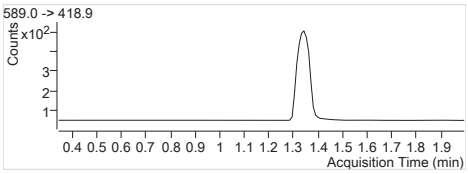
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	16326	1.31	25.00	25.43 µg/L	101.70
EtFOSAA 1	17565	1.34	25.00	25.27 µg/L	101.08
D3-MeFOSAA	1772	1.32	100.00	97.64 µg/L	97.64
D5-EtFOSAA	1642	1.34	100.00	99.32 µg/L	99.32
13C9-PFDA	20945	0.91	100.00	96.73 µg/L	96.73



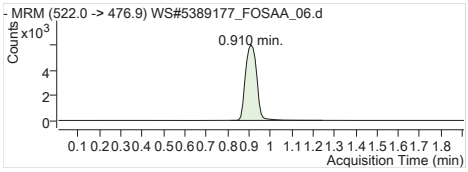


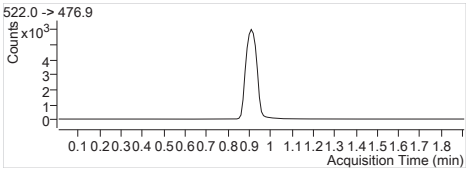
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



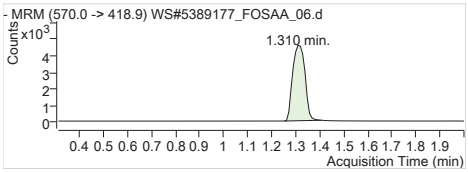


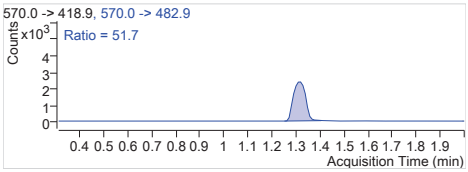
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



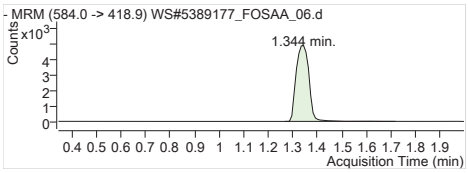


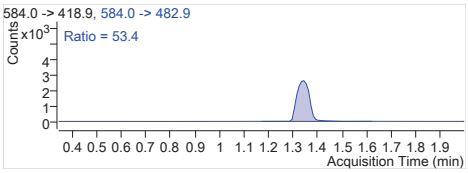
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: Calibration



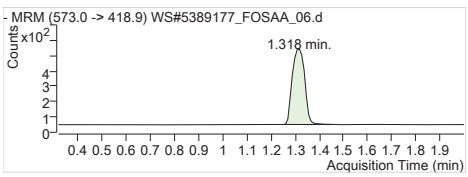


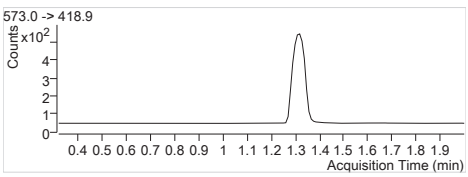
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 25.43 µg/L
Area ratio: 9.26561
Sample type: Calibration



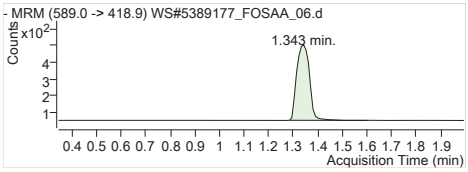


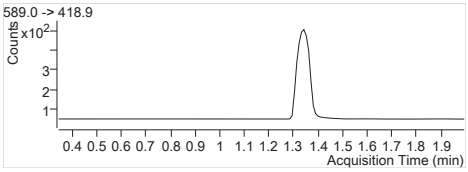
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 25.27 µg/L
Area ratio: 10.66485
Sample type: Calibration



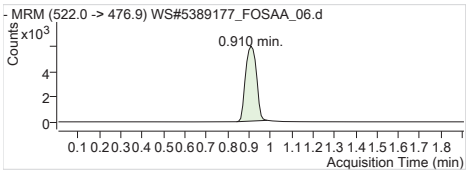


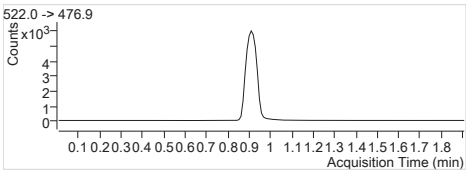
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 97.64 µg/L
Area ratio: 0.08134
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	99.32 µg/L
Area ratio:	0.07538
Sample type:	Calibration





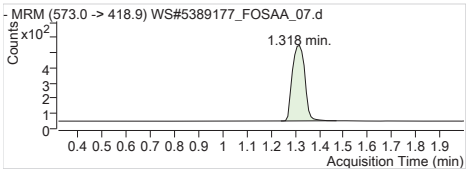
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	96.73 µg/L
Area ratio:	0
Sample type:	Calibration

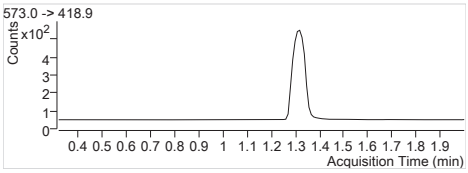
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A7
Acq. Date	2018/02/08 6:16:01 PM	**Injection Volume**	Per Method
Sample Annotation	-		

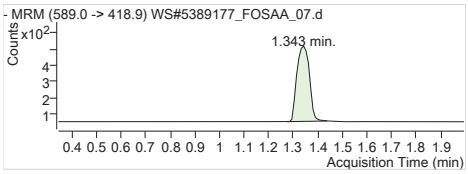
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1800	1.32	1 µg/L		
D5-EtFOSAA IS	1658	1.34	1 µg/L		
13C9-PFDA IS	20928	0.91	1 µg/L		

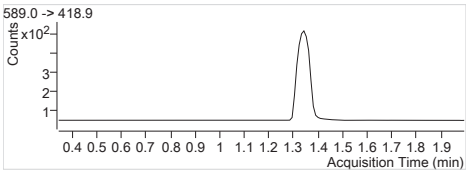
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	27826	1.31	41.70	42.44 µg/L	101.78
EtFOSAA 1	30083	1.34	41.70	43.02 µg/L	103.16
D3-MeFOSAA	1800	1.32	100.00	103.24 µg/L	103.24
D5-EtFOSAA	1677	1.34	100.00	105.59 µg/L	105.59
13C9-PFDA	20091	0.91	100.00	92.78 µg/L	92.78



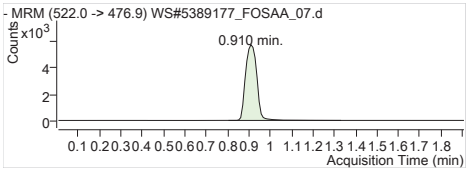


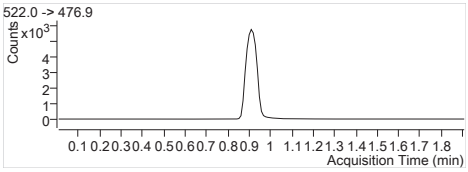
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: Calibration



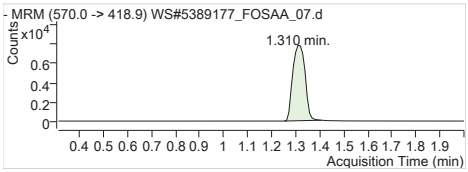


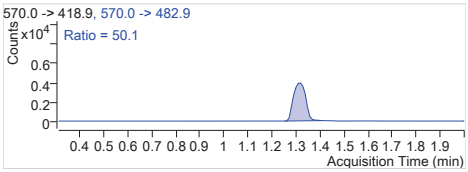
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: Calibration



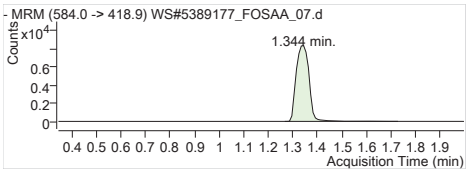


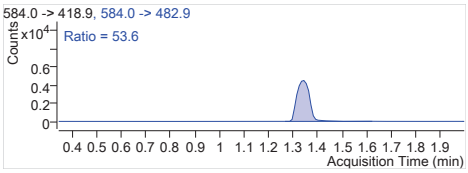
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: Calibration



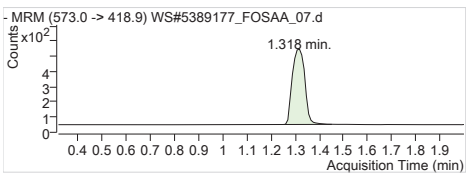


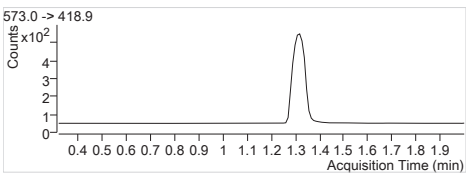
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 42.44 µg/L
Area ratio: 15.45889
Sample type: Calibration



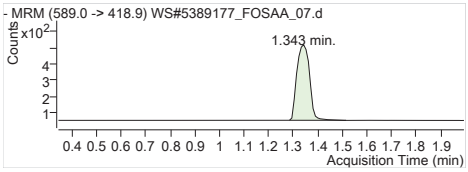


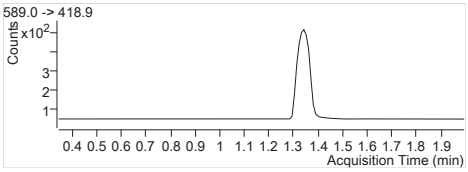
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 43.02 µg/L
Area ratio: 18.14415
Sample type: Calibration



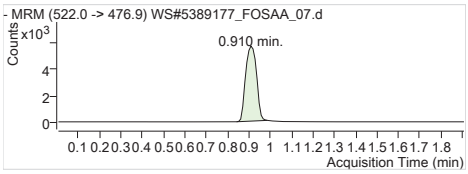


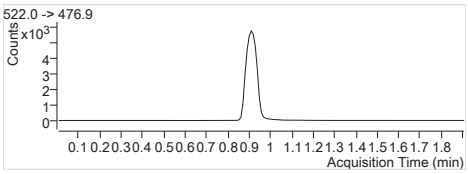
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 103.24 µg/L
Area ratio: 0.08601
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	105.59 µg/L
Area ratio:	0.08013
Sample type:	Calibration





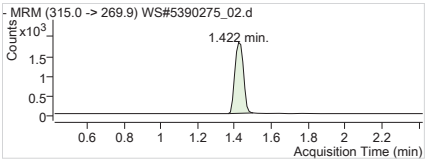
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	92.78 µg/L
Area ratio:	0
Sample type:	Calibration

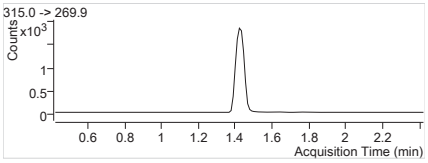
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5390275_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/09 4:39:10 PM	**Injection Volume**	Per Method
Sample Annotation	-		

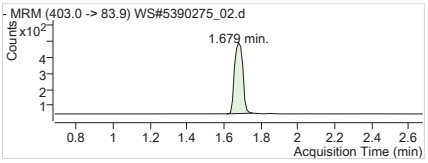
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5820	1.42	1 µg/L		
MPFHxS	1376	1.68	1 µg/L		
MPFHpA	7611	1.69	1 µg/L		
MPFOA	8121	1.87	1 µg/L		
MPFOS	1830	1.98	1 µg/L		
MPFNA	7882	2.01	1 µg/L		
MPFDA	6429	2.14	1 µg/L		
MPFUnA	8094	2.23	1 µg/L		
MPFDoA	10583	2.32	1 µg/L		
MPFTeDA	11860	2.47	1 µg/L		
13C6-PFHxA IS	23265	1.42	1 µg/L		
13C9-PFDA IS	31397	2.13	1 µg/L		

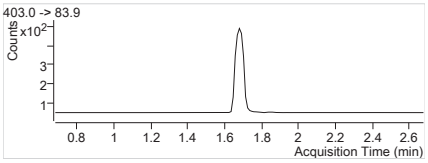
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	541	1.09	0.83	0.99 µg/L	119.29
PFHxA 1	1974	1.42	0.83	0.85 µg/L	101.85
PFHxS 1	539	1.68	0.83	0.98 µg/L	117.71
PFHpA 1	2221	1.69	0.83	0.92 µg/L	110.78
PFOA 1	2822	1.87	0.83	0.86 µg/L	103.07
PFOS 1	546	1.98	0.83	0.87 µg/L	104.64
PFNA 1	2426	2.01	0.83	0.88 µg/L	105.83
PFDA 1	2665	2.14	0.83	0.93 µg/L	112.62
PFUnA 1	2635	2.23	0.83	0.82 µg/L	98.87
PFDoA 1	3757	2.32	0.83	0.90 µg/L	108.09
PFTrDA 1	3728	2.40	0.83	0.88 µg/L	105.61
PFTeDA 1	3469	2.47	0.83	0.86 µg/L	103.22
13C2-PFHxA	5820	1.42	100.00	100.23 µg/L	100.23
18O2-PFHxS	1376	1.68	100.00	94.60 µg/L	94.60
13C4-PFHpA	7611	1.69	100.00	100.57 µg/L	100.57
13C4-PFOA	8121	1.87	100.00	101.17 µg/L	101.17
13C4-PFOS	1830	1.98	100.00	100.27 µg/L	100.27
13C5-PFNA	7883	2.01	100.00	99.37 µg/L	99.37
13C2-PFDA	6335	2.14	100.00	96.83 µg/L	96.83
13C2-PFUnA	8094	2.23	100.00	97.83 µg/L	97.83
13C2-PFDoA	10583	2.32	100.00	98.88 µg/L	98.88
13C2-PFTeDA	12252	2.47	100.00	98.67 µg/L	98.67
13C6-PFHxA	23265	1.42	100.00	99.35 µg/L	99.35
13C9-PFDA	31397	2.13	100.00	101.45 µg/L	101.45



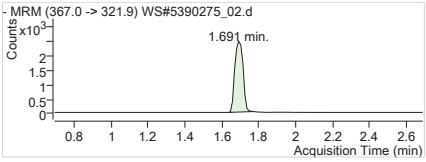


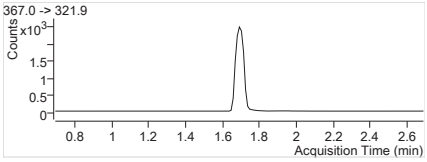
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



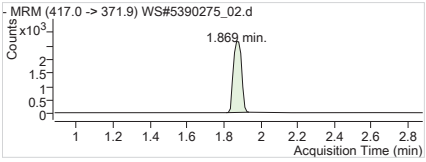


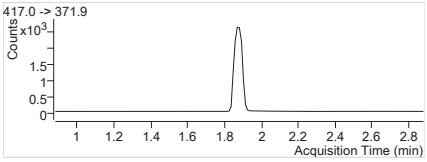
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



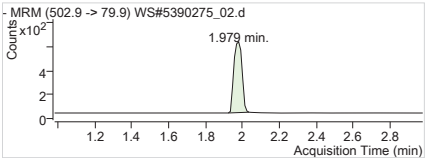


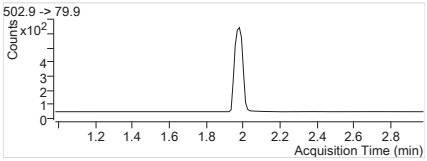
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



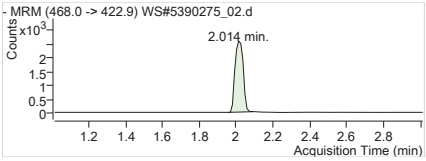


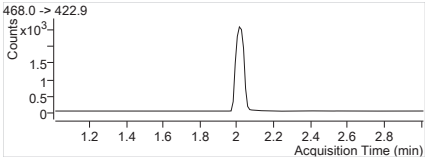
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



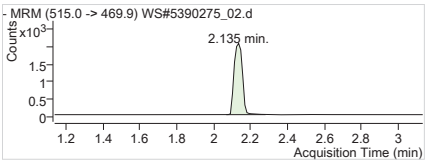


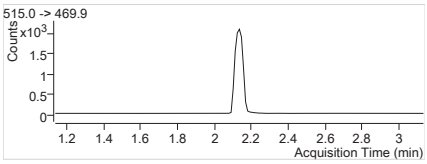
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



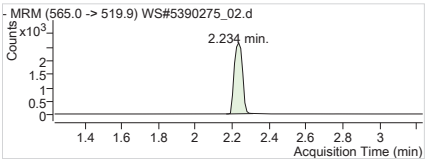


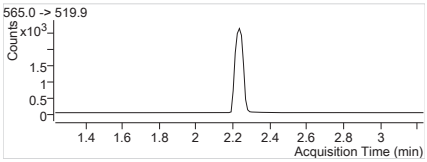
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



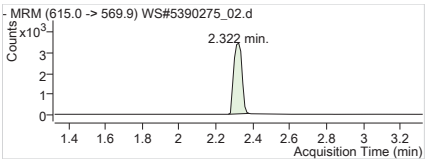


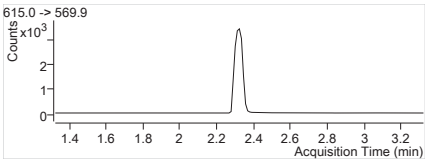
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



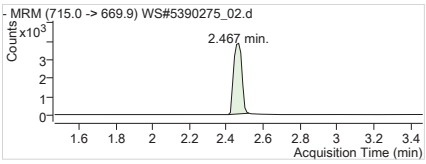


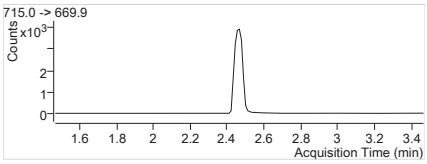
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



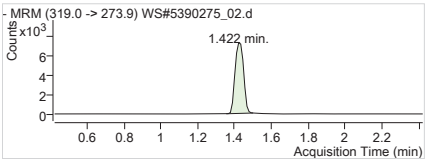


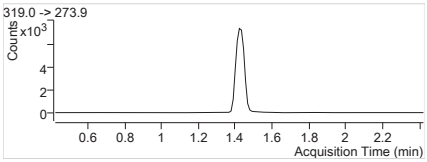
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



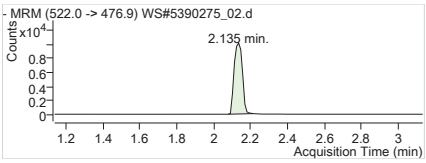


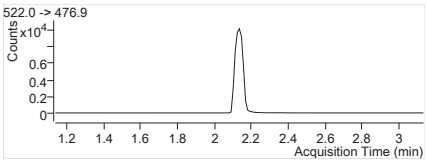
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



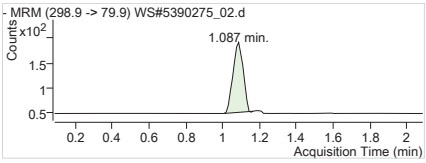


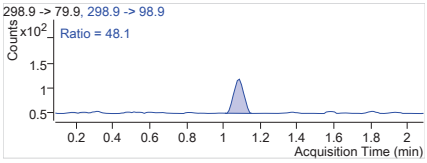
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



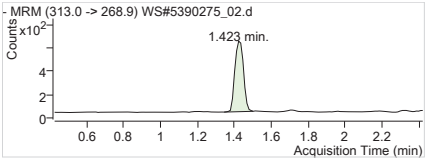


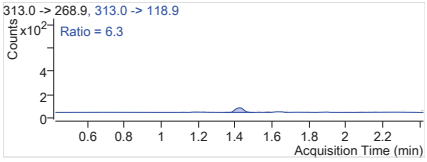
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



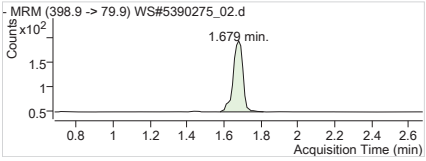


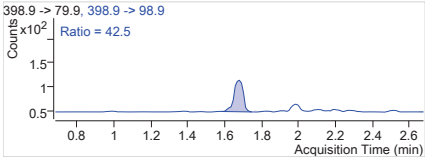
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.99 µg/L
Area ratio: 0.39317
Sample type: Calibration



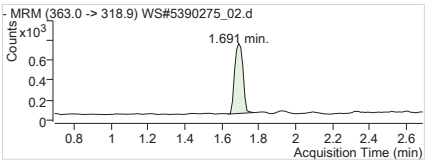


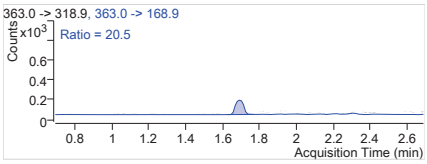
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.85 µg/L
Area ratio: 0.33918
Sample type: Calibration



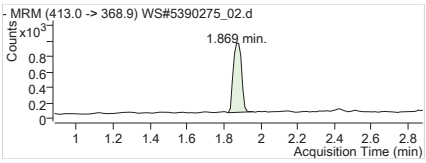


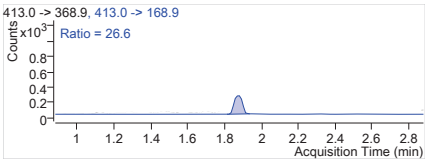
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.98 µg/L
Area ratio: 0.39172
Sample type: Calibration



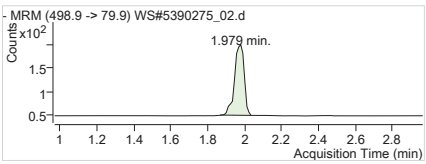


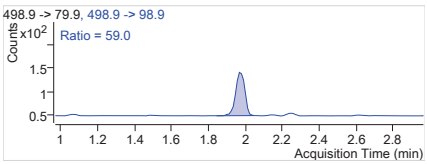
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.92 µg/L
Area ratio: 0.29181
Sample type: Calibration



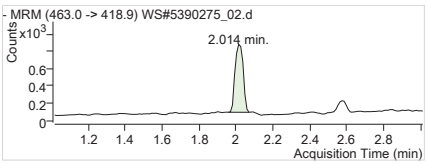


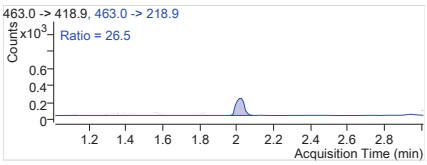
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 0.86 µg/L
Area ratio: 0.34749
Sample type: Calibration



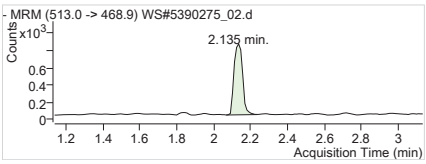


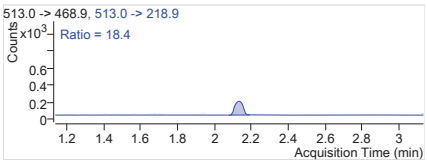
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.968)
Calc. conc. 0.87 µg/L
Area ratio: 0.29836
Sample type: Calibration



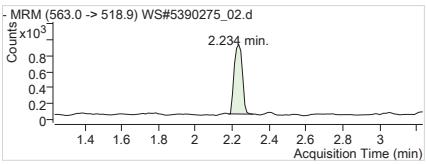


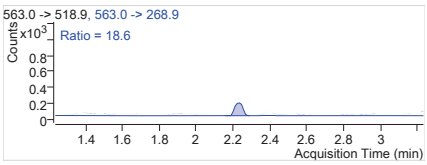
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.88 µg/L
Area ratio: 0.30779
Sample type: Calibration



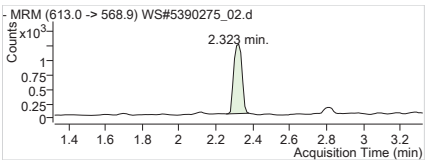


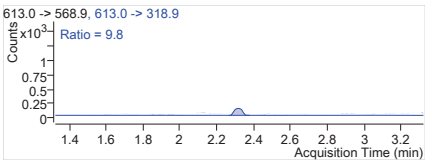
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.93 µg/L
Area ratio: 0.41453
Sample type: Calibration



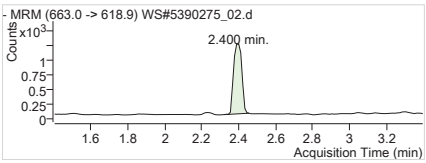


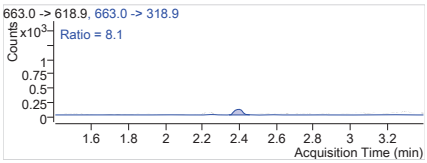
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.82 µg/L
Area ratio: 0.32555
Sample type: Calibration



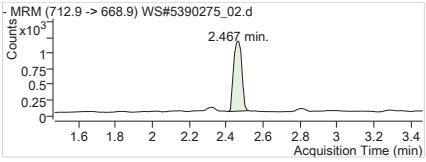


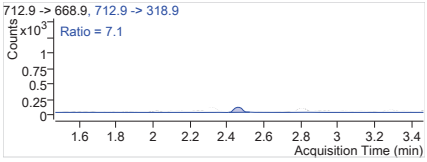
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.90 µg/L
Area ratio: 0.35500
Sample type: Calibration



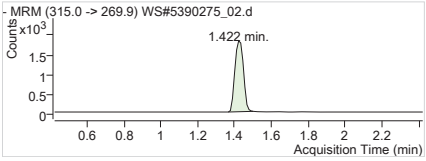


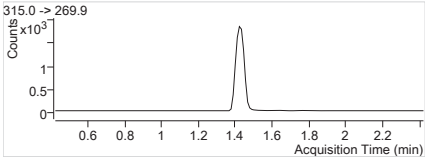
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.88 µg/L
Area ratio: 0.31433
Sample type: Calibration



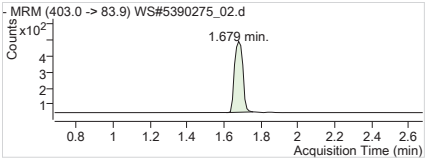


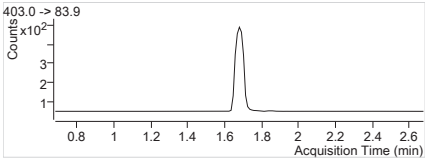
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.86 µg/L
Area ratio: 0.29250
Sample type: Calibration



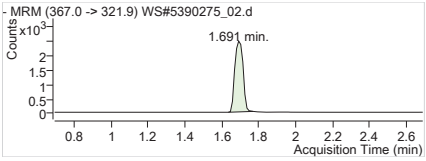


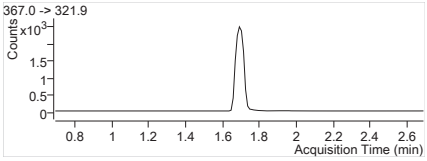
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 100.23 µg/L
Area ratio: 0.25016
Sample type: Calibration



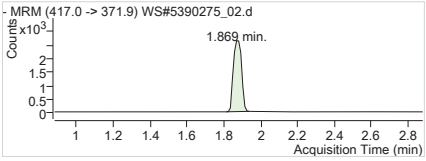


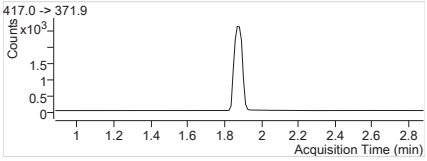
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 94.60 µg/L
Area ratio: 0.05914
Sample type: Calibration



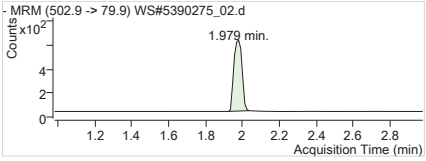


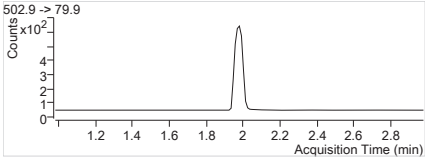
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 100.57 µg/L
Area ratio: 0.32714
Sample type: Calibration



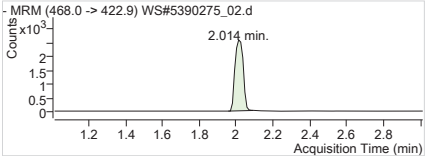


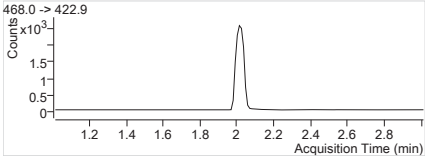
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 101.17 µg/L
Area ratio: 0.34907
Sample type: Calibration



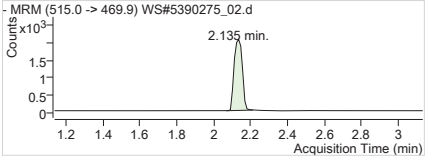


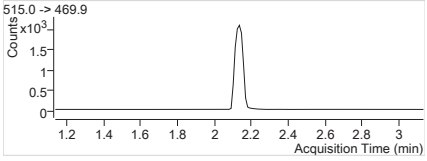
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 100.27 µg/L
Area ratio: 0.07866
Sample type: Calibration



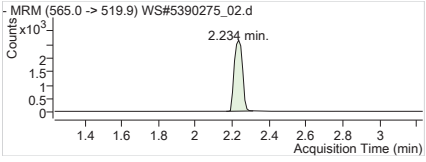


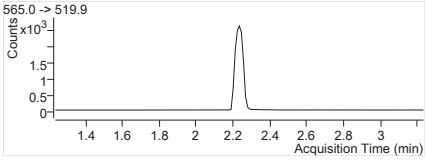
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 99.37 µg/L
Area ratio: 0.33884
Sample type: Calibration



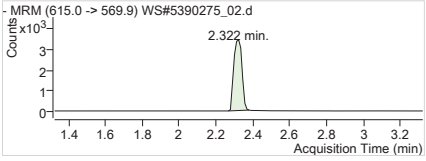


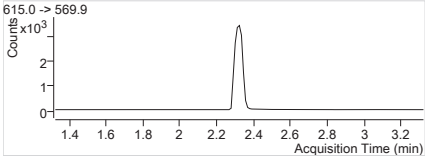
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 96.83 µg/L
Area ratio: 0.20177
Sample type: Calibration



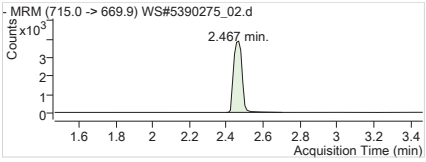


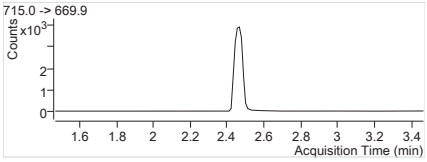
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 97.83 µg/L
Area ratio: 0.25780
Sample type: Calibration



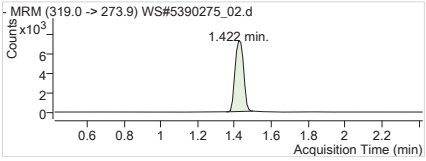


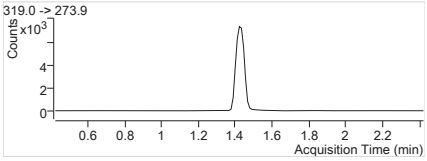
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 98.88 µg/L
Area ratio: 0.33707
Sample type: Calibration



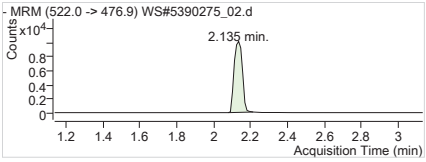


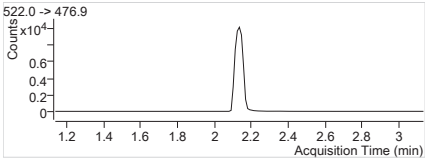
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	98.67 µg/L
Area ratio:	0.39023
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	99.35 µg/L
Area ratio:	0
Sample type:	Calibration





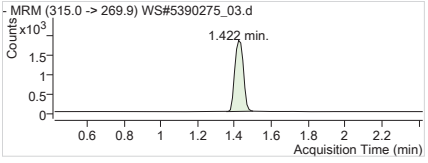
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	101.45 µg/L
Area ratio:	0
Sample type:	Calibration

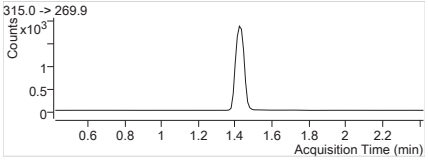
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_ETOxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5390275_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A3
Acq. Date	2018/02/09 4:44:06 PM	**Injection Volume**	Per Method
Sample Annotation	-		

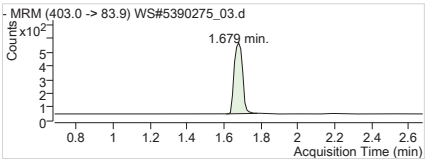
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5932	1.42	1 µg/L		
MPFHxS	1645	1.68	1 µg/L		
MPFHpA	8067	1.69	1 µg/L		
MPFOA	7836	1.87	1 µg/L		
MPFOS	1829	1.98	1 µg/L		
MPFNA	8356	2.01	1 µg/L		
MPFDA	6532	2.14	1 µg/L		
MPFUnA	8078	2.23	1 µg/L		
MPFDoA	10806	2.32	1 µg/L		
MPFTeDA	11749	2.47	1 µg/L		
13C6-PFHxA IS	23676	1.42	1 µg/L		
13C9-PFDA IS	30926	2.13	1 µg/L		

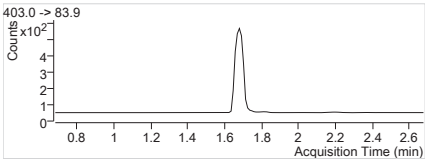
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	1012	1.08	1.70	1.48 µg/L	87.13
PFHxA 1	3942	1.42	1.70	1.65 µg/L	97.03
PFHxS 1	979	1.68	1.70	1.43 µg/L	84.15
PFHpA 1	4423	1.69	1.70	1.55 µg/L	91.08
PFOA 1	5249	1.87	1.70	1.64 µg/L	96.24
PFOS 1	1079	1.97	1.70	1.69 µg/L	99.51
PFNA 1	5019	2.01	1.70	1.66 µg/L	97.80
PFDA 1	4849	2.14	1.70	1.58 µg/L	92.93
PFUnA 1	5562	2.23	1.70	1.67 µg/L	98.43
PFDoA 1	6436	2.32	1.70	1.47 µg/L	86.62
PFTrDA 1	6964	2.40	1.70	1.54 µg/L	90.82
PFTeDA 1	6403	2.47	1.70	1.59 µg/L	93.51
13C2-PFHxA	5932	1.42	100.00	100.39 µg/L	100.39
18O2-PFHxS	1645	1.68	100.00	111.14 µg/L	111.14
13C4-PFHpA	8067	1.69	100.00	104.75 µg/L	104.75
13C4-PFOA	7836	1.87	100.00	95.93 µg/L	95.93
13C4-PFOS	1829	1.98	100.00	98.48 µg/L	98.48
13C5-PFNA	8356	2.01	100.00	103.50 µg/L	103.50
13C2-PFDA	6514	2.14	100.00	101.09 µg/L	101.09
13C2-PFUnA	8078	2.23	100.00	99.12 µg/L	99.12
13C2-PFDoA	10806	2.32	100.00	102.50 µg/L	102.50
13C2-PFTeDA	12045	2.47	100.00	98.48 µg/L	98.48
13C6-PFHxA	23676	1.42	100.00	101.10 µg/L	101.10
13C9-PFDA	30926	2.13	100.00	99.93 µg/L	99.93



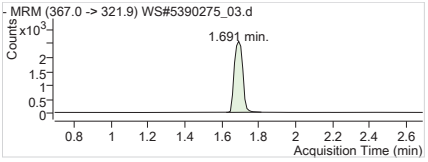


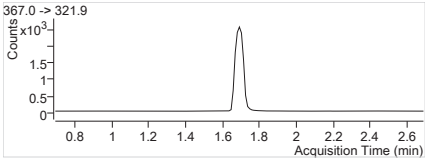
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



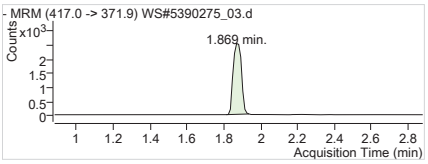


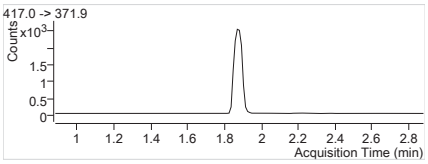
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



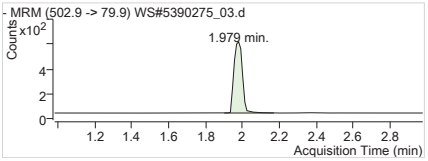


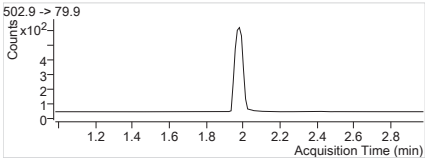
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



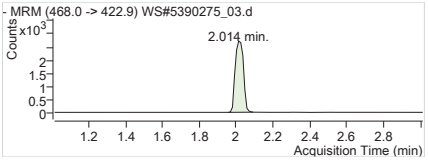


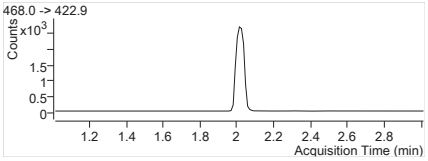
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



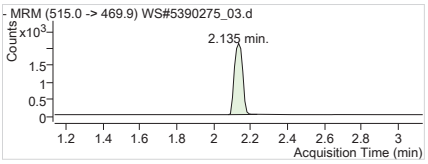


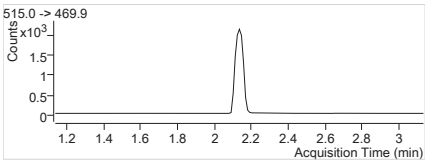
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



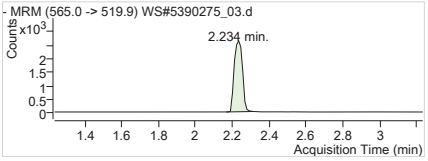


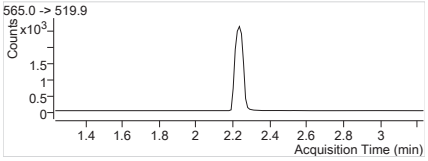
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



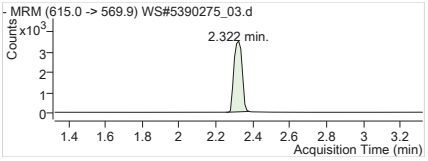


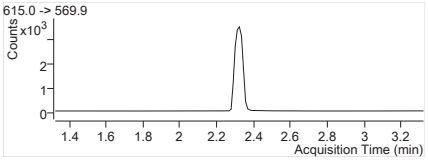
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



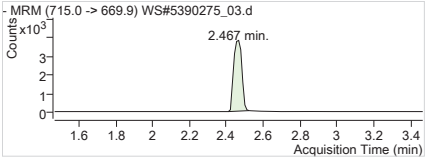


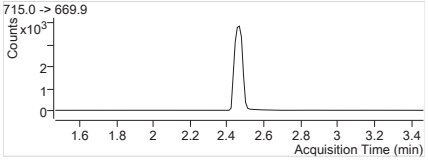
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



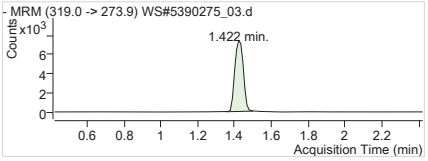


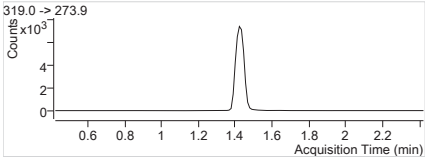
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



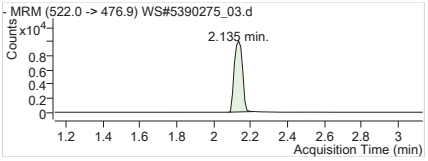


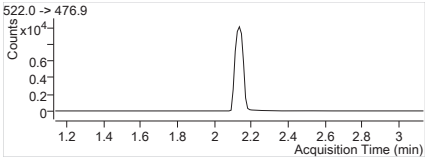
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



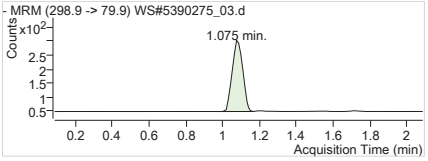


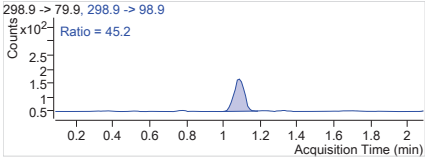
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



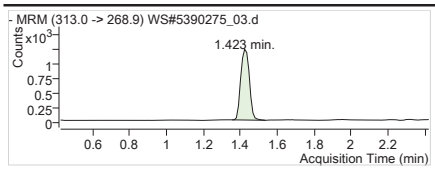


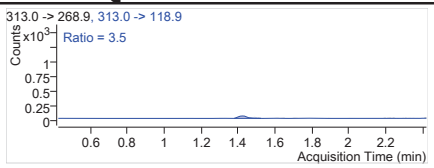
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



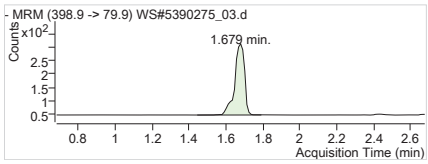


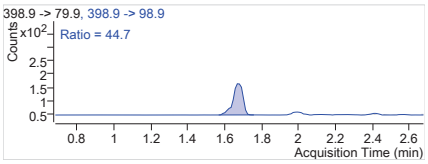
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.075 (1.087)
Calc. conc. 1.48 µg/L
Area ratio: 0.61520
Sample type: Calibration



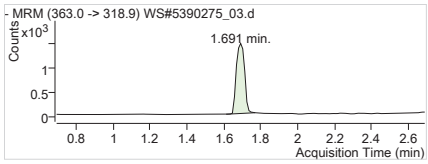


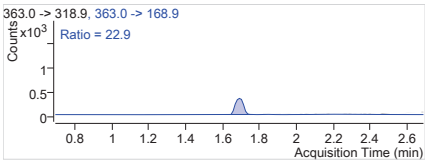
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 1.65 µg/L
Area ratio: 0.66453
Sample type: Calibration



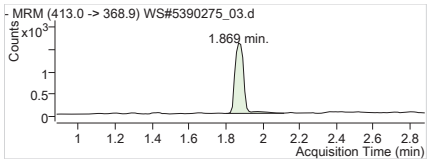


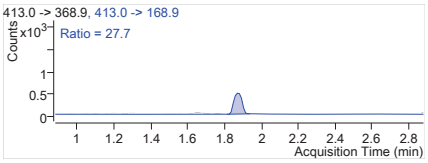
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 1.43 µg/L
Area ratio: 0.59514
Sample type: Calibration



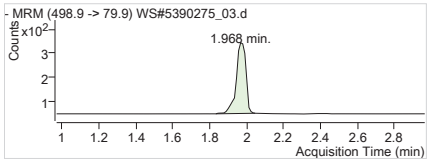


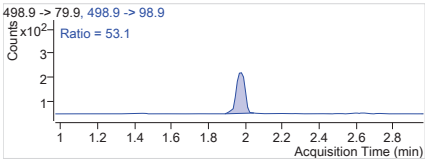
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 1.55 µg/L
Area ratio: 0.54828
Sample type: Calibration



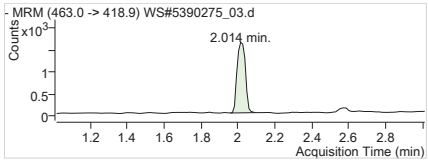


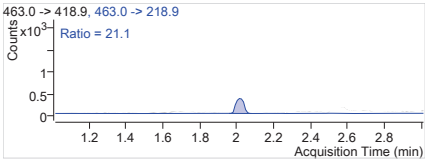
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 1.64 µg/L
Area ratio: 0.66986
Sample type: Calibration



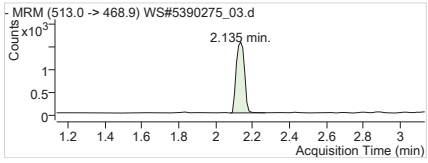


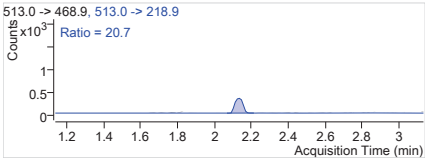
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 1.69 µg/L
Area ratio: 0.58994
Sample type: Calibration



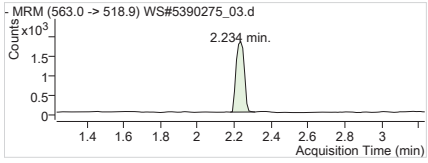


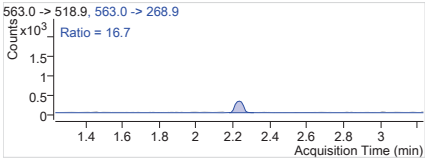
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 1.66 µg/L
Area ratio: 0.60065
Sample type: Calibration



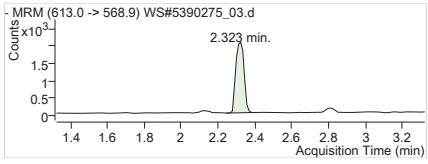


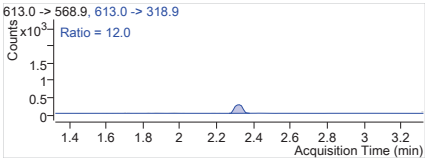
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 1.58 µg/L
Area ratio: 0.74235
Sample type: Calibration



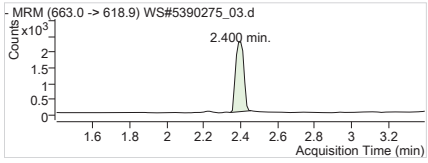


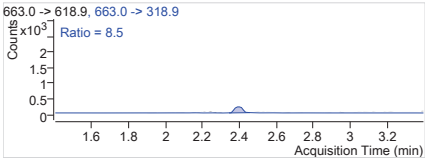
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 1.67 µg/L
Area ratio: 0.68854
Sample type: Calibration



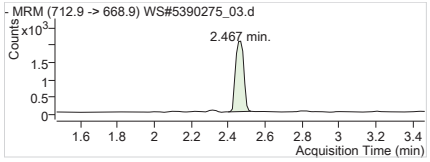


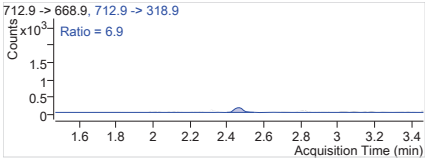
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 1.47 µg/L
Area ratio: 0.59560
Sample type: Calibration



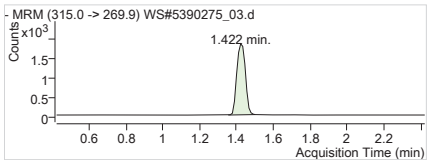


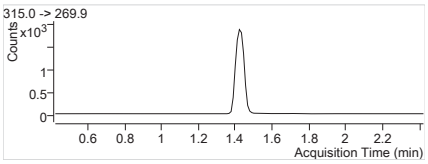
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 1.54 µg/L
Area ratio: 0.59273
Sample type: Calibration



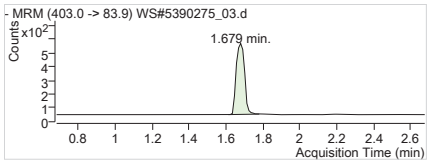


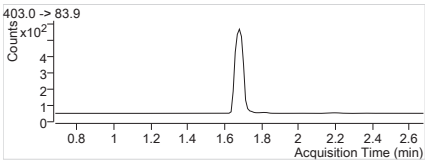
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 1.59 µg/L
Area ratio: 0.54498
Sample type: Calibration



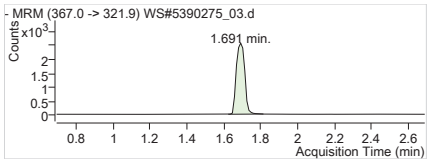


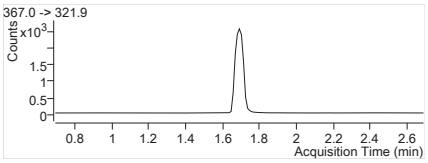
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 100.39 µg/L
Area ratio: 0.25055
Sample type: Calibration



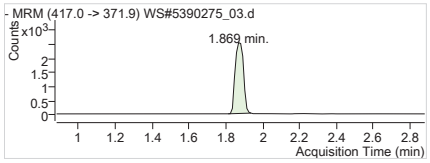


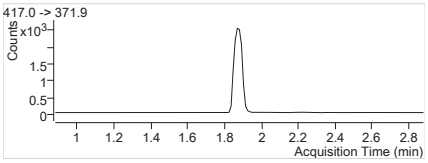
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 111.14 µg/L
Area ratio: 0.06948
Sample type: Calibration



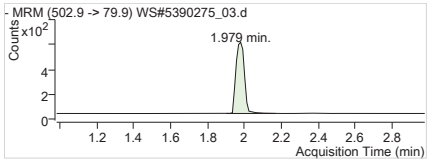


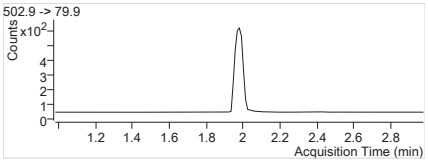
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 104.75 µg/L
Area ratio: 0.34072
Sample type: Calibration



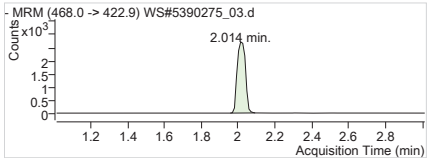


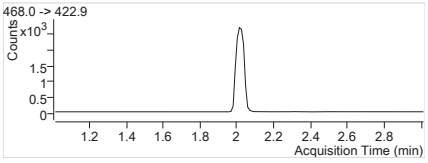
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 95.93 µg/L
Area ratio: 0.33097
Sample type: Calibration



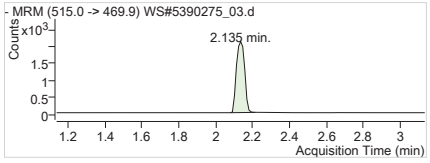


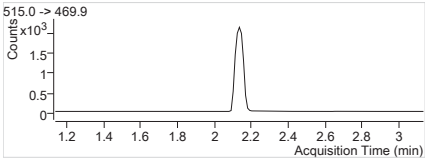
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 98.48 µg/L
Area ratio: 0.07725
Sample type: Calibration



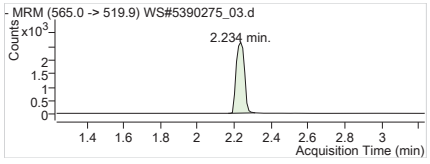


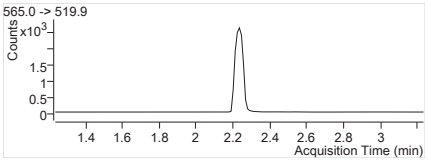
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 103.50 µg/L
Area ratio: 0.35293
Sample type: Calibration



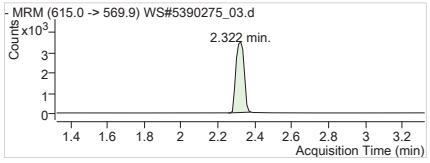


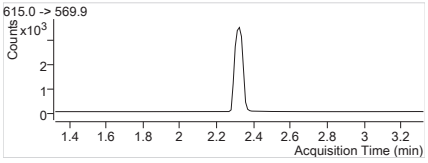
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 101.09 µg/L
Area ratio: 0.21063
Sample type: Calibration



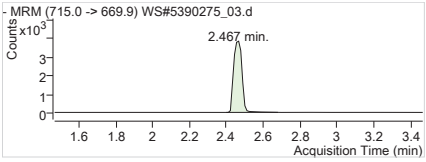


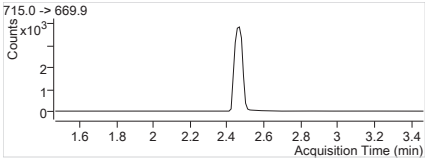
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 99.12 µg/L
Area ratio: 0.26120
Sample type: Calibration



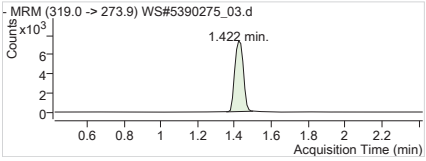


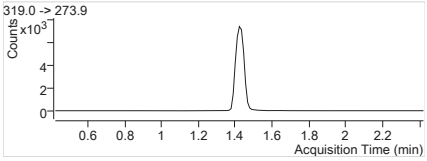
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 102.50 µg/L
Area ratio: 0.34941
Sample type: Calibration



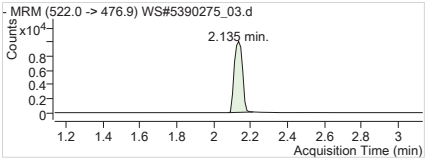


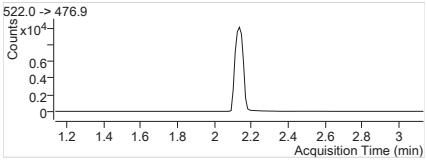
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	98.48 µg/L
Area ratio:	0.38948
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	101.10 µg/L
Area ratio:	0
Sample type:	Calibration





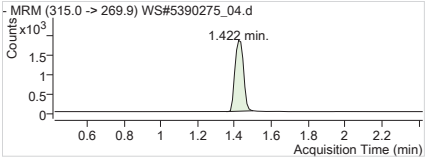
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	99.93 µg/L
Area ratio:	0
Sample type:	Calibration

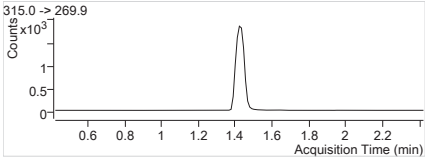
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_ETOxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5390275_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A4
Acq. Date	2018/02/09 4:49:02 PM	**Injection Volume**	Per Method
Sample Annotation	-		

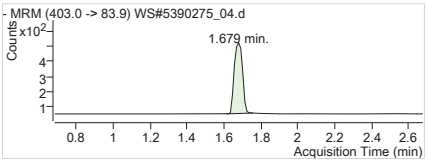
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5831	1.42	1 µg/L		
MPFHxS	1476	1.68	1 µg/L		
MPFHpA	7819	1.69	1 µg/L		
MPFOA	7987	1.87	1 µg/L		
MPFOS	1767	1.98	1 µg/L		
MPFNA	7897	2.01	1 µg/L		
MPFDA	6924	2.14	1 µg/L		
MPFUnA	8321	2.23	1 µg/L		
MPFDoA	10381	2.32	1 µg/L		
MPFTeDA	11516	2.47	1 µg/L		
13C6-PFHxA IS	23144	1.42	1 µg/L		
13C9-PFDA IS	30938	2.13	1 µg/L		

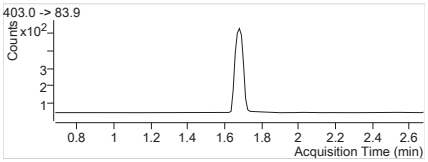
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	3027	1.09	5.00	4.66 µg/L	93.14
PFHxA 1	11350	1.42	5.00	4.82 µg/L	96.37
PFHxS 1	3224	1.68	5.00	4.97 µg/L	99.48
PFHpA 1	14826	1.69	5.00	4.85 µg/L	97.07
PFOA 1	16529	1.87	5.00	5.02 µg/L	100.50
PFOS 1	3104	1.97	5.00	4.99 µg/L	99.71
PFNA 1	13528	2.01	5.00	4.64 µg/L	92.83
PFDA 1	15458	2.14	5.00	4.51 µg/L	90.24
PFUnA 1	17037	2.23	5.00	4.87 µg/L	97.31
PFDoA 1	21697	2.32	5.00	5.05 µg/L	100.94
PFTrDA 1	24331	2.40	5.00	5.19 µg/L	103.76
PFTeDA 1	20492	2.47	5.00	5.17 µg/L	103.47
13C2-PFHxA	5831	1.42	100.00	100.95 µg/L	100.95
18O2-PFHxS	1476	1.68	100.00	102.01 µg/L	102.01
13C4-PFHpA	7819	1.69	100.00	103.86 µg/L	103.86
13C4-PFOA	7987	1.87	100.00	100.02 µg/L	100.02
13C4-PFOS	1767	1.98	100.00	97.33 µg/L	97.33
13C5-PFNA	7897	2.01	100.00	100.06 µg/L	100.06
13C2-PFDA	6856	2.14	100.00	106.35 µg/L	106.35
13C2-PFUnA	8321	2.23	100.00	102.07 µg/L	102.07
13C2-PFDoA	10381	2.32	100.00	98.43 µg/L	98.43
13C2-PFTeDA	11720	2.47	100.00	95.79 µg/L	95.79
13C6-PFHxA	23144	1.42	100.00	98.83 µg/L	98.83
13C9-PFDA	30938	2.13	100.00	99.96 µg/L	99.96



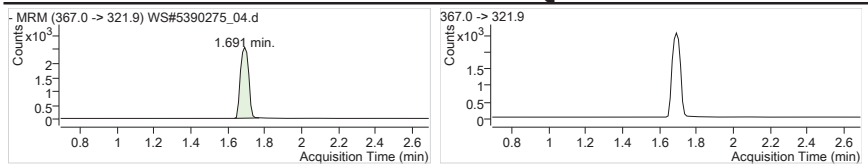


MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration

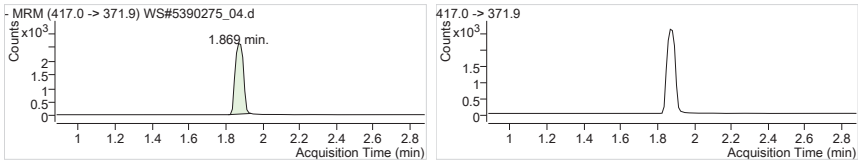




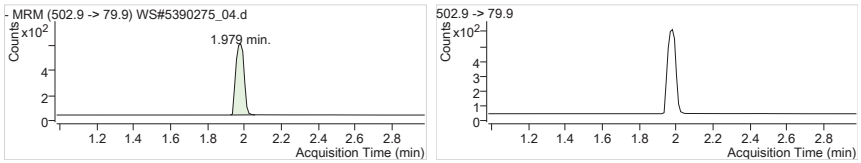
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



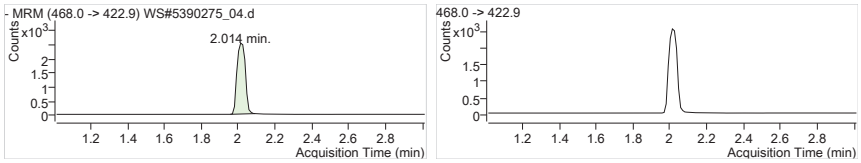
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



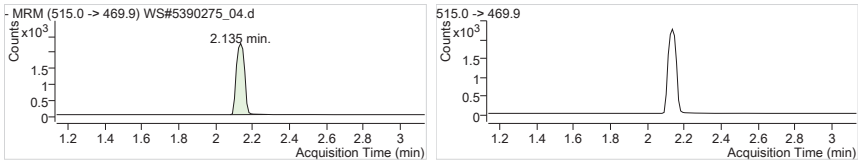
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



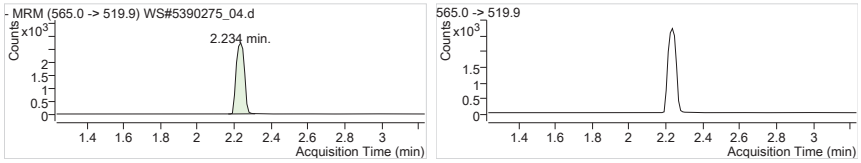
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



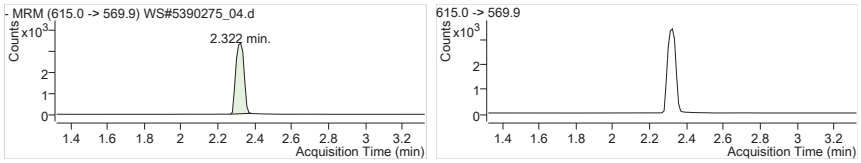
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



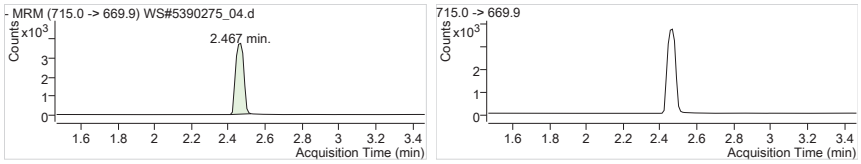
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



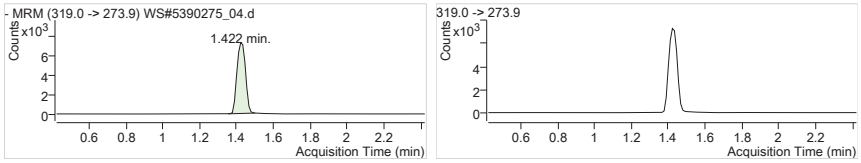
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



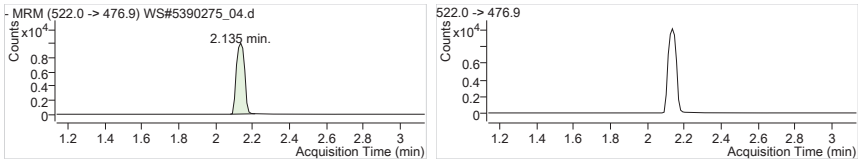
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



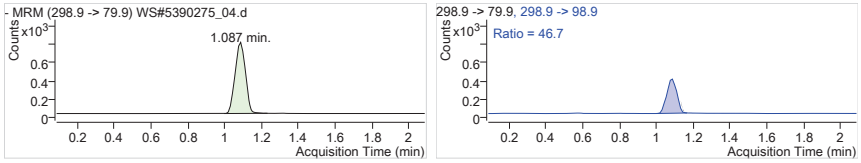
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



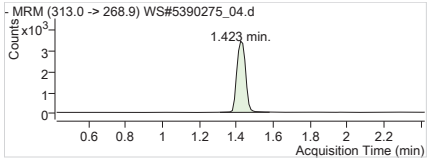
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration

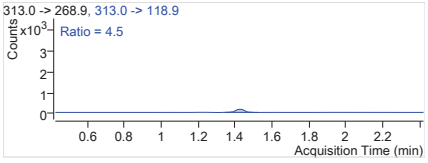


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration

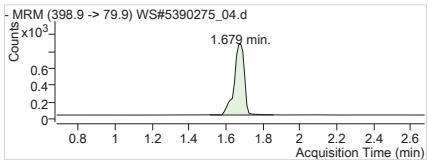


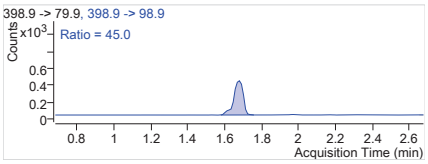
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 4.66 µg/L
Area ratio: 2.05081
Sample type: Calibration



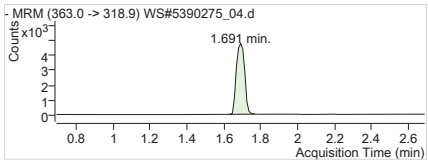


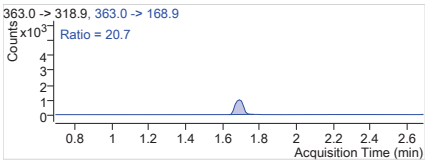
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 4.82 µg/L
Area ratio: 1.94649
Sample type: Calibration



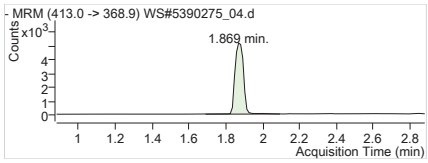


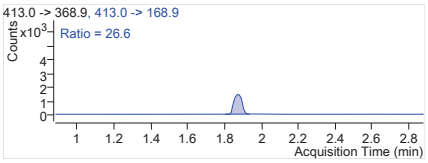
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 4.97 µg/L
Area ratio: 2.18428
Sample type: Calibration



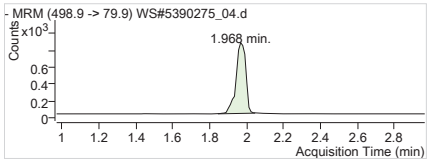


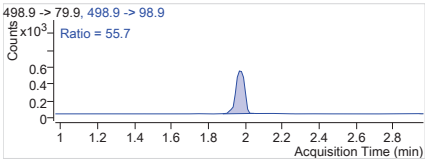
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 4.85 µg/L
Area ratio: 1.89615
Sample type: Calibration



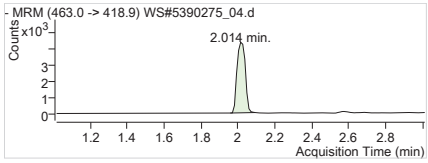


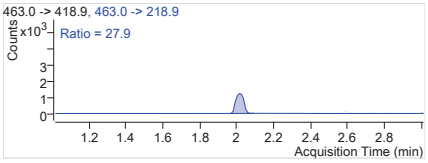
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 5.02 µg/L
Area ratio: 2.06949
Sample type: Calibration



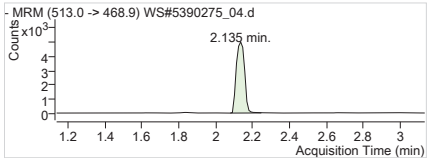


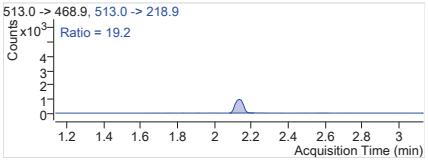
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 4.99 µg/L
Area ratio: 1.75665
Sample type: Calibration



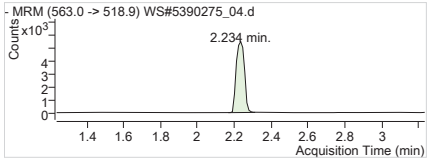


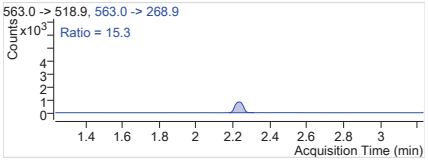
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 4.64 µg/L
Area ratio: 1.71306
Sample type: Calibration



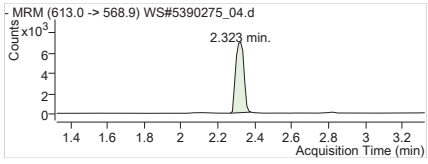


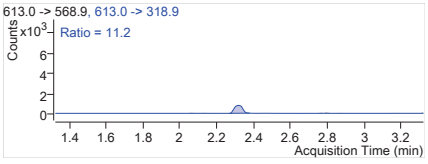
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 4.51 µg/L
Area ratio: 2.23252
Sample type: Calibration



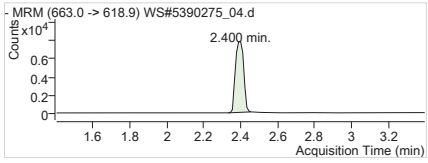


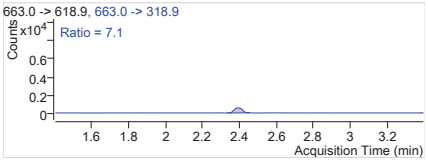
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 4.87 µg/L
Area ratio: 2.04747
Sample type: Calibration



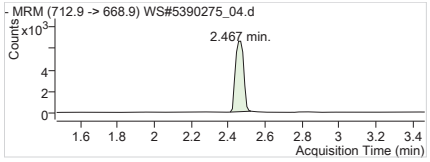


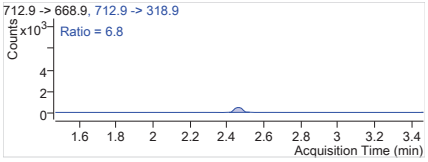
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 5.05 µg/L
Area ratio: 2.09007
Sample type: Calibration



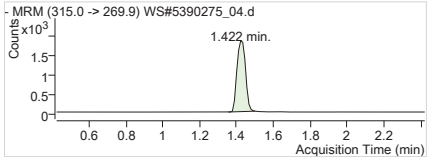


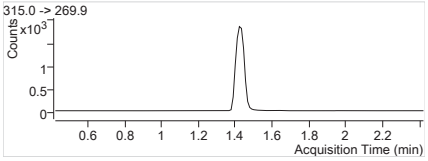
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 5.19 µg/L
Area ratio: 2.11280
Sample type: Calibration



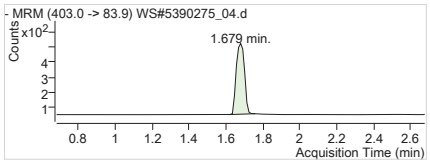


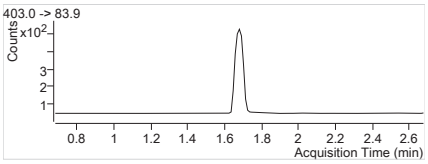
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 5.17 µg/L
Area ratio: 1.77944
Sample type: Calibration



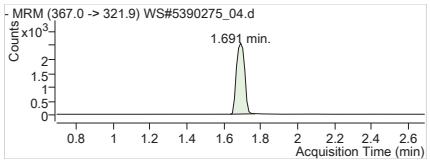


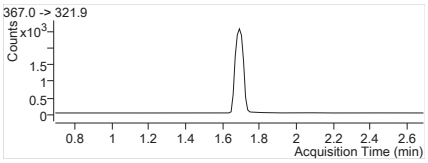
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 100.95 µg/L
Area ratio: 0.25194
Sample type: Calibration



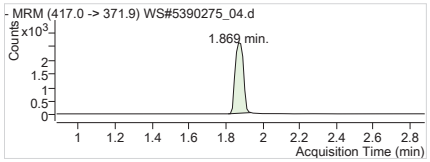


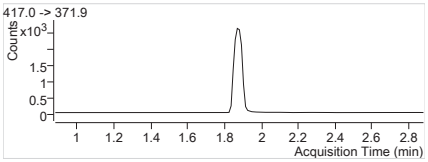
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 102.01 µg/L
Area ratio: 0.06377
Sample type: Calibration



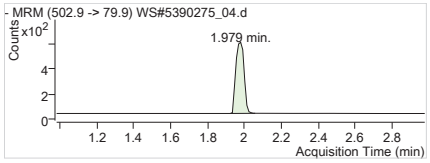


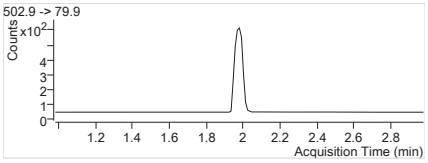
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 103.86 µg/L
Area ratio: 0.33784
Sample type: Calibration



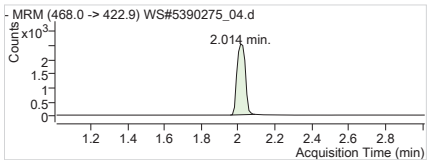


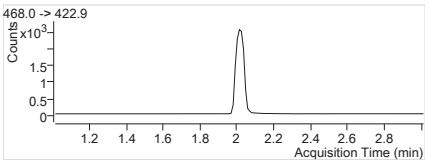
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 100.02 µg/L
Area ratio: 0.34510
Sample type: Calibration



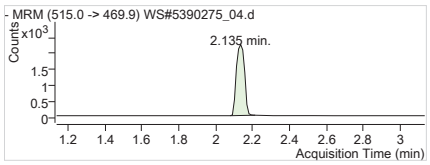


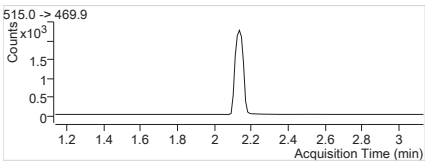
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 97.33 µg/L
Area ratio: 0.07635
Sample type: Calibration



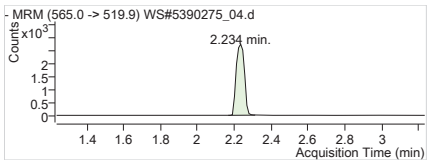


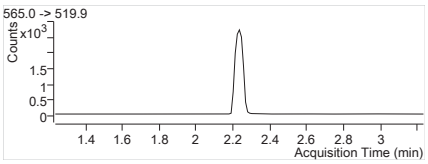
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 100.06 µg/L
Area ratio: 0.34121
Sample type: Calibration



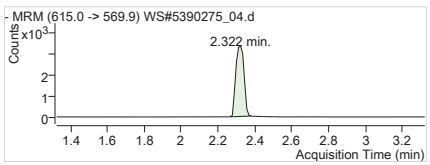


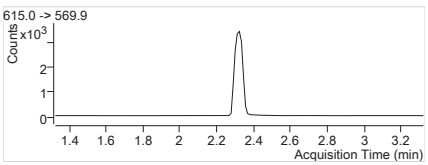
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 106.35 µg/L
Area ratio: 0.22160
Sample type: Calibration



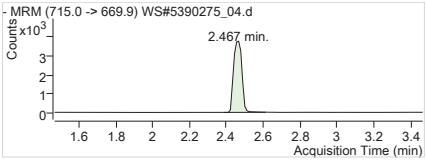


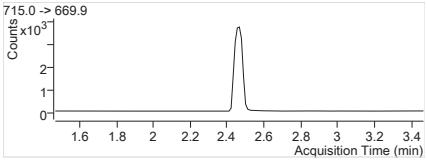
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 102.07 µg/L
Area ratio: 0.26896
Sample type: Calibration



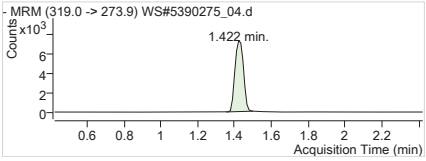


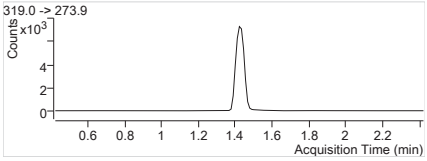
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 98.43 µg/L
Area ratio: 0.33554
Sample type: Calibration



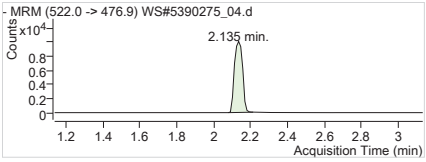


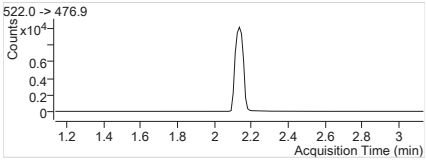
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	95.79 µg/L
Area ratio:	0.37882
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	98.83 µg/L
Area ratio:	0
Sample type:	Calibration





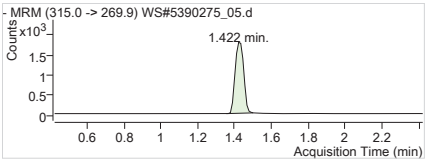
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	99.96 µg/L
Area ratio:	0
Sample type:	Calibration

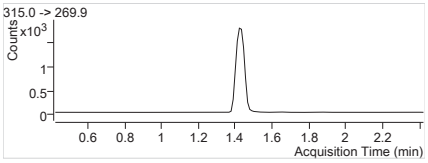
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_ETOxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5390275_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/09 4:53:58 PM	**Injection Volume**	Per Method
Sample Annotation	-		

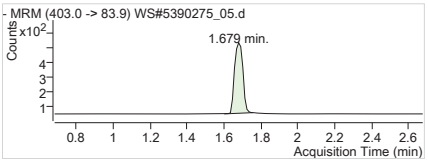
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5692	1.42	1 µg/L		
MPFHxS	1500	1.68	1 µg/L		
MPFHpA	7701	1.69	1 µg/L		
MPFOA	8209	1.88	1 µg/L		
MPFOS	1935	1.98	1 µg/L		
MPFNA	7869	2.01	1 µg/L		
MPFDA	6359	2.14	1 µg/L		
MPFUnA	8063	2.23	1 µg/L		
MPFDoA	10327	2.32	1 µg/L		
MPFTeDA	12271	2.47	1 µg/L		
13C6-PFHxA IS	24336	1.42	1 µg/L		
13C9-PFDA IS	31660	2.13	1 µg/L		

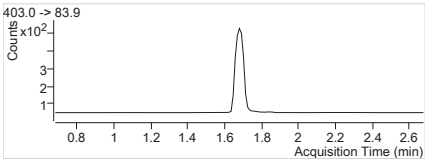
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7920	1.09	12.50	11.80 µg/L	94.40
PFHxA 1	30189	1.42	12.50	13.12 µg/L	104.94
PFHxS 1	8047	1.68	12.50	12.07 µg/L	96.53
PFHpA 1	38723	1.69	12.50	12.53 µg/L	100.27
PFOA 1	42521	1.88	12.50	12.56 µg/L	100.45
PFOS 1	8505	1.97	12.50	12.44 µg/L	99.49
PFNA 1	38764	2.01	12.50	13.25 µg/L	105.96
PFDA 1	41655	2.14	12.50	13.01 µg/L	104.07
PFUnA 1	45808	2.23	12.50	13.40 µg/L	107.21
PFDoA 1	57043	2.32	12.50	13.26 µg/L	106.08
PFTrDA 1	64478	2.40	12.50	12.72 µg/L	101.75
PFTeDA 1	53350	2.47	12.50	12.63 µg/L	101.03
13C2-PFHxA	5692	1.42	100.00	93.71 µg/L	93.71
18O2-PFHxS	1500	1.68	100.00	98.59 µg/L	98.59
13C4-PFHpA	7701	1.69	100.00	97.28 µg/L	97.28
13C4-PFOA	8209	1.88	100.00	97.77 µg/L	97.77
13C4-PFOS	1935	1.98	100.00	101.36 µg/L	101.36
13C5-PFNA	7869	2.01	100.00	94.82 µg/L	94.82
13C2-PFDA	6258	2.14	100.00	94.86 µg/L	94.86
13C2-PFUnA	8063	2.23	100.00	96.65 µg/L	96.65
13C2-PFDoA	10327	2.32	100.00	95.69 µg/L	95.69
13C2-PFTeDA	12496	2.47	100.00	99.80 µg/L	99.80
13C6-PFHxA	24336	1.42	100.00	103.92 µg/L	103.92
13C9-PFDA	31660	2.13	100.00	102.30 µg/L	102.30



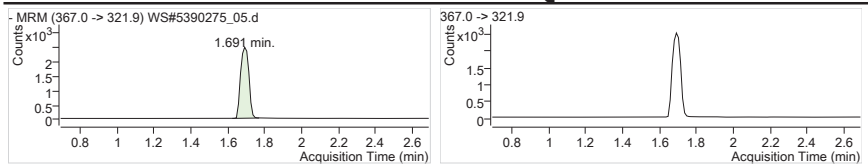


MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration

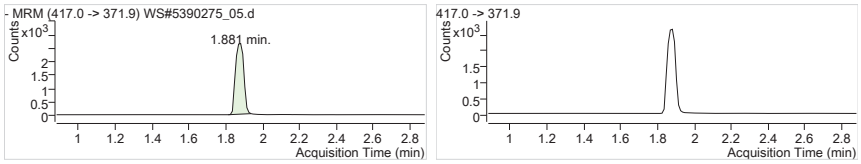




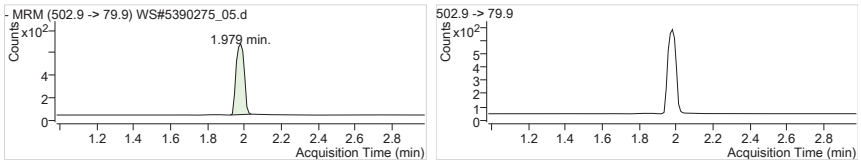
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



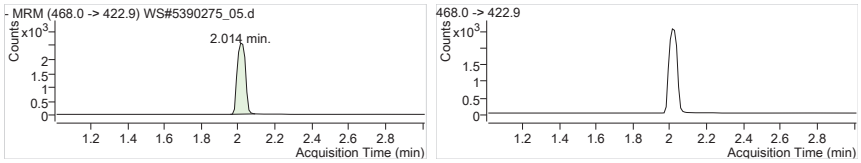
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



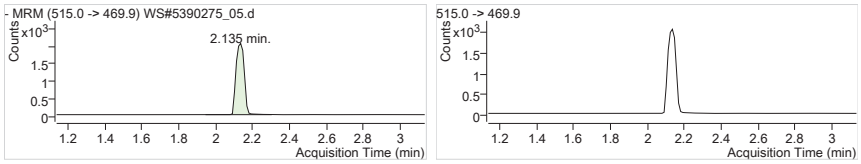
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



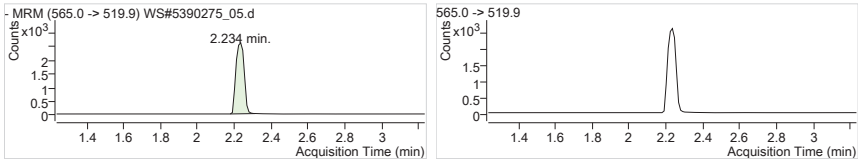
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



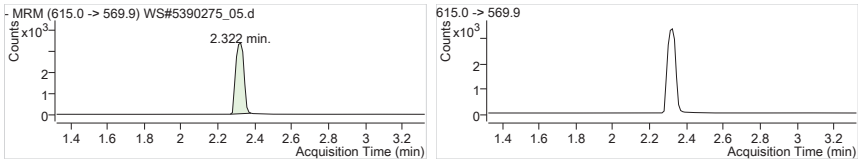
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



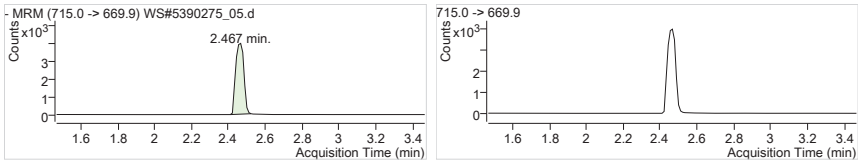
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



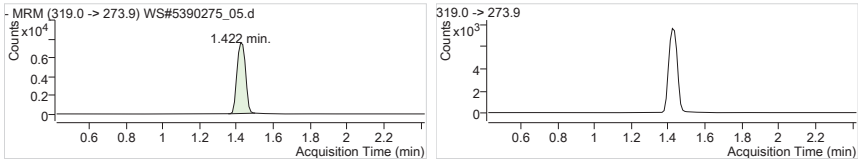
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



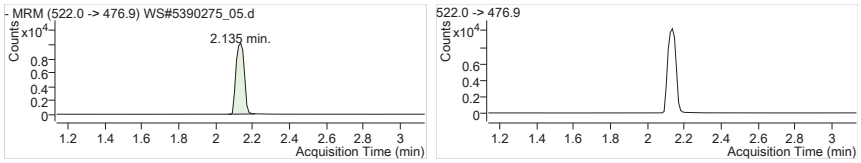
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



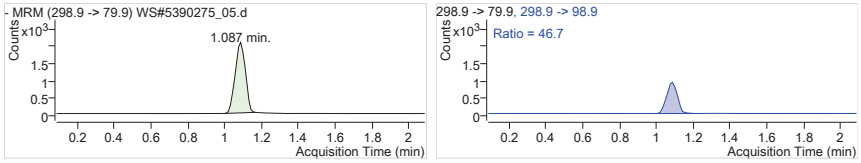
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



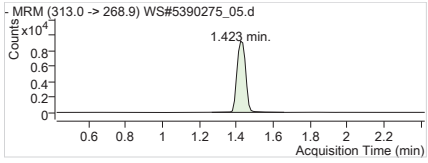
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration

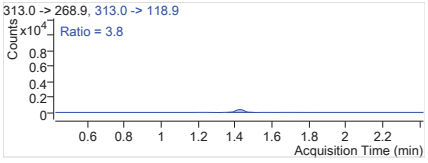


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration

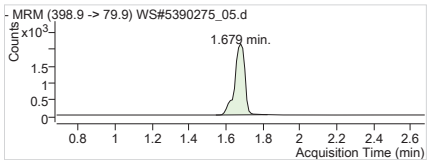


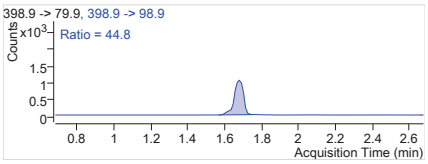
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 11.80 µg/L
Area ratio: 5.28000
Sample type: Calibration



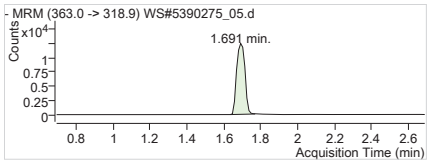


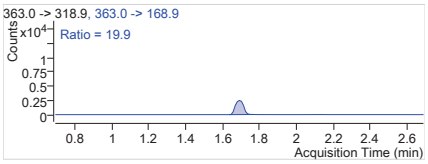
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 13.12 µg/L
Area ratio: 5.30376
Sample type: Calibration



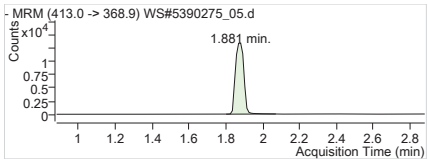


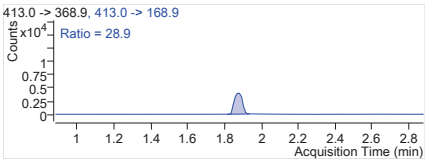
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 12.07 µg/L
Area ratio: 5.36467
Sample type: Calibration



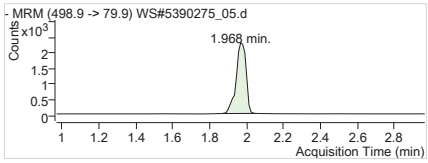


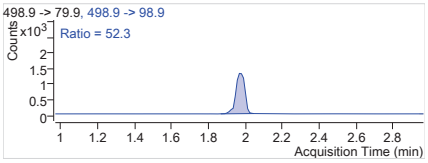
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.53 µg/L
Area ratio: 5.02831
Sample type: Calibration



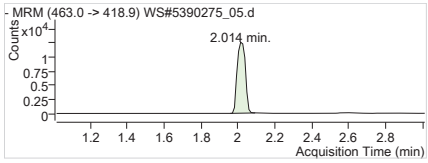


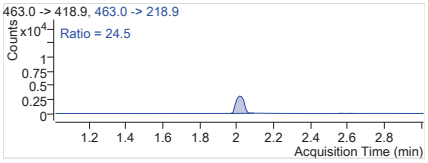
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 12.56 µg/L
Area ratio: 5.17980
Sample type: Calibration



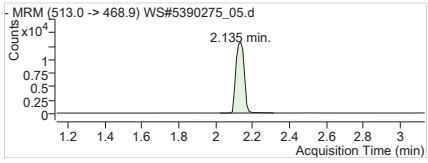


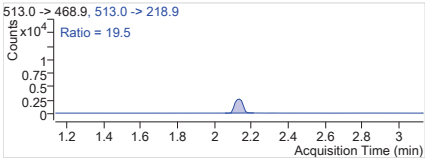
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 12.44 µg/L
Area ratio: 4.39535
Sample type: Calibration



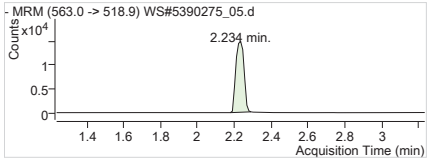


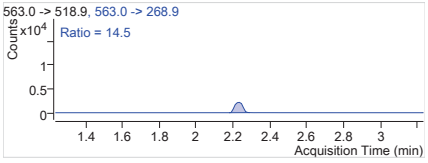
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 13.25 µg/L
Area ratio: 4.92617
Sample type: Calibration



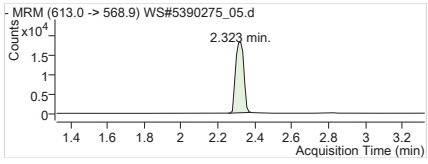


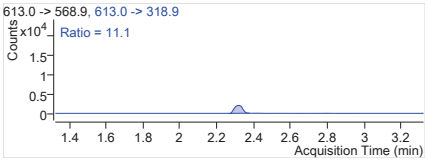
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 13.01 µg/L
Area ratio: 6.55056
Sample type: Calibration



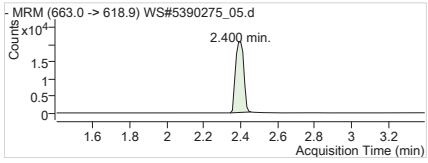


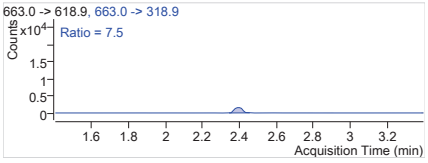
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 13.40 µg/L
Area ratio: 5.68126
Sample type: Calibration



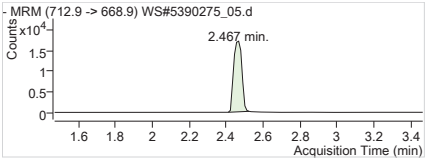


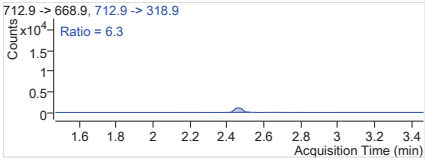
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 13.26 µg/L
Area ratio: 5.52368
Sample type: Calibration



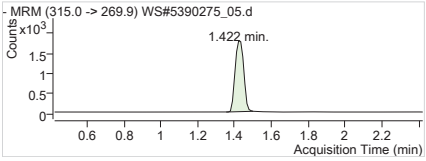


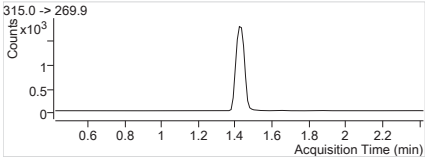
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 12.72 µg/L
Area ratio: 5.25450
Sample type: Calibration



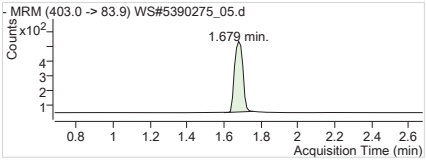


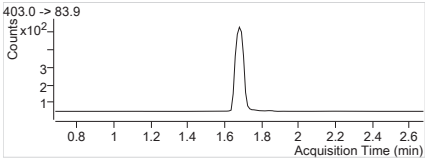
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 12.63 µg/L
Area ratio: 4.34765
Sample type: Calibration



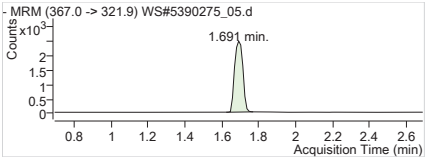


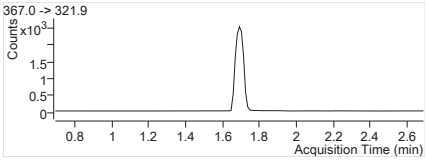
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 93.71 µg/L
Area ratio: 0.23389
Sample type: Calibration



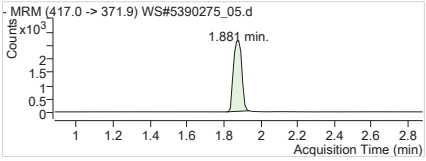


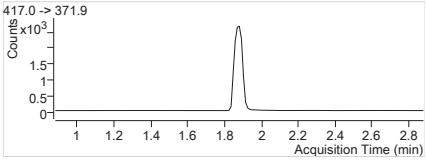
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 98.59 µg/L
Area ratio: 0.06164
Sample type: Calibration



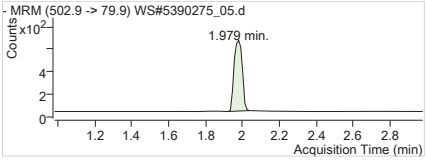


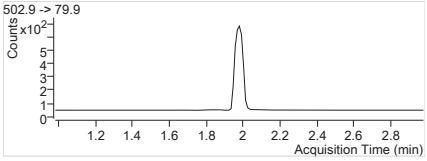
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 97.28 µg/L
Area ratio: 0.31644
Sample type: Calibration



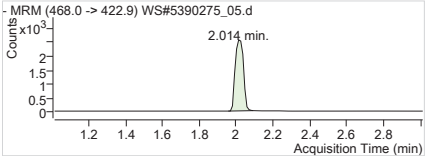


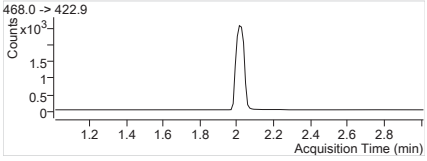
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 97.77 µg/L
Area ratio: 0.33732
Sample type: Calibration



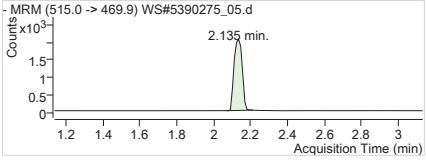


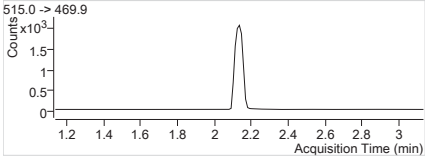
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 101.36 µg/L
Area ratio: 0.07951
Sample type: Calibration



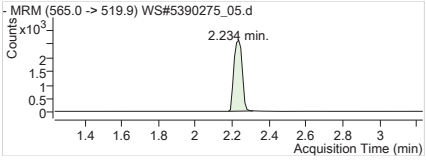


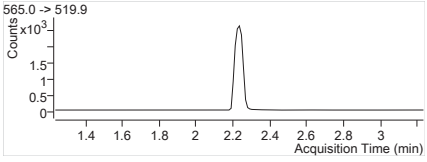
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 94.82 µg/L
Area ratio: 0.32335
Sample type: Calibration



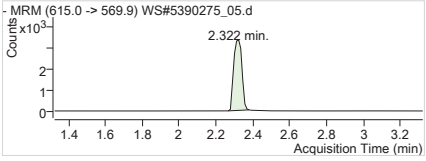


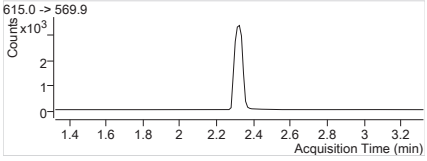
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 94.86 µg/L
Area ratio: 0.19766
Sample type: Calibration



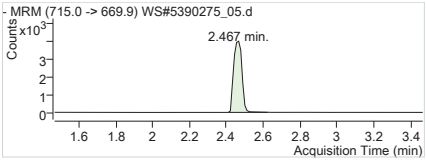


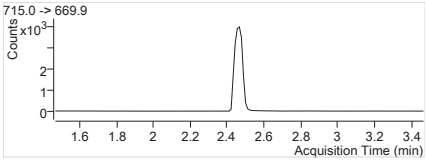
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 96.65 µg/L
Area ratio: 0.25467
Sample type: Calibration



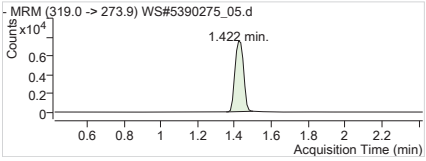


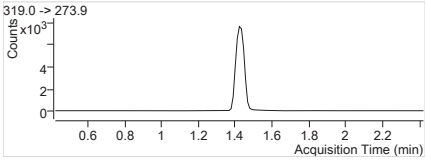
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 95.69 µg/L
Area ratio: 0.32618
Sample type: Calibration



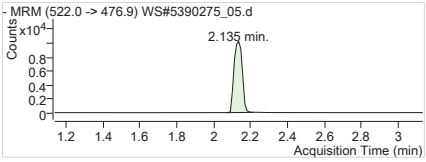


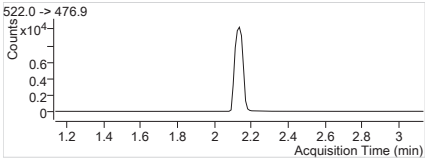
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	99.80 µg/L
Area ratio:	0.39469
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	103.92 µg/L
Area ratio:	0
Sample type:	Calibration





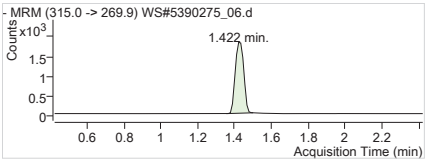
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	102.30 µg/L
Area ratio:	0
Sample type:	Calibration

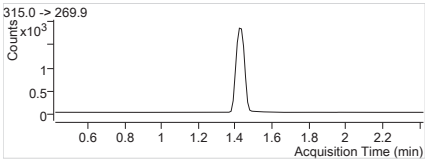
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5390275_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A6
Acq. Date	2018/02/09 4:58:54 PM	**Injection Volume**	Per Method
Sample Annotation	-		

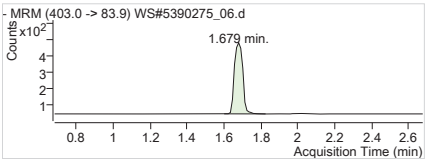
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5774	1.42	1 µg/L		
MPFHxS	1364	1.68	1 µg/L		
MPFHpA	7457	1.69	1 µg/L		
MPFOA	8285	1.87	1 µg/L		
MPFOS	1965	1.98	1 µg/L		
MPFNA	8152	2.01	1 µg/L		
MPFDA	6459	2.14	1 µg/L		
MPFUnA	8107	2.23	1 µg/L		
MPFDoA	10683	2.32	1 µg/L		
MPFTeDA	12269	2.47	1 µg/L		
13C6-PFHxA IS	23276	1.42	1 µg/L		
13C9-PFDA IS	31734	2.13	1 µg/L		

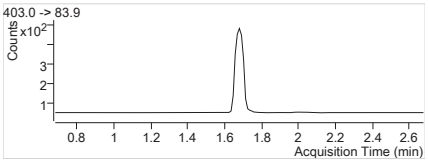
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	16645	1.09	25.00	27.12 µg/L	108.46
PFHxA 1	59511	1.42	25.00	25.48 µg/L	101.94
PFHxS 1	15508	1.68	25.00	25.46 µg/L	101.83
PFHpA 1	76118	1.69	25.00	25.23 µg/L	100.94
PFOA 1	85172	1.87	25.00	24.91 µg/L	99.62
PFOS 1	15876	1.97	25.00	22.84 µg/L	91.35
PFNA 1	73172	2.01	25.00	24.09 µg/L	96.36
PFDA 1	81955	2.14	25.00	25.09 µg/L	100.35
PFUnA 1	85920	2.23	25.00	24.95 µg/L	99.81
PFDoA 1	110949	2.32	25.00	24.89 µg/L	99.55
PFTrDA 1	123420	2.40	25.00	24.24 µg/L	96.95
PFTeDA 1	103773	2.47	25.00	24.56 µg/L	98.25
13C2-PFHxA	5774	1.42	100.00	99.39 µg/L	99.39
18O2-PFHxS	1364	1.68	100.00	93.74 µg/L	93.74
13C4-PFHpA	7457	1.69	100.00	98.49 µg/L	98.49
13C4-PFOA	8285	1.87	100.00	103.17 µg/L	103.17
13C4-PFOS	1965	1.98	100.00	107.62 µg/L	107.62
13C5-PFNA	8153	2.01	100.00	102.72 µg/L	102.72
13C2-PFDA	6413	2.14	100.00	96.98 µg/L	96.98
13C2-PFUnA	8107	2.23	100.00	96.95 µg/L	96.95
13C2-PFDoA	10683	2.32	100.00	98.76 µg/L	98.76
13C2-PFTeDA	12591	2.47	100.00	100.32 µg/L	100.32
13C6-PFHxA	23276	1.42	100.00	99.39 µg/L	99.39
13C9-PFDA	31734	2.13	100.00	102.54 µg/L	102.54



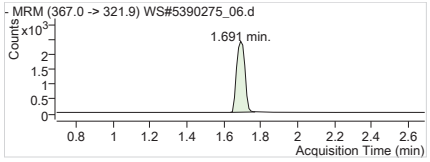


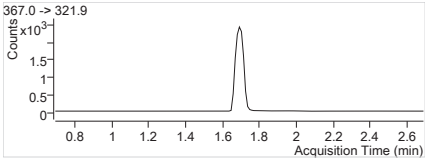
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



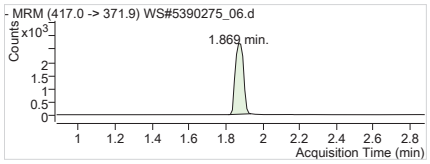


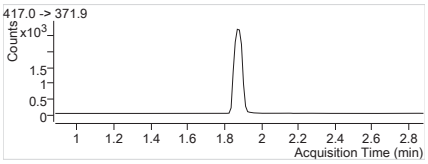
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



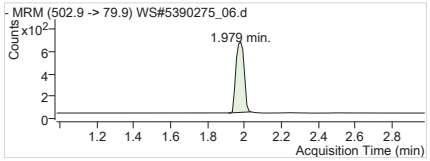


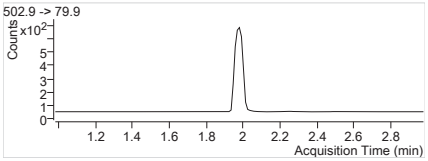
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



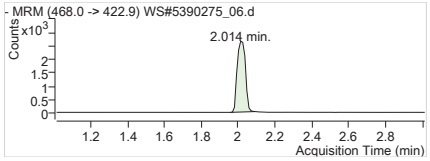


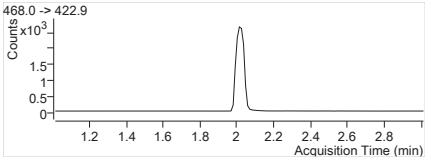
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



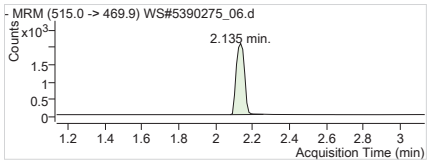


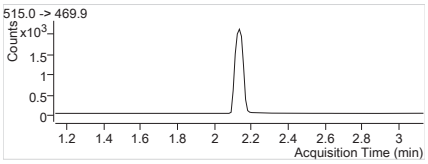
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



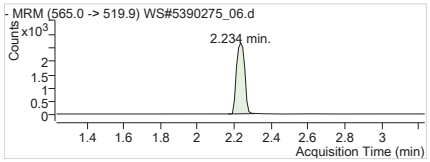


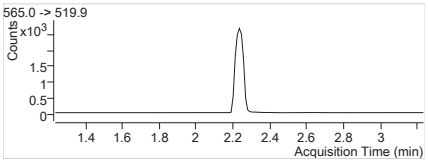
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



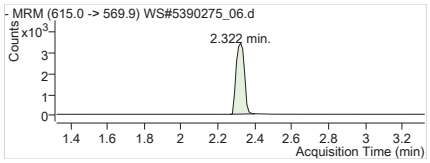


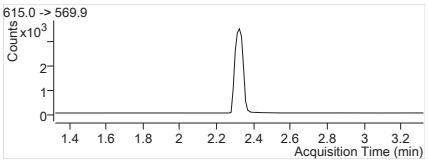
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



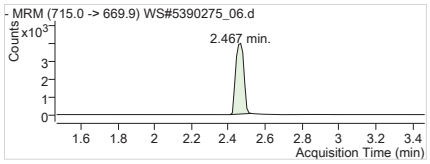


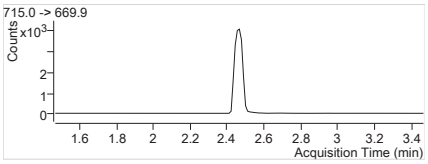
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



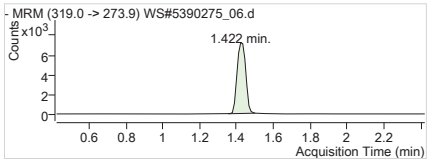


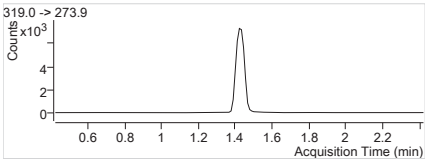
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



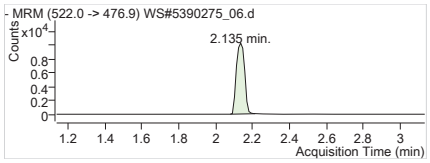


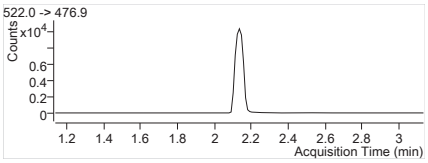
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



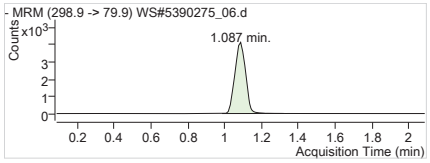


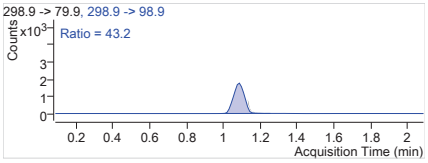
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



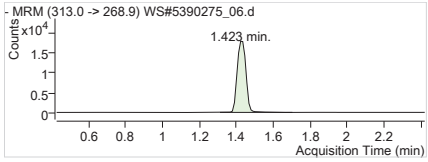


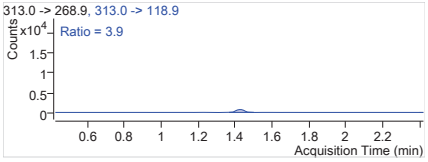
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



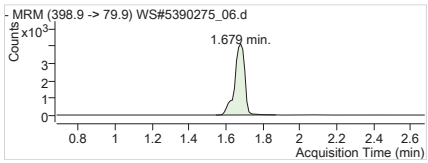


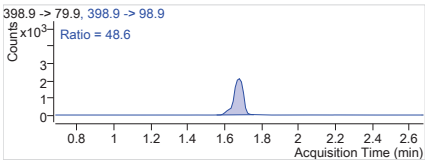
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 27.12 µg/L
Area ratio: 12.20308
Sample type: Calibration



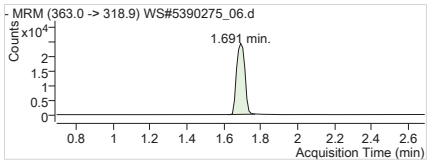


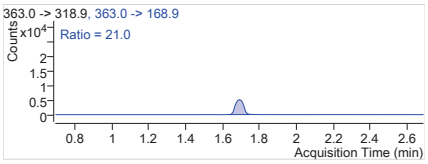
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 25.48 µg/L
Area ratio: 10.30672
Sample type: Calibration



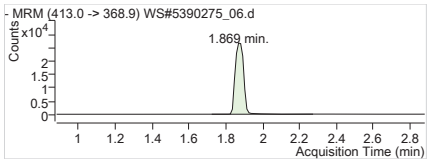


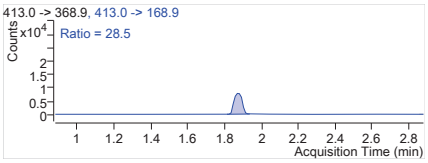
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 25.46 µg/L
Area ratio: 11.36950
Sample type: Calibration



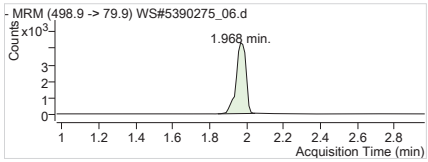


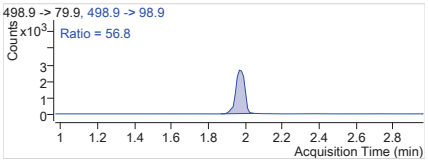
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 25.23 µg/L
Area ratio: 10.20759
Sample type: Calibration



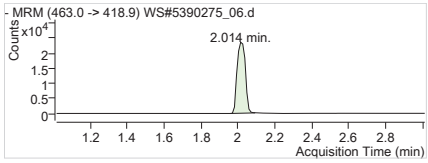


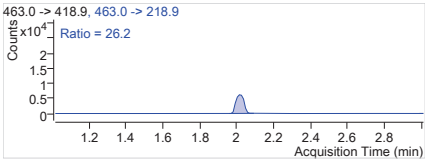
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 24.91 µg/L
Area ratio: 10.28027
Sample type: Calibration



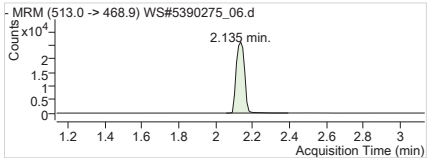


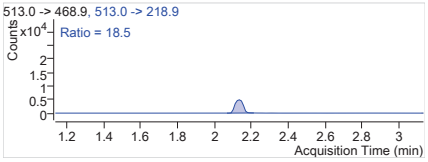
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 22.84 µg/L
Area ratio: 8.07939
Sample type: Calibration



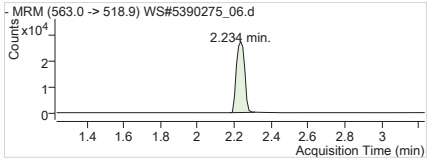


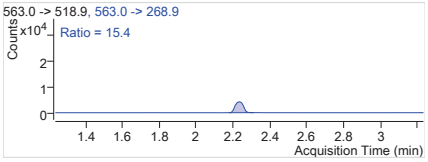
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 24.09 µg/L
Area ratio: 8.97596
Sample type: Calibration



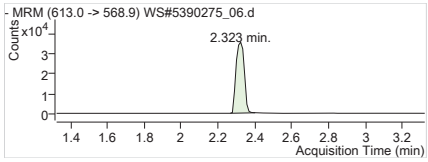


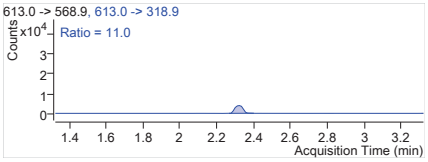
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 25.09 µg/L
Area ratio: 12.68850
Sample type: Calibration



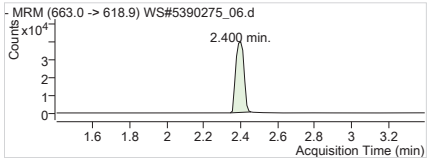


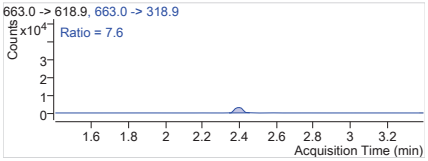
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 24.95 µg/L
Area ratio: 10.59825
Sample type: Calibration



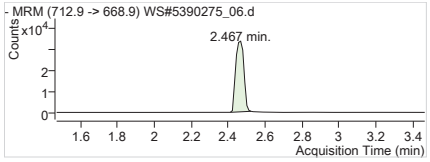


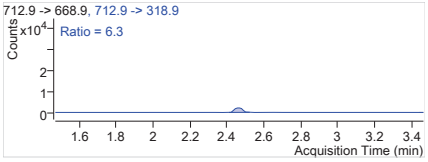
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 24.89 µg/L
Area ratio: 10.38557
Sample type: Calibration



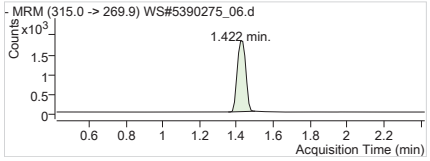


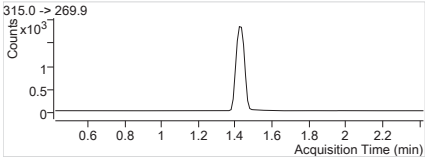
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 24.24 µg/L
Area ratio: 10.05950
Sample type: Calibration



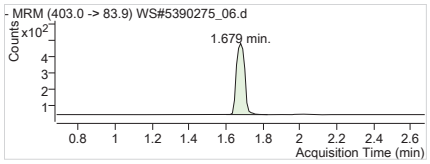


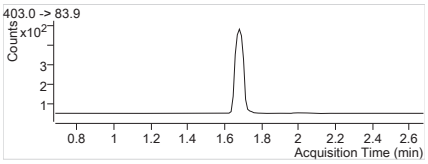
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 24.56 µg/L
Area ratio: 8.45815
Sample type: Calibration



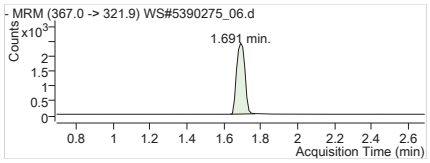


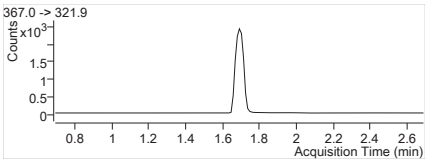
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 99.39 µg/L
Area ratio: 0.24807
Sample type: Calibration



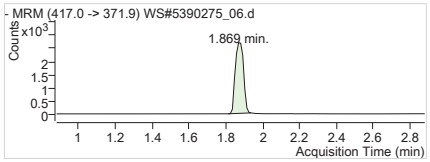


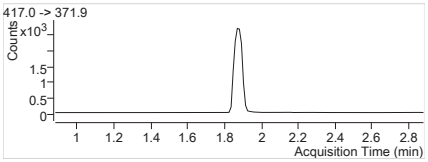
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 93.74 µg/L
Area ratio: 0.05860
Sample type: Calibration



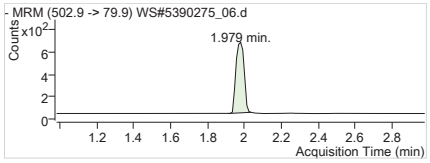


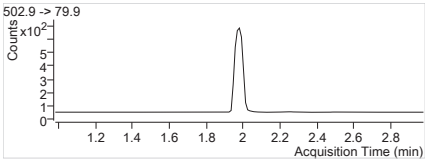
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 98.49 µg/L
Area ratio: 0.32037
Sample type: Calibration



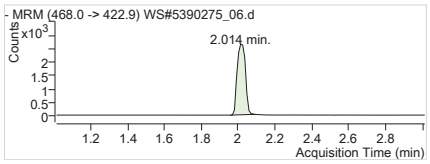


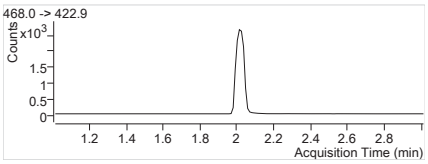
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 103.17 µg/L
Area ratio: 0.35595
Sample type: Calibration



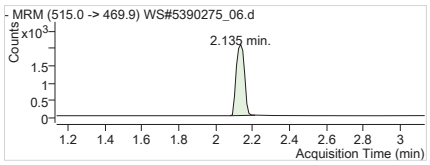


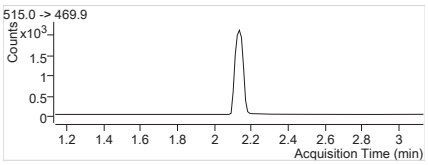
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 107.62 µg/L
Area ratio: 0.08442
Sample type: Calibration



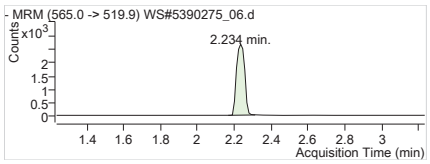


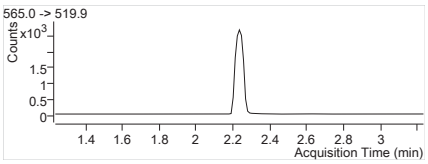
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 102.72 µg/L
Area ratio: 0.35027
Sample type: Calibration



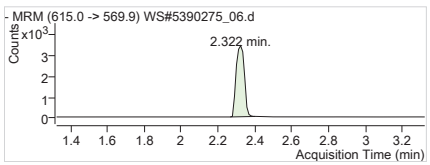


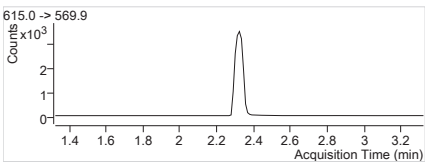
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 96.98 µg/L
Area ratio: 0.20209
Sample type: Calibration



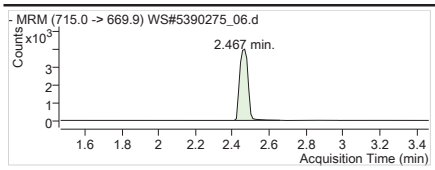


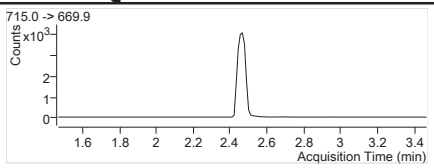
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 96.95 µg/L
Area ratio: 0.25547
Sample type: Calibration



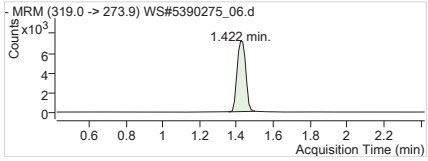


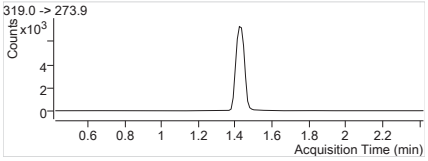
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 98.76 µg/L
Area ratio: 0.33664
Sample type: Calibration



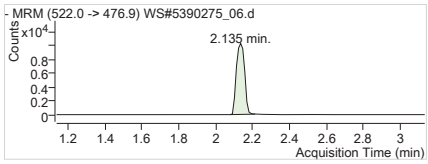


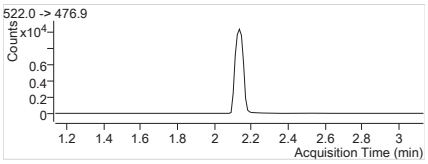
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	100.32 µg/L
Area ratio:	0.39677
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	99.39 µg/L
Area ratio:	0
Sample type:	Calibration





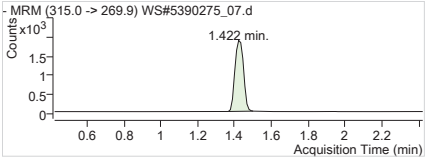
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	102.54 µg/L
Area ratio:	0
Sample type:	Calibration

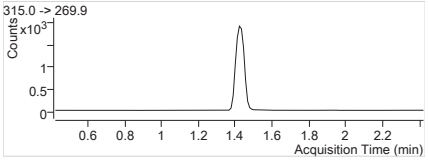
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5390275_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A7
Acq. Date	2018/02/09 5:03:50 PM	**Injection Volume**	Per Method
Sample Annotation	-		

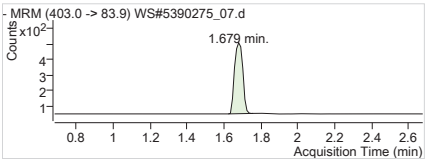
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5997	1.42	1 µg/L		
MPFHxS	1425	1.68	1 µg/L		
MPFHpA	7052	1.69	1 µg/L		
MPFOA	8023	1.87	1 µg/L		
MPFOS	1699	1.98	1 µg/L		
MPFNA	7741	2.01	1 µg/L		
MPFDA	6311	2.14	1 µg/L		
MPFUnA	8217	2.23	1 µg/L		
MPFDoA	10466	2.32	1 µg/L		
MPFTeDA	11892	2.47	1 µg/L		
13C6-PFHxA IS	22811	1.42	1 µg/L		
13C9-PFDA IS	29039	2.13	1 µg/L		

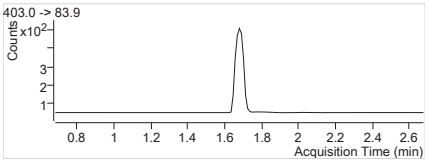
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	26131	1.09	41.70	40.69 µg/L	97.57
PFHxA 1	99005	1.42	41.70	40.82 µg/L	97.88
PFHxS 1	26662	1.68	41.70	41.83 µg/L	100.30
PFHpA 1	119160	1.69	41.70	41.64 µg/L	99.85
PFOA 1	138298	1.87	41.70	41.75 µg/L	100.12
PFOS 1	26409	1.97	41.70	43.91 µg/L	105.30
PFNA 1	121875	2.01	41.70	42.21 µg/L	101.23
PFDA 1	133055	2.14	41.70	41.61 µg/L	99.78
PFUnA 1	143281	2.23	41.70	41.02 µg/L	98.36
PFDoA 1	179920	2.32	41.70	41.17 µg/L	98.72
PFTrDA 1	208563	2.40	41.70	42.17 µg/L	101.12
PFTeDA 1	171694	2.47	41.70	41.92 µg/L	100.53
13C2-PFHxA	5997	1.42	100.00	105.33 µg/L	105.33
18O2-PFHxS	1425	1.68	100.00	99.92 µg/L	99.92
13C4-PFHpA	7052	1.69	100.00	95.04 µg/L	95.04
13C4-PFOA	8023	1.87	100.00	101.94 µg/L	101.94
13C4-PFOS	1699	1.98	100.00	94.95 µg/L	94.95
13C5-PFNA	7742	2.01	100.00	99.53 µg/L	99.53
13C2-PFDA	6286	2.14	100.00	103.89 µg/L	103.89
13C2-PFUnA	8217	2.23	100.00	107.38 µg/L	107.38
13C2-PFDoA	10466	2.32	100.00	105.73 µg/L	105.73
13C2-PFTeDA	12281	2.47	100.00	106.94 µg/L	106.94
13C6-PFHxA	22811	1.42	100.00	97.41 µg/L	97.41
13C9-PFDA	29039	2.13	100.00	93.83 µg/L	93.83



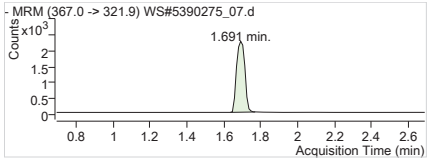


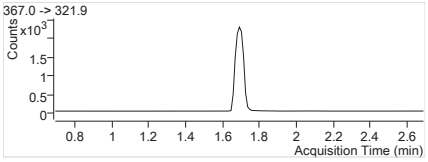
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



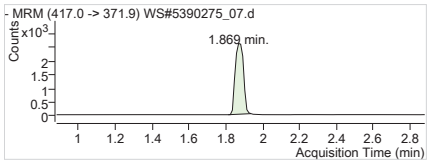


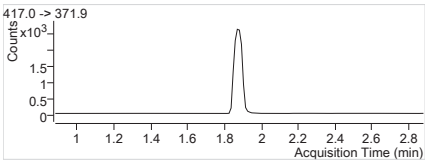
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



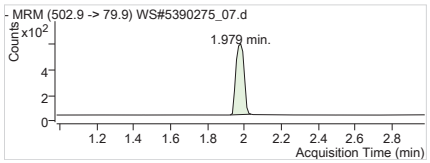


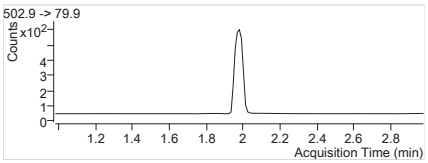
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



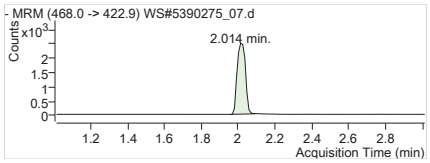


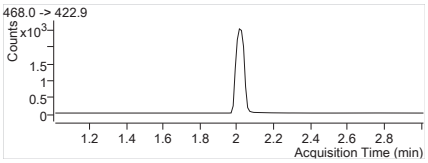
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



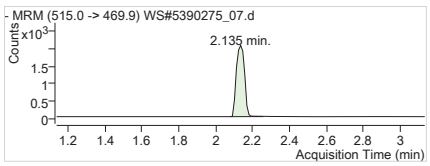


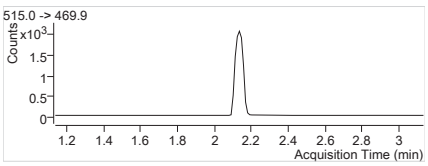
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



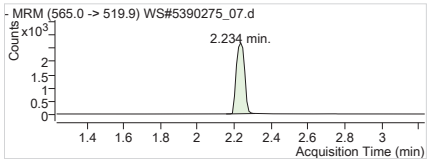


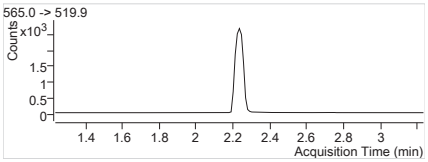
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



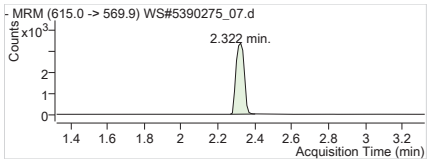


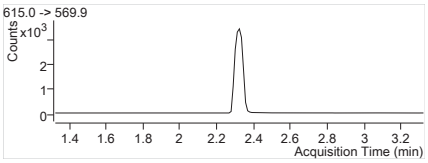
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



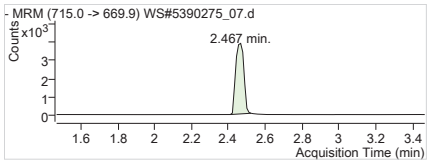


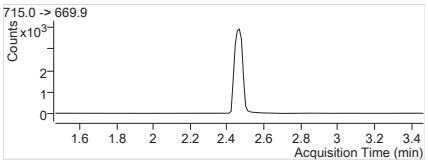
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



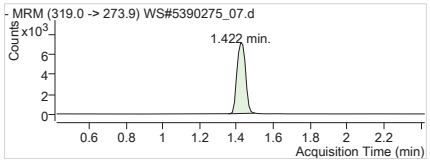


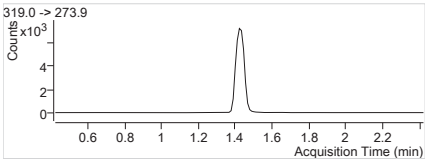
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



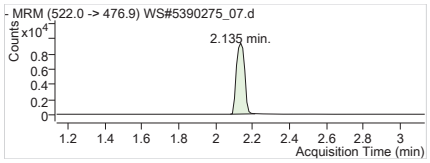


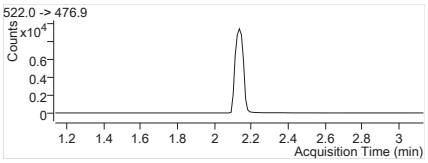
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



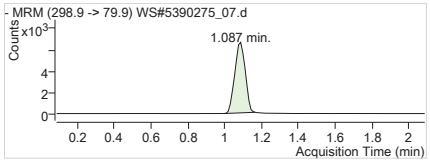


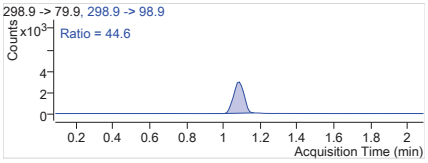
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



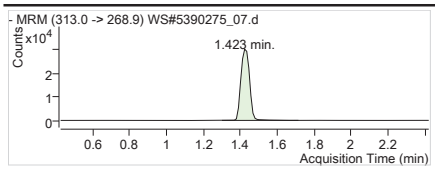


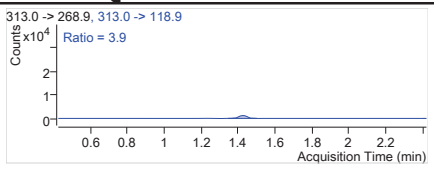
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



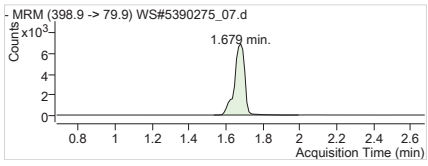


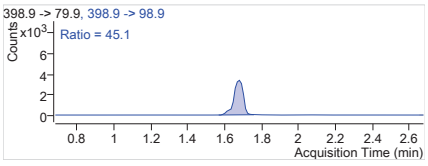
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 40.69 µg/L
Area ratio: 18.33754
Sample type: Calibration



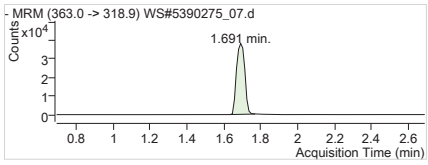


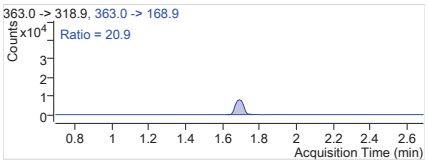
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 40.82 µg/L
Area ratio: 16.50909
Sample type: Calibration



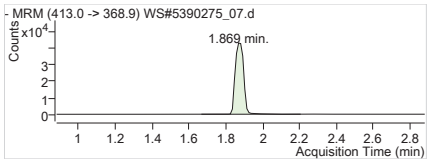


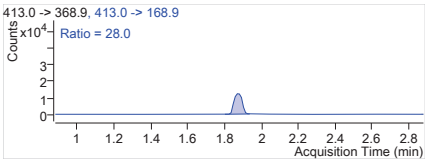
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 41.83 µg/L
Area ratio: 18.71018
Sample type: Calibration



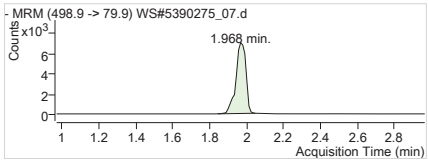


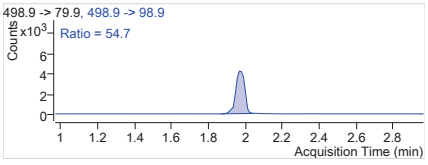
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 41.64 µg/L
Area ratio: 16.89733
Sample type: Calibration



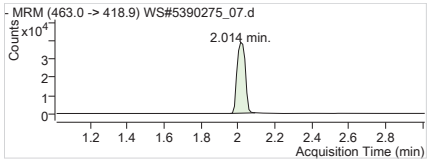


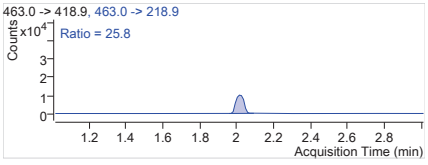
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 41.75 µg/L
Area ratio: 17.23769
Sample type: Calibration



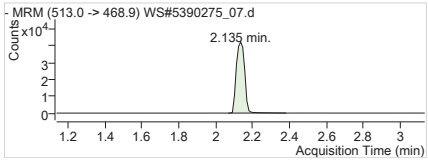


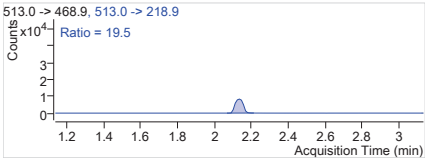
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 43.91 µg/L
Area ratio: 15.54385
Sample type: Calibration



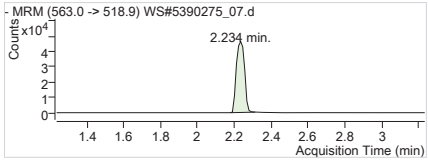


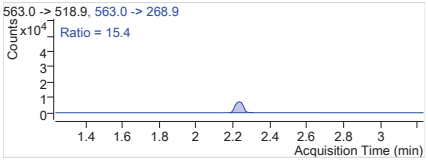
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 42.21 µg/L
Area ratio: 15.74409
Sample type: Calibration



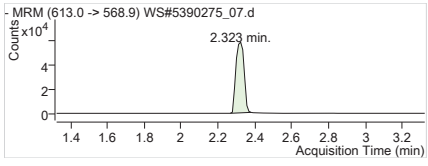


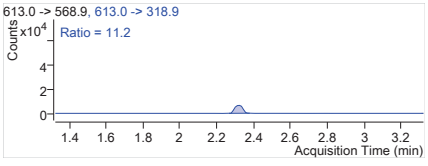
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 41.61 µg/L
Area ratio: 21.08303
Sample type: Calibration



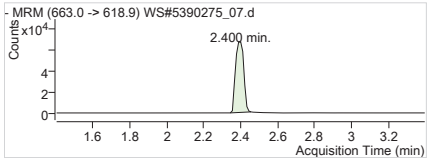


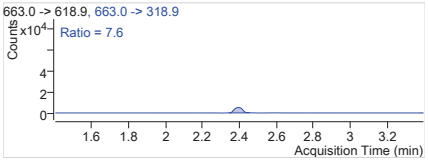
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 41.02 µg/L
Area ratio: 17.43714
Sample type: Calibration



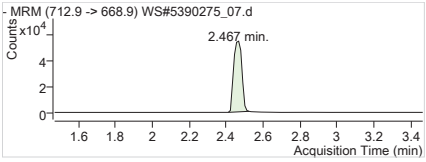


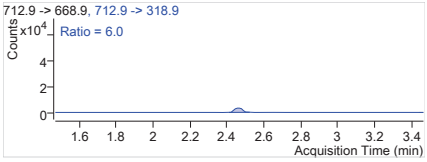
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 41.17 µg/L
Area ratio: 17.19090
Sample type: Calibration



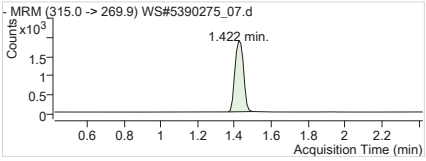


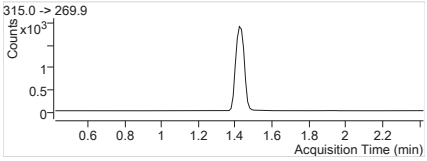
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 42.17 µg/L
Area ratio: 17.53809
Sample type: Calibration



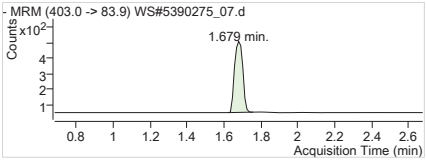


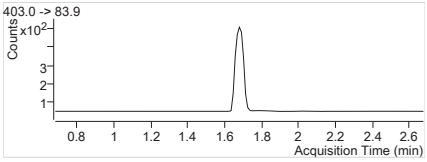
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 41.92 µg/L
Area ratio: 14.43777
Sample type: Calibration



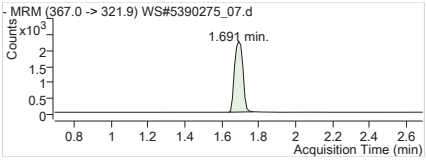


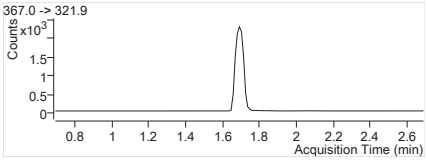
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 105.33 µg/L
Area ratio: 0.26290
Sample type: Calibration



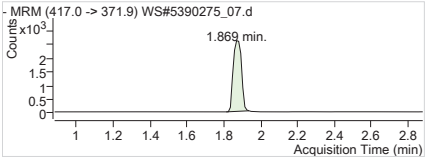


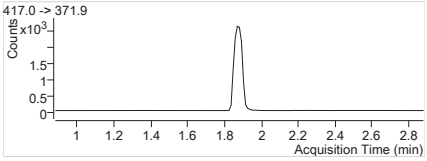
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 99.92 µg/L
Area ratio: 0.06247
Sample type: Calibration



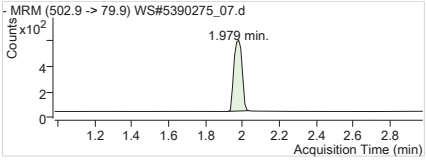


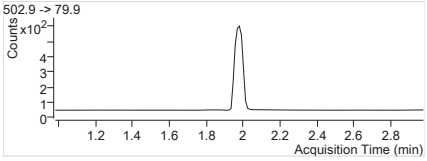
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 95.04 µg/L
Area ratio: 0.30915
Sample type: Calibration



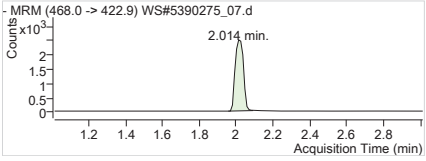


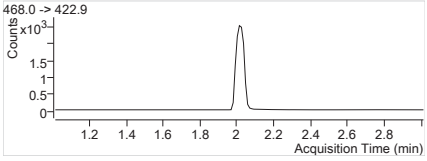
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 101.94 µg/L
Area ratio: 0.35172
Sample type: Calibration



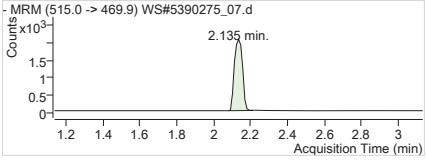


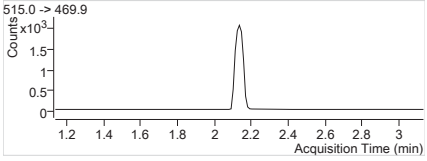
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 94.95 µg/L
Area ratio: 0.07448
Sample type: Calibration



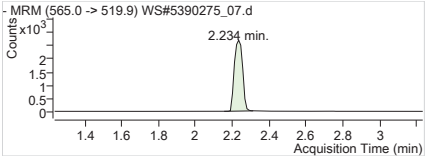


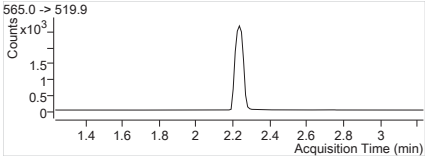
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 99.53 µg/L
Area ratio: 0.33940
Sample type: Calibration



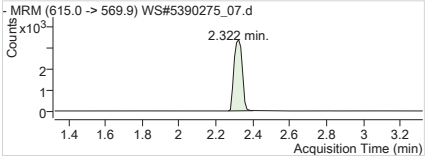


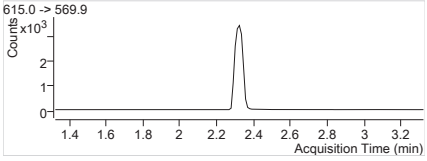
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 103.89 µg/L
Area ratio: 0.21647
Sample type: Calibration



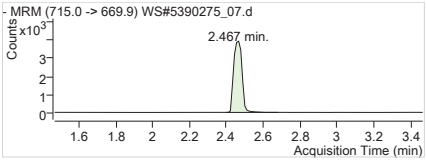


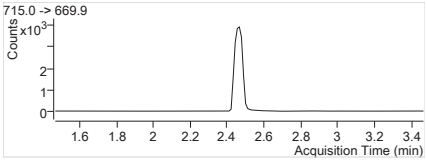
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 107.38 µg/L
Area ratio: 0.28296
Sample type: Calibration



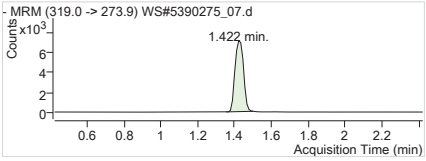


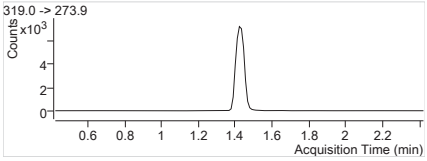
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 105.73 µg/L
Area ratio: 0.36041
Sample type: Calibration



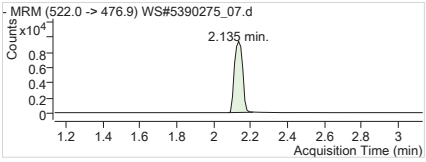


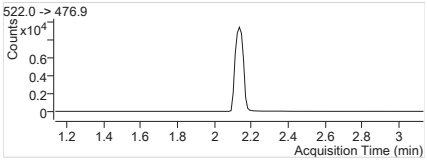
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	106.94 µg/L
Area ratio:	0.42291
Sample type:	Calibration





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	97.41 µg/L
Area ratio:	0
Sample type:	Calibration





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	93.83 µg/L
Area ratio:	0
Sample type:	Calibration

Quantitation Results

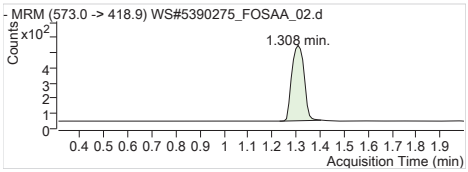
Agilent Technologies

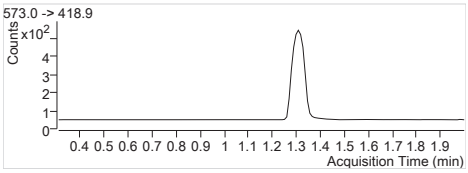
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/10 12:30:18 AM	**Injection Volume**	Per Method
Sample Annotation	-		

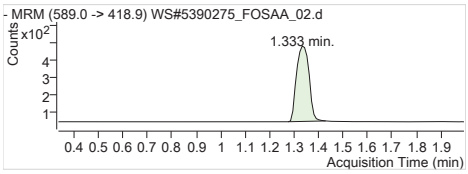
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1769	1.31	1 µg/L		
D5-EtFOSAA IS	1531	1.33	1 µg/L		
13C9-PFDA IS	24231	0.90	1 µg/L		

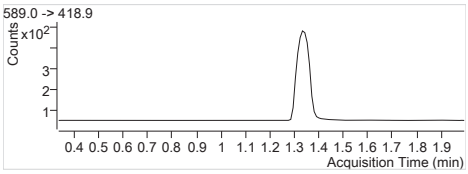
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	553	1.31	0.83	0.84 µg/L	101.61
EtFOSAA 1	536	1.33	0.83	0.86 µg/L	103.95
D3-MeFOSAA	1805	1.31	100.00	101.58 µg/L	101.58
D5-EtFOSAA	1553	1.33	100.00	98.29 µg/L	98.29
13C9-PFDA	23601	0.90	100.00	99.54 µg/L	99.54



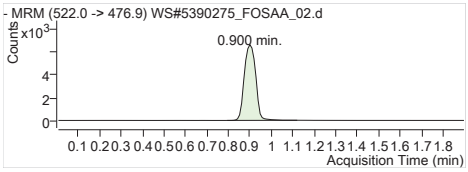


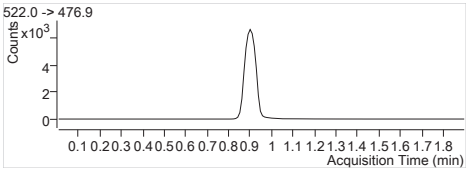
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Calibration



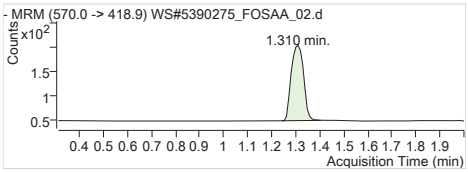


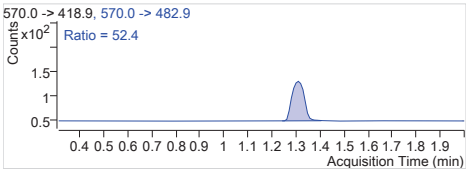
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Calibration



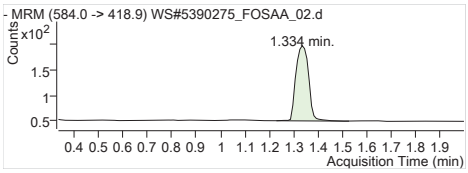


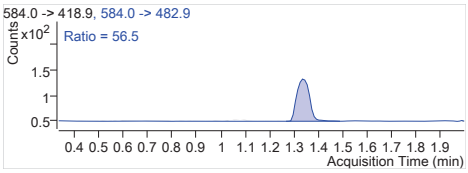
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Calibration



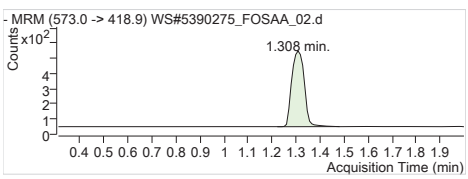


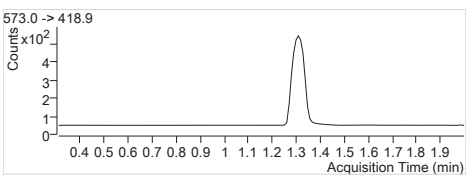
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.84 µg/L
Area ratio: 0.31261
Sample type: Calibration



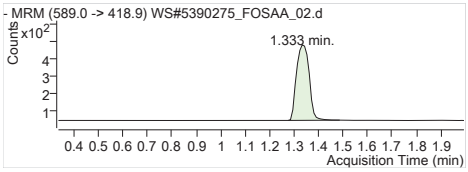


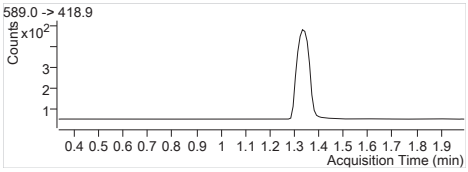
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 0.86 µg/L
Area ratio: 0.35010
Sample type: Calibration



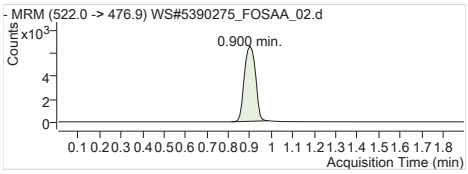


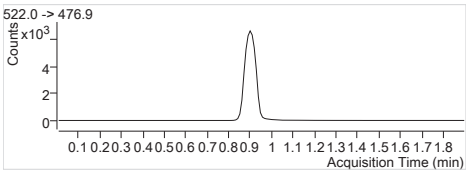
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 101.58 µg/L
Area ratio: 0.07449
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	98.29 µg/L
Area ratio:	0.06409
Sample type:	Calibration





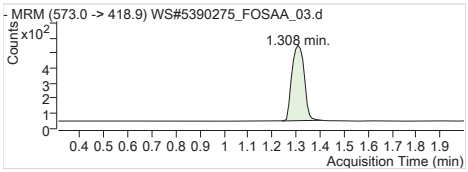
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	99.54 µg/L
Area ratio:	0
Sample type:	Calibration

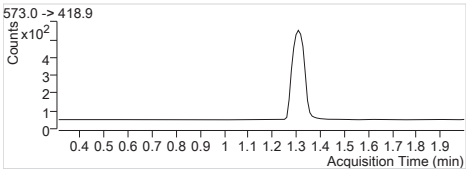
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A3
Acq. Date	2018/02/10 12:32:43 AM	**Injection Volume**	Per Method
Sample Annotation	-		

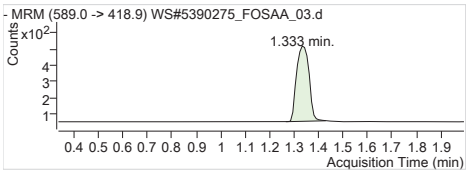
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1787	1.31	1 µg/L		
D5-EtFOSAA IS	1656	1.33	1 µg/L		
13C9-PFDA IS	24810	0.90	1 µg/L		

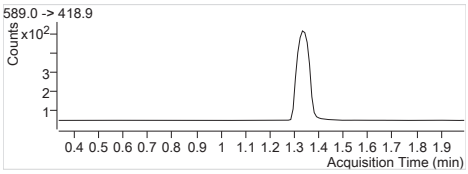
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	1050	1.31	1.70	1.64 µg/L	96.35
EtFOSAA 1	1058	1.33	1.70	1.56 µg/L	91.76
D3-MeFOSAA	1804	1.31	100.00	99.15 µg/L	99.15
D5-EtFOSAA	1686	1.33	100.00	104.21 µg/L	104.21
13C9-PFDA	24025	0.90	100.00	101.32 µg/L	101.32



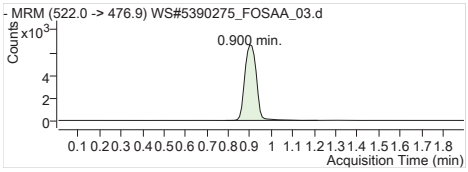


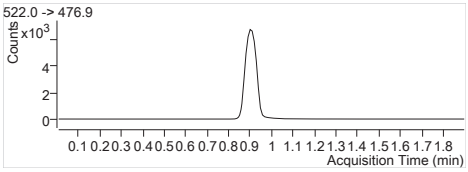
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Calibration



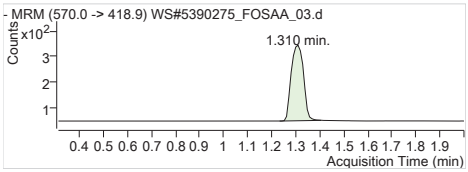


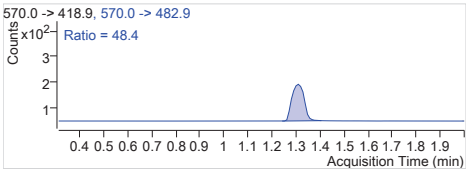
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Calibration



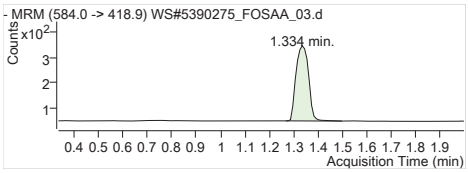


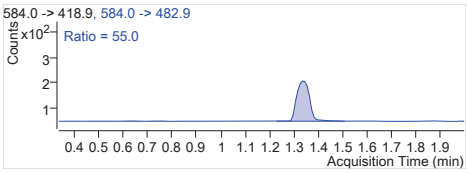
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Calibration



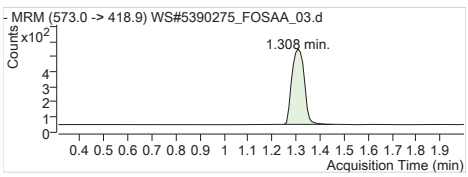


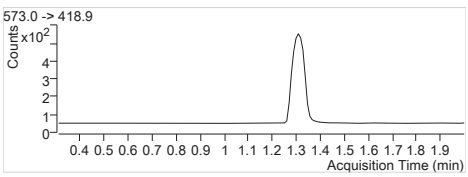
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 1.64 µg/L
Area ratio: 0.58758
Sample type: Calibration



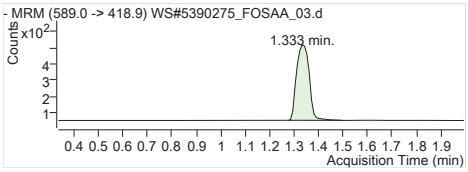


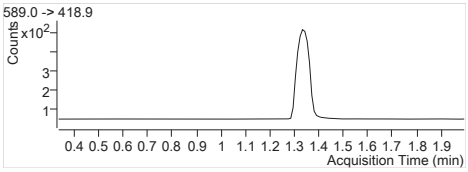
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 1.56 µg/L
Area ratio: 0.63889
Sample type: Calibration



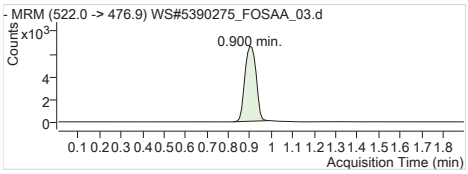


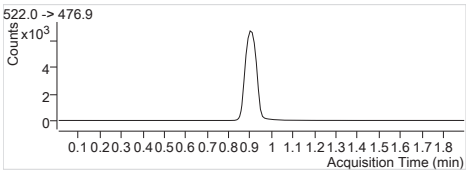
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 99.15 µg/L
Area ratio: 0.07271
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	104.21 µg/L
Area ratio:	0.06796
Sample type:	Calibration





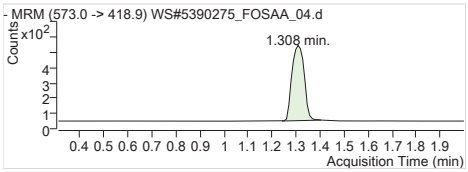
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	101.32 µg/L
Area ratio:	0
Sample type:	Calibration

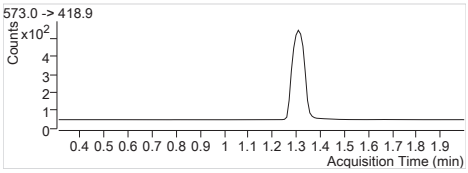
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A4
Acq. Date	2018/02/10 12:35:07 AM	**Injection Volume**	Per Method
Sample Annotation	-		

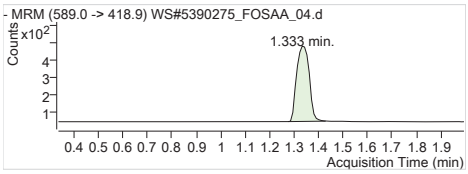
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1760	1.31	1 µg/L		
D5-EtFOSAA IS	1552	1.33	1 µg/L		
13C9-PFDA IS	24721	0.90	1 µg/L		

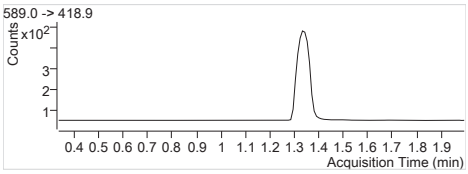
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	3076	1.31	5.00	4.99 µg/L	99.81
EtFOSAA 1	3185	1.33	5.00	4.97 µg/L	99.44
D3-MeFOSAA	1804	1.31	100.00	99.51 µg/L	99.51
D5-EtFOSAA	1556	1.33	100.00	96.52 µg/L	96.52
13C9-PFDA	23954	0.90	100.00	101.03 µg/L	101.03



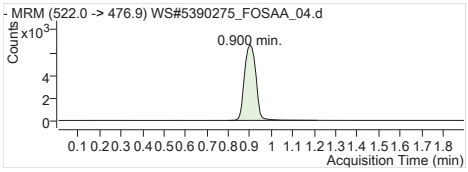


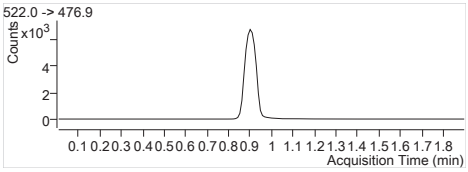
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Calibration



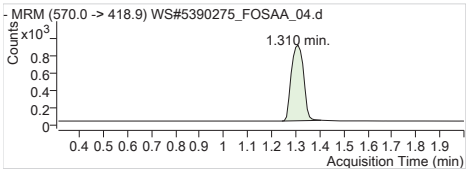


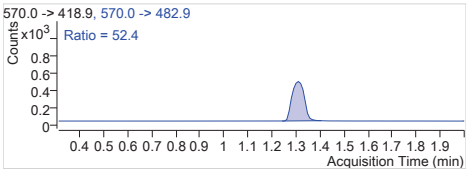
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Calibration



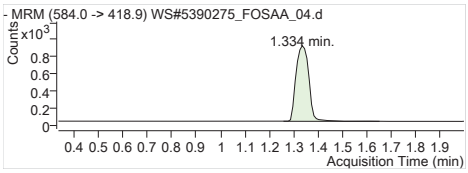


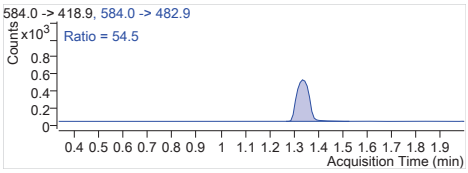
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Calibration



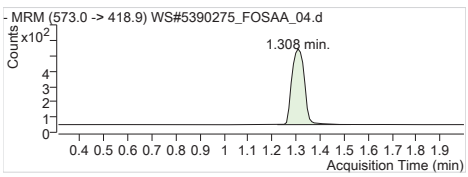


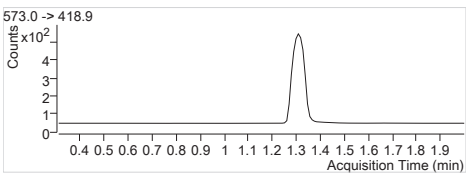
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 4.99 µg/L
Area ratio: 1.74773
Sample type: Calibration



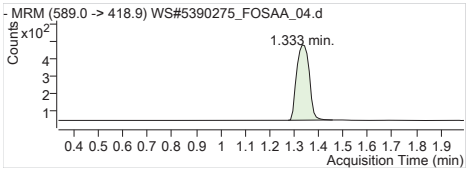


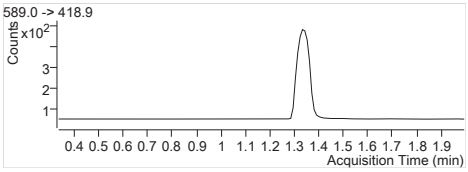
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 4.97 µg/L
Area ratio: 2.05219
Sample type: Calibration



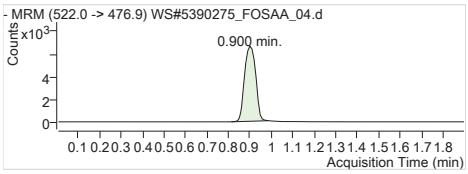


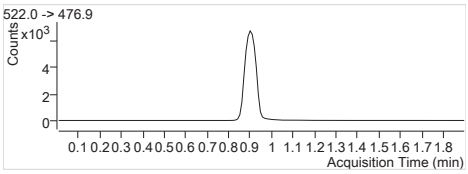
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 99.51 µg/L
Area ratio: 0.07297
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	96.52 µg/L
Area ratio:	0.06294
Sample type:	Calibration





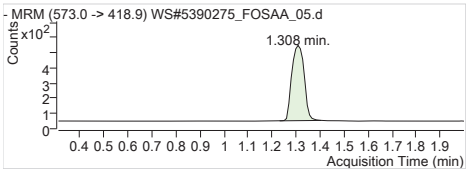
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	101.03 µg/L
Area ratio:	0
Sample type:	Calibration

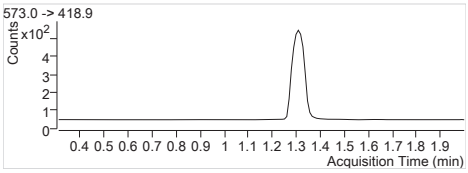
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/10 12:37:32 AM	**Injection Volume**	Per Method
Sample Annotation	-		

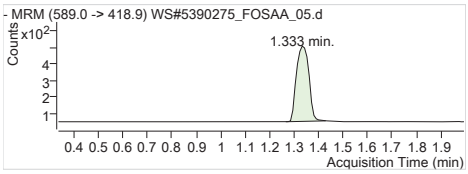
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1775	1.31	1 µg/L		
D5-EtFOSAA IS	1623	1.33	1 µg/L		
13C9-PFDA IS	25154	0.90	1 µg/L		

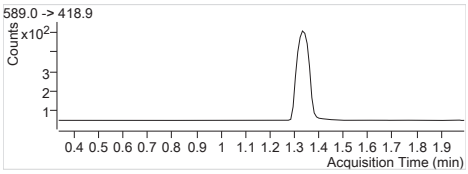
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8045	1.31	12.50	13.04 µg/L	104.30
EtFOSAA 1	8482	1.33	12.50	12.63 µg/L	101.07
D3-MeFOSAA	1829	1.31	100.00	99.15 µg/L	99.15
D5-EtFOSAA	1655	1.33	100.00	100.90 µg/L	100.90
13C9-PFDA	24257	0.90	100.00	102.30 µg/L	102.30



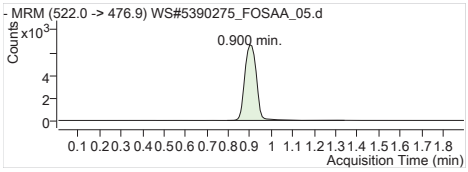


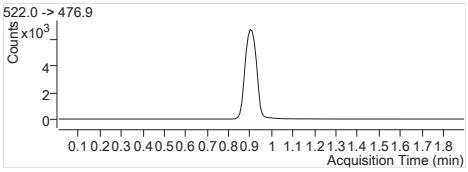
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Calibration



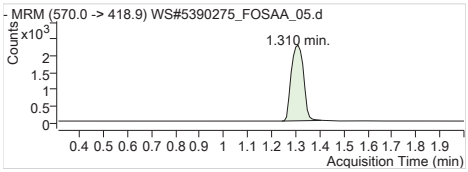


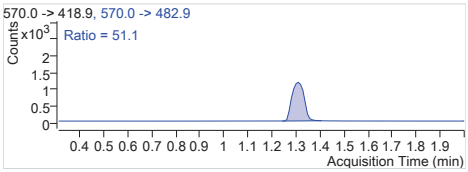
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Calibration



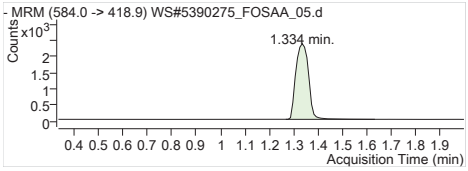


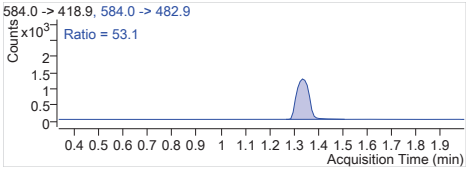
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Calibration



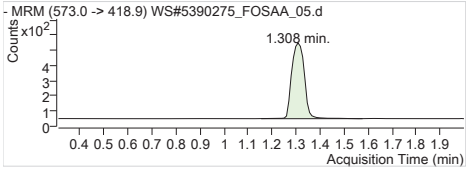


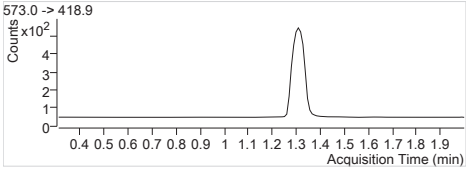
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 13.04 µg/L
Area ratio: 4.53239
Sample type: Calibration



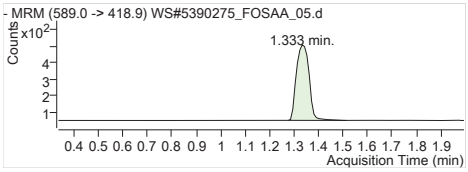


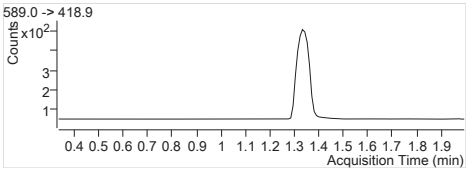
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 12.63 µg/L
Area ratio: 5.22612
Sample type: Calibration



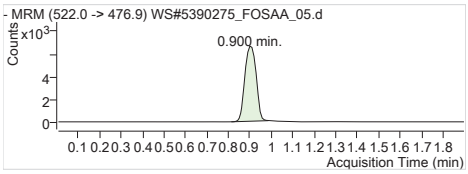


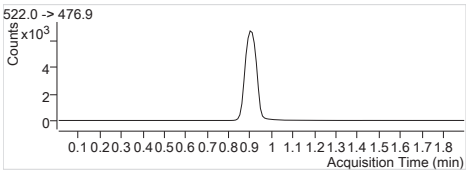
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 99.15 µg/L
Area ratio: 0.07271
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	100.90 µg/L
Area ratio:	0.06579
Sample type:	Calibration





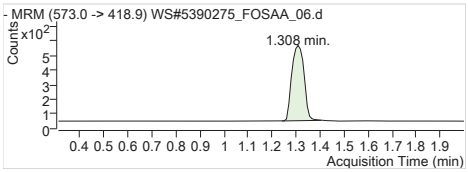
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	102.30 µg/L
Area ratio:	0
Sample type:	Calibration

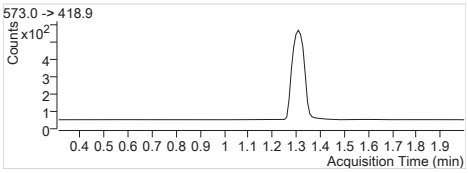
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A6
Acq. Date	2018/02/10 12:39:57 AM	**Injection Volume**	Per Method
Sample Annotation	-		

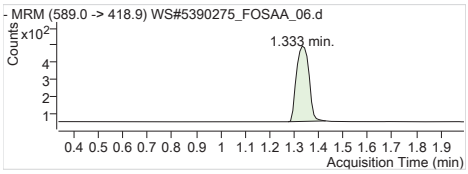
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1837	1.31	1 µg/L		
D5-EtFOSAA IS	1580	1.33	1 µg/L		
13C9-PFDA IS	24748	0.90	1 µg/L		

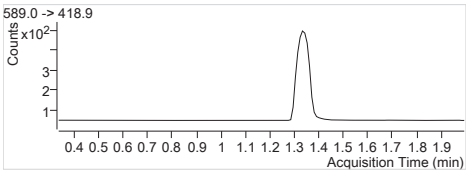
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	15384	1.31	25.00	24.14 µg/L	96.56
EtFOSAA 1	16586	1.33	25.00	25.36 µg/L	101.44
D3-MeFOSAA	1859	1.31	100.00	102.43 µg/L	102.43
D5-EtFOSAA	1598	1.33	100.00	99.02 µg/L	99.02
13C9-PFDA	23920	0.90	100.00	100.88 µg/L	100.88



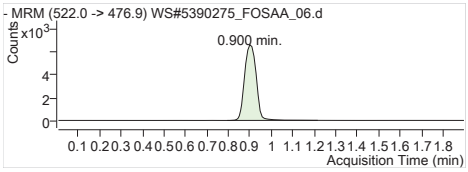


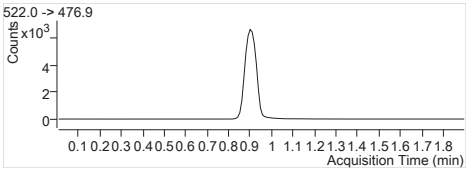
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Calibration



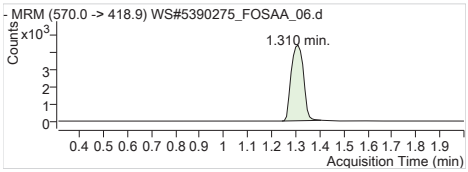


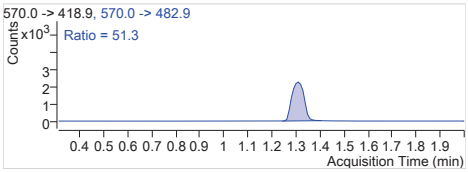
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Calibration



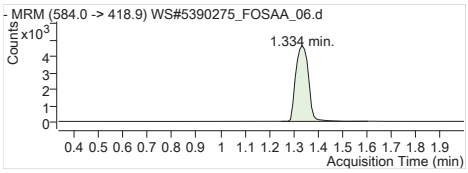


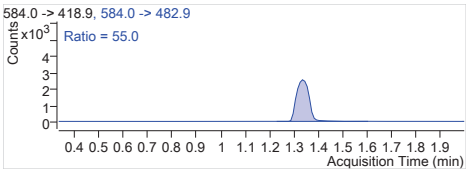
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Calibration



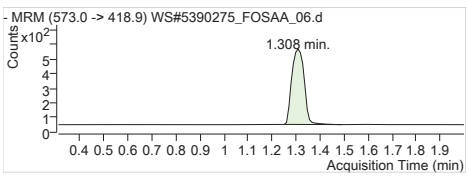


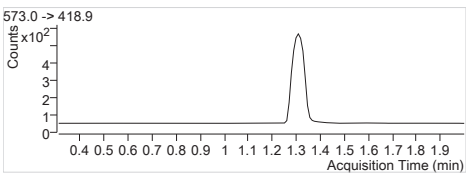
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 24.14 µg/L
Area ratio: 8.37452
Sample type: Calibration



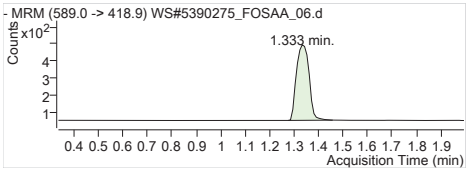


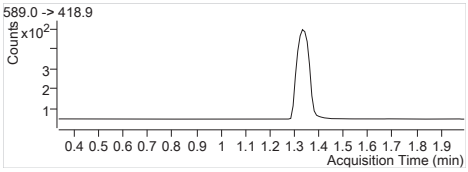
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 25.36 µg/L
Area ratio: 10.49747
Sample type: Calibration



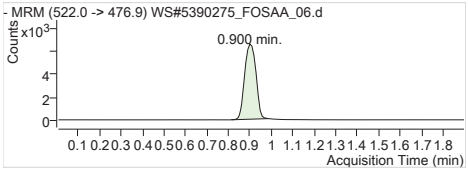


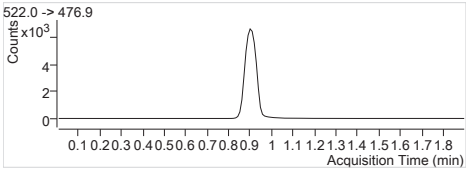
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 102.43 µg/L
Area ratio: 0.07512
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	99.02 µg/L
Area ratio:	0.06457
Sample type:	Calibration





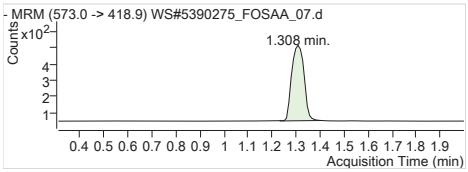
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	100.88 µg/L
Area ratio:	0
Sample type:	Calibration

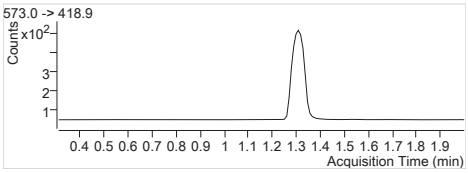
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A7
Acq. Date	2018/02/10 12:42:22 AM	**Injection Volume**	Per Method
Sample Annotation	-		

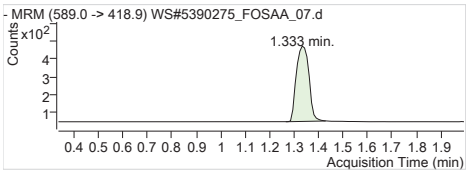
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1661	1.31	1 µg/L		
D5-EtFOSAA IS	1514	1.33	1 µg/L		
13C9-PFDA IS	23294	0.90	1 µg/L		

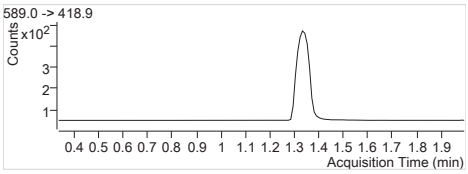
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	24332	1.31	41.70	42.27 µg/L	101.37
EtFOSAA 1	26753	1.33	41.70	42.68 µg/L	102.34
D3-MeFOSAA	1677	1.31	100.00	98.17 µg/L	98.17
D5-EtFOSAA	1535	1.33	100.00	101.06 µg/L	101.06
13C9-PFDA	22508	0.90	100.00	94.93 µg/L	94.93



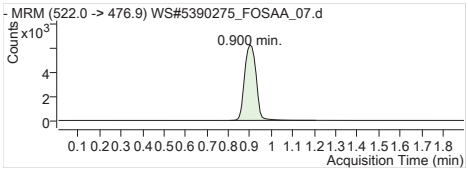


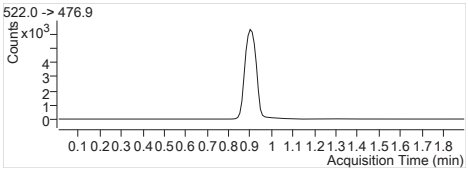
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Calibration



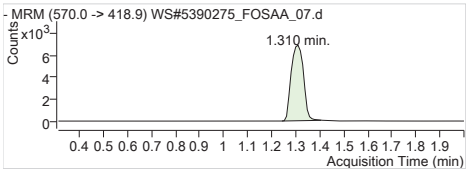


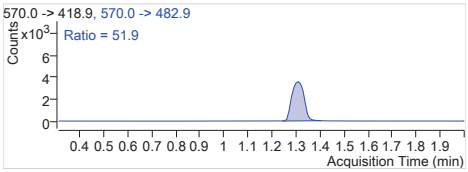
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Calibration



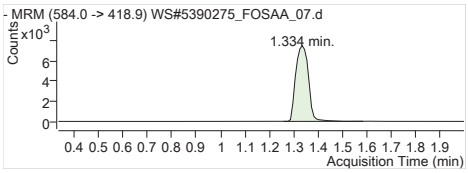


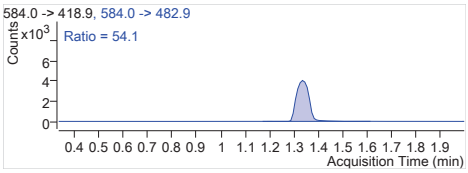
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Calibration



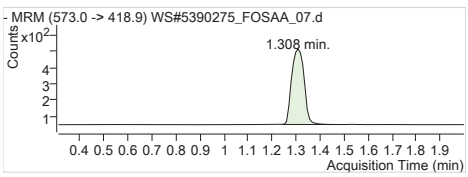


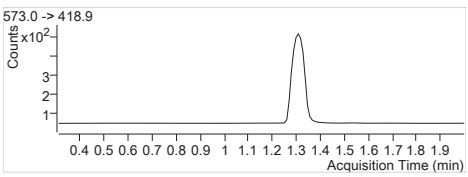
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 42.27 µg/L
Area ratio: 14.64901
Sample type: Calibration



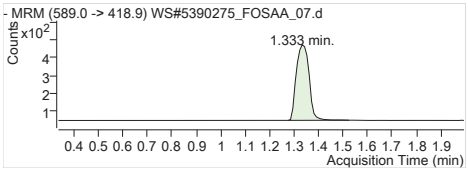


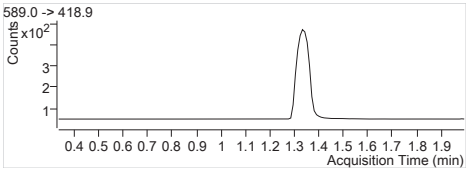
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 42.68 µg/L
Area ratio: 17.67041
Sample type: Calibration



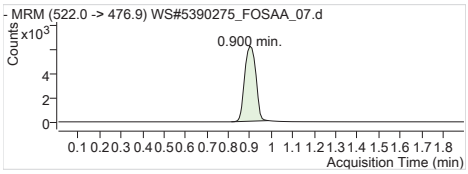


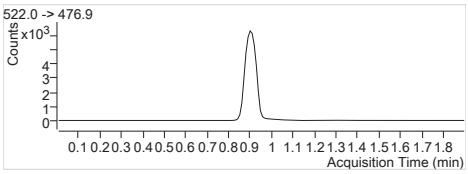
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 98.17 µg/L
Area ratio: 0.07199
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	101.06 µg/L
Area ratio:	0.06590
Sample type:	Calibration





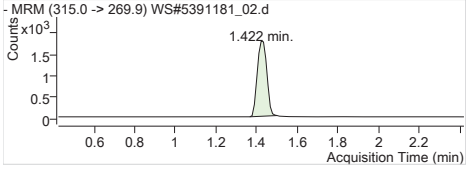
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	94.93 µg/L
Area ratio:	0
Sample type:	Calibration

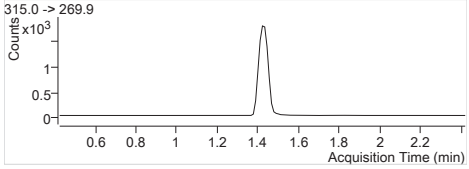
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5391181_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C1
Acq. Date	2018/02/09 12:32:16 PM	**Injection Volume**	Per Method
Sample Annotation	-		

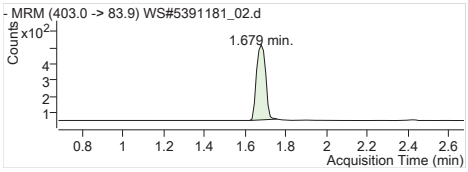
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5701	1.42	1 µg/L		
MPFHxS	1459	1.68	1 µg/L		
MPFHpA	7483	1.69	1 µg/L		
MPFOA	7562	1.87	1 µg/L		
MPFOS	1734	1.98	1 µg/L		
MPFNA	7899	2.01	1 µg/L		
MPFDA	6600	2.14	1 µg/L		
MPFUnA	7599	2.23	1 µg/L		
MPFDoA	10510	2.32	1 µg/L		
MPFTeDA	12209	2.47	1 µg/L		
13C6-PFHxA IS	21505	1.42	1 µg/L		
13C9-PFDA IS	29170	2.13	1 µg/L		

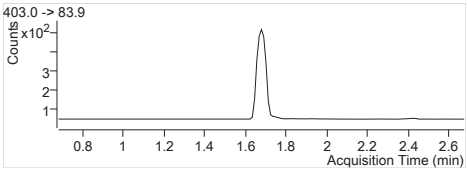
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	583	1.09	0.83	0.89 µg/L	107.57
PFHxA 1	1948	1.42	0.83	0.95 µg/L	114.70
PFHxS 1	554	1.68	0.83	0.90 µg/L	107.94
PFHpA 1	2695	1.69	0.83	0.90 µg/L	107.84
PFOA 1	2791	1.88	0.83	0.83 µg/L	100.41
PFOS 1	607	1.97	0.83	0.90 µg/L	108.26
PFNA 1	2616	2.01	0.83	0.91 µg/L	109.34
PFDA 1	2685	2.14	0.83	0.90 µg/L	108.98
PFUnA 1	2984	2.23	0.83	0.90 µg/L	107.83
PFDoA 1	3995	2.32	0.83	0.94 µg/L	113.46
PFTrDA 1	4362	2.40	0.83	0.88 µg/L	106.14
PFTeDA 1	3658	2.47	0.83	0.87 µg/L	105.21
13C2-PFHxA	5701	1.42	100.00	101.80 µg/L	101.80
18O2-PFHxS	1459	1.68	100.00	104.36 µg/L	104.36
13C4-PFHpA	7483	1.69	100.00	104.63 µg/L	104.63
13C4-PFOA	7562	1.87	100.00	100.35 µg/L	100.35
13C4-PFOS	1734	1.98	100.00	103.42 µg/L	103.42
13C5-PFNA	7899	2.01	100.00	103.81 µg/L	103.81
13C2-PFDA	6544	2.14	100.00	103.19 µg/L	103.19
13C2-PFUnA	7599	2.23	100.00	99.70 µg/L	99.70
13C2-PFDoA	10510	2.32	100.00	100.74 µg/L	100.74
13C2-PFTeDA	12401	2.47	100.00	100.94 µg/L	100.94
13C6-PFHxA	21505	1.42	100.00	100.18 µg/L	100.18
13C9-PFDA	29170	2.13	100.00	103.76 µg/L	103.76



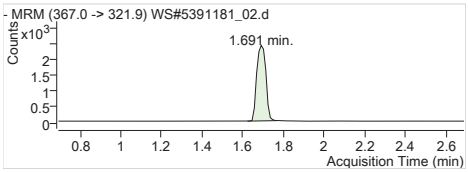


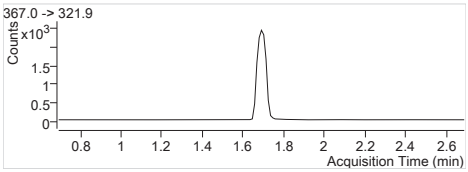
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



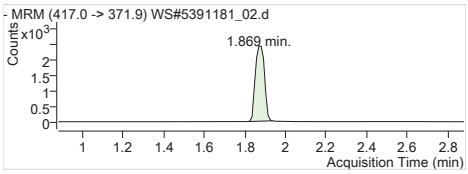


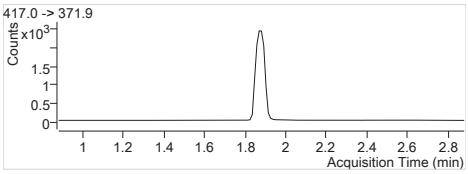
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



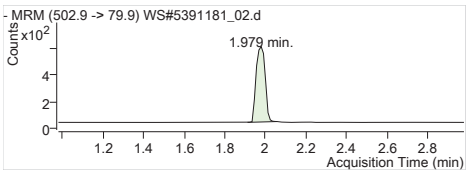


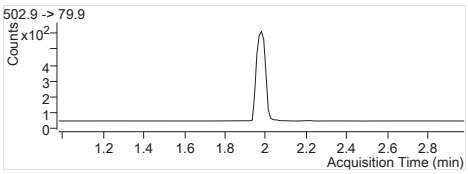
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



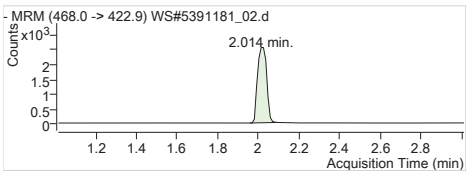


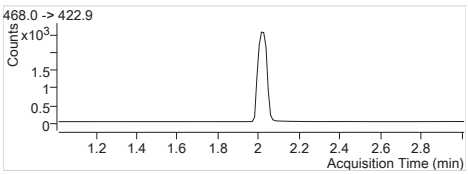
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



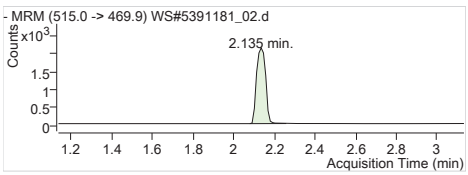


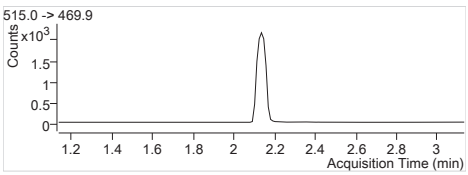
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



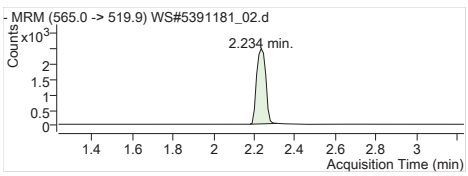


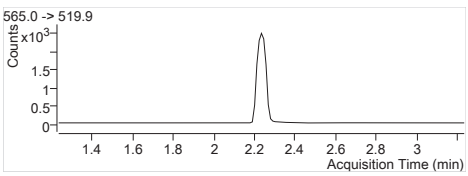
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



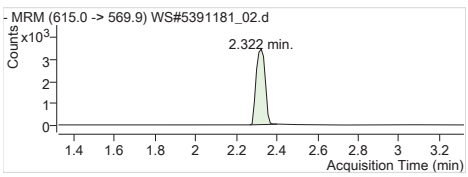


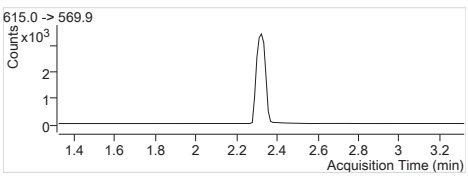
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



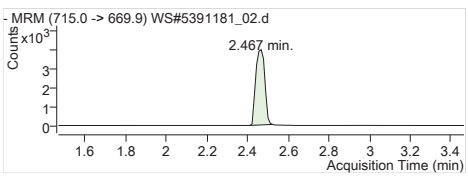


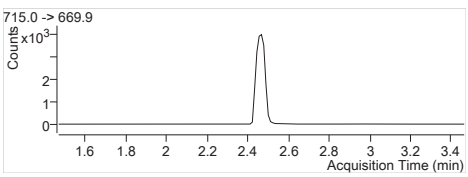
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



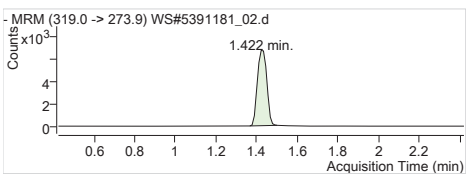


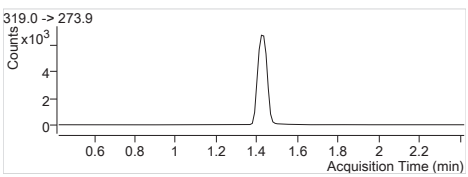
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



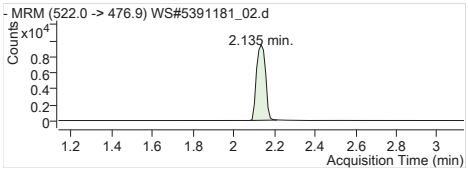


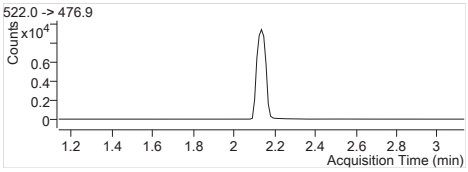
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



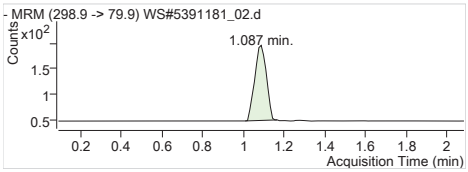


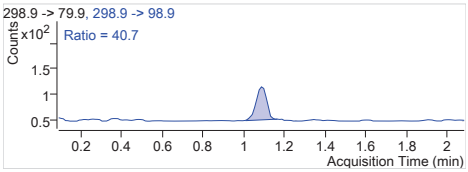
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



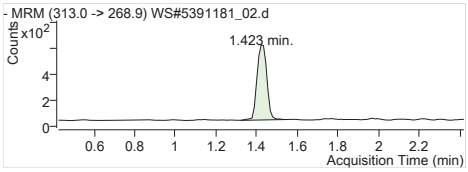


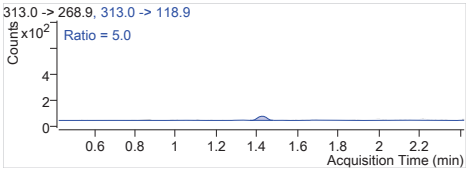
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



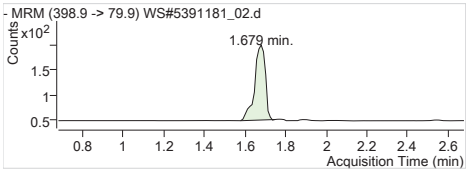


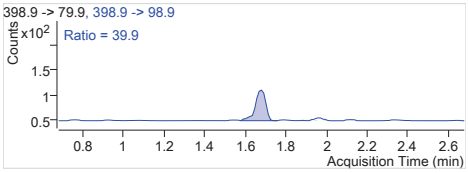
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.89 µg/L
Area ratio: 0.39959
Sample type: Calibration



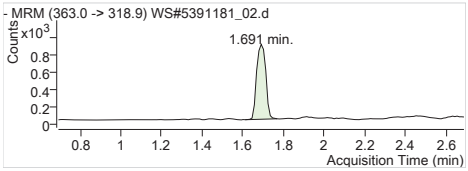


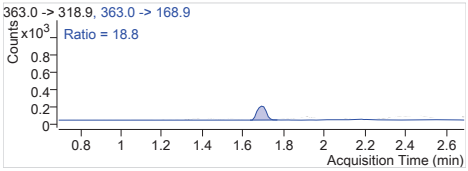
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.95 µg/L
Area ratio: 0.34169
Sample type: Calibration



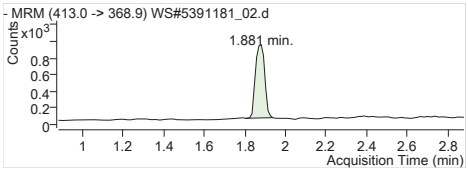


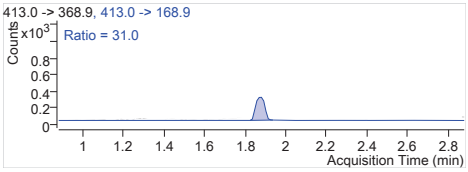
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.90 µg/L
Area ratio: 0.37971
Sample type: Calibration



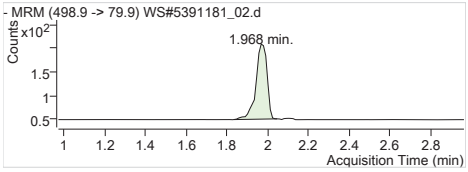


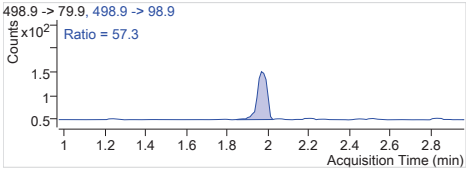
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.90 µg/L
Area ratio: 0.36015
Sample type: Calibration



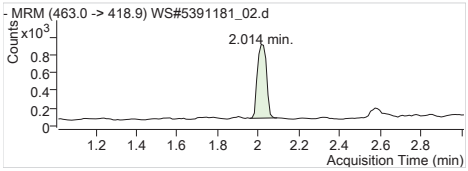


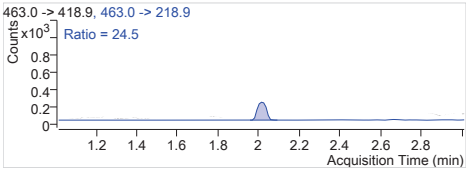
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.83 µg/L
Area ratio: 0.36908
Sample type: Calibration



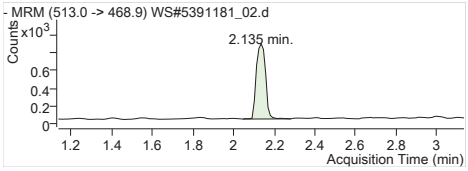


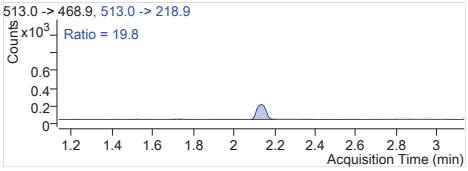
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 0.90 µg/L
Area ratio: 0.35006
Sample type: Calibration



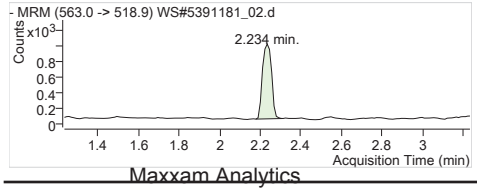


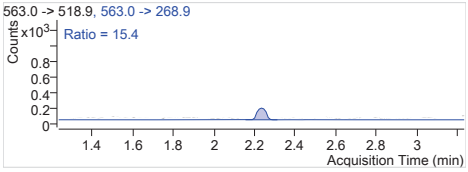
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.91 µg/L
Area ratio: 0.33118
Sample type: Calibration



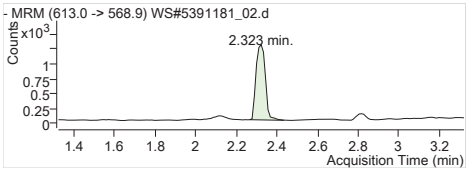


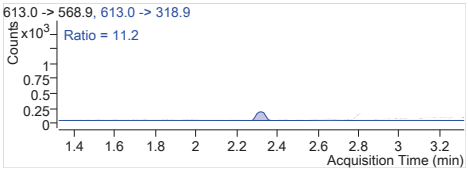
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.90 µg/L
Area ratio: 0.40682
Sample type: Calibration



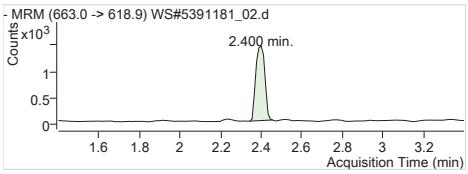


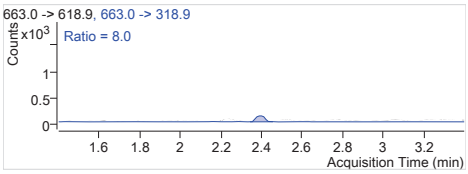
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.90 µg/L
Area ratio: 0.39268
Sample type: Calibration



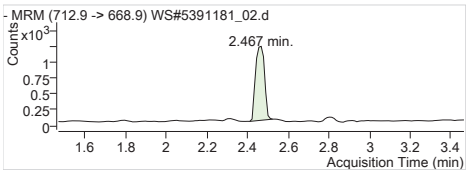


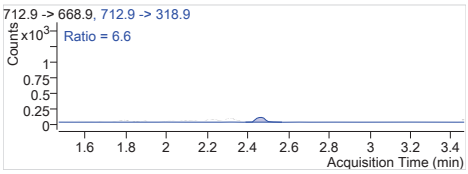
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.94 µg/L
Area ratio: 0.38011
Sample type: Calibration



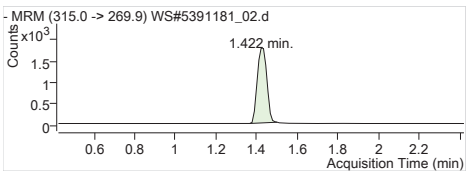


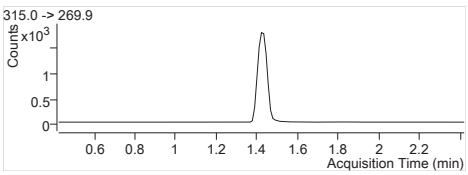
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.88 µg/L
Area ratio: 0.35728
Sample type: Calibration



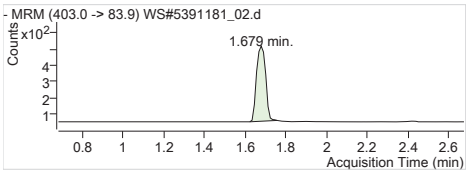


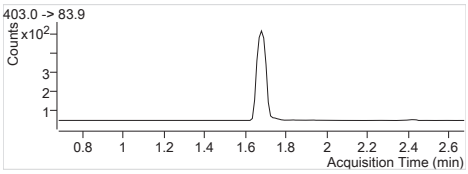
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.87 µg/L
Area ratio: 0.29962
Sample type: Calibration



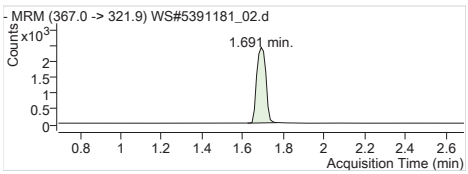


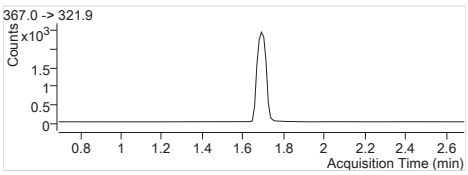
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 101.80 µg/L
Area ratio: 0.26510
Sample type: Calibration



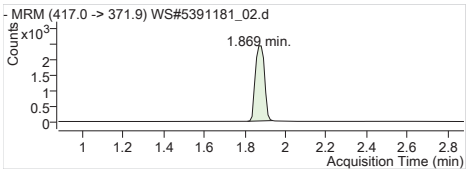


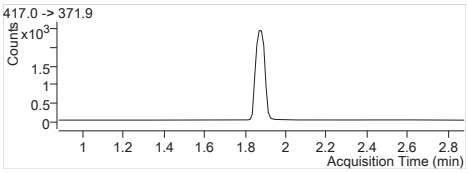
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 104.36 µg/L
Area ratio: 0.06784
Sample type: Calibration



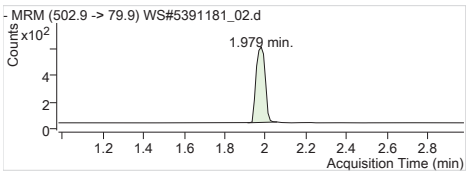


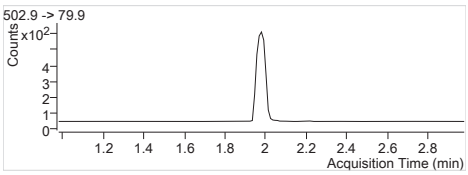
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 104.63 µg/L
Area ratio: 0.34797
Sample type: Calibration



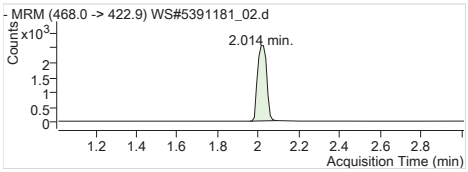


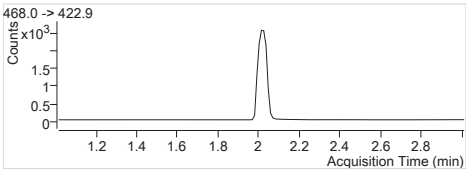
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 100.35 µg/L
Area ratio: 0.35164
Sample type: Calibration



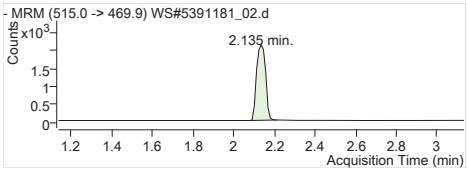


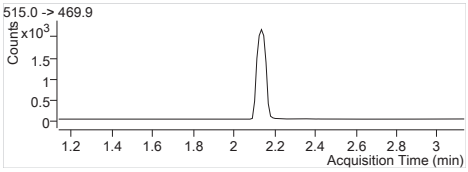
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 103.42 µg/L
Area ratio: 0.08063
Sample type: Calibration



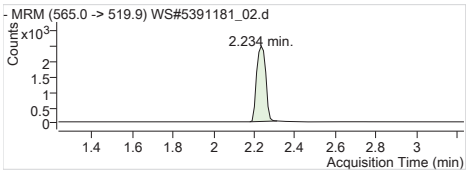


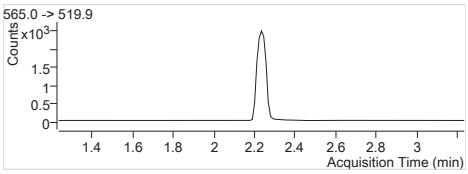
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 103.81 µg/L
Area ratio: 0.36731
Sample type: Calibration



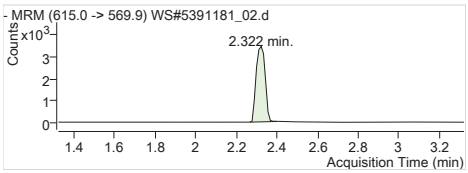


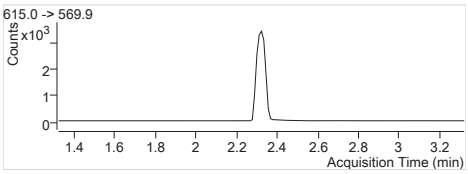
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 103.19 µg/L
Area ratio: 0.22434
Sample type: Calibration



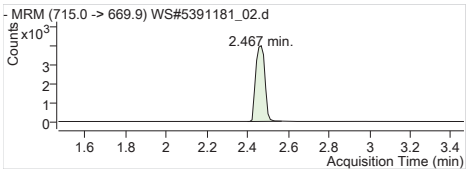


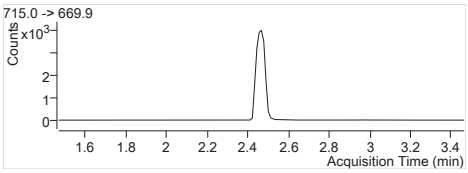
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 99.70 µg/L
Area ratio: 0.26051
Sample type: Calibration



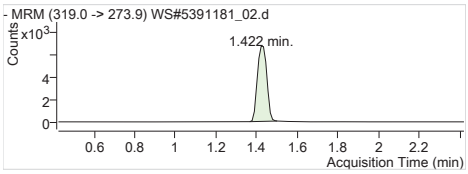


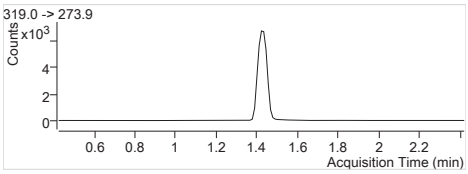
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 100.74 µg/L
Area ratio: 0.36030
Sample type: Calibration



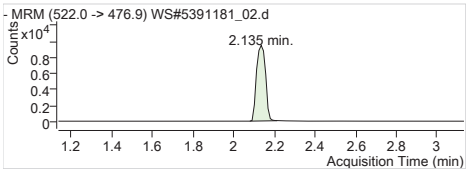


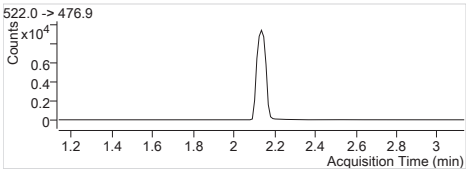
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 100.94 µg/L
Area ratio: 0.42513
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 100.18 µg/L
Area ratio: 0
Sample type: Calibration





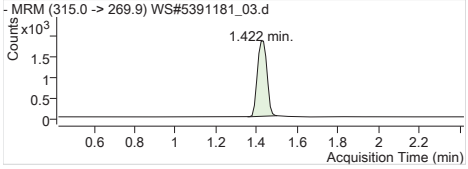
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 103.76 µg/L
Area ratio: 0
Sample type: Calibration

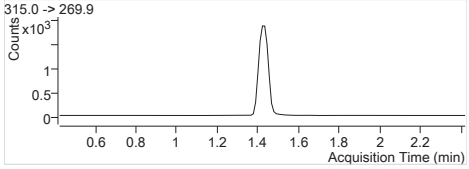
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5391181_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C2
Acq. Date	2018/02/09 12:37:12 PM	**Injection Volume**	Per Method
Sample Annotation	-		

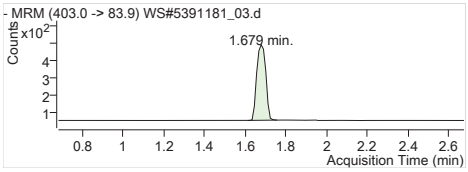
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6002	1.42	1 µg/L		
MPFHxS	1369	1.68	1 µg/L		
MPFHpA	7259	1.69	1 µg/L		
MPFOA	7769	1.88	1 µg/L		
MPFOS	1666	1.98	1 µg/L		
MPFNA	7453	2.01	1 µg/L		
MPFDA	6297	2.14	1 µg/L		
MPFUnA	7715	2.23	1 µg/L		
MPFDoA	10387	2.32	1 µg/L		
MPFTeDA	12112	2.47	1 µg/L		
13C6-PFHxA IS	22000	1.42	1 µg/L		
13C9-PFDA IS	30116	2.13	1 µg/L		

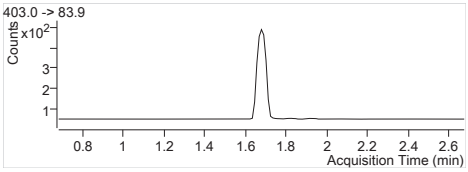
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	987	1.08	1.70	1.56 µg/L	91.52
PFHxA 1	3663	1.42	1.70	1.54 µg/L	90.81
PFHxS 1	972	1.68	1.70	1.60 µg/L	94.28
PFHpA 1	4550	1.69	1.70	1.51 µg/L	88.64
PFOA 1	5280	1.88	1.70	1.54 µg/L	90.83
PFOS 1	984	1.97	1.70	1.51 µg/L	88.72
PFNA 1	4483	2.01	1.70	1.58 µg/L	93.00
PFDA 1	4898	2.14	1.70	1.59 µg/L	93.67
PFUnA 1	5500	2.23	1.70	1.55 µg/L	91.01
PFDoA 1	6547	2.32	1.70	1.48 µg/L	87.34
PFTrDA 1	7325	2.40	1.70	1.44 µg/L	84.82
PFTeDA 1	6233	2.47	1.70	1.45 µg/L	85.13
13C2-PFHxA	6002	1.42	100.00	104.77 µg/L	104.77
18O2-PFHxS	1369	1.68	100.00	95.72 µg/L	95.72
13C4-PFHpA	7259	1.69	100.00	99.22 µg/L	99.22
13C4-PFOA	7769	1.88	100.00	100.78 µg/L	100.78
13C4-PFOS	1666	1.98	100.00	97.13 µg/L	97.13
13C5-PFNA	7453	2.01	100.00	95.75 µg/L	95.75
13C2-PFDA	6154	2.14	100.00	93.99 µg/L	93.99
13C2-PFUnA	7715	2.23	100.00	98.04 µg/L	98.04
13C2-PFDoA	10387	2.32	100.00	96.43 µg/L	96.43
13C2-PFTeDA	12371	2.47	100.00	97.53 µg/L	97.53
13C6-PFHxA	22000	1.42	100.00	102.49 µg/L	102.49
13C9-PFDA	30116	2.13	100.00	107.13 µg/L	107.13



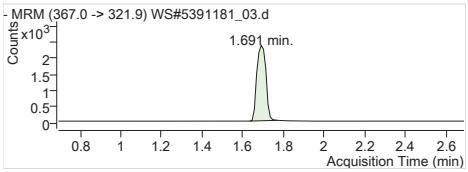


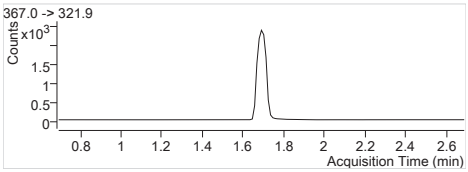
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



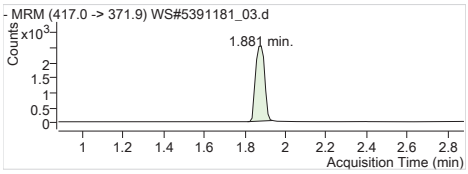


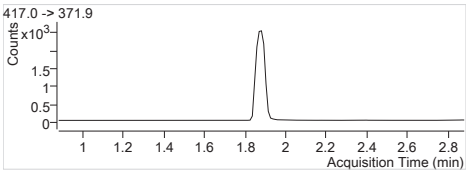
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



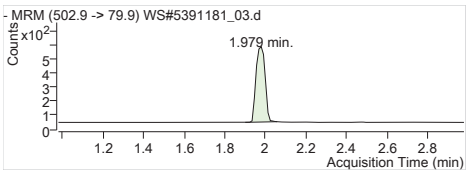


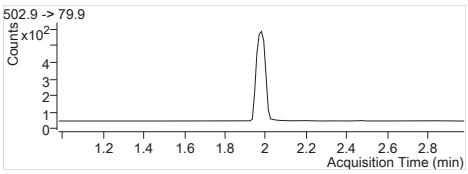
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



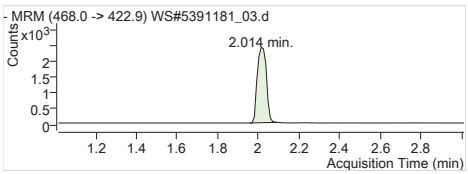


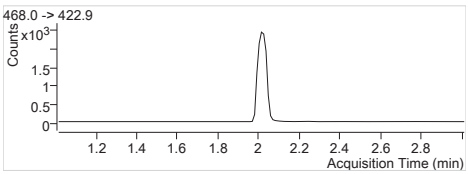
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



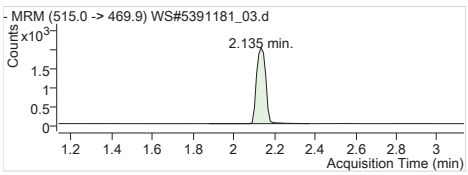


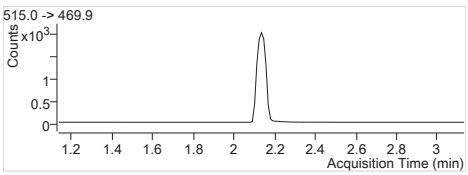
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



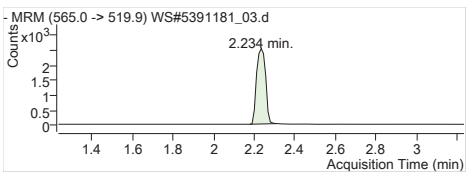


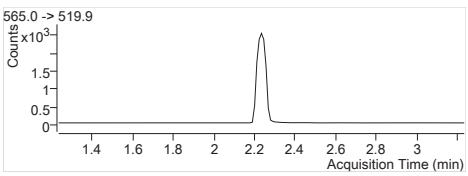
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



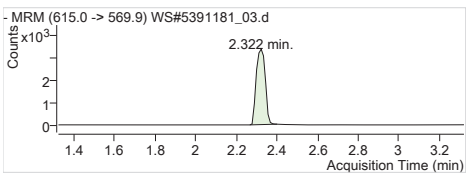


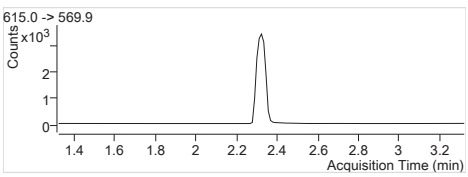
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



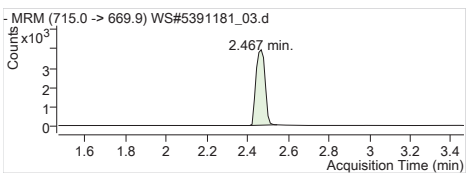


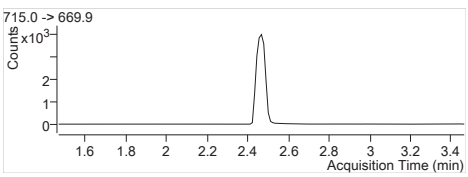
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



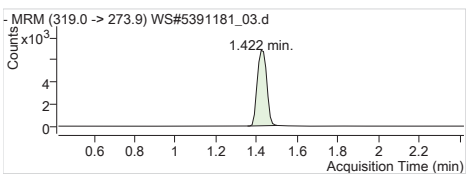


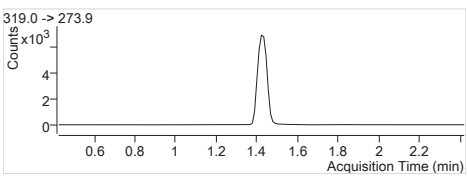
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



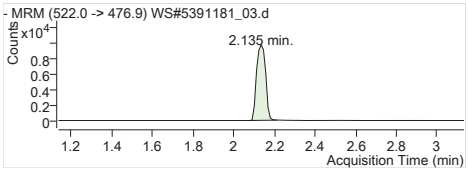


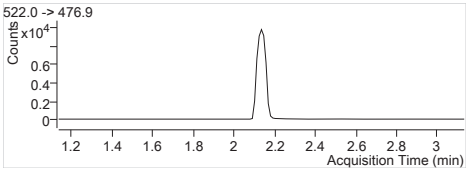
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



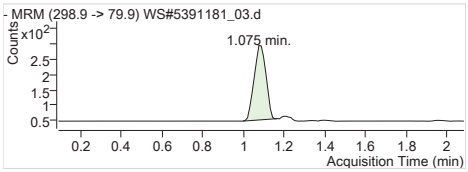


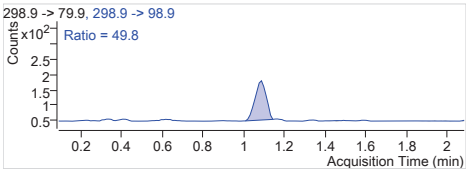
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



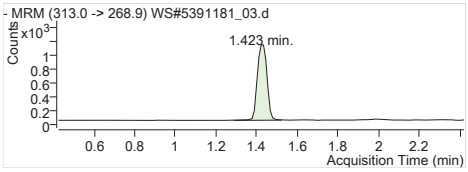


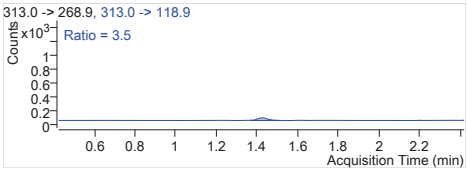
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



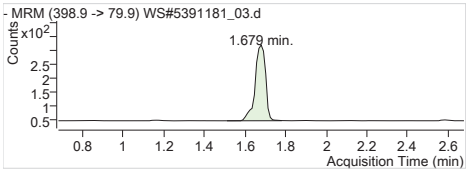


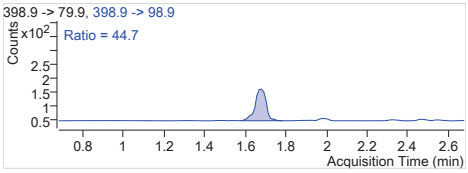
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.075 (1.087)
Calc. conc. 1.56 µg/L
Area ratio: 0.72096
Sample type: Calibration



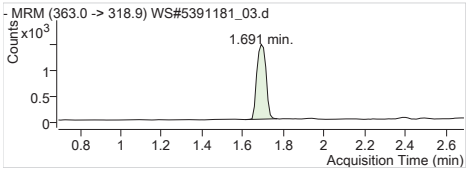


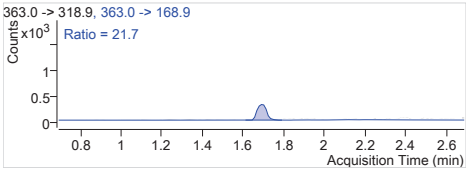
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 1.54 µg/L
Area ratio: 0.61030
Sample type: Calibration



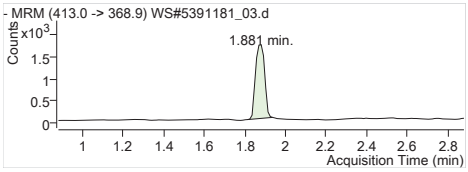


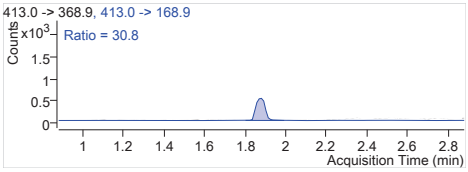
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 1.60 µg/L
Area ratio: 0.71001
Sample type: Calibration



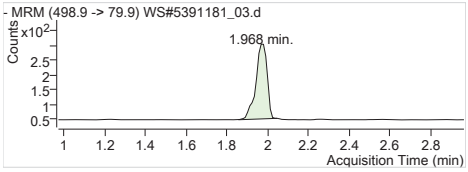


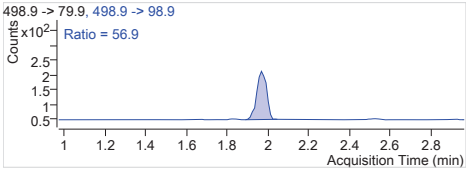
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 1.51 µg/L
Area ratio: 0.62681
Sample type: Calibration



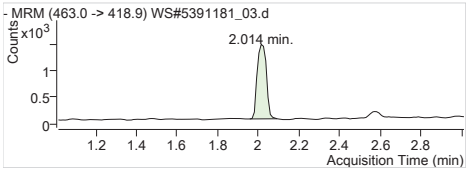


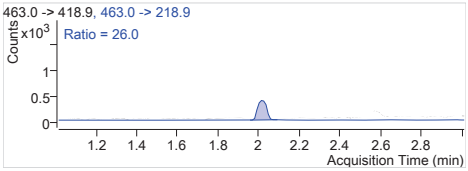
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 1.54 µg/L
Area ratio: 0.67962
Sample type: Calibration



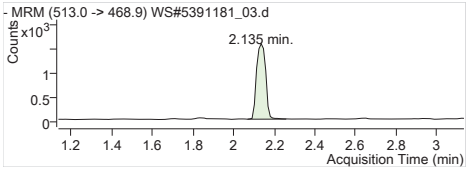


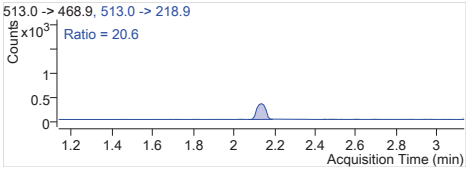
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 1.51 µg/L
Area ratio: 0.59064
Sample type: Calibration



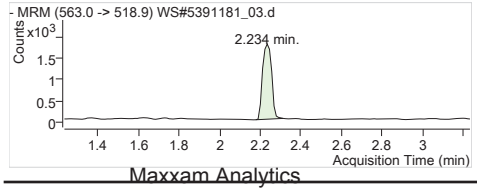


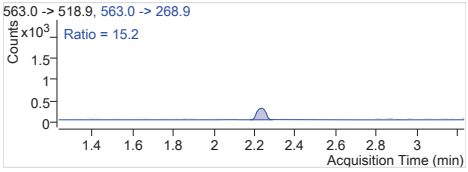
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 1.58 µg/L
Area ratio: 0.60150
Sample type: Calibration



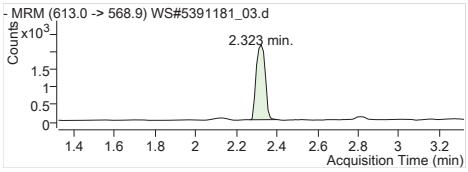


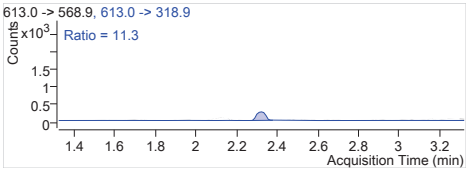
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 1.59 µg/L
Area ratio: 0.77783
Sample type: Calibration



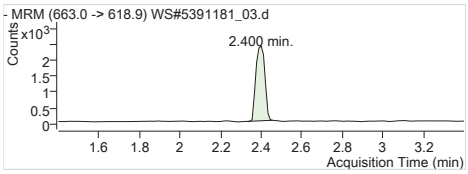


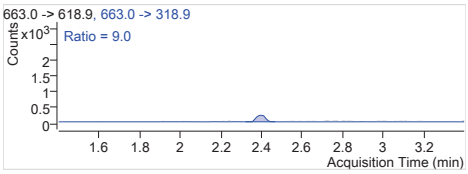
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 1.55 µg/L
Area ratio: 0.71290
Sample type: Calibration



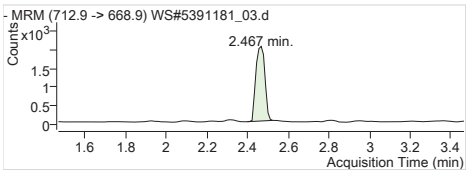


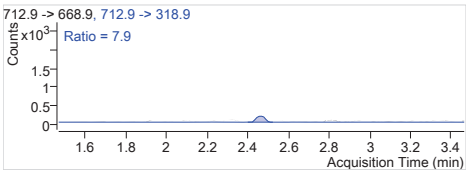
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 1.48 µg/L
Area ratio: 0.63031
Sample type: Calibration



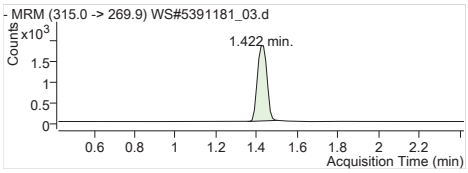


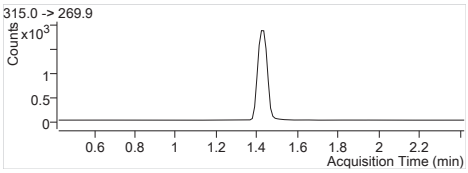
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 1.44 µg/L
Area ratio: 0.60477
Sample type: Calibration



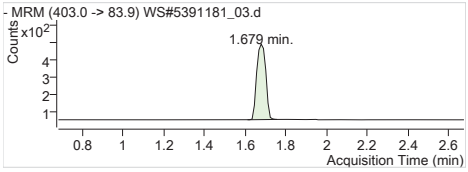


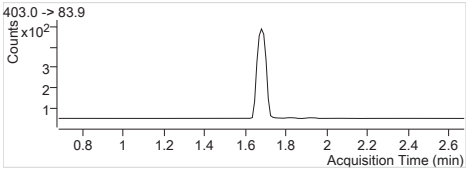
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 1.45 µg/L
Area ratio: 0.51461
Sample type: Calibration



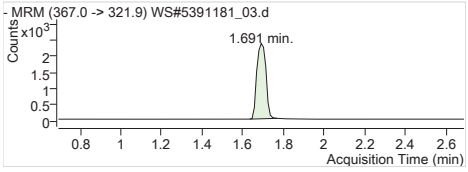


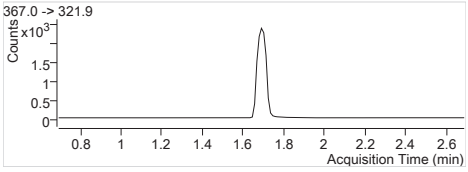
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 104.77 µg/L
Area ratio: 0.27282
Sample type: Calibration



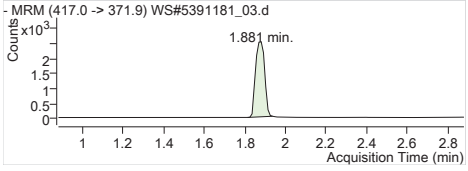


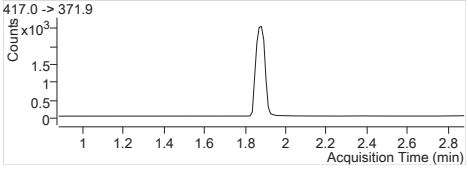
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 95.72 µg/L
Area ratio: 0.06223
Sample type: Calibration



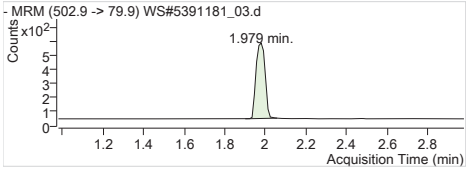


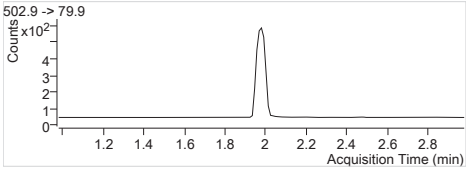
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 99.22 µg/L
Area ratio: 0.32995
Sample type: Calibration



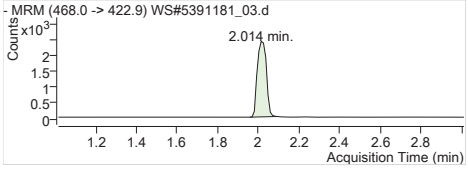


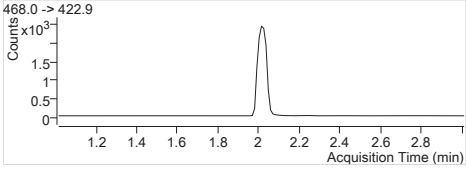
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 100.78 µg/L
Area ratio: 0.35314
Sample type: Calibration



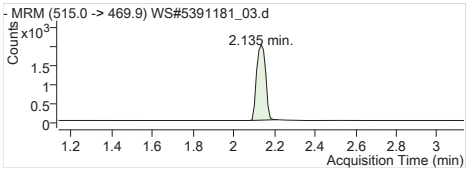


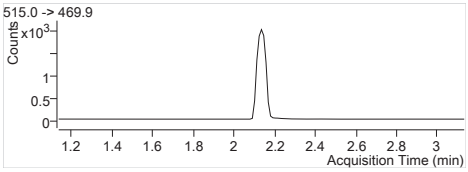
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 97.13 µg/L
Area ratio: 0.07573
Sample type: Calibration



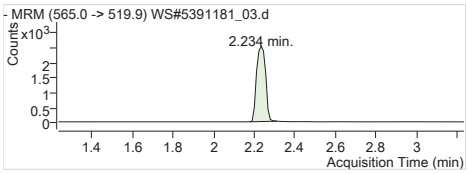


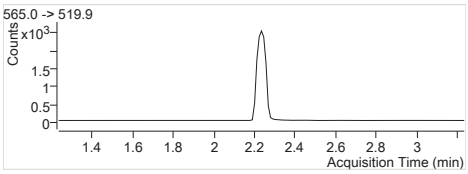
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 95.75 µg/L
Area ratio: 0.33877
Sample type: Calibration



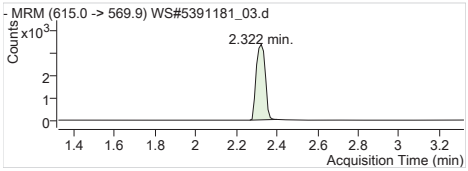


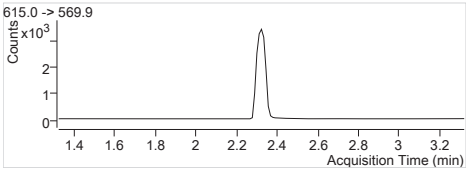
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 93.99 µg/L
Area ratio: 0.20434
Sample type: Calibration



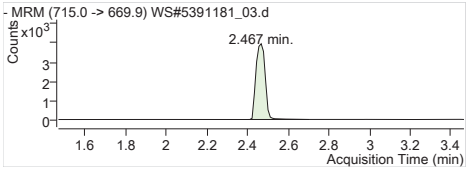


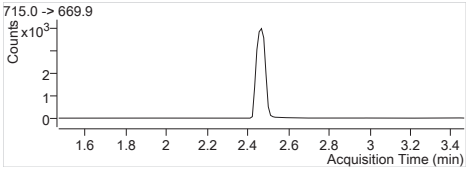
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 98.04 µg/L
Area ratio: 0.25618
Sample type: Calibration



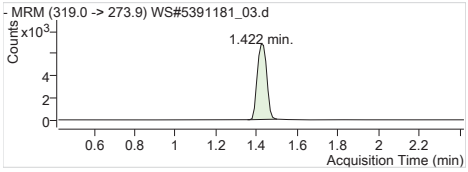


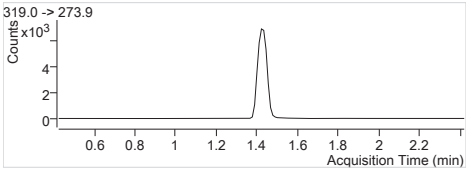
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 96.43 µg/L
Area ratio: 0.34490
Sample type: Calibration



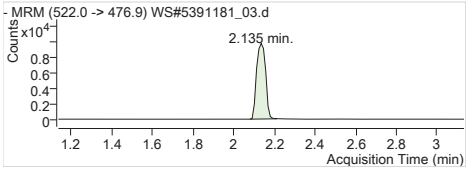


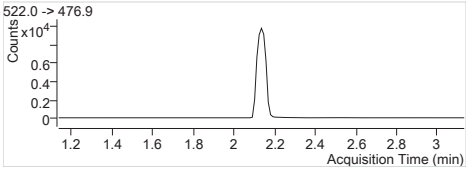
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 97.53 µg/L
Area ratio: 0.41078
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 102.49 µg/L
Area ratio: 0
Sample type: Calibration





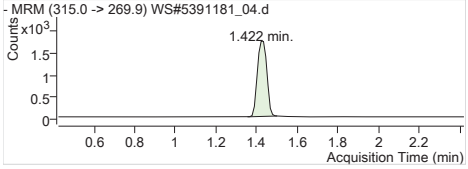
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 107.13 µg/L
Area ratio: 0
Sample type: Calibration

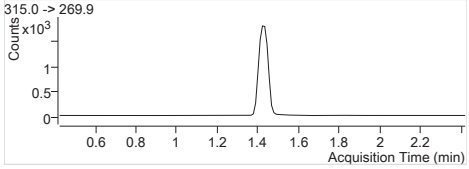
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5391181_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C3
Acq. Date	2018/02/09 12:42:07 PM	**Injection Volume**	Per Method
Sample Annotation	-		

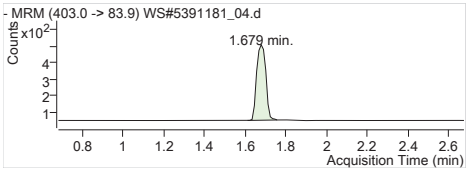
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5587	1.42	1 µg/L		
MPFHxS	1439	1.68	1 µg/L		
MPFHpA	7144	1.69	1 µg/L		
MPFOA	7333	1.88	1 µg/L		
MPFOS	1654	1.98	1 µg/L		
MPFNA	7553	2.01	1 µg/L		
MPFDA	5783	2.14	1 µg/L		
MPFUnA	7036	2.23	1 µg/L		
MPFDoA	10059	2.32	1 µg/L		
MPFTeDA	11264	2.47	1 µg/L		
13C6-PFHxA IS	23128	1.42	1 µg/L		
13C9-PFDA IS	29118	2.13	1 µg/L		

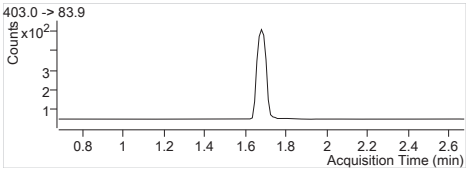
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	3189	1.09	5.00	4.64 µg/L	92.81
PFHxA 1	11379	1.42	5.00	4.69 µg/L	93.72
PFHxS 1	3056	1.68	5.00	4.63 µg/L	92.57
PFHpA 1	15349	1.69	5.00	5.00 µg/L	99.97
PFOA 1	16826	1.88	5.00	5.24 µg/L	104.81
PFOS 1	3211	1.97	5.00	4.93 µg/L	98.61
PFNA 1	14491	2.01	5.00	4.86 µg/L	97.24
PFDA 1	15385	2.14	5.00	5.08 µg/L	101.66
PFUnA 1	17165	2.23	5.00	5.06 µg/L	101.27
PFDoA 1	21538	2.32	5.00	4.76 µg/L	95.28
PFTrDA 1	25051	2.40	5.00	5.11 µg/L	102.25
PFTeDA 1	20912	2.47	5.00	5.03 µg/L	100.58
13C2-PFHxA	5587	1.42	100.00	92.77 µg/L	92.77
18O2-PFHxS	1439	1.68	100.00	95.70 µg/L	95.70
13C4-PFHpA	7144	1.69	100.00	92.88 µg/L	92.88
13C4-PFOA	7333	1.88	100.00	90.49 µg/L	90.49
13C4-PFOS	1654	1.98	100.00	91.72 µg/L	91.72
13C5-PFNA	7552	2.01	100.00	92.29 µg/L	92.29
13C2-PFDA	5695	2.14	100.00	89.96 µg/L	89.96
13C2-PFUnA	7036	2.23	100.00	92.48 µg/L	92.48
13C2-PFDoA	10059	2.32	100.00	96.59 µg/L	96.59
13C2-PFTeDA	11521	2.47	100.00	93.94 µg/L	93.94
13C6-PFHxA	23128	1.42	100.00	107.74 µg/L	107.74
13C9-PFDA	29118	2.13	100.00	103.58 µg/L	103.58



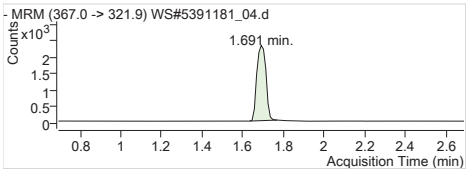


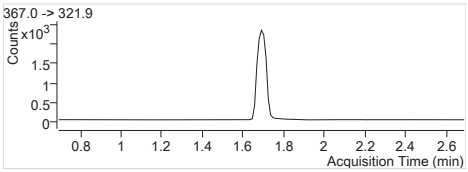
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



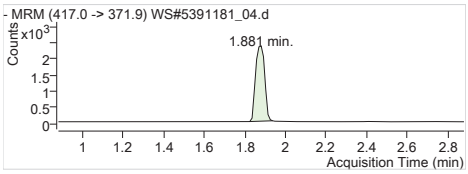


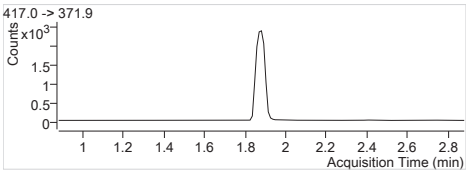
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



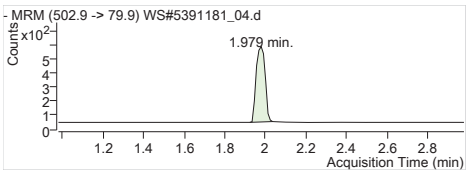


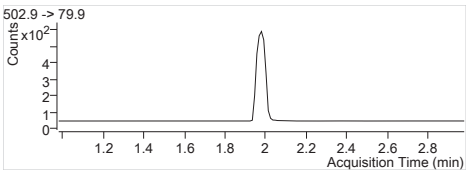
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



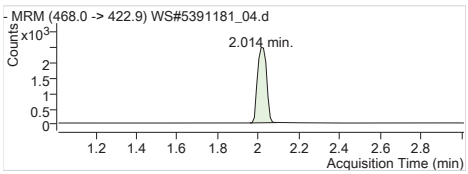


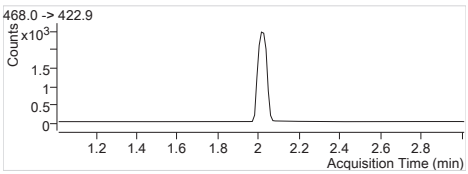
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



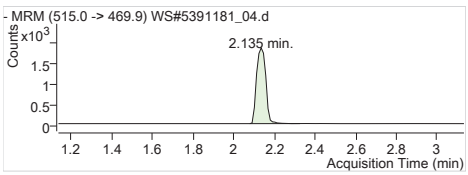


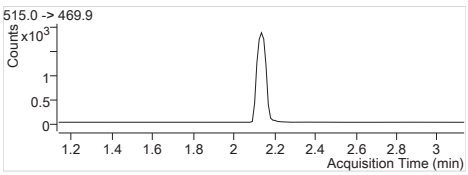
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



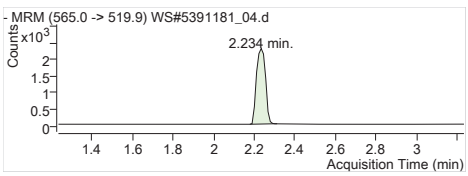


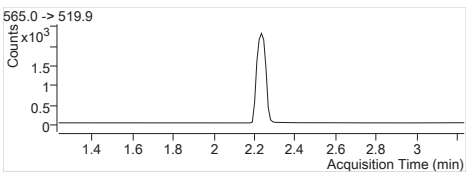
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



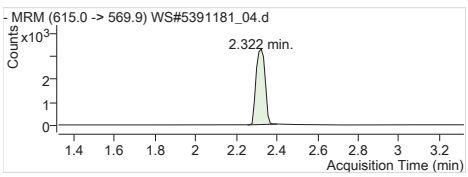


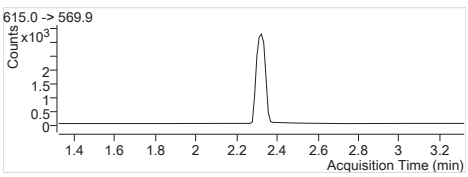
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



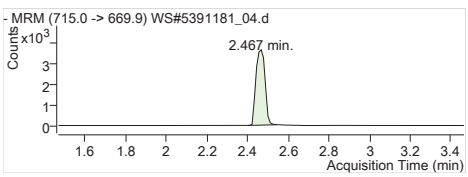


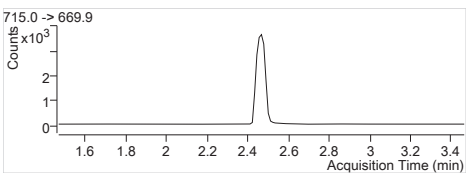
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



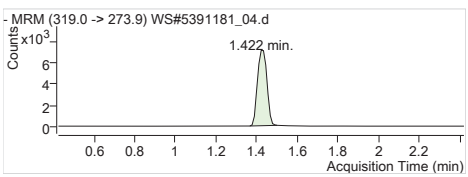


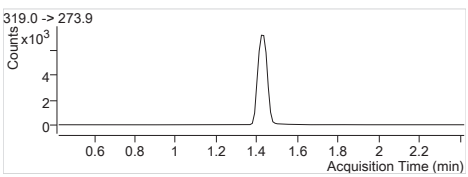
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



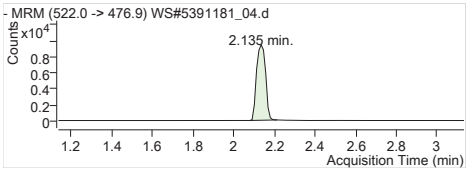


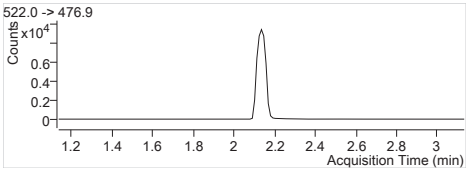
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



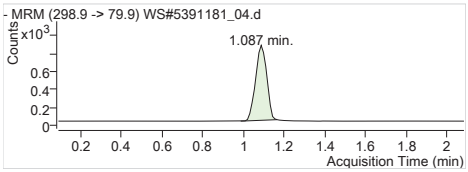


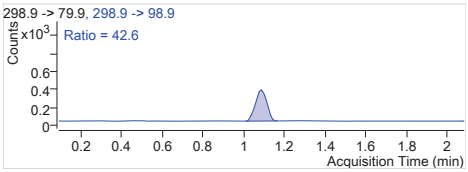
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



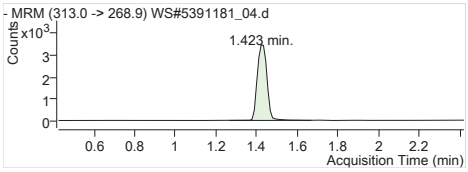


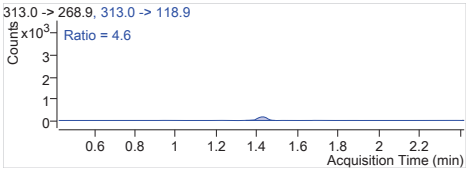
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



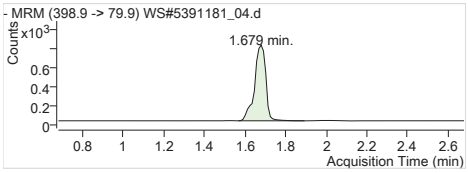


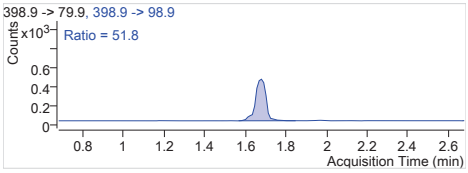
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 4.64 µg/L
Area ratio: 2.21612
Sample type: Calibration



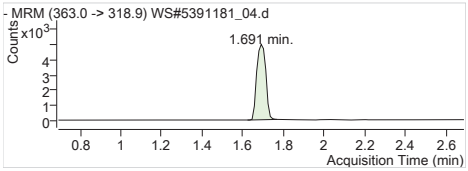


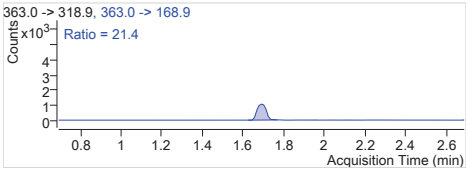
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 4.69 µg/L
Area ratio: 2.03669
Sample type: Calibration



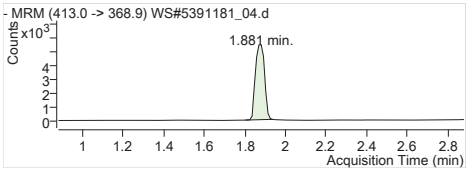


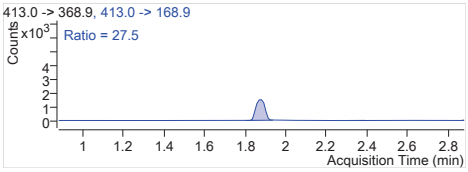
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 4.63 µg/L
Area ratio: 2.12370
Sample type: Calibration



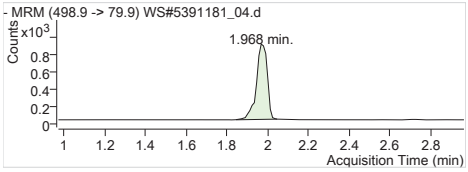


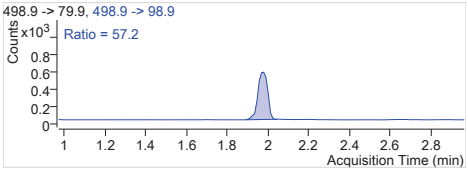
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 5.00 µg/L
Area ratio: 2.14852
Sample type: Calibration



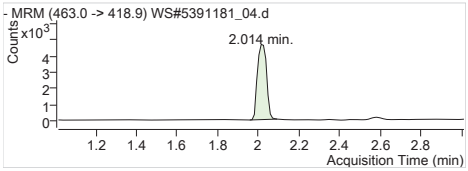


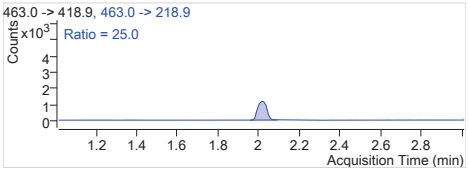
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 5.24 µg/L
Area ratio: 2.29456
Sample type: Calibration



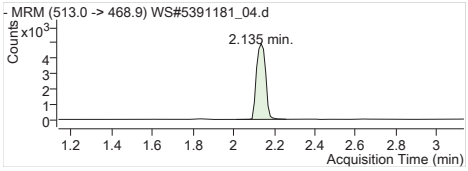


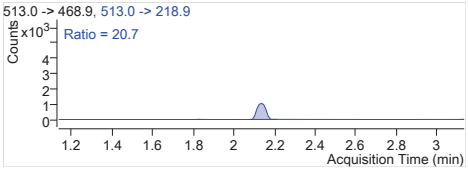
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 4.93 µg/L
Area ratio: 1.94135
Sample type: Calibration



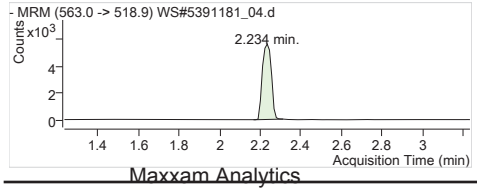


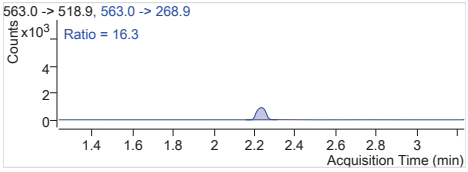
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 4.86 µg/L
Area ratio: 1.91858
Sample type: Calibration



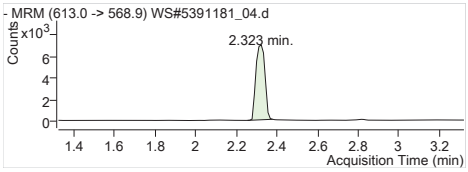


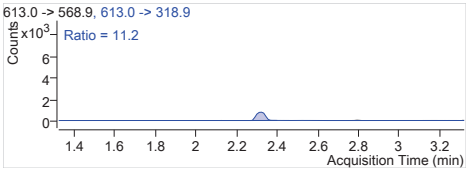
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 5.08 µg/L
Area ratio: 2.66038
Sample type: Calibration



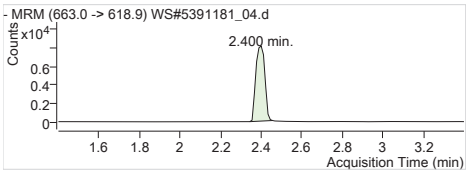


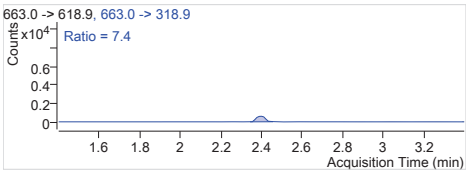
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 5.06 µg/L
Area ratio: 2.43960
Sample type: Calibration



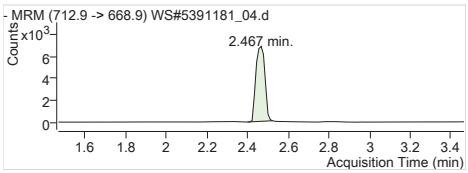


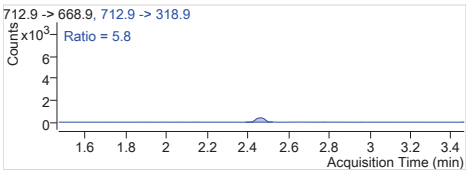
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 4.76 µg/L
Area ratio: 2.14117
Sample type: Calibration



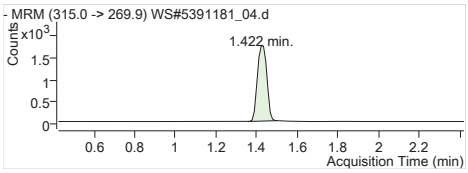


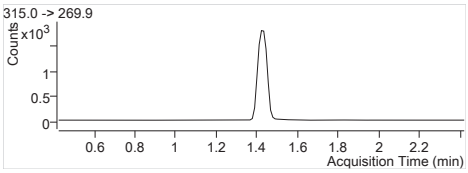
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 5.11 µg/L
Area ratio: 2.22399
Sample type: Calibration



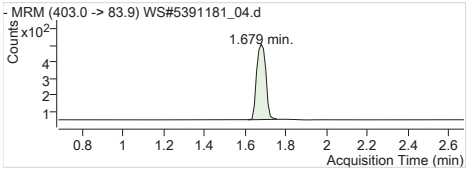


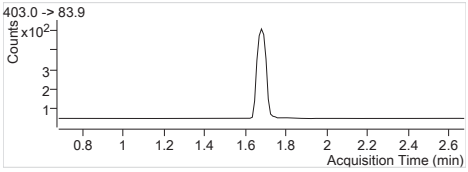
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 5.03 µg/L
Area ratio: 1.85653
Sample type: Calibration



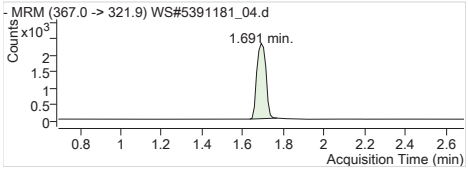


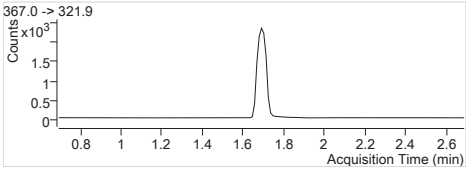
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 92.77 µg/L
Area ratio: 0.24157
Sample type: Calibration



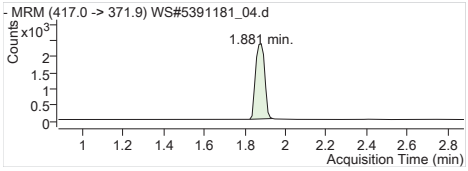


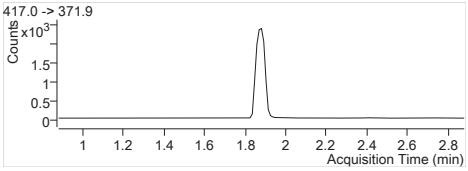
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 95.70 µg/L
Area ratio: 0.06222
Sample type: Calibration



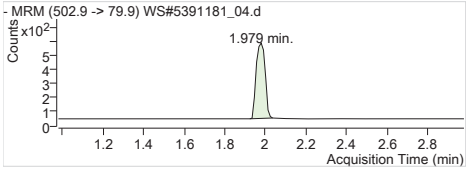


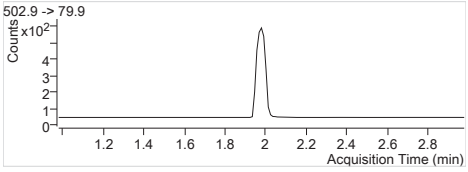
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 92.88 µg/L
Area ratio: 0.30889
Sample type: Calibration



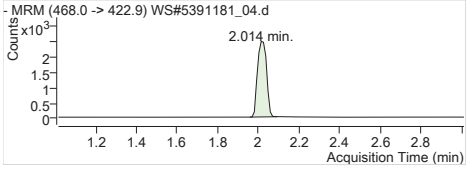


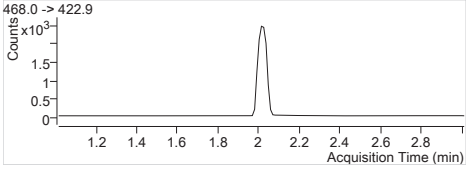
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 90.49 µg/L
Area ratio: 0.31706
Sample type: Calibration



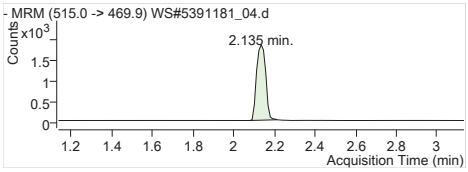


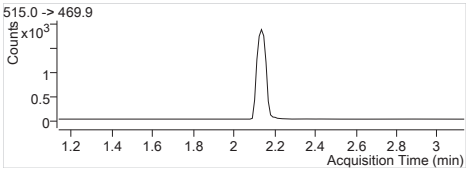
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 91.72 µg/L
Area ratio: 0.07152
Sample type: Calibration



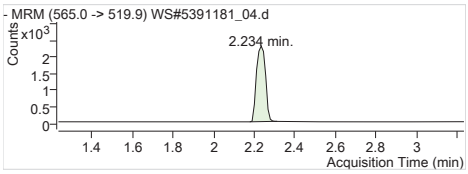


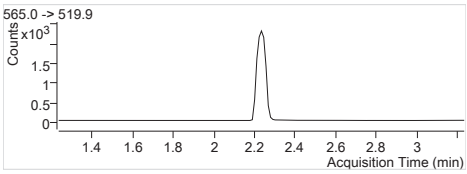
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 92.29 µg/L
Area ratio: 0.32653
Sample type: Calibration



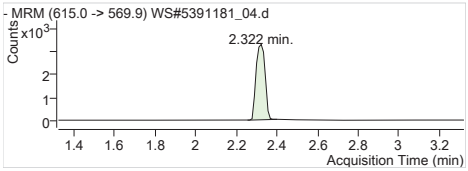


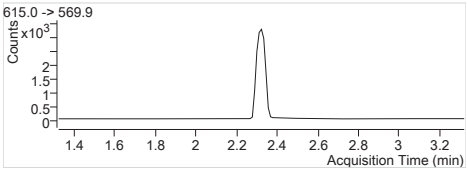
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 89.96 µg/L
Area ratio: 0.19558
Sample type: Calibration



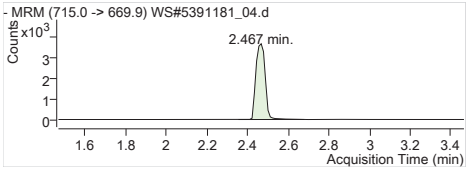


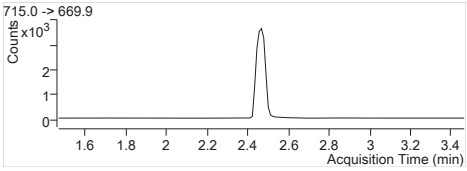
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 92.48 µg/L
Area ratio: 0.24164
Sample type: Calibration



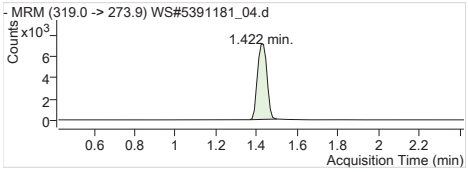


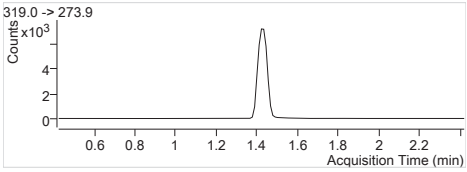
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 96.59 µg/L
Area ratio: 0.34546
Sample type: Calibration



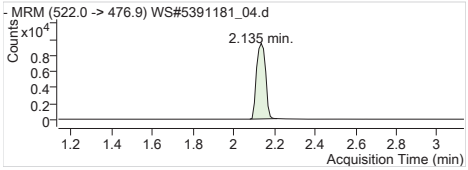


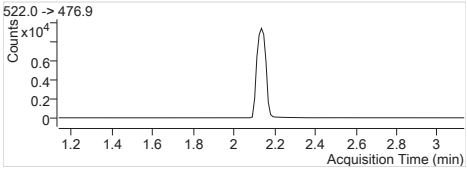
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 93.94 µg/L
Area ratio: 0.39567
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 107.74 µg/L
Area ratio: 0
Sample type: Calibration





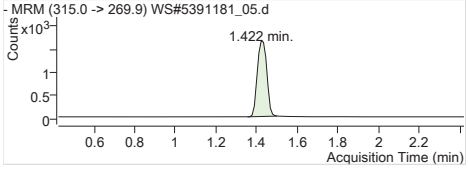
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 103.58 µg/L
Area ratio: 0
Sample type: Calibration

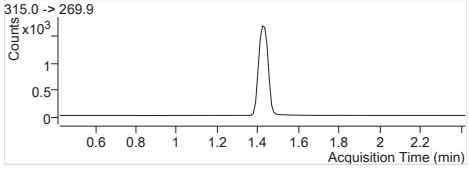
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5391181_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C4
Acq. Date	2018/02/09 12:47:02 PM	**Injection Volume**	Per Method
Sample Annotation	-		

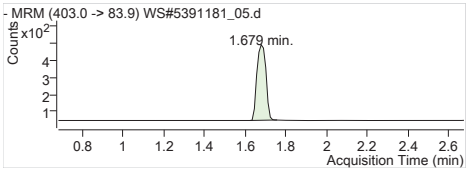
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5250	1.42	1 µg/L		
MPFHxS	1352	1.68	1 µg/L		
MPFHpA	6976	1.69	1 µg/L		
MPFOA	7566	1.88	1 µg/L		
MPFOS	1626	1.98	1 µg/L		
MPFNA	7850	2.01	1 µg/L		
MPFDA	6481	2.14	1 µg/L		
MPFUnA	7396	2.23	1 µg/L		
MPFDoA	9951	2.32	1 µg/L		
MPFTeDA	10612	2.47	1 µg/L		
13C6-PFHxA IS	20587	1.42	1 µg/L		
13C9-PFDA IS	27112	2.13	1 µg/L		

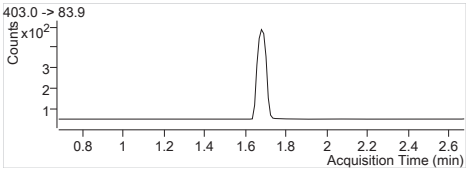
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8998	1.09	12.50	13.80 µg/L	110.39
PFHxA 1	30284	1.42	12.50	12.91 µg/L	103.26
PFHxS 1	8282	1.68	12.50	13.19 µg/L	105.55
PFHpA 1	39441	1.69	12.50	13.04 µg/L	104.33
PFOA 1	43612	1.88	12.50	13.18 µg/L	105.45
PFOS 1	8644	1.97	12.50	13.48 µg/L	107.85
PFNA 1	37940	2.01	12.50	12.12 µg/L	96.99
PFDA 1	42262	2.14	12.50	12.24 µg/L	97.93
PFUnA 1	45414	2.23	12.50	12.60 µg/L	100.80
PFDoA 1	59538	2.32	12.50	13.10 µg/L	104.83
PFTrDA 1	64981	2.40	12.50	13.95 µg/L	111.61
PFTeDA 1	56450	2.47	12.50	14.27 µg/L	114.17
13C2-PFHxA	5250	1.42	100.00	97.93 µg/L	97.93
18O2-PFHxS	1352	1.68	100.00	101.02 µg/L	101.02
13C4-PFHpA	6976	1.69	100.00	101.89 µg/L	101.89
13C4-PFOA	7566	1.88	100.00	104.88 µg/L	104.88
13C4-PFOS	1626	1.98	100.00	101.30 µg/L	101.30
13C5-PFNA	7848	2.01	100.00	107.74 µg/L	107.74
13C2-PFDA	6327	2.14	100.00	107.34 µg/L	107.34
13C2-PFUnA	7396	2.23	100.00	104.40 µg/L	104.40
13C2-PFDoA	9951	2.32	100.00	102.62 µg/L	102.62
13C2-PFTeDA	10831	2.47	100.00	94.85 µg/L	94.85
13C6-PFHxA	20587	1.42	100.00	95.91 µg/L	95.91
13C9-PFDA	27112	2.13	100.00	96.44 µg/L	96.44



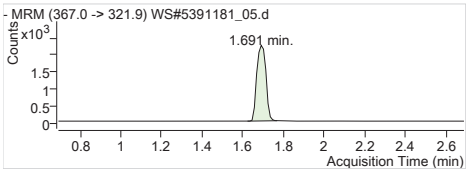


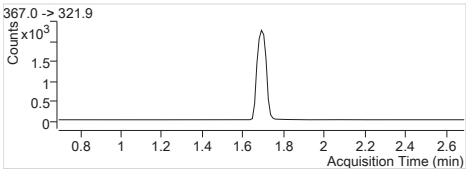
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



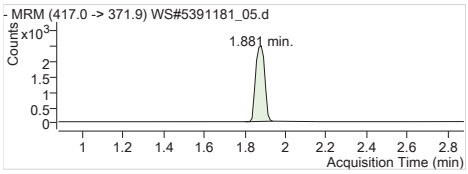


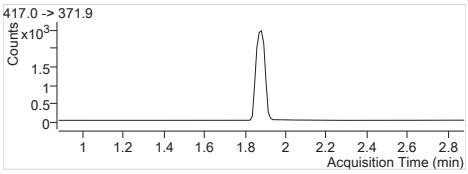
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



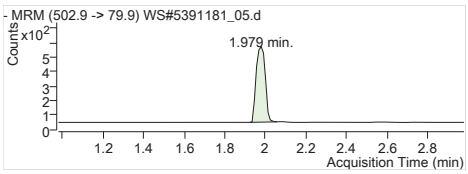


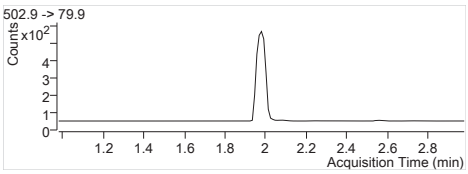
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



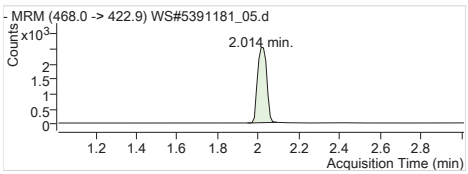


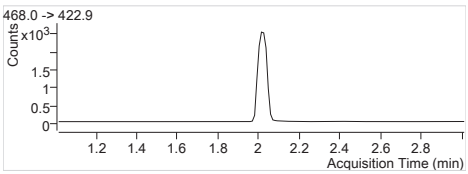
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



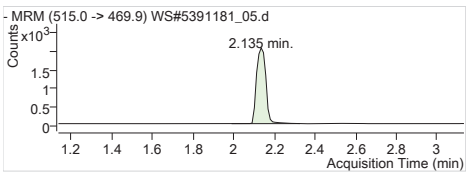


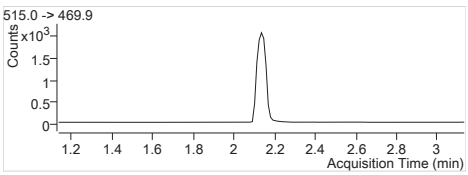
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



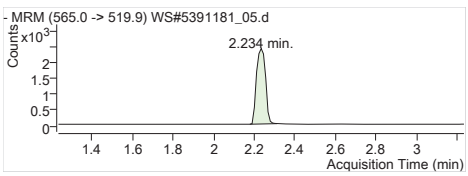


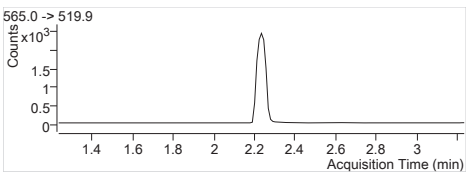
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



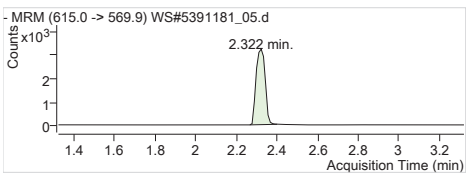


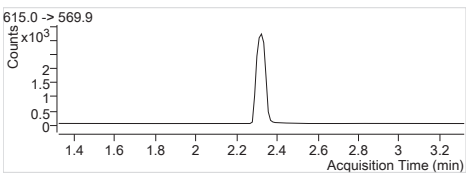
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



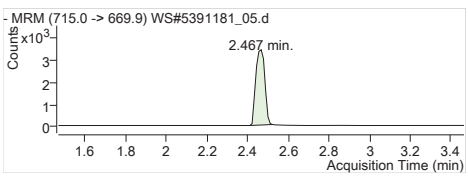


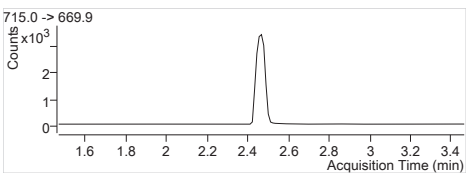
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



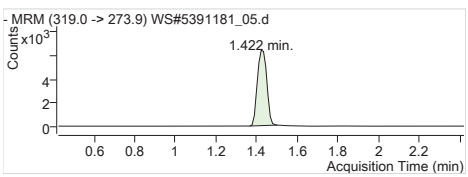


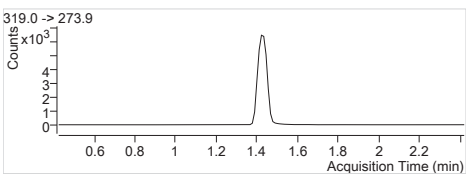
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



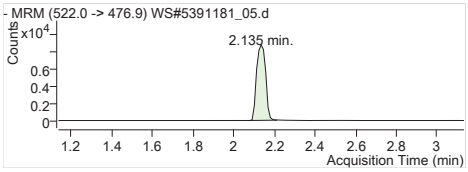


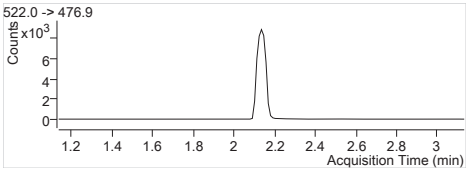
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



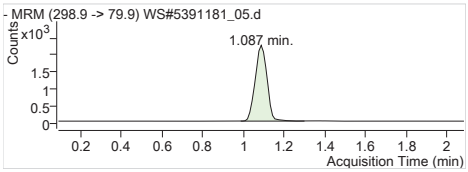


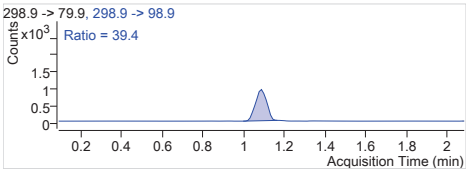
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



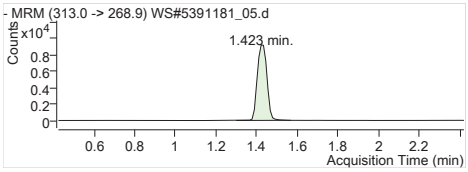


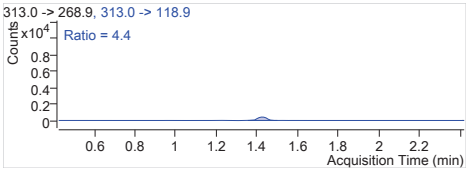
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



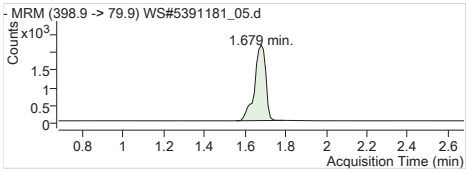


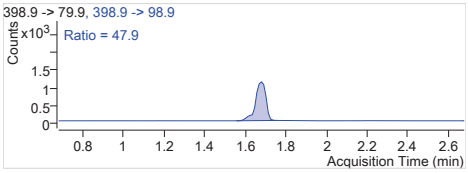
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 13.80 µg/L
Area ratio: 6.65533
Sample type: Calibration



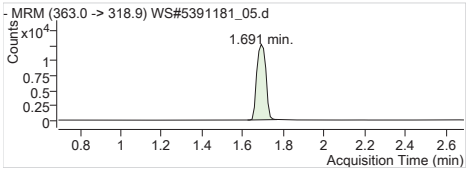


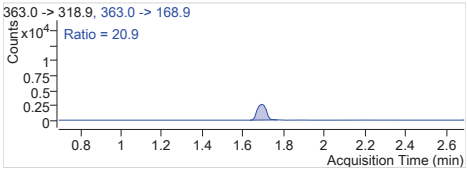
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 12.91 µg/L
Area ratio: 5.76838
Sample type: Calibration



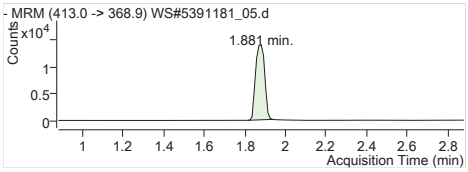


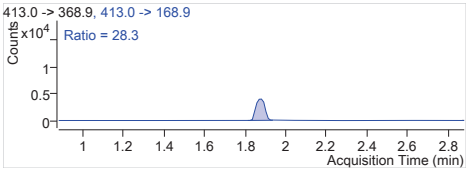
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 13.19 µg/L
Area ratio: 6.12574
Sample type: Calibration



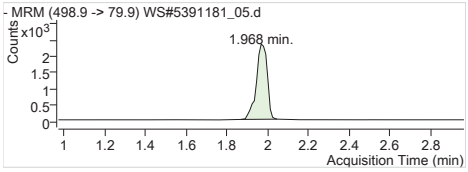


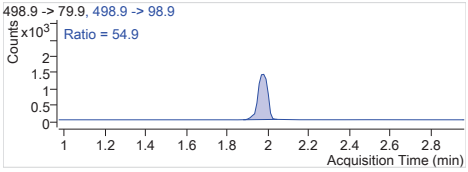
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 13.04 µg/L
Area ratio: 5.65381
Sample type: Calibration



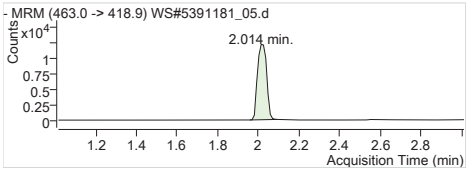


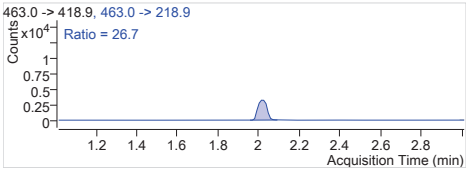
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 13.18 µg/L
Area ratio: 5.76421
Sample type: Calibration



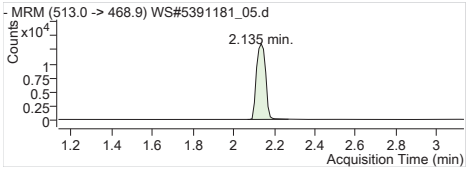


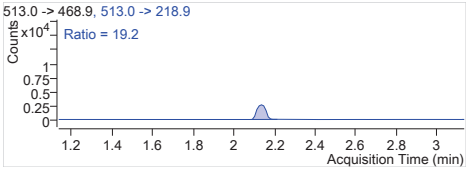
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 13.48 µg/L
Area ratio: 5.31611
Sample type: Calibration



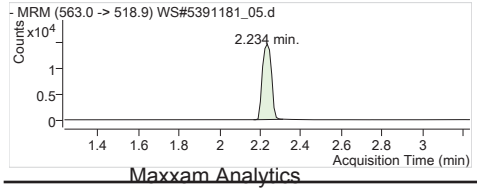


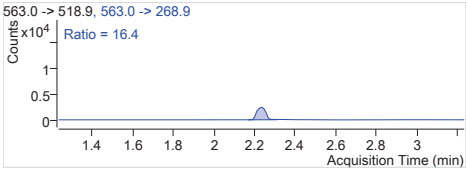
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 12.12 µg/L
Area ratio: 4.83312
Sample type: Calibration



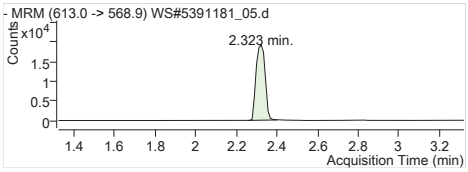


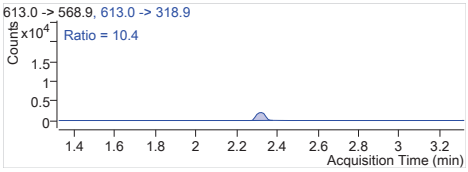
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 12.24 µg/L
Area ratio: 6.52091
Sample type: Calibration



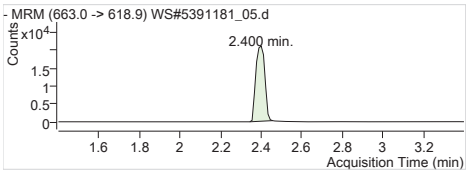


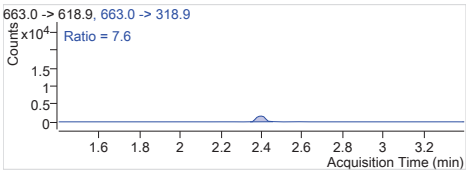
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 12.60 µg/L
Area ratio: 6.14035
Sample type: Calibration



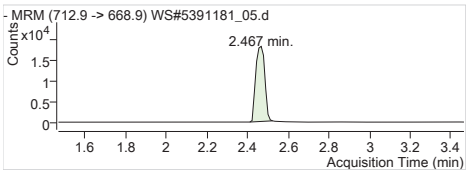


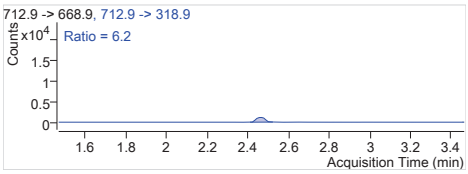
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 13.10 µg/L
Area ratio: 5.98312
Sample type: Calibration



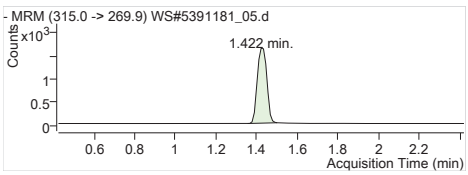


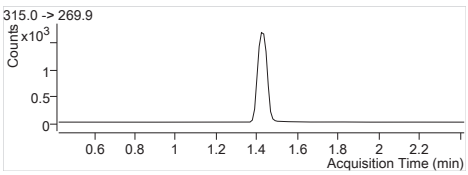
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 13.95 µg/L
Area ratio: 6.12335
Sample type: Calibration



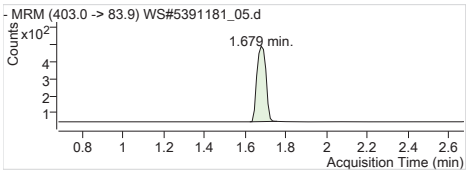


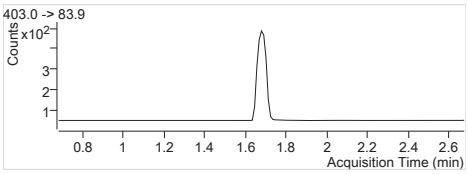
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 14.27 µg/L
Area ratio: 5.31945
Sample type: Calibration



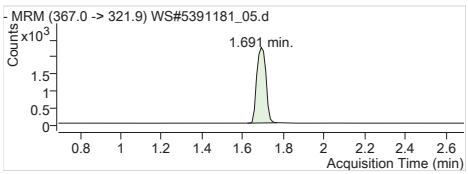


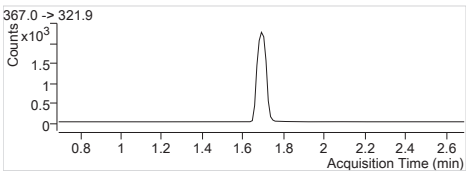
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 97.93 µg/L
Area ratio: 0.25502
Sample type: Calibration



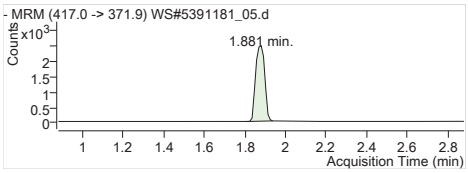


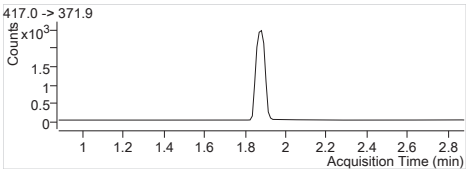
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 101.02 µg/L
Area ratio: 0.06567
Sample type: Calibration



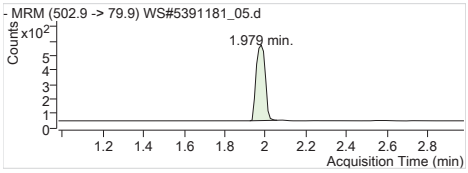


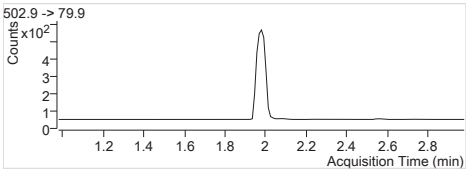
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 101.89 µg/L
Area ratio: 0.33885
Sample type: Calibration



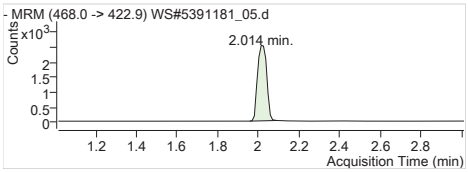


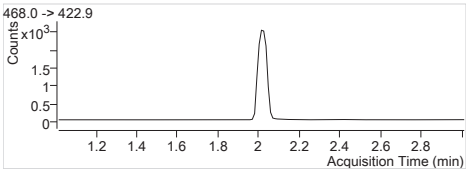
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 104.88 µg/L
Area ratio: 0.36751
Sample type: Calibration



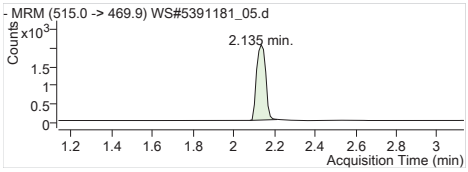


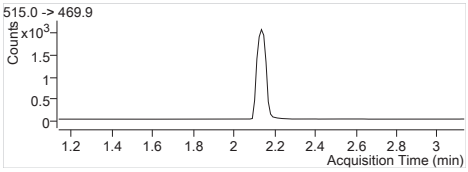
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 101.30 µg/L
Area ratio: 0.07898
Sample type: Calibration



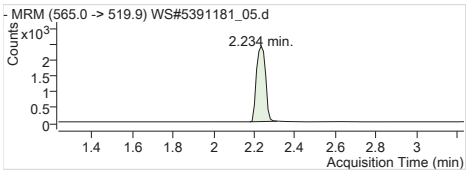


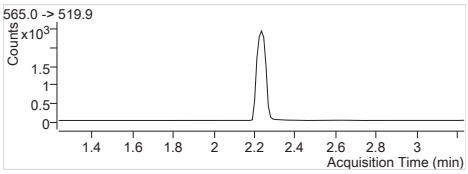
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 107.74 µg/L
Area ratio: 0.38121
Sample type: Calibration



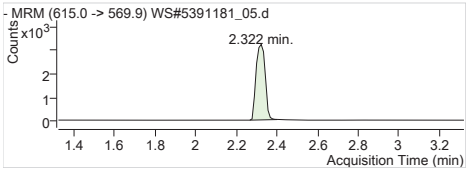


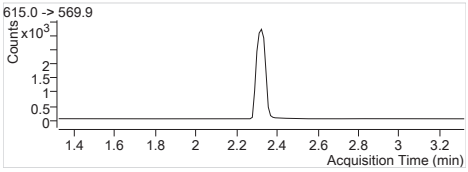
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 107.34 µg/L
Area ratio: 0.23337
Sample type: Calibration



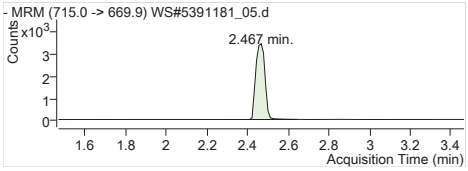


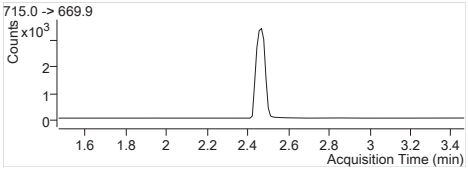
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 104.40 µg/L
Area ratio: 0.27279
Sample type: Calibration



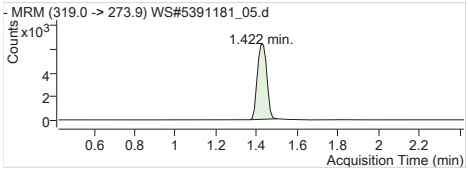


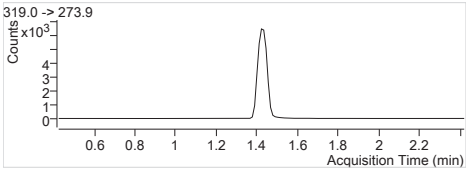
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 102.62 µg/L
Area ratio: 0.36703
Sample type: Calibration



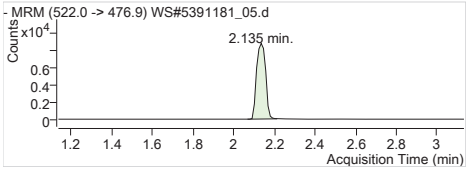


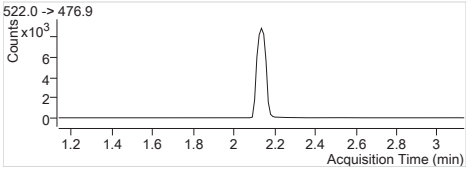
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 94.85 µg/L
Area ratio: 0.39949
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 95.91 µg/L
Area ratio: 0
Sample type: Calibration





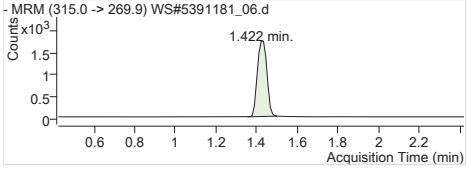
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 96.44 µg/L
Area ratio: 0
Sample type: Calibration

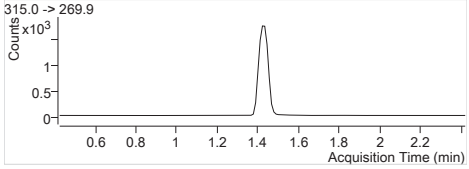
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5391181_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C5
Acq. Date	2018/02/09 12:51:58 PM	**Injection Volume**	Per Method
Sample Annotation	-		

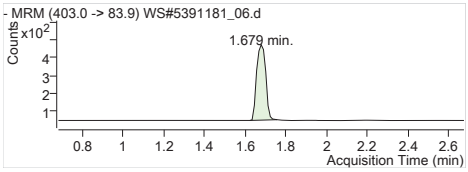
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5591	1.42	1 µg/L		
MPFHxS	1309	1.68	1 µg/L		
MPFHpA	6761	1.69	1 µg/L		
MPFOA	7254	1.88	1 µg/L		
MPFOS	1684	1.98	1 µg/L		
MPFNA	7072	2.01	1 µg/L		
MPFDA	6217	2.14	1 µg/L		
MPFUnA	7251	2.23	1 µg/L		
MPFDoA	9503	2.32	1 µg/L		
MPFTeDA	11640	2.47	1 µg/L		
13C6-PFHxA IS	21174	1.42	1 µg/L		
13C9-PFDA IS	27233	2.13	1 µg/L		

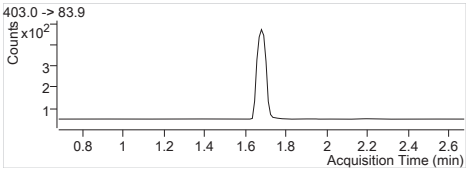
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	15724	1.09	25.00	24.85 µg/L	99.40
PFHxA 1	59210	1.42	25.00	23.53 µg/L	94.12
PFHxS 1	15376	1.68	25.00	25.22 µg/L	100.89
PFHpA 1	73825	1.69	25.00	25.12 µg/L	100.49
PFOA 1	79940	1.88	25.00	25.21 µg/L	100.85
PFOS 1	15962	1.97	25.00	24.03 µg/L	96.12
PFNA 1	74461	2.01	25.00	26.31 µg/L	105.25
PFDA 1	77584	2.14	25.00	23.29 µg/L	93.15
PFUnA 1	87054	2.23	25.00	24.54 µg/L	98.18
PFDoA 1	108183	2.32	25.00	24.83 µg/L	99.30
PFTrDA 1	123004	2.40	25.00	24.02 µg/L	96.10
PFTeDA 1	105224	2.47	25.00	24.20 µg/L	96.81
13C2-PFHxA	5591	1.42	100.00	101.40 µg/L	101.40
18O2-PFHxS	1309	1.68	100.00	95.09 µg/L	95.09
13C4-PFHpA	6761	1.69	100.00	96.01 µg/L	96.01
13C4-PFOA	7254	1.88	100.00	97.77 µg/L	97.77
13C4-PFOS	1684	1.98	100.00	102.01 µg/L	102.01
13C5-PFNA	7070	2.01	100.00	94.37 µg/L	94.37
13C2-PFDA	6149	2.14	100.00	103.86 µg/L	103.86
13C2-PFUnA	7251	2.23	100.00	101.90 µg/L	101.90
13C2-PFDoA	9503	2.32	100.00	97.57 µg/L	97.57
13C2-PFTeDA	11882	2.47	100.00	103.59 µg/L	103.59
13C6-PFHxA	21174	1.42	100.00	98.64 µg/L	98.64
13C9-PFDA	27233	2.13	100.00	96.87 µg/L	96.87



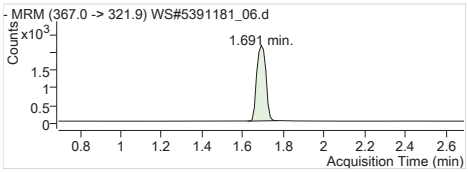


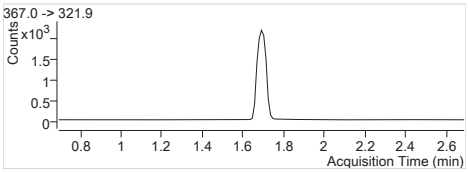
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



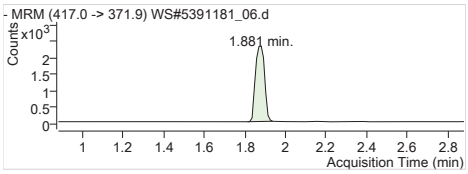


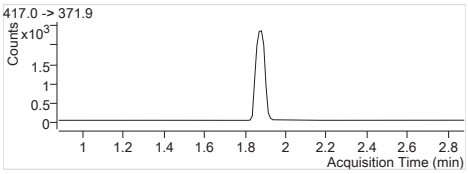
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



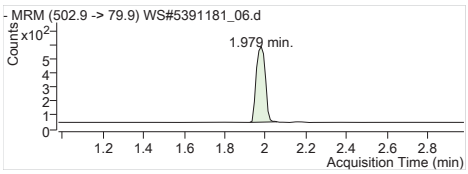


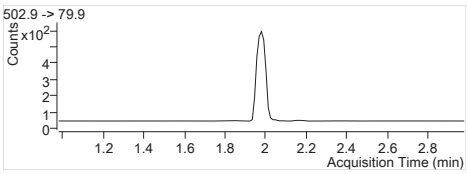
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



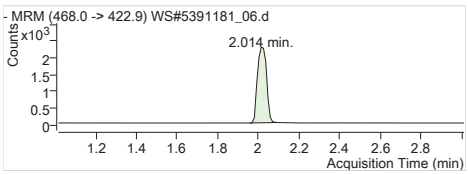


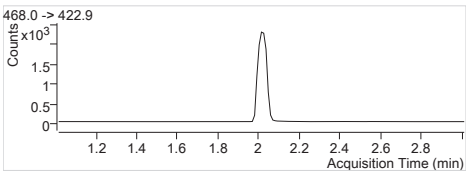
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



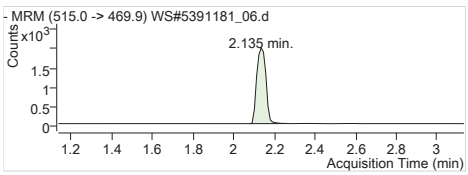


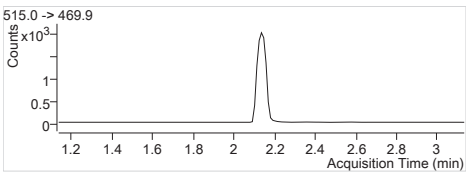
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



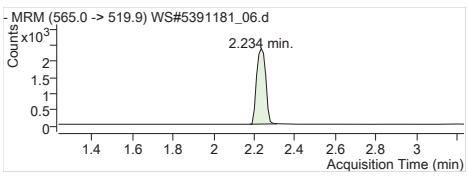


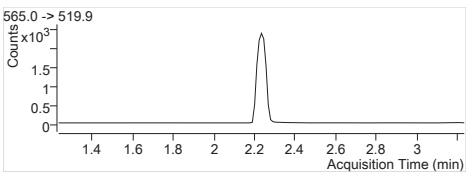
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



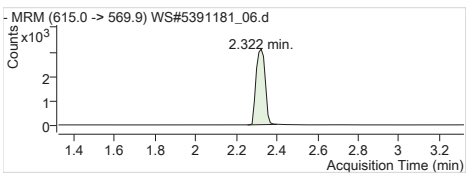


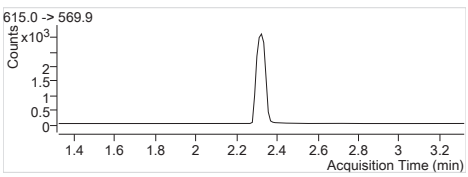
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



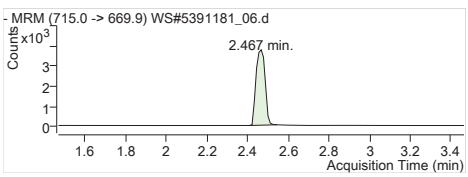


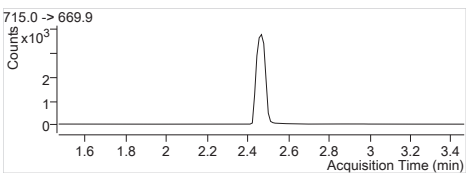
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



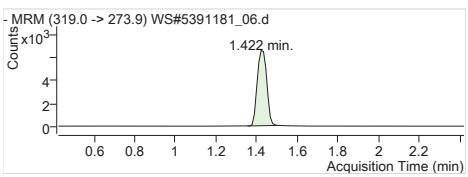


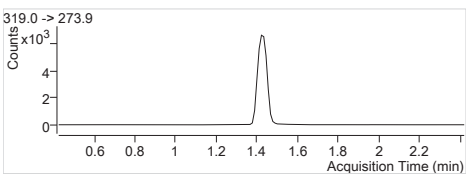
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



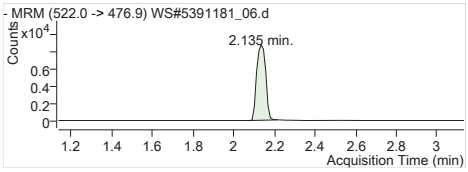


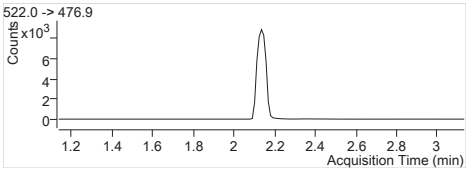
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



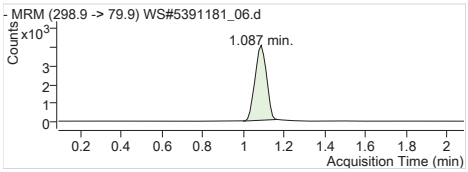


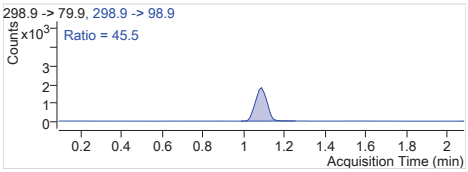
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



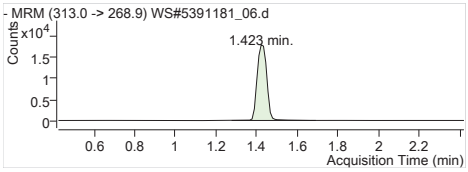


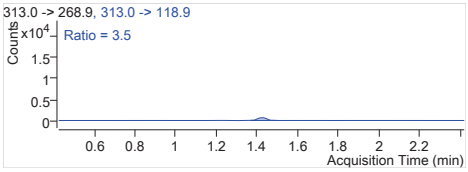
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



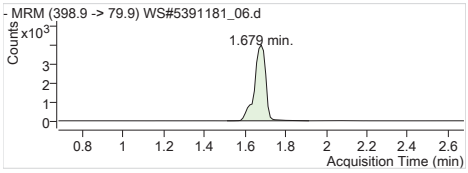


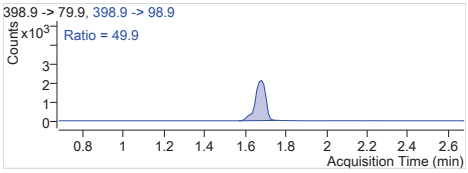
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 24.85 µg/L
Area ratio: 12.01222
Sample type: Calibration



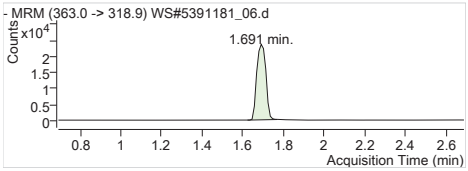


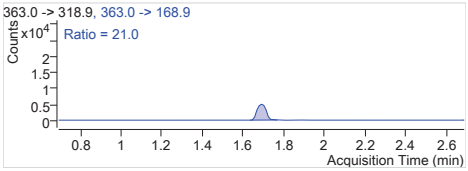
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 23.53 µg/L
Area ratio: 10.59023
Sample type: Calibration



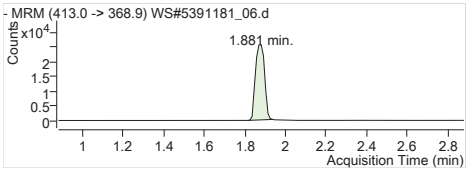


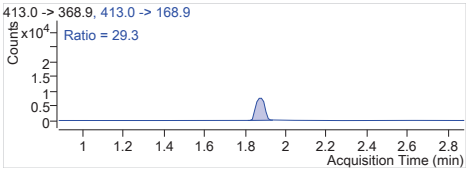
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 25.22 µg/L
Area ratio: 11.74637
Sample type: Calibration



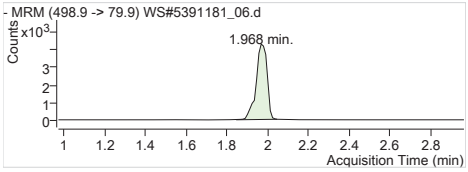


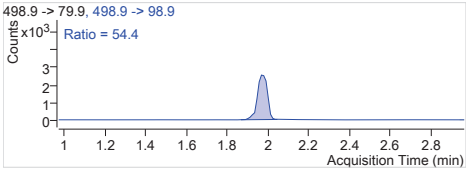
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 25.12 µg/L
Area ratio: 10.91924
Sample type: Calibration



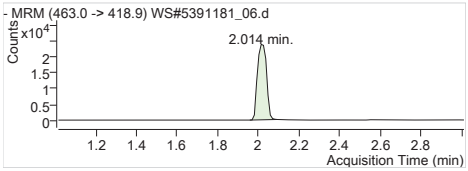


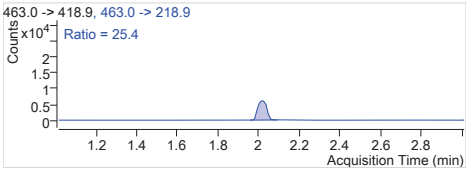
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 25.21 µg/L
Area ratio: 11.02013
Sample type: Calibration



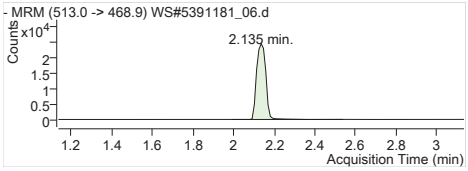


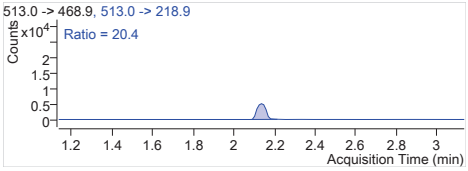
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 24.03 µg/L
Area ratio: 9.47862
Sample type: Calibration



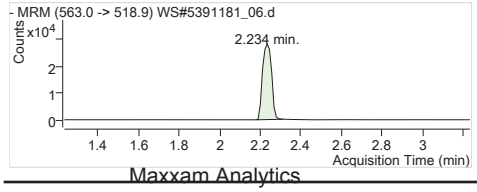


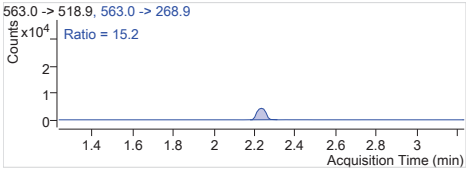
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 26.31 µg/L
Area ratio: 10.52899
Sample type: Calibration



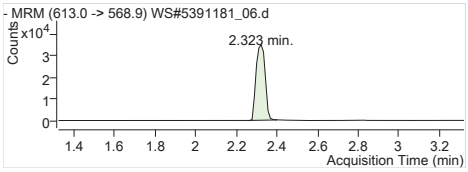


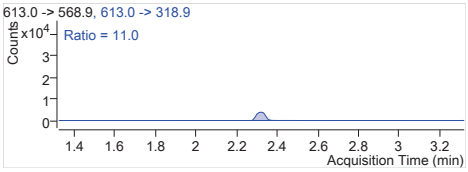
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 23.29 µg/L
Area ratio: 12.47933
Sample type: Calibration



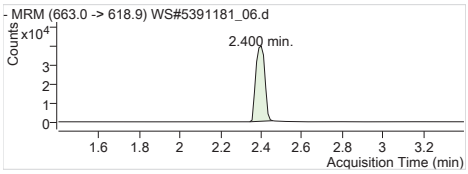


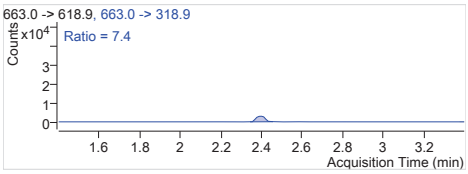
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 24.54 µg/L
Area ratio: 12.00579
Sample type: Calibration



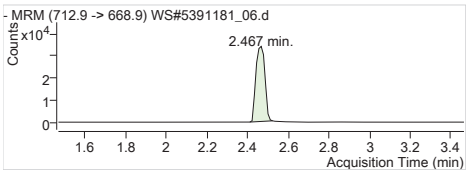


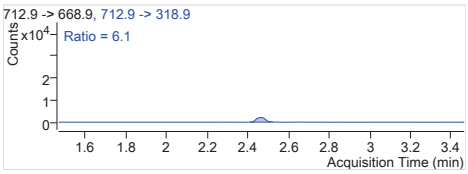
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 24.83 µg/L
Area ratio: 11.38409
Sample type: Calibration



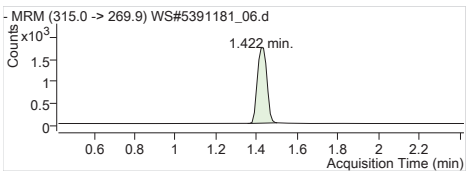


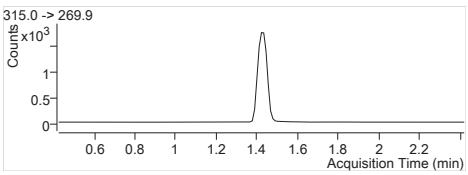
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 24.02 µg/L
Area ratio: 10.56735
Sample type: Calibration



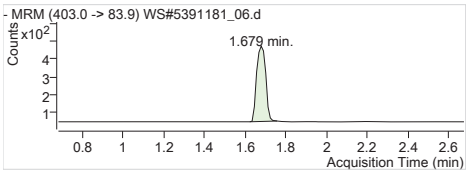


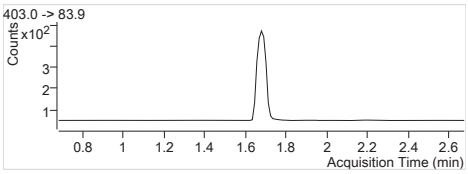
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 24.20 µg/L
Area ratio: 9.03986
Sample type: Calibration



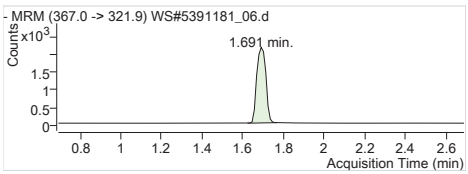


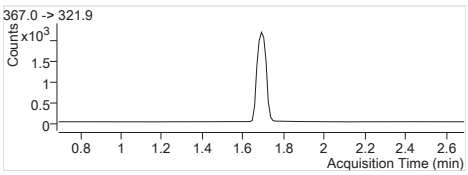
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 101.40 µg/L
Area ratio: 0.26405
Sample type: Calibration



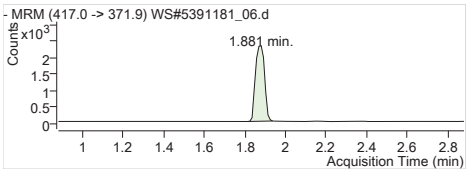


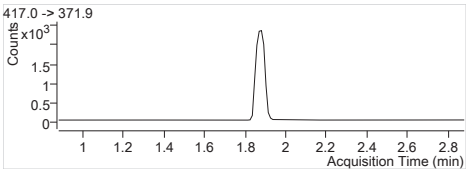
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 95.09 µg/L
Area ratio: 0.06182
Sample type: Calibration



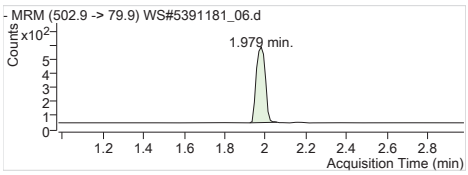


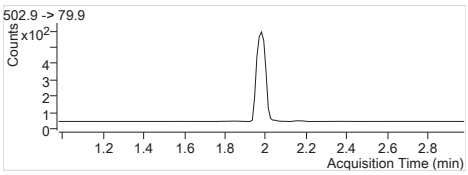
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 96.01 µg/L
Area ratio: 0.31931
Sample type: Calibration



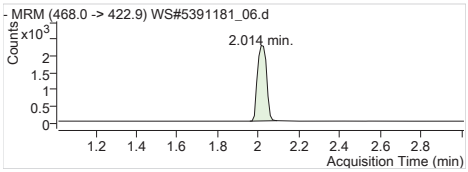


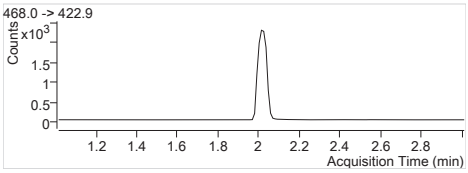
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 97.77 µg/L
Area ratio: 0.34259
Sample type: Calibration



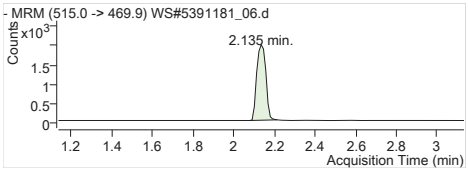


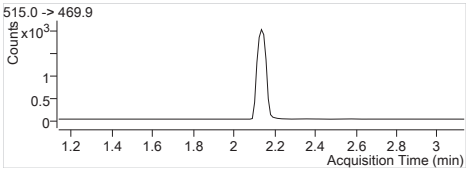
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 102.01 µg/L
Area ratio: 0.07953
Sample type: Calibration



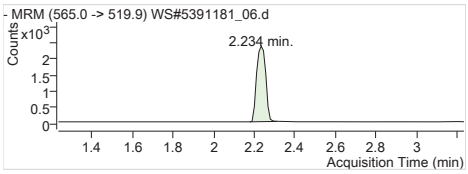


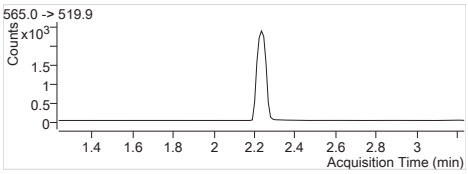
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 94.37 µg/L
Area ratio: 0.33390
Sample type: Calibration



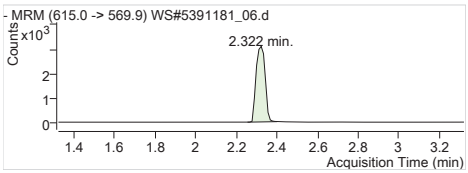


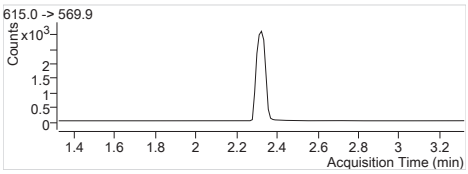
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 103.86 µg/L
Area ratio: 0.22579
Sample type: Calibration



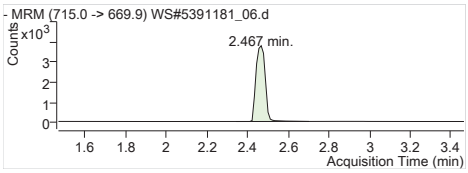


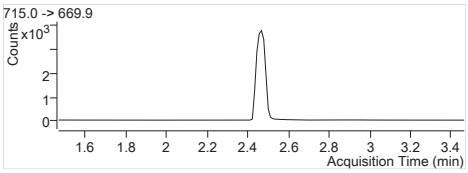
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 101.90 µg/L
Area ratio: 0.26626
Sample type: Calibration



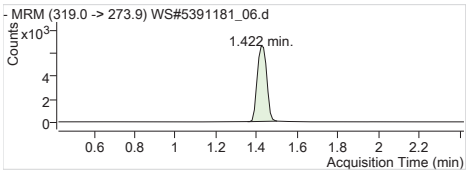


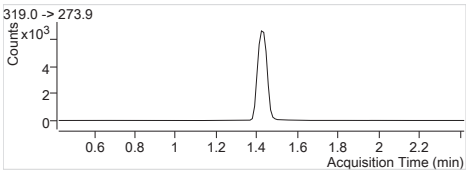
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 97.57 µg/L
Area ratio: 0.34895
Sample type: Calibration



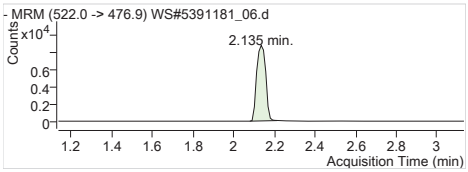


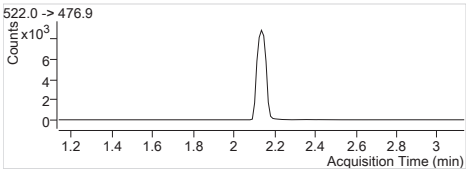
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 103.59 µg/L
Area ratio: 0.43631
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 98.64 µg/L
Area ratio: 0
Sample type: Calibration





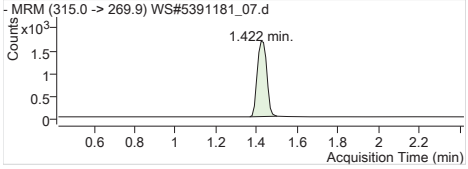
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 96.87 µg/L
Area ratio: 0
Sample type: Calibration

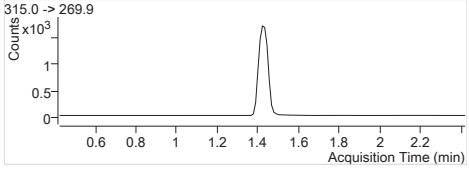
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5391181_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C6
Acq. Date	2018/02/09 12:56:54 PM	**Injection Volume**	Per Method
Sample Annotation	-		

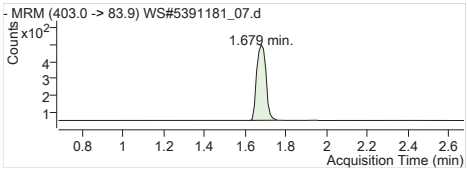
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5384	1.42	1 µg/L		
MPFHxS	1434	1.68	1 µg/L		
MPFHpA	7149	1.69	1 µg/L		
MPFOA	7558	1.88	1 µg/L		
MPFOS	1661	1.98	1 µg/L		
MPFNA	7656	2.01	1 µg/L		
MPFDA	5871	2.14	1 µg/L		
MPFUnA	7010	2.23	1 µg/L		
MPFDoA	9833	2.32	1 µg/L		
MPFTeDA	11650	2.47	1 µg/L		
13C6-PFHxA IS	20402	1.42	1 µg/L		
13C9-PFDA IS	25923	2.13	1 µg/L		

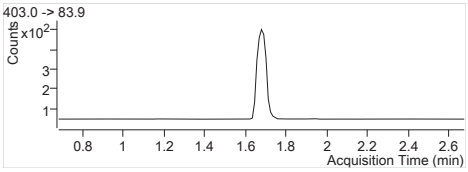
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	28444	1.09	41.70	40.99 µg/L	98.30
PFHxA 1	104871	1.42	41.70	43.11 µg/L	103.38
PFHxS 1	27540	1.68	41.70	41.19 µg/L	98.77
PFHpA 1	128039	1.69	41.70	41.16 µg/L	98.72
PFOA 1	134499	1.88	41.70	40.72 µg/L	97.65
PFOS 1	27447	1.97	41.70	41.88 µg/L	100.44
PFNA 1	125567	2.01	41.70	40.94 µg/L	98.18
PFDA 1	137651	2.14	41.70	43.62 µg/L	104.61
PFUnA 1	144521	2.23	41.70	42.08 µg/L	100.91
PFDoA 1	187974	2.32	41.70	41.61 µg/L	99.78
PFTrDA 1	211990	2.40	41.70	41.32 µg/L	99.09
PFTeDA 1	178225	2.47	41.70	40.91 µg/L	98.10
13C2-PFHxA	5384	1.42	100.00	101.34 µg/L	101.34
18O2-PFHxS	1434	1.68	100.00	108.11 µg/L	108.11
13C4-PFHpA	7149	1.69	100.00	105.37 µg/L	105.37
13C4-PFOA	7558	1.88	100.00	105.72 µg/L	105.72
13C4-PFOS	1661	1.98	100.00	104.42 µg/L	104.42
13C5-PFNA	7655	2.01	100.00	106.04 µg/L	106.04
13C2-PFDA	5730	2.14	100.00	101.67 µg/L	101.67
13C2-PFUnA	7010	2.23	100.00	103.49 µg/L	103.49
13C2-PFDoA	9833	2.32	100.00	106.05 µg/L	106.05
13C2-PFTeDA	11916	2.47	100.00	109.14 µg/L	109.14
13C6-PFHxA	20402	1.42	100.00	95.04 µg/L	95.04
13C9-PFDA	25923	2.13	100.00	92.21 µg/L	92.21



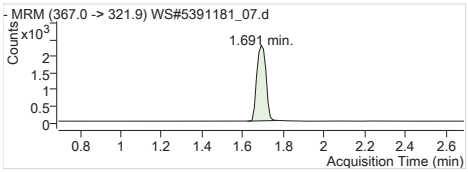


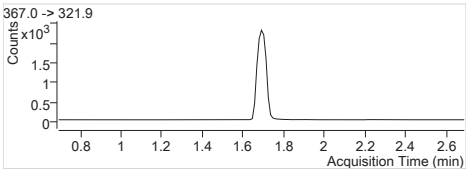
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	Calibration



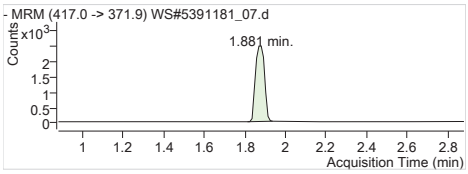


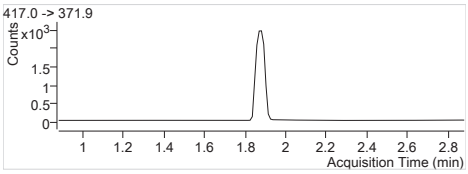
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: Calibration



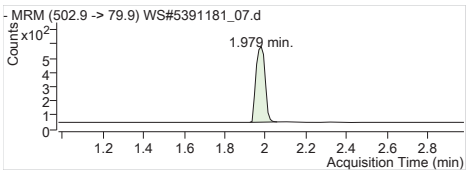


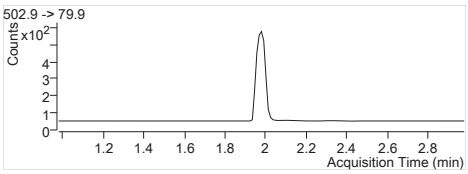
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: Calibration



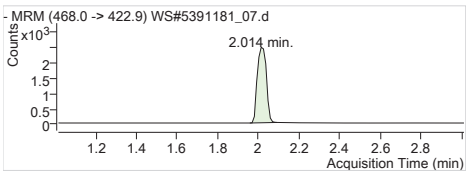


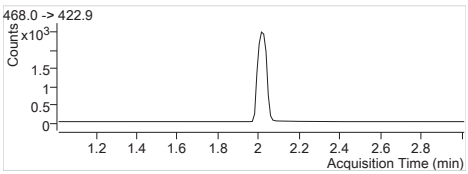
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Calibration



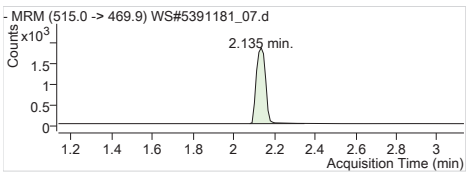


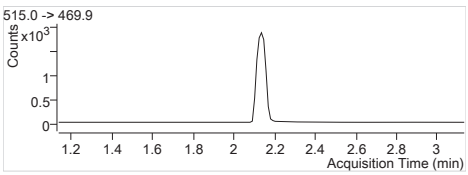
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Calibration



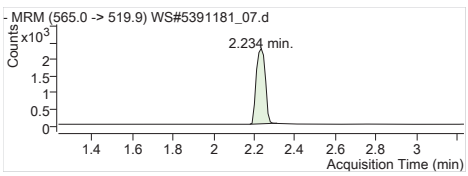


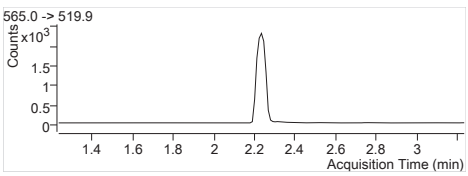
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: Calibration



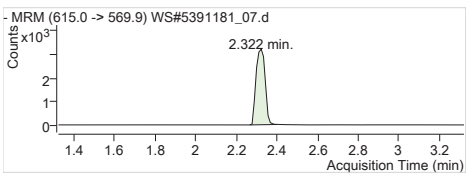


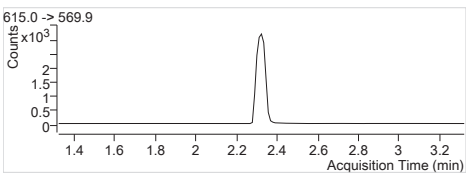
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



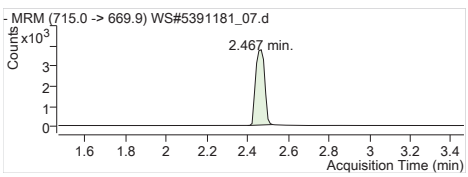


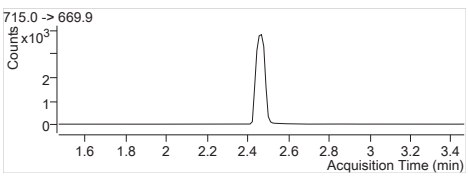
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: Calibration



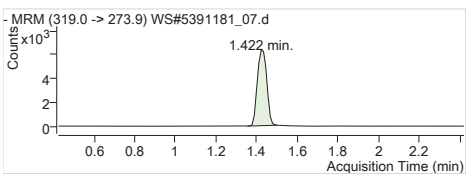


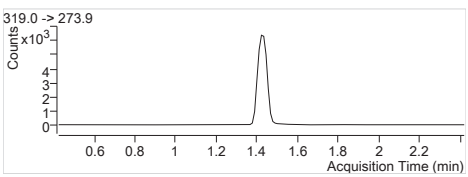
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Calibration



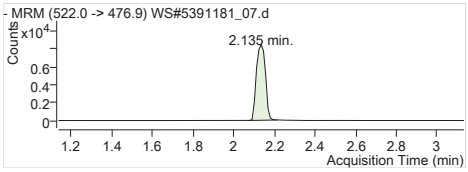


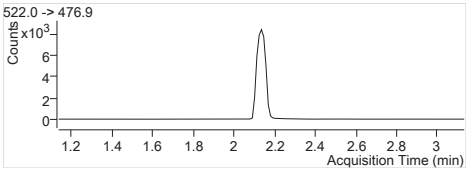
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Calibration



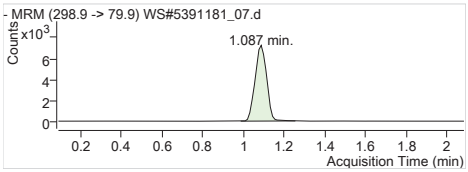


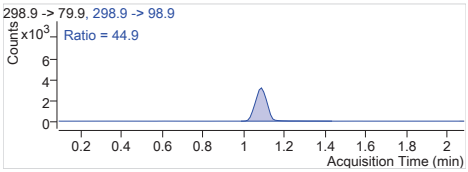
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: Calibration



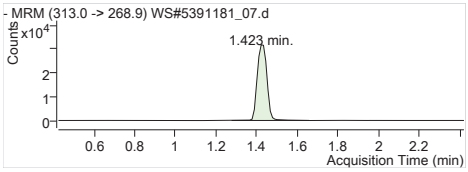


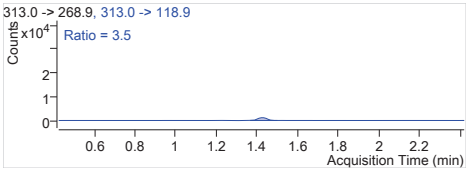
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: Calibration



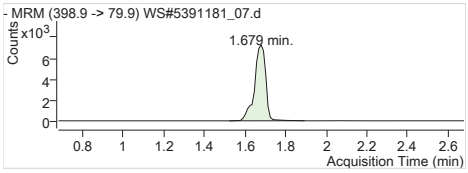


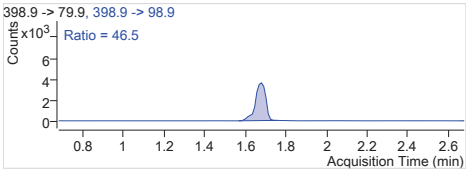
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 40.99 µg/L
Area ratio: 19.83543
Sample type: Calibration



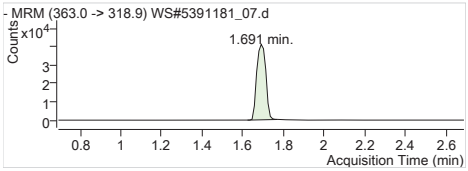


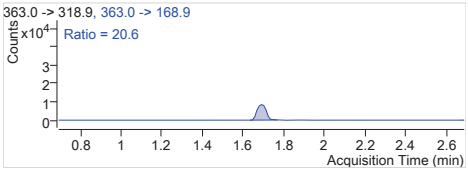
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 43.11 µg/L
Area ratio: 19.47827
Sample type: Calibration



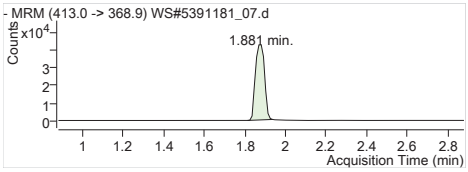


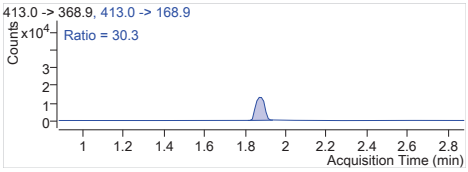
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 41.19 µg/L
Area ratio: 19.20502
Sample type: Calibration



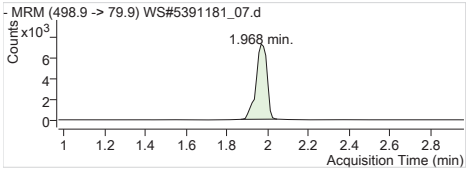


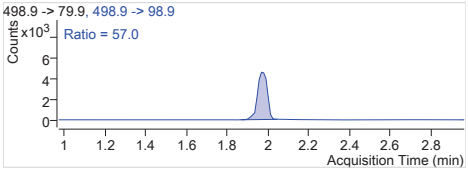
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 41.16 µg/L
Area ratio: 17.91006
Sample type: Calibration



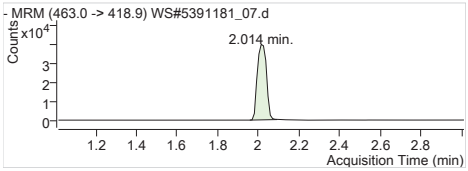


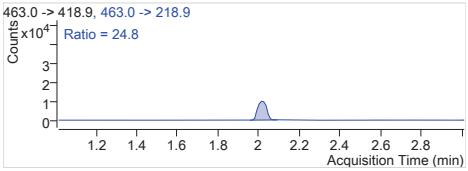
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 40.72 µg/L
Area ratio: 17.79558
Sample type: Calibration



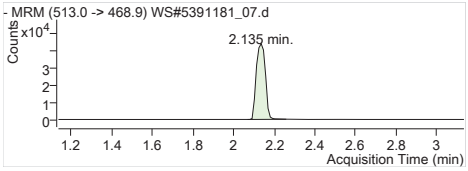


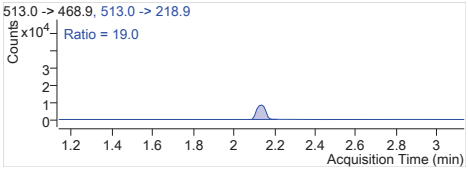
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 41.88 µg/L
Area ratio: 16.52438
Sample type: Calibration



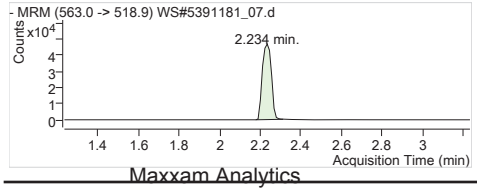


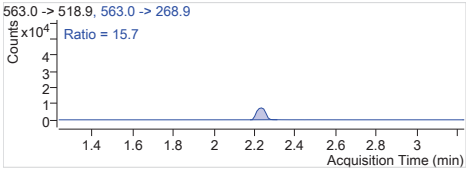
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 40.94 µg/L
Area ratio: 16.40112
Sample type: Calibration



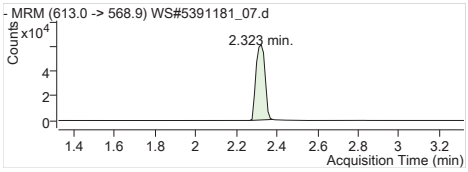


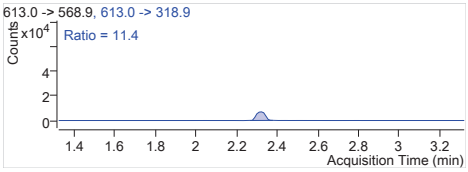
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 43.62 µg/L
Area ratio: 23.44592
Sample type: Calibration



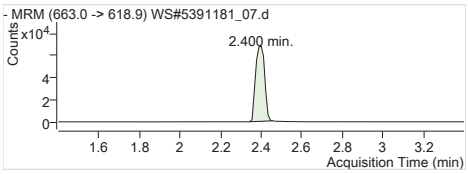


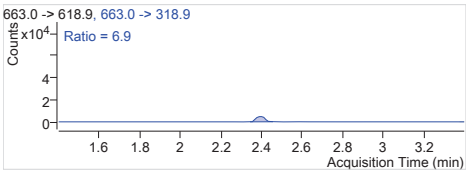
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 42.08 µg/L
Area ratio: 20.61641
Sample type: Calibration



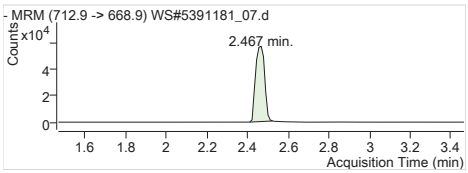


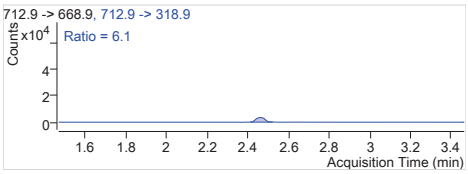
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 41.61 µg/L
Area ratio: 19.11665
Sample type: Calibration



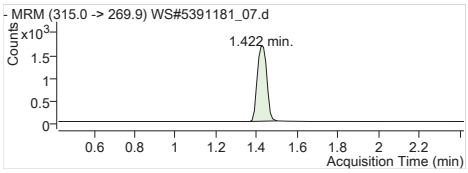


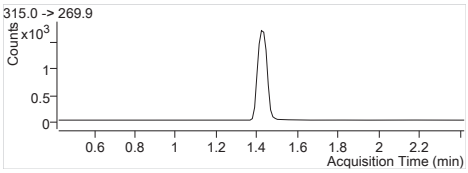
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 41.32 µg/L
Area ratio: 18.19657
Sample type: Calibration



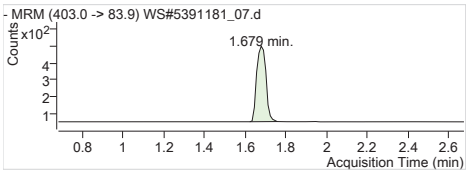


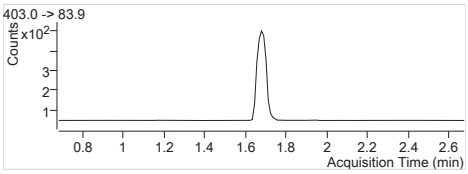
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 40.91 µg/L
Area ratio: 15.29828
Sample type: Calibration



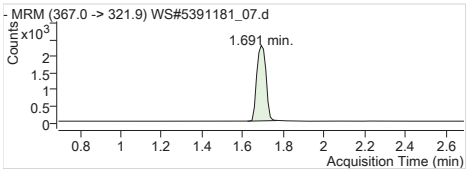


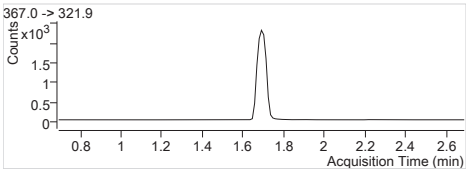
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 101.34 µg/L
Area ratio: 0.26390
Sample type: Calibration



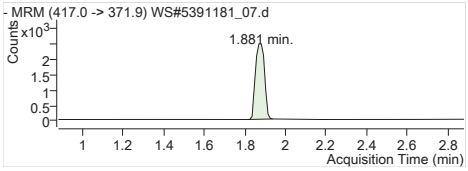


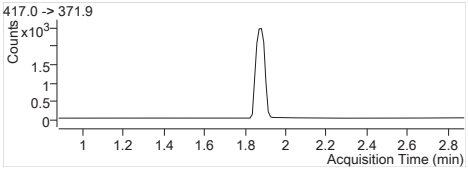
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 108.11 µg/L
Area ratio: 0.07029
Sample type: Calibration



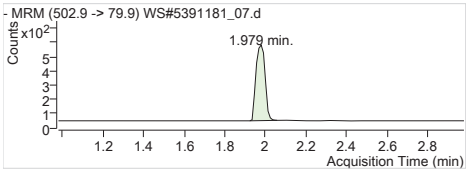


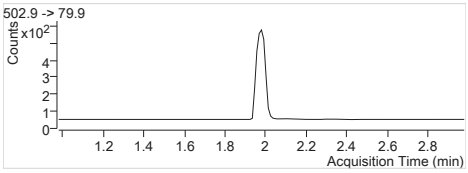
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 105.37 µg/L
Area ratio: 0.35041
Sample type: Calibration



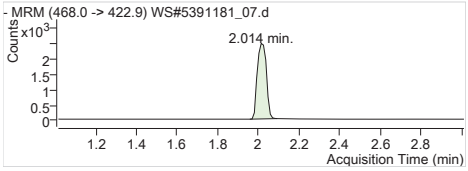


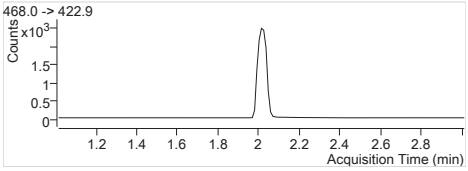
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 105.72 µg/L
Area ratio: 0.37045
Sample type: Calibration



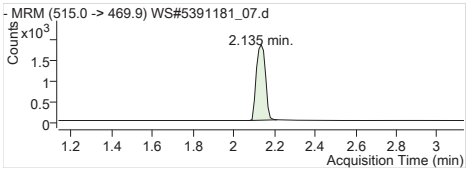


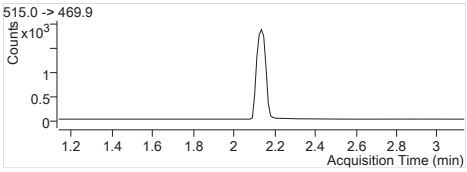
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 104.42 µg/L
Area ratio: 0.08141
Sample type: Calibration



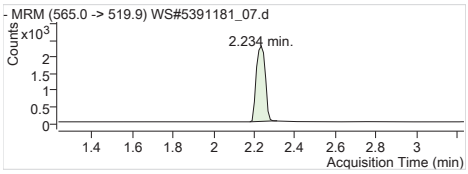


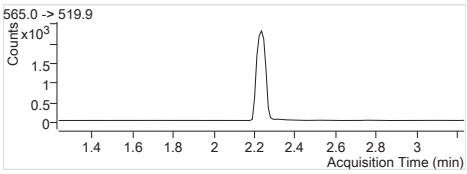
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 106.04 µg/L
Area ratio: 0.37521
Sample type: Calibration



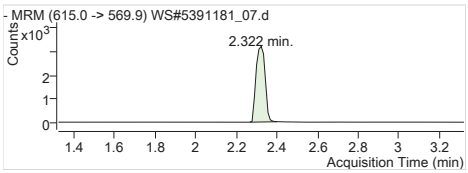


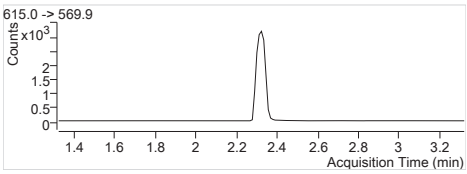
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 101.67 µg/L
Area ratio: 0.22104
Sample type: Calibration



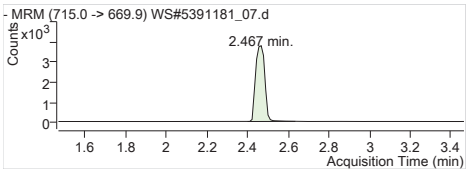


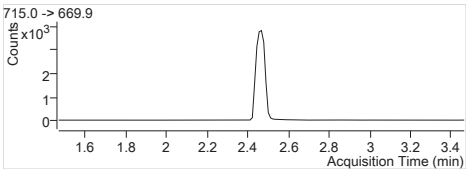
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 103.49 µg/L
Area ratio: 0.27042
Sample type: Calibration



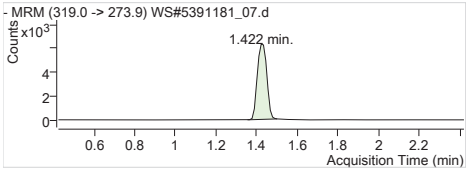


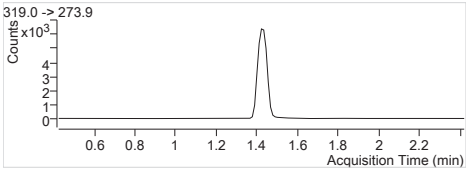
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 106.05 µg/L
Area ratio: 0.37932
Sample type: Calibration



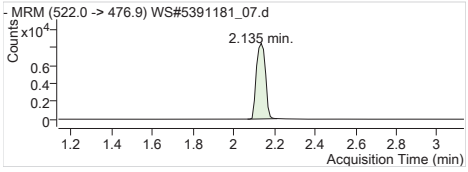


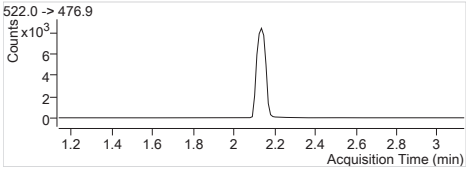
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 109.14 µg/L
Area ratio: 0.45967
Sample type: Calibration





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 95.04 µg/L
Area ratio: 0
Sample type: Calibration





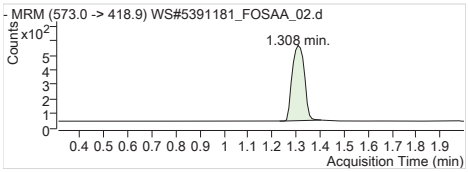
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 92.21 µg/L
Area ratio: 0
Sample type: Calibration

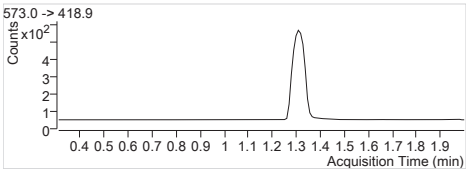
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C1
Acq. Date	2018/02/09 10:29:29 PM	**Injection Volume**	Per Method
Sample Annotation	-		

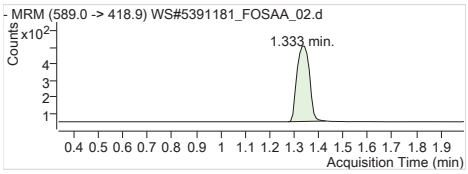
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1822	1.31	1 µg/L		
D5-EtFOSAA IS	1647	1.33	1 µg/L		
13C9-PFDA IS	23866	0.91	1 µg/L		

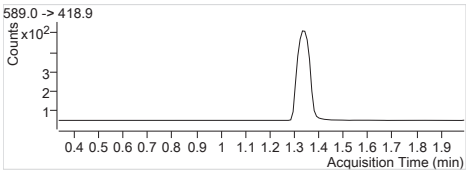
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	566	1.31	0.83	0.84 µg/L	101.32
EtFOSAA 1	582	1.33	0.83	0.86 µg/L	103.76
D3-MeFOSAA	1860	1.31	100.00	105.49 µg/L	105.49
D5-EtFOSAA	1674	1.33	100.00	105.68 µg/L	105.68
13C9-PFDA	23093	0.91	100.00	103.57 µg/L	103.57



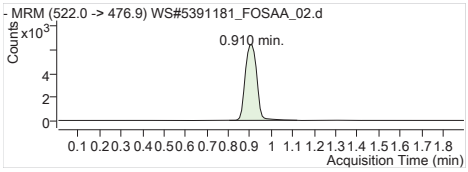


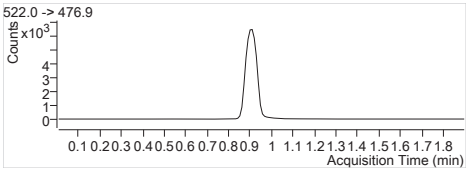
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Calibration



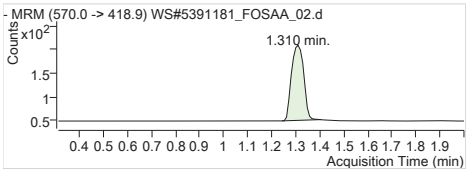


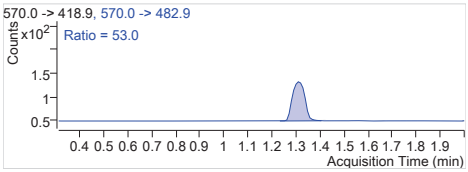
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Calibration



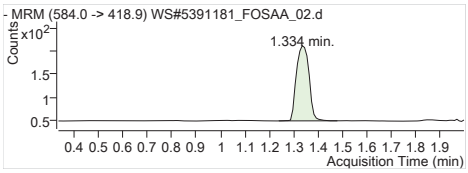


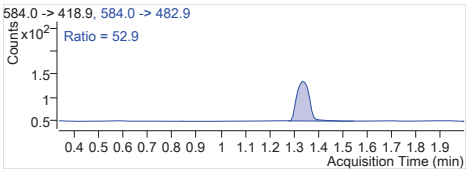
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.900)
Concentration: 1 µg/L
Sample type: Calibration



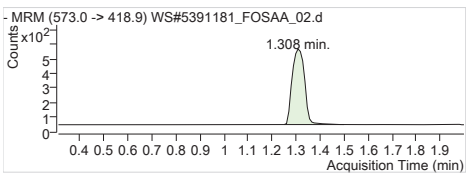


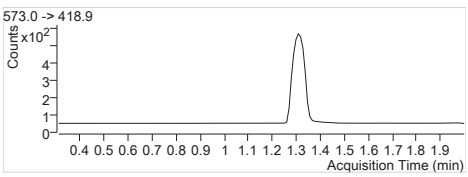
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.84 µg/L
Area ratio: 0.31065
Sample type: Calibration



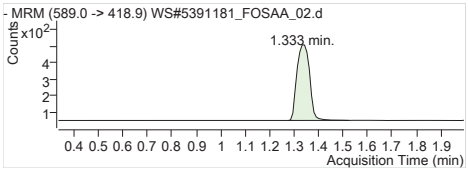


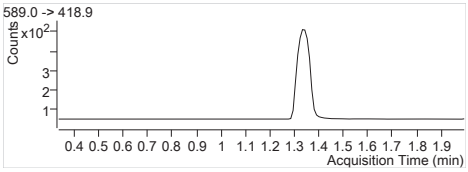
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 0.86 µg/L
Area ratio: 0.35337
Sample type: Calibration



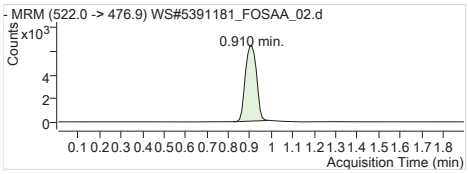


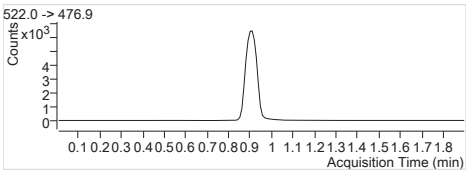
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 105.49 µg/L
Area ratio: 0.07794
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	105.68 µg/L
Area ratio:	0.07014
Sample type:	Calibration





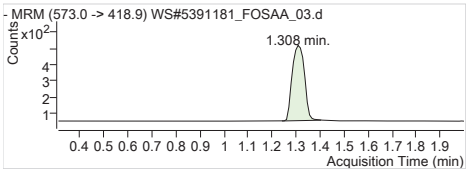
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.900)
Calc. conc.	103.57 µg/L
Area ratio:	0
Sample type:	Calibration

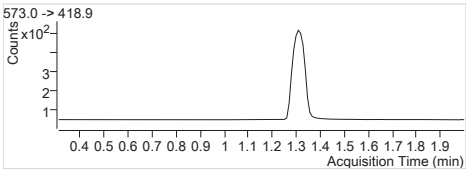
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C2
Acq. Date	2018/02/09 10:31:54 PM	**Injection Volume**	Per Method
Sample Annotation	-		

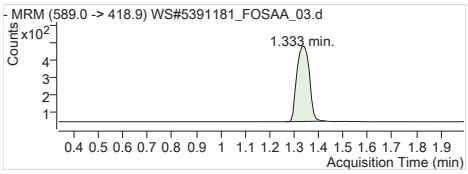
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1662	1.31	1 µg/L		
D5-EtFOSAA IS	1534	1.33	1 µg/L		
13C9-PFDA IS	23668	0.90	1 µg/L		

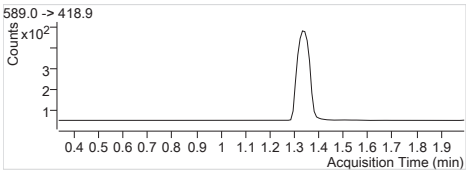
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	1035	1.31	1.70	1.65 µg/L	97.24
EtFOSAA 1	1035	1.33	1.70	1.56 µg/L	91.52
D3-MeFOSAA	1684	1.31	100.00	96.31 µg/L	96.31
D5-EtFOSAA	1546	1.33	100.00	98.42 µg/L	98.42
13C9-PFDA	22945	0.90	100.00	102.91 µg/L	102.91



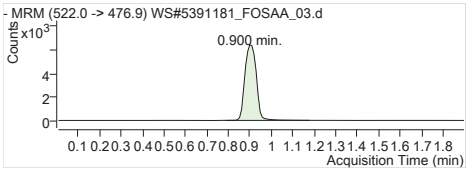


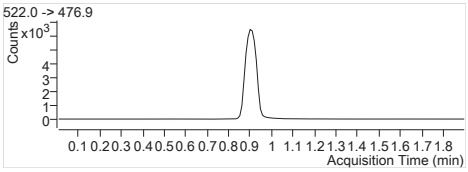
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Calibration



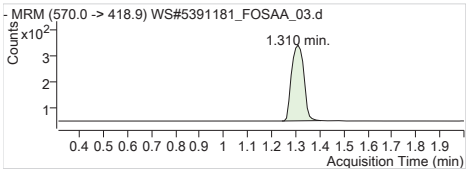


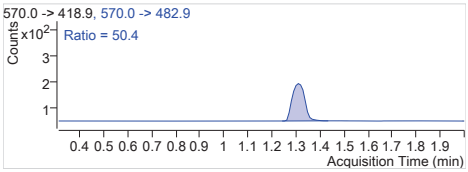
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Calibration



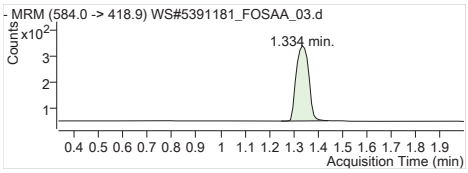


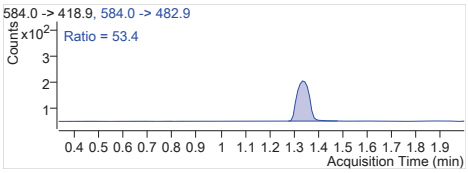
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Calibration



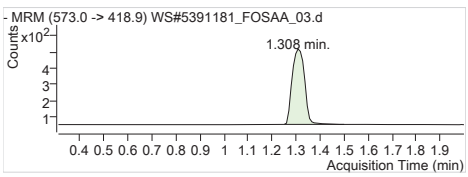


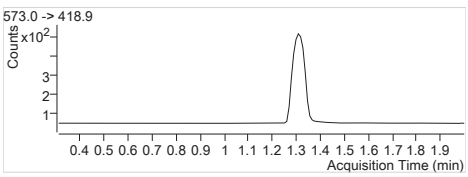
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 1.65 µg/L
Area ratio: 0.62274
Sample type: Calibration



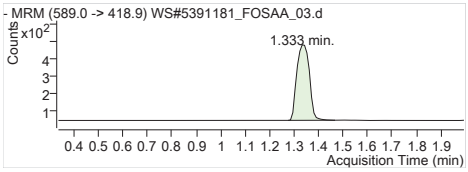


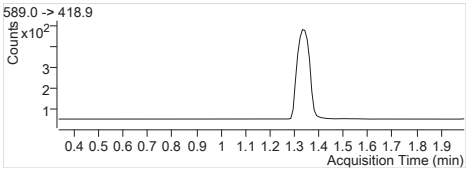
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 1.56 µg/L
Area ratio: 0.67471
Sample type: Calibration



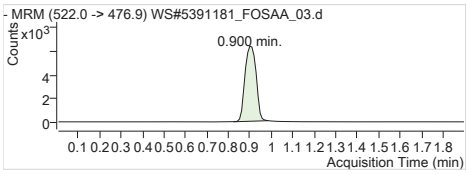


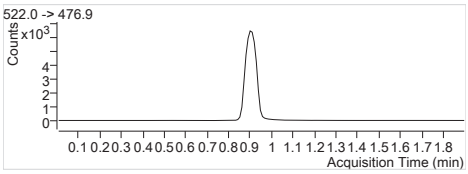
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 96.31 µg/L
Area ratio: 0.07115
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	98.42 µg/L
Area ratio:	0.06532
Sample type:	Calibration





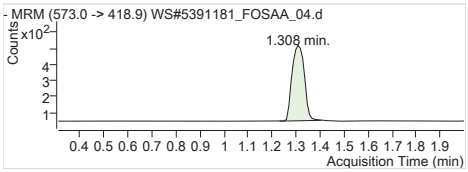
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	102.91 µg/L
Area ratio:	0
Sample type:	Calibration

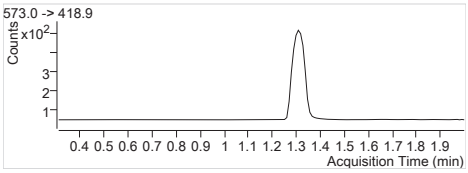
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C3
Acq. Date	2018/02/09 10:34:19 PM	**Injection Volume**	Per Method
Sample Annotation	-		

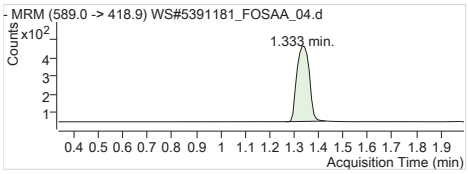
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1666	1.31	1 µg/L		
D5-EtFOSAA IS	1470	1.33	1 µg/L		
13C9-PFDA IS	24436	0.90	1 µg/L		

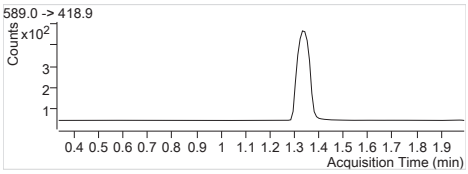
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	3142	1.31	5.00	4.94 µg/L	98.80
EtFOSAA 1	3371	1.33	5.00	5.05 µg/L	101.09
D3-MeFOSAA	1688	1.31	100.00	93.50 µg/L	93.50
D5-EtFOSAA	1491	1.33	100.00	91.93 µg/L	91.93
13C9-PFDA	23705	0.90	100.00	106.32 µg/L	106.32



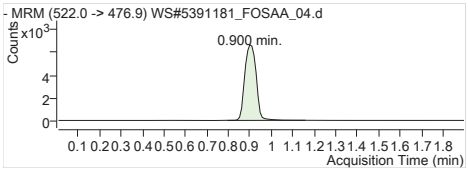


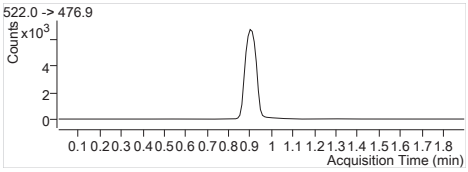
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Calibration



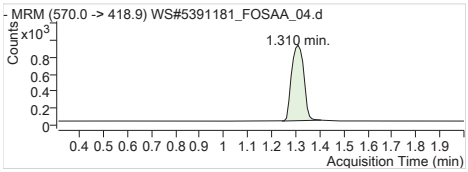


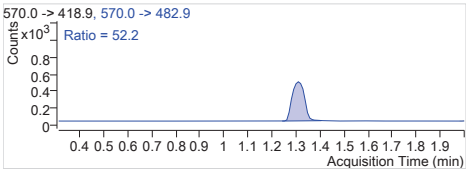
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Calibration



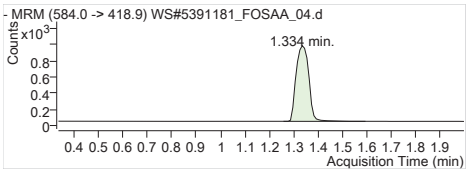


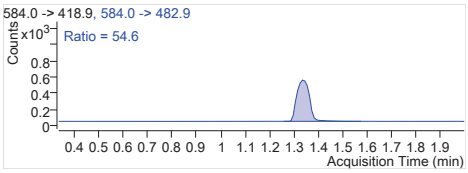
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Calibration



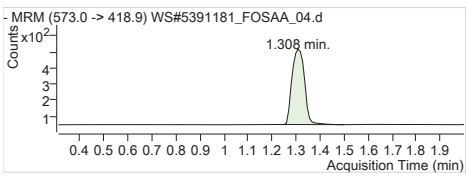


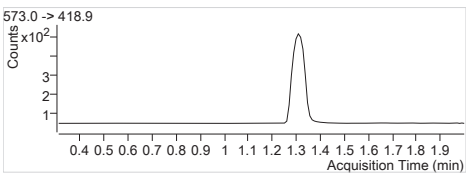
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 4.94 µg/L
Area ratio: 1.88595
Sample type: Calibration



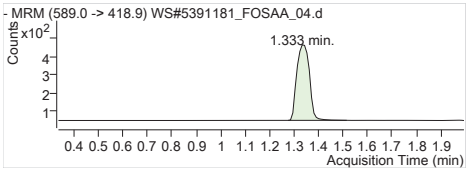


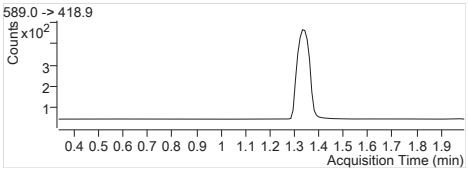
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 5.05 µg/L
Area ratio: 2.29320
Sample type: Calibration



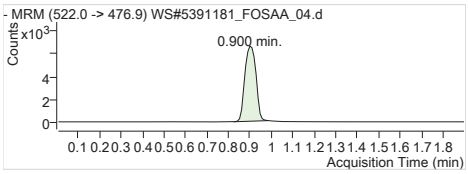


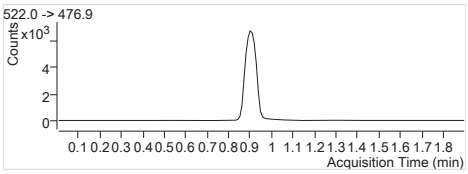
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 93.50 µg/L
Area ratio: 0.06908
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	91.93 µg/L
Area ratio:	0.06102
Sample type:	Calibration





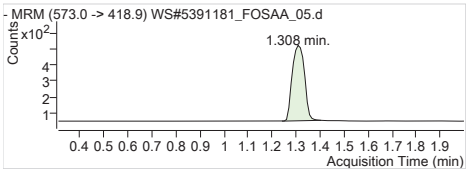
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	106.32 µg/L
Area ratio:	0
Sample type:	Calibration

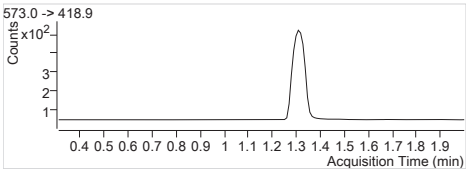
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C4
Acq. Date	2018/02/09 10:36:44 PM	**Injection Volume**	Per Method
Sample Annotation	-		

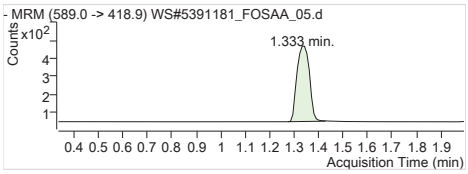
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1676	1.31	1 µg/L		
D5-EtFOSAA IS	1489	1.33	1 µg/L		
13C9-PFDA IS	22527	0.90	1 µg/L		

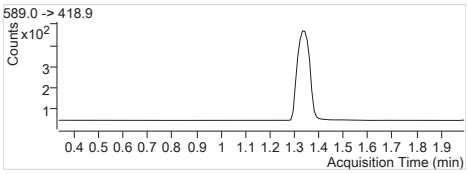
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8392	1.31	12.50	13.06 µg/L	104.49
EtFOSAA 1	8840	1.33	12.50	12.93 µg/L	103.45
D3-MeFOSAA	1686	1.31	100.00	101.31 µg/L	101.31
D5-EtFOSAA	1493	1.33	100.00	99.86 µg/L	99.86
13C9-PFDA	21811	0.90	100.00	97.82 µg/L	97.82



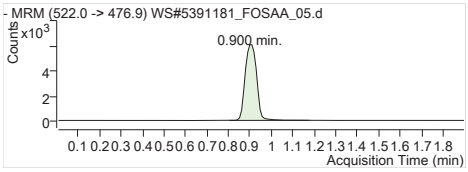


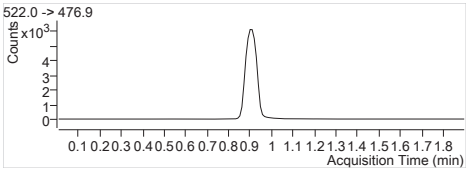
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Calibration



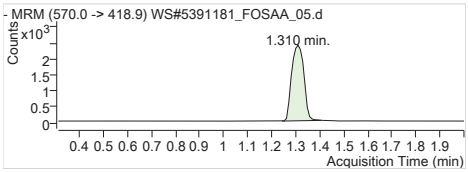


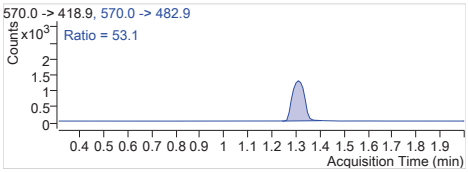
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Calibration



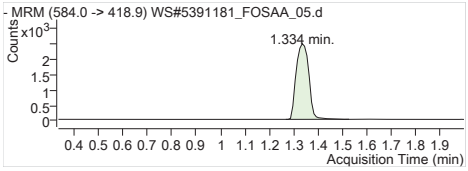


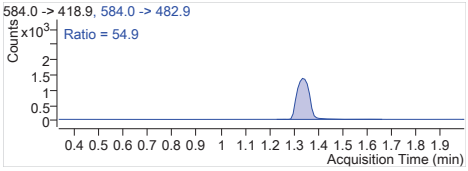
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Calibration



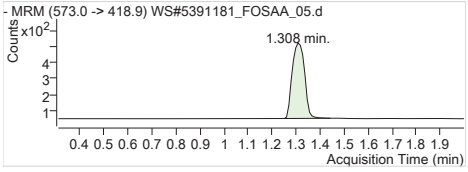


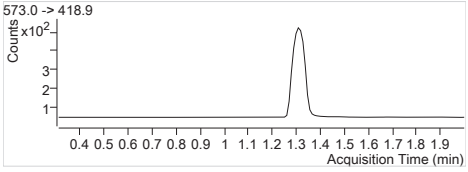
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 13.06 µg/L
Area ratio: 5.00716
Sample type: Calibration



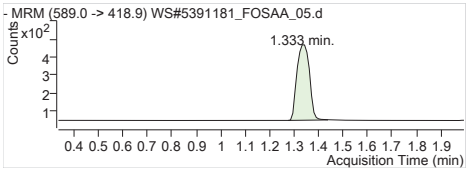


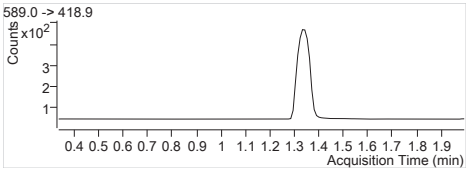
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 12.93 µg/L
Area ratio: 5.93687
Sample type: Calibration



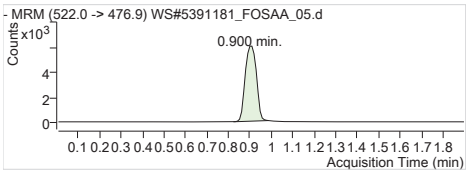


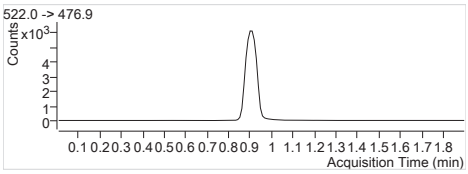
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 101.31 µg/L
Area ratio: 0.07484
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	99.86 µg/L
Area ratio:	0.06628
Sample type:	Calibration





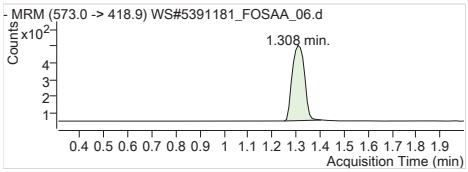
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	97.82 µg/L
Area ratio:	0
Sample type:	Calibration

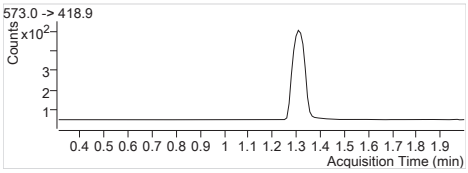
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C5
Acq. Date	2018/02/09 10:39:09 PM	**Injection Volume**	Per Method
Sample Annotation	-		

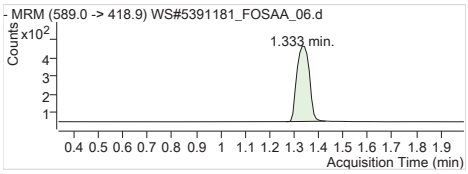
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1613	1.31	1 µg/L		
D5-EtFOSAA IS	1475	1.33	1 µg/L		
13C9-PFDA IS	22223	0.90	1 µg/L		

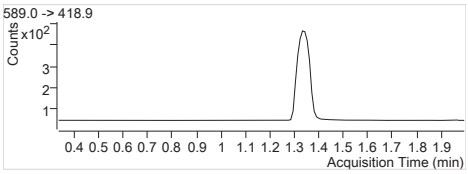
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	15131	1.31	25.00	24.44 µg/L	97.76
EtFOSAA 1	16564	1.33	25.00	24.37 µg/L	97.49
D3-MeFOSAA	1638	1.31	100.00	99.77 µg/L	99.77
D5-EtFOSAA	1496	1.33	100.00	101.43 µg/L	101.43
13C9-PFDA	21467	0.90	100.00	96.28 µg/L	96.28



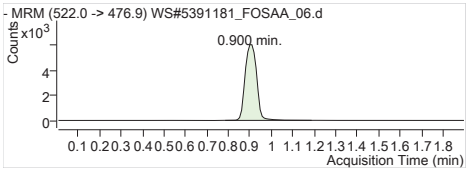


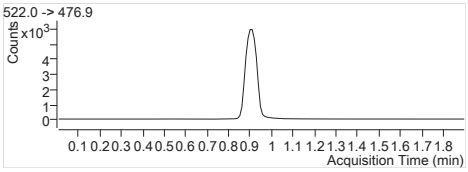
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Calibration



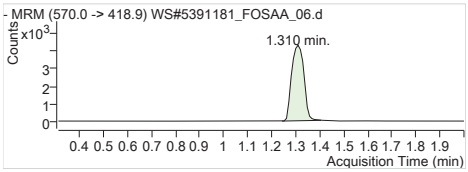


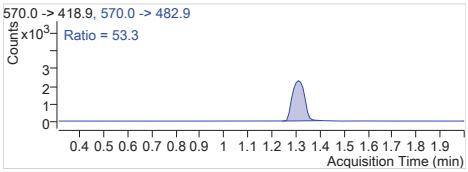
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Calibration



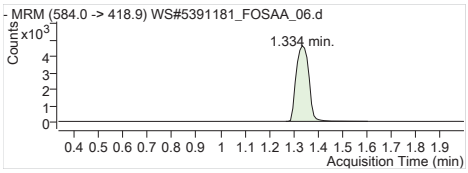


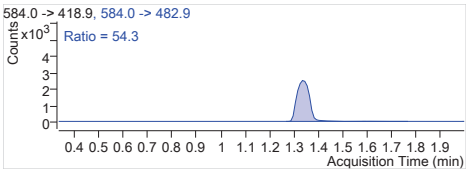
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Calibration



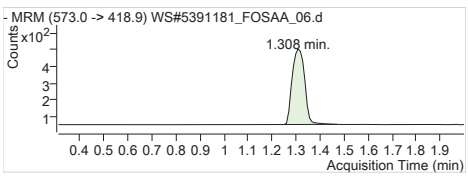


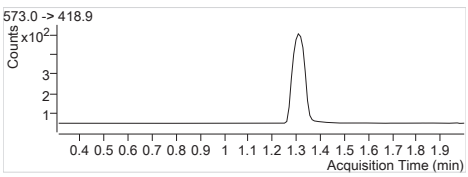
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 24.44 µg/L
Area ratio: 9.38066
Sample type: Calibration



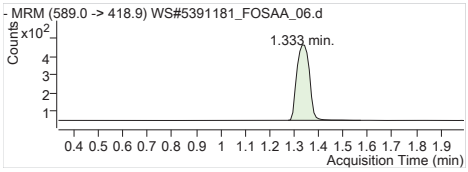


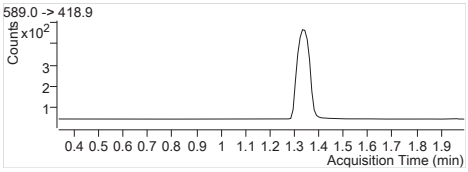
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 24.37 µg/L
Area ratio: 11.22983
Sample type: Calibration



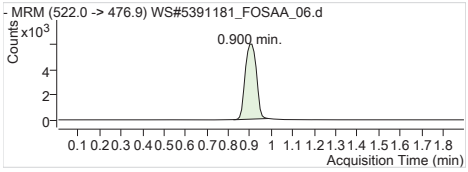


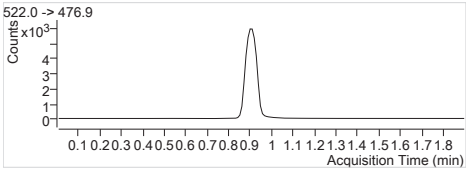
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 99.77 µg/L
Area ratio: 0.07371
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	101.43 µg/L
Area ratio:	0.06732
Sample type:	Calibration





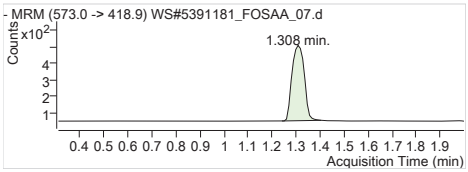
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	96.28 µg/L
Area ratio:	0
Sample type:	Calibration

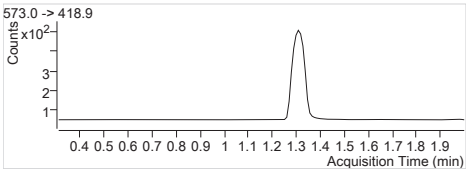
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C6
Acq. Date	2018/02/09 10:41:34 PM	**Injection Volume**	Per Method
Sample Annotation	-		

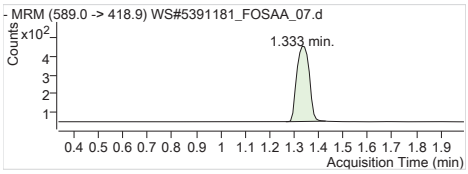
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1625	1.31	1 µg/L		
D5-EtFOSAA IS	1448	1.33	1 µg/L		
13C9-PFDA IS	21450	0.90	1 µg/L		

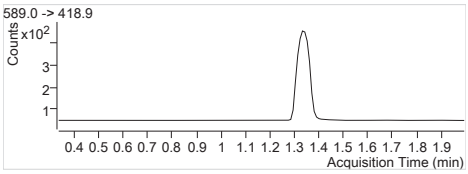
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	26127	1.31	41.70	41.87 µg/L	100.40
EtFOSAA 1	28619	1.33	41.70	42.82 µg/L	102.69
D3-MeFOSAA	1642	1.31	100.00	103.62 µg/L	103.62
D5-EtFOSAA	1462	1.33	100.00	102.69 µg/L	102.69
13C9-PFDA	20755	0.90	100.00	93.09 µg/L	93.09



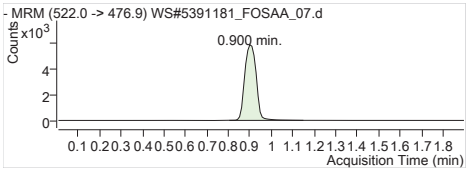


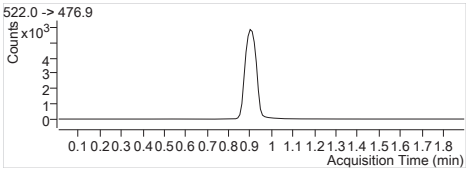
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: Calibration



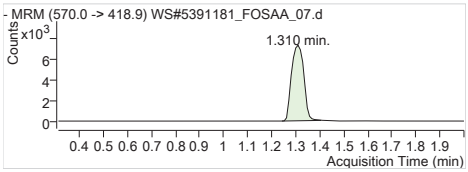


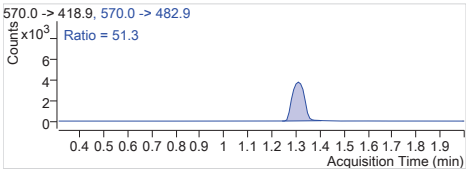
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: Calibration



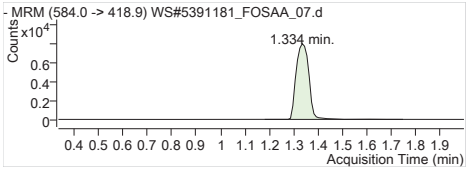


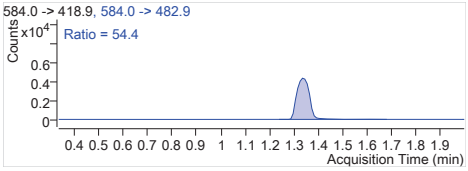
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: Calibration



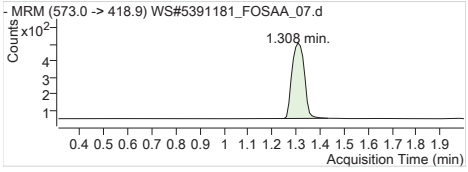


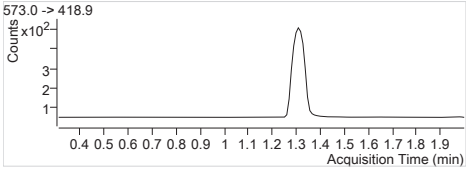
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 41.87 µg/L
Area ratio: 16.07815
Sample type: Calibration



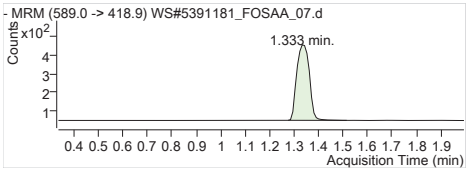


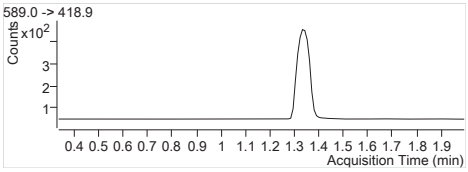
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 42.82 µg/L
Area ratio: 19.76450
Sample type: Calibration



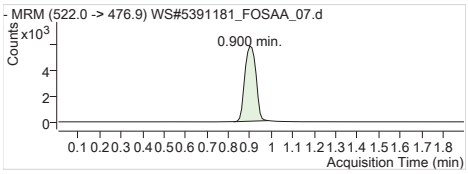


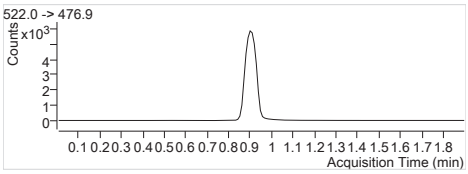
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 103.62 µg/L
Area ratio: 0.07655
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	102.69 µg/L
Area ratio:	0.06816
Sample type:	Calibration





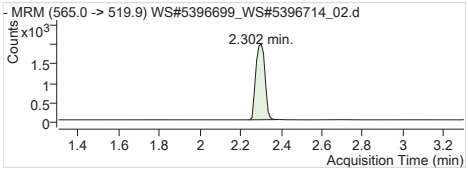
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	93.09 µg/L
Area ratio:	0
Sample type:	Calibration

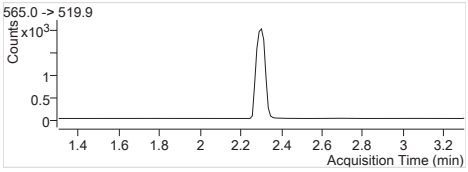
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/15 4:15:51 PM	**Injection Volume**	Per Method
Sample Annotation	-		

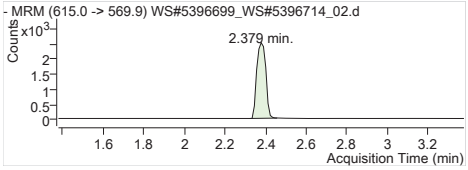
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6168	2.30	1 µg/L		
MPFDoA	7706	2.38	1 µg/L		
MPFTeDA	6867	2.51	1 µg/L		
13C9-PFDA IS	25927	2.20	1 µg/L		

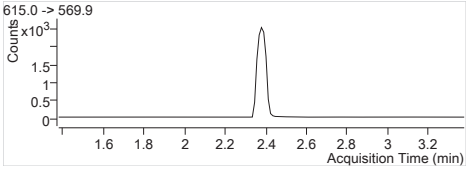
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	2510	2.30	0.83	0.94 µg/L	112.67
PFDoA 1	2949	2.38	0.83	0.91 µg/L	109.10
PFTrDA 1	2946	2.46	0.83	0.89 µg/L	107.01
PFTeDA 1	2545	2.51	0.83	0.92 µg/L	110.88
13C2-PFUnA	6168	2.30	100.00	101.19 µg/L	101.19
13C2-PFDoA	7706	2.38	100.00	97.12 µg/L	97.12
13C2-PFTeDA	6881	2.51	100.00	98.11 µg/L	98.11
13C9-PFDA	25927	2.20	100.00	106.49 µg/L	106.49



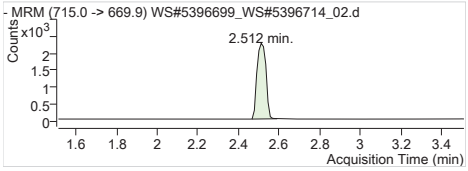


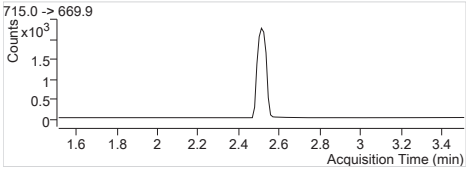
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Calibration



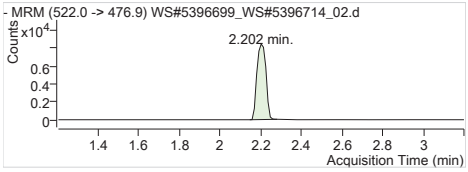


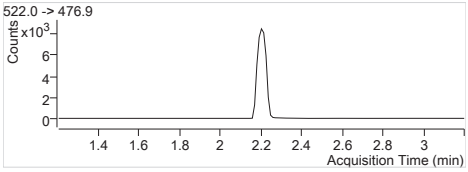
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Calibration



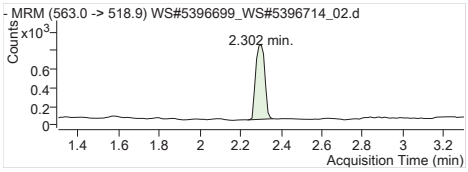


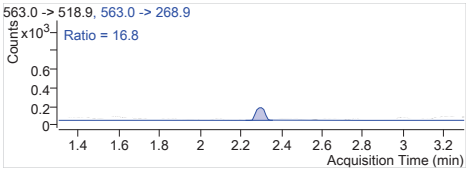
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Calibration



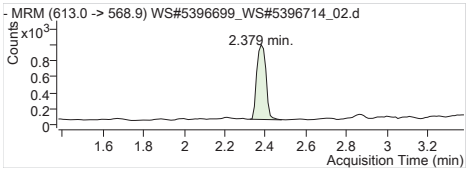


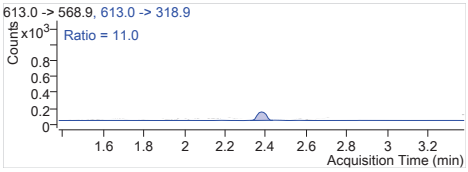
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Calibration



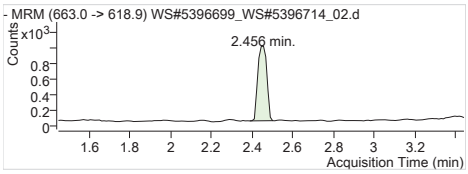


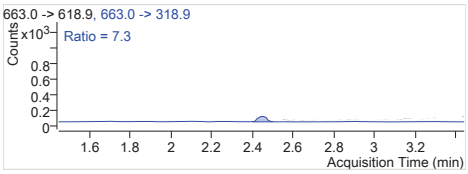
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 0.94 µg/L
Area ratio: 0.40694
Sample type: Calibration



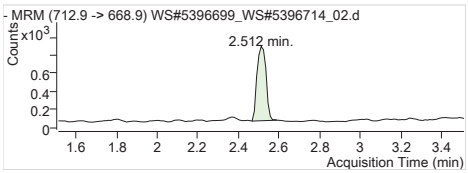


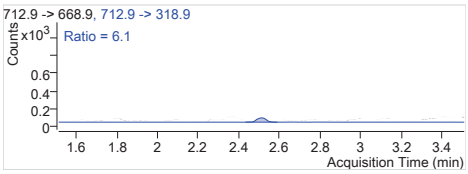
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 0.91 µg/L
Area ratio: 0.38269
Sample type: Calibration



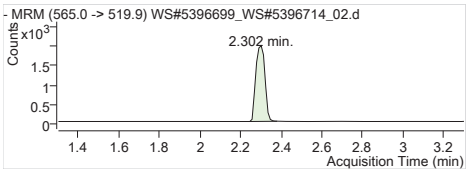


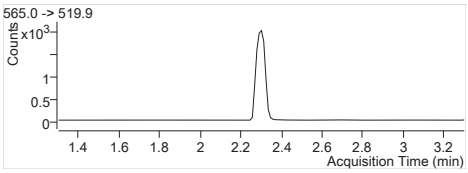
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.456 (2.445)
Calc. conc. 0.89 µg/L
Area ratio: 0.42901
Sample type: Calibration



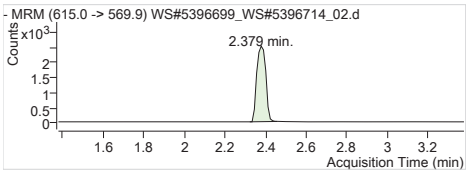


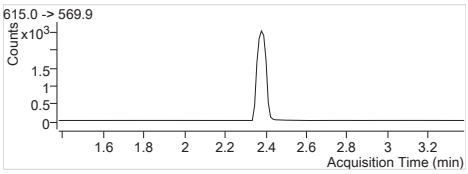
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 0.92 µg/L
Area ratio: 0.37061
Sample type: Calibration



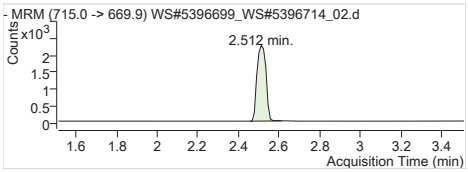


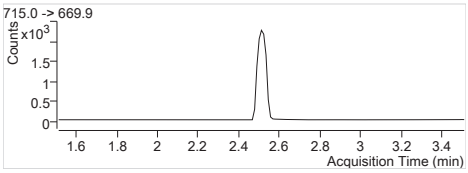
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 101.19 µg/L
Area ratio: 0.23790
Sample type: Calibration



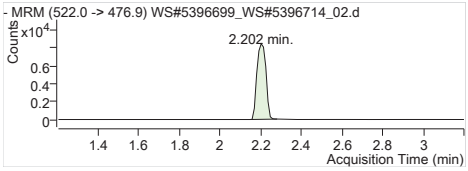


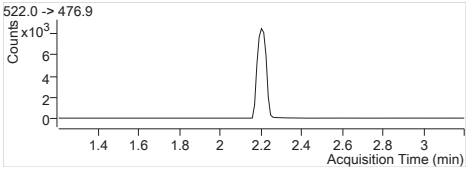
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 97.12 µg/L
Area ratio: 0.29722
Sample type: Calibration





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 98.11 µg/L
Area ratio: 0.26540
Sample type: Calibration





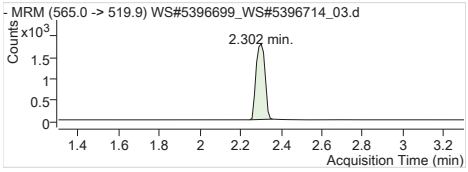
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 106.49 µg/L
Area ratio: 0
Sample type: Calibration

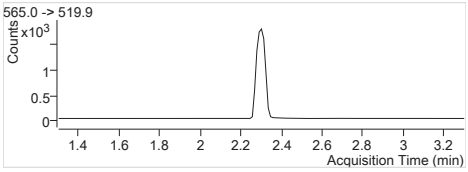
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A3
Acq. Date	2018/02/15 4:20:46 PM	**Injection Volume**	Per Method
Sample Annotation	-		

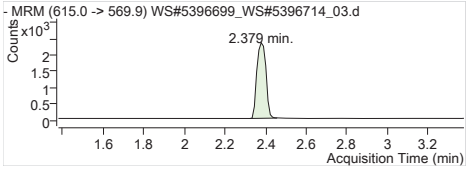
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5424	2.30	1 µg/L		
MPFDoA	7237	2.38	1 µg/L		
MPFTeDA	6223	2.51	1 µg/L		
13C9-PFDA IS	24969	2.20	1 µg/L		

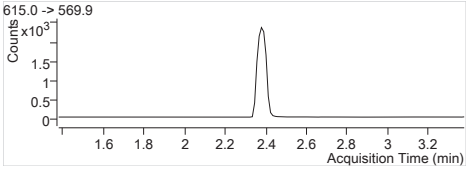
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	4875	2.30	1.70	1.75 µg/L	102.86
PFDoA 1	5881	2.38	1.70	1.64 µg/L	96.73
PFTrDA 1	5994	2.46	1.70	1.67 µg/L	98.52
PFTeDA 1	4651	2.51	1.70	1.62 µg/L	95.25
13C2-PFUnA	5424	2.30	100.00	92.40 µg/L	92.40
13C2-PFDoA	7237	2.38	100.00	94.71 µg/L	94.71
13C2-PFTeDA	6269	2.51	100.00	92.81 µg/L	92.81
13C9-PFDA	24969	2.20	100.00	102.56 µg/L	102.56



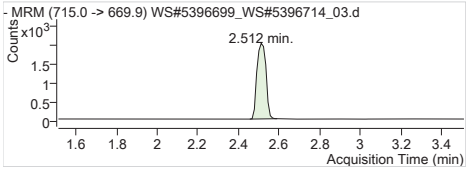


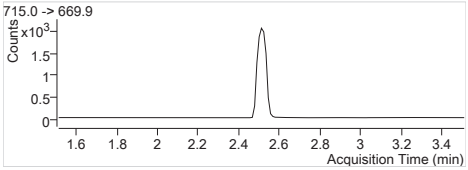
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Calibration



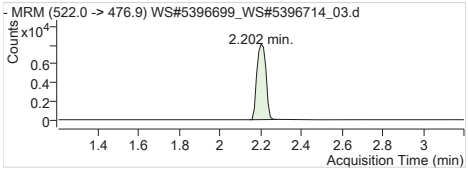


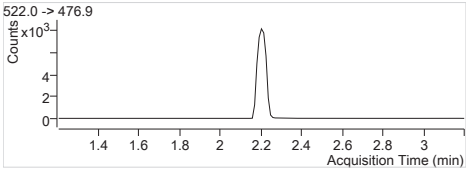
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Calibration



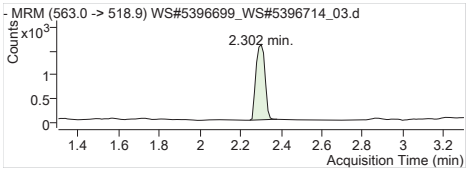


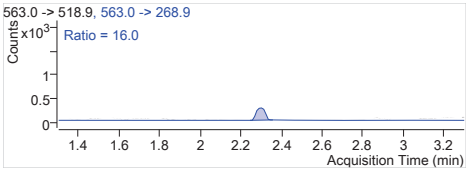
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Calibration



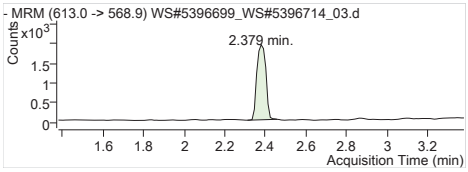


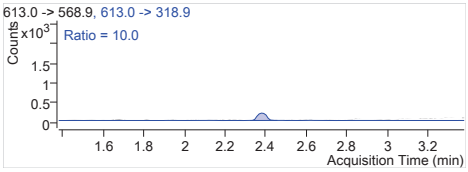
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Calibration



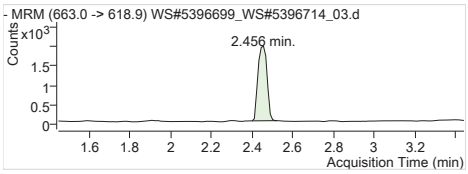


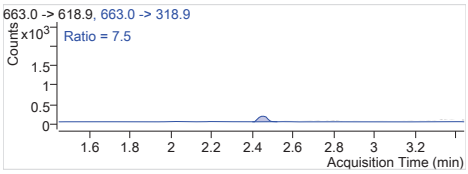
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 1.75 µg/L
Area ratio: 0.89878
Sample type: Calibration



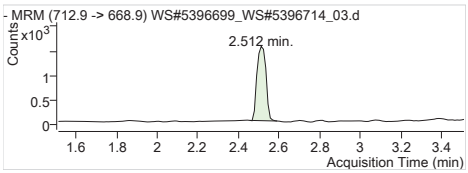


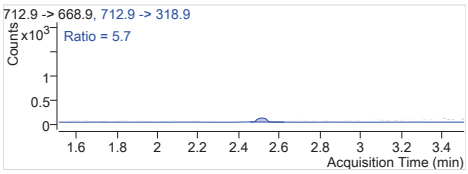
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	1.64 µg/L
Area ratio:	0.81263
Sample type:	Calibration



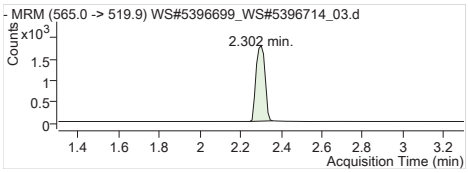


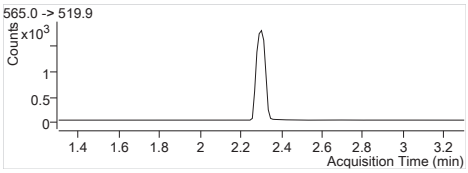
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.456 (2.445)
Calc. conc.	1.67 µg/L
Area ratio:	0.96320
Sample type:	Calibration



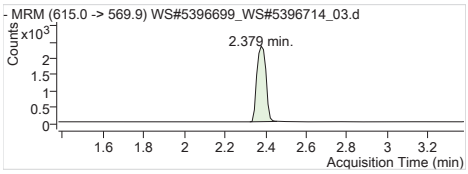


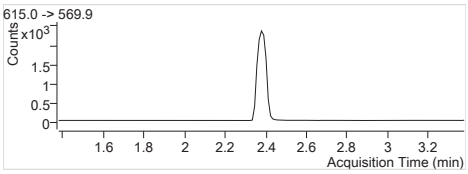
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	1.62 µg/L
Area ratio:	0.74739
Sample type:	Calibration



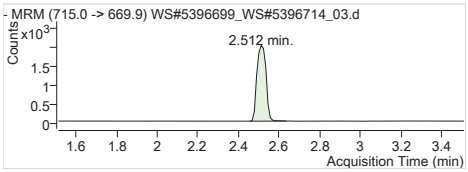


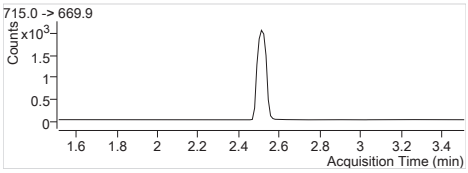
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.302 (2.302)
Calc. conc.	92.40 µg/L
Area ratio:	0.21723
Sample type:	Calibration



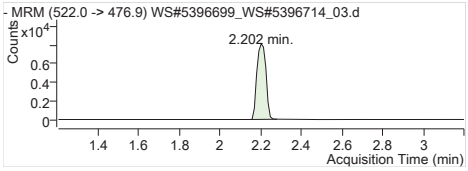


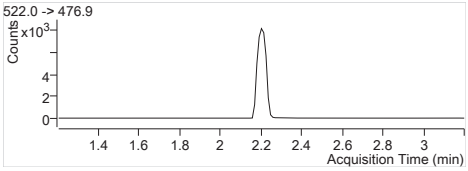
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	94.71 µg/L
Area ratio:	0.28984
Sample type:	Calibration





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	92.81 µg/L
Area ratio:	0.25107
Sample type:	Calibration





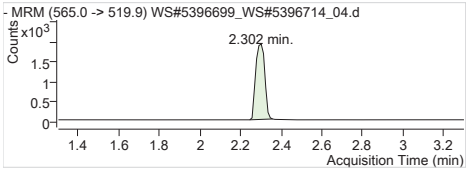
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	102.56 µg/L
Area ratio:	0
Sample type:	Calibration

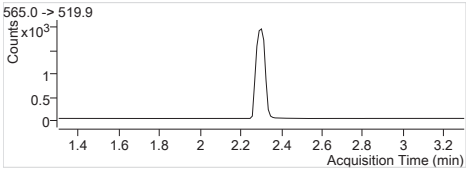
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A4
Acq. Date	2018/02/15 4:25:43 PM	**Injection Volume**	Per Method
Sample Annotation	-		

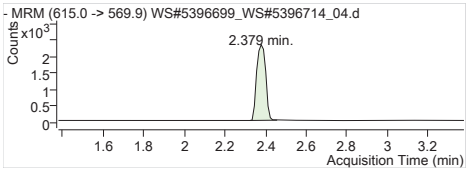
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5911	2.30	1 µg/L		
MPFDoA	7133	2.38	1 µg/L		
MPFTeDA	6233	2.51	1 µg/L		
13C9-PFDA IS	25417	2.20	1 µg/L		

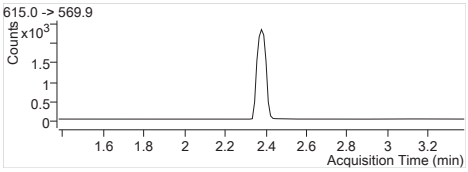
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	13534	2.30	5.00	4.05 µg/L	80.98
PFDoA 1	17518	2.38	5.00	4.47 µg/L	89.36
PFTrDA 1	18012	2.44	5.00	4.51 µg/L	90.23
PFTeDA 1	14263	2.51	5.00	4.48 µg/L	89.55
13C2-PFUnA	5911	2.30	100.00	98.92 µg/L	98.92
13C2-PFDoA	7133	2.38	100.00	91.70 µg/L	91.70
13C2-PFTeDA	6254	2.51	100.00	90.96 µg/L	90.96
13C9-PFDA	25417	2.20	100.00	104.40 µg/L	104.40



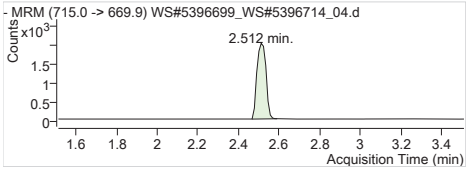


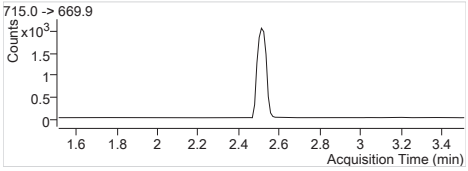
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Calibration



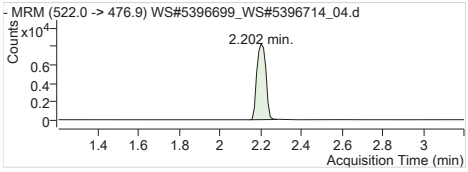


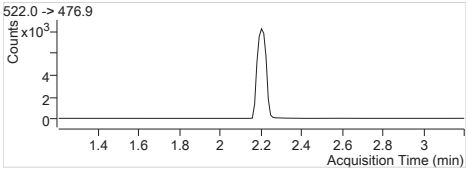
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Calibration



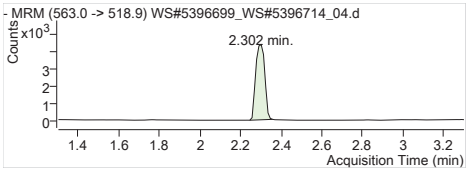


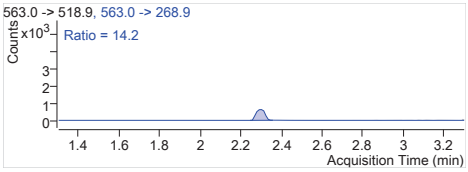
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Calibration



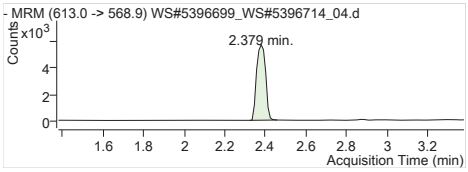


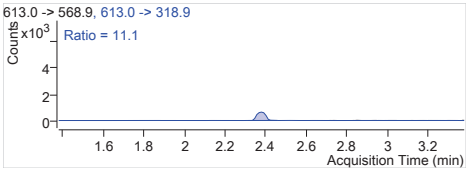
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Calibration



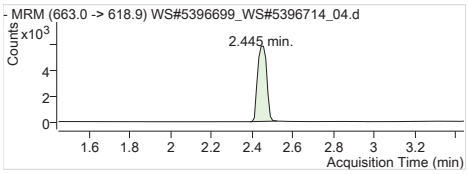


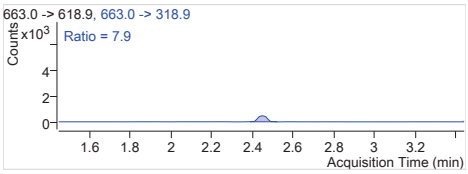
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 4.05 µg/L
Area ratio: 2.28963
Sample type: Calibration



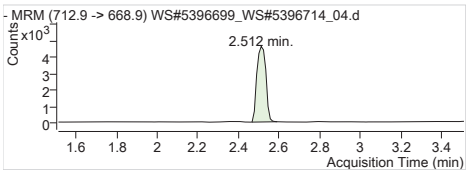


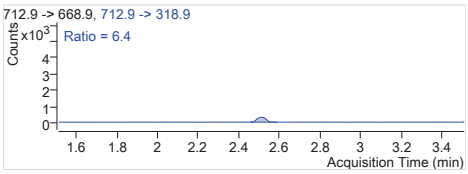
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	4.47 µg/L
Area ratio:	2.45591
Sample type:	Calibration



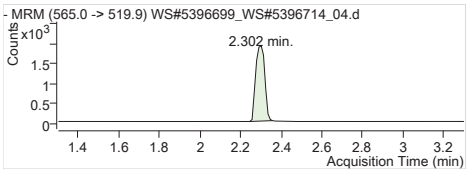


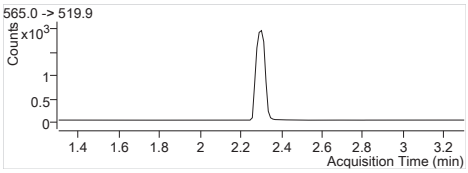
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.445 (2.445)
Calc. conc.	4.51 µg/L
Area ratio:	2.88978
Sample type:	Calibration



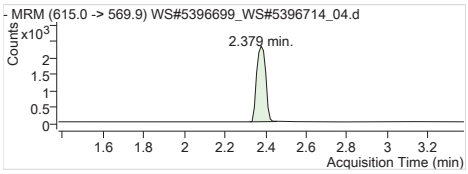


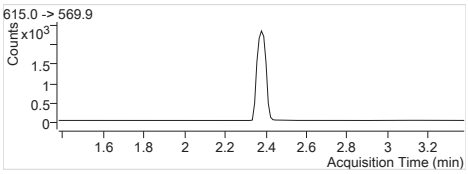
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	4.48 µg/L
Area ratio:	2.28830
Sample type:	Calibration



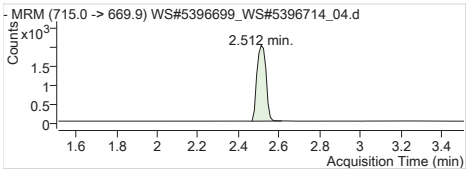


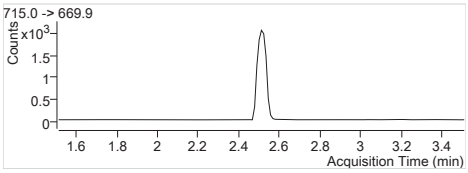
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.302 (2.302)
Calc. conc.	98.92 µg/L
Area ratio:	0.23256
Sample type:	Calibration



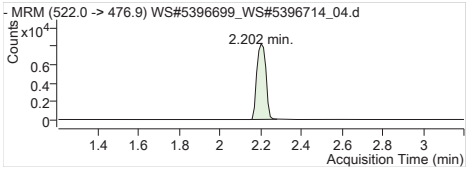


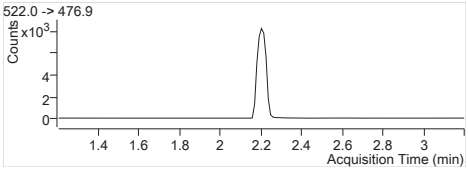
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	91.70 µg/L
Area ratio:	0.28064
Sample type:	Calibration





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	90.96 µg/L
Area ratio:	0.24606
Sample type:	Calibration





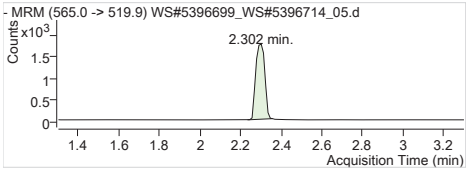
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	104.40 µg/L
Area ratio:	0
Sample type:	Calibration

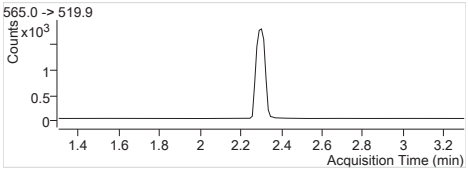
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/15 4:30:38 PM	**Injection Volume**	Per Method
Sample Annotation	-		

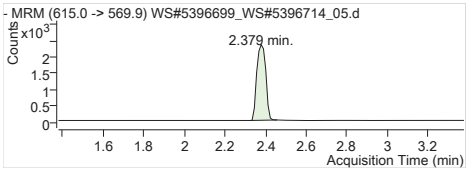
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5414	2.30	1 µg/L		
MPFDoA	7139	2.38	1 µg/L		
MPFTeDA	6143	2.51	1 µg/L		
13C9-PFDA IS	22554	2.20	1 µg/L		

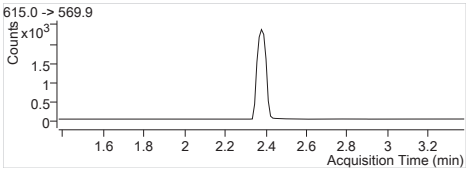
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	39617	2.30	12.50	12.37 µg/L	98.92
PFDoA 1	50698	2.38	12.50	12.45 µg/L	99.61
PFTrDA 1	51716	2.44	12.50	12.65 µg/L	101.22
PFTeDA 1	40717	2.51	12.50	12.53 µg/L	100.22
13C2-PFUnA	5414	2.30	100.00	102.10 µg/L	102.10
13C2-PFDoA	7139	2.38	100.00	103.43 µg/L	103.43
13C2-PFTeDA	6167	2.51	100.00	101.08 µg/L	101.08
13C9-PFDA	22554	2.20	100.00	92.64 µg/L	92.64



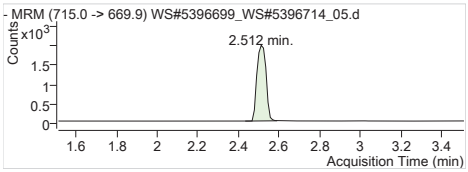


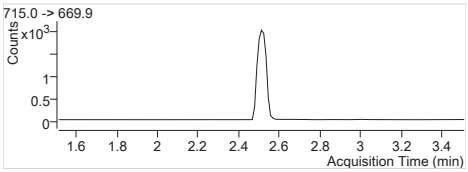
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Calibration



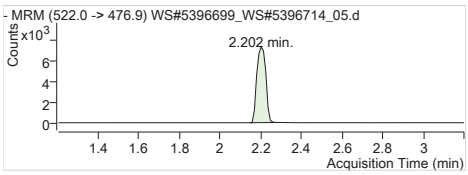


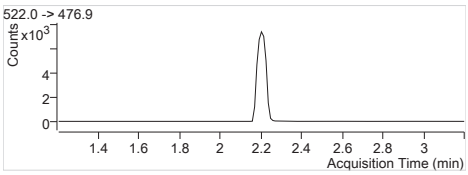
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Calibration



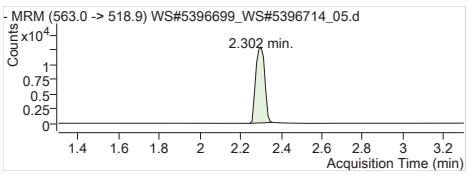


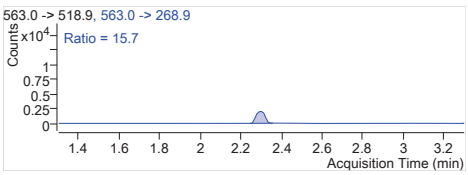
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Calibration



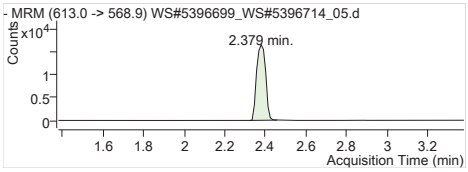


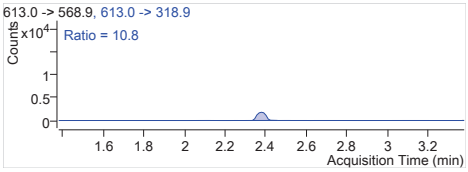
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Calibration



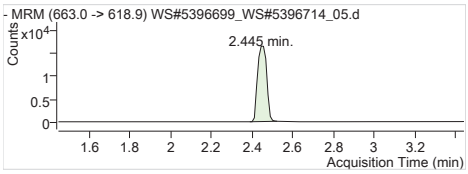


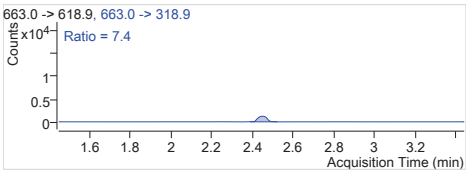
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 12.37 µg/L
Area ratio: 7.31751
Sample type: Calibration



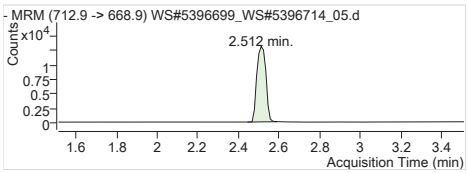


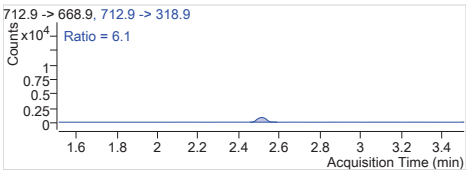
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	12.45 µg/L
Area ratio:	7.10155
Sample type:	Calibration



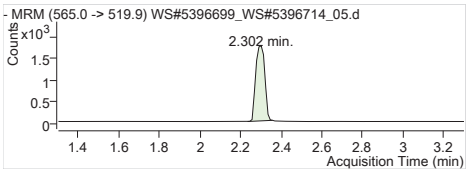


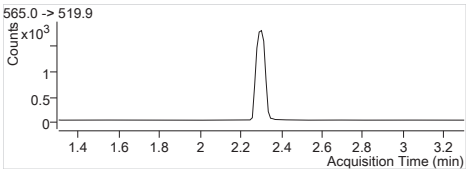
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.445 (2.445)
Calc. conc.	12.65 µg/L
Area ratio:	8.41869
Sample type:	Calibration



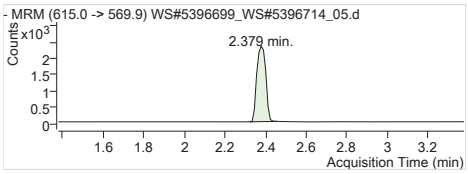


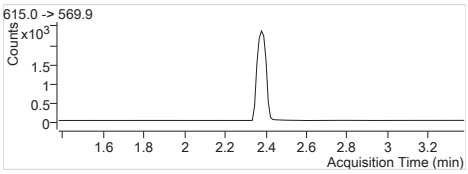
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	12.53 µg/L
Area ratio:	6.62819
Sample type:	Calibration



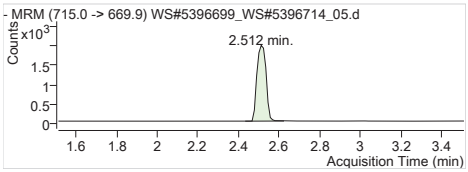


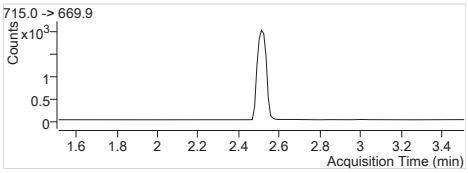
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.302 (2.302)
Calc. conc.	102.10 µg/L
Area ratio:	0.24005
Sample type:	Calibration



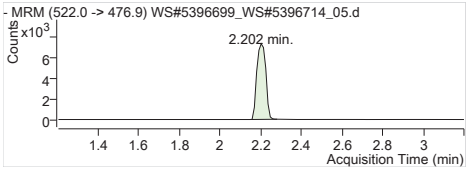


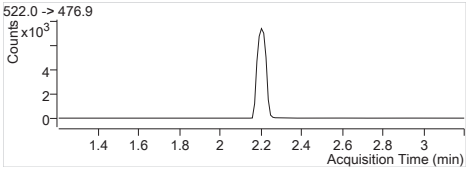
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	103.43 µg/L
Area ratio:	0.31653
Sample type:	Calibration





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	101.08 µg/L
Area ratio:	0.27343
Sample type:	Calibration





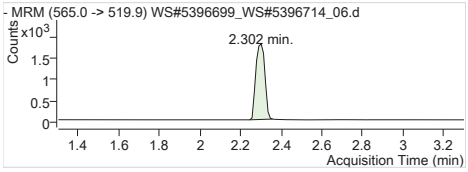
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	92.64 µg/L
Area ratio:	0
Sample type:	Calibration

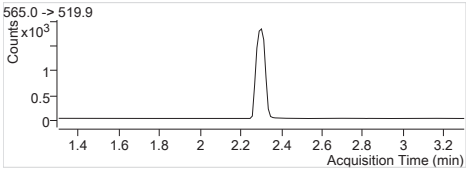
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A6
Acq. Date	2018/02/15 4:35:35 PM	**Injection Volume**	Per Method
Sample Annotation	-		

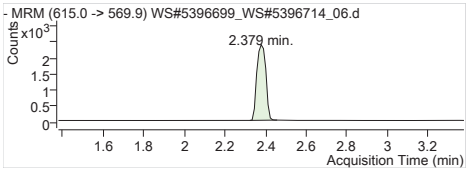
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5543	2.30	1 µg/L		
MPFDoA	7252	2.38	1 µg/L		
MPFTeDA	6584	2.51	1 µg/L		
13C9-PFDA IS	22966	2.20	1 µg/L		

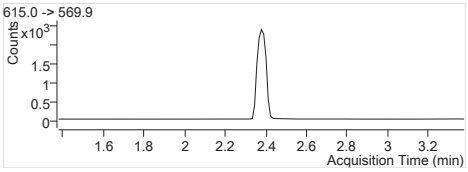
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	87768	2.30	25.00	26.45 µg/L	105.81
PFDoA 1	114607	2.38	25.00	27.40 µg/L	109.62
PFTrDA 1	117011	2.46	25.00	26.43 µg/L	105.70
PFTeDA 1	94425	2.51	25.00	26.83 µg/L	107.34
13C2-PFUnA	5543	2.30	100.00	102.66 µg/L	102.66
13C2-PFDoA	7252	2.38	100.00	103.18 µg/L	103.18
13C2-PFTeDA	6630	2.51	100.00	106.72 µg/L	106.72
13C9-PFDA	22966	2.20	100.00	94.33 µg/L	94.33



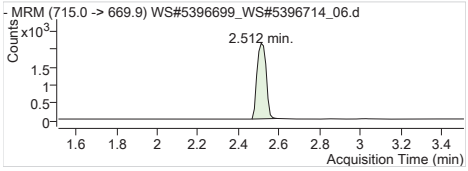


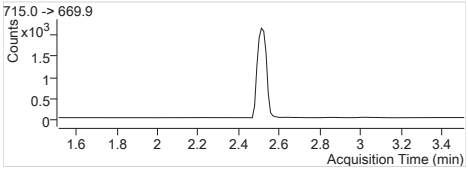
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Calibration



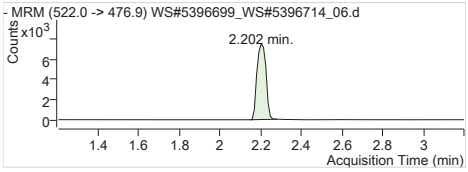


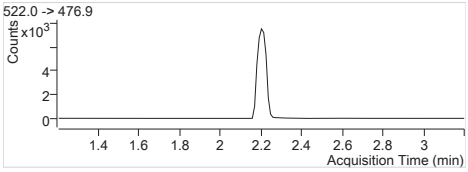
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Calibration



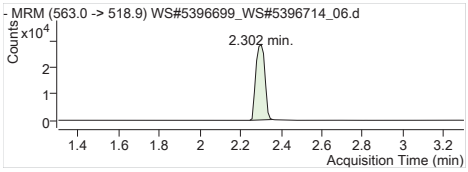


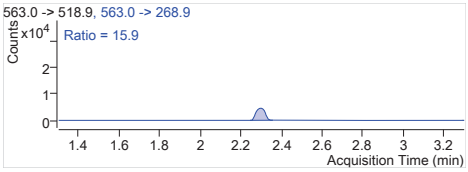
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Calibration



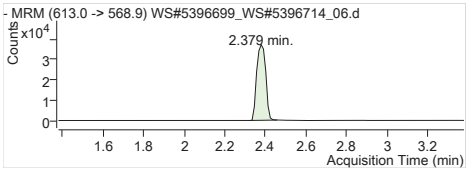


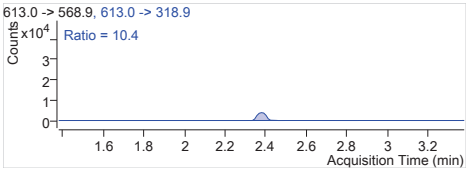
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Calibration



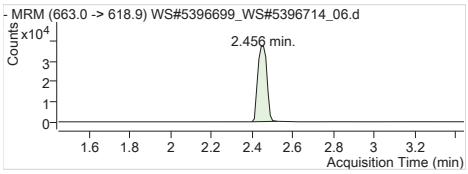


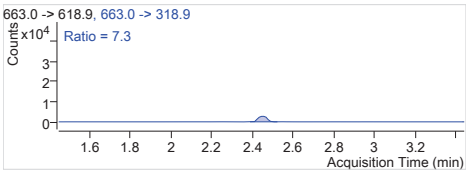
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 26.45 µg/L
Area ratio: 15.83402
Sample type: Calibration



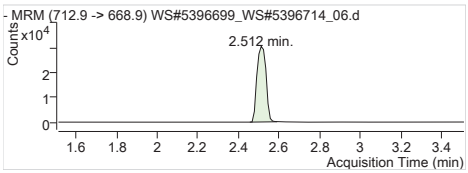


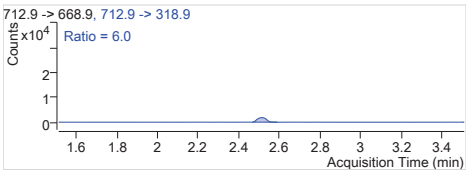
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 27.40 µg/L
Area ratio: 15.80350
Sample type: Calibration



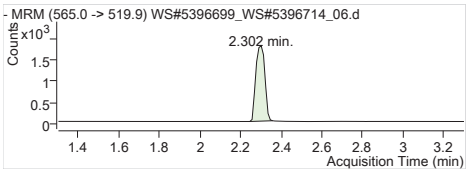


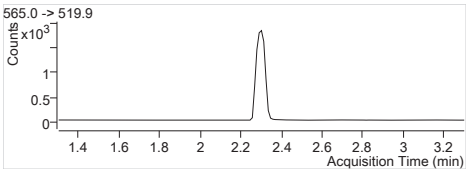
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.456 (2.445)
Calc. conc. 26.43 µg/L
Area ratio: 17.77202
Sample type: Calibration



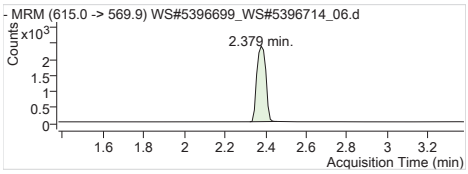


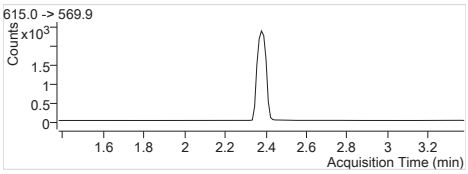
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 26.83 µg/L
Area ratio: 14.34159
Sample type: Calibration



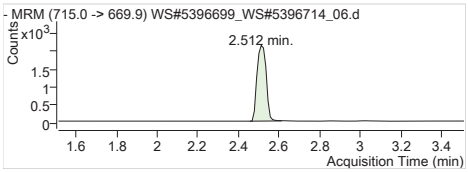


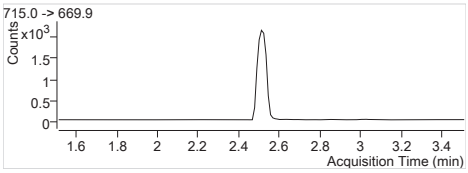
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 102.66 µg/L
Area ratio: 0.24136
Sample type: Calibration



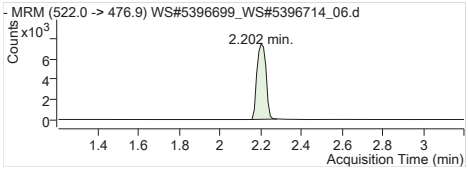


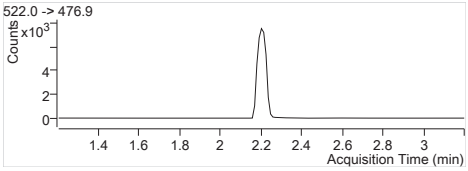
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 103.18 µg/L
Area ratio: 0.31577
Sample type: Calibration





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 106.72 µg/L
Area ratio: 0.28869
Sample type: Calibration





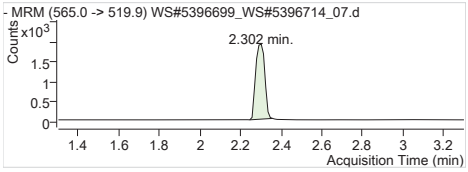
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 94.33 µg/L
Area ratio: 0
Sample type: Calibration

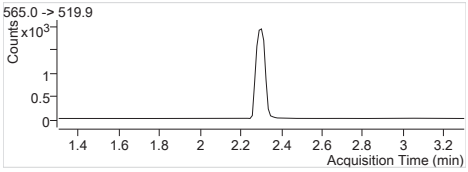
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A7
Acq. Date	2018/02/15 4:40:31 PM	**Injection Volume**	Per Method
Sample Annotation	-		

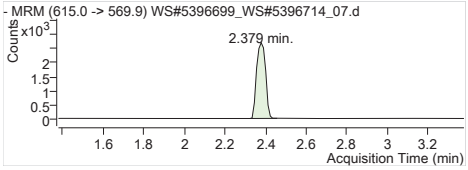
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5856	2.30	1 µg/L		
MPFDoA	8151	2.38	1 µg/L		
MPFTeDA	7156	2.51	1 µg/L		
13C9-PFDA IS	24246	2.20	1 µg/L		

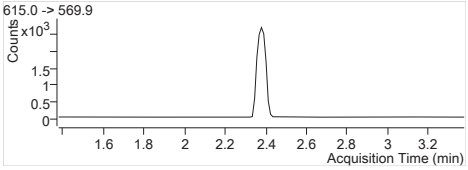
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	144868	2.30	41.70	41.18 µg/L	98.75
PFDoA 1	187876	2.38	41.70	39.86 µg/L	95.58
PFTrDA 1	195943	2.44	41.70	40.58 µg/L	97.31
PFTeDA 1	154772	2.51	41.70	40.35 µg/L	96.76
13C2-PFUnA	5856	2.30	100.00	102.73 µg/L	102.73
13C2-PFDoA	8151	2.38	100.00	109.85 µg/L	109.85
13C2-PFTeDA	7237	2.51	100.00	110.34 µg/L	110.34
13C9-PFDA	24246	2.20	100.00	99.59 µg/L	99.59



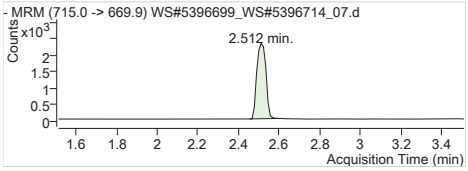


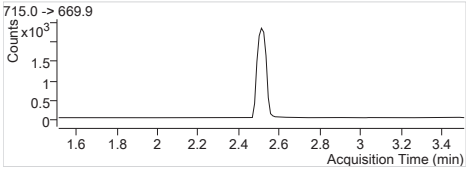
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Calibration



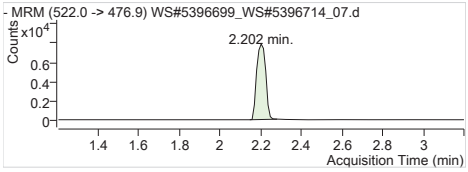


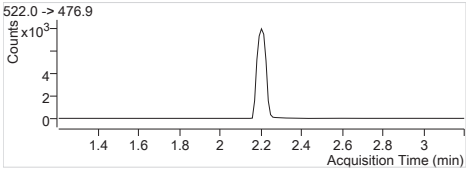
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Calibration



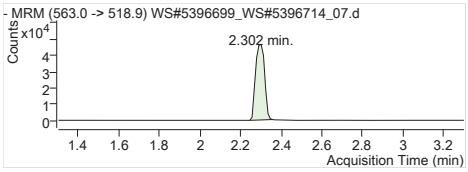


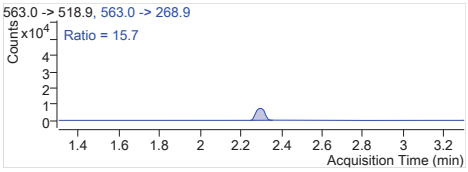
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Calibration



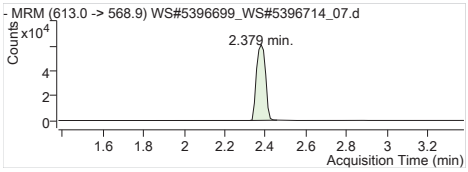


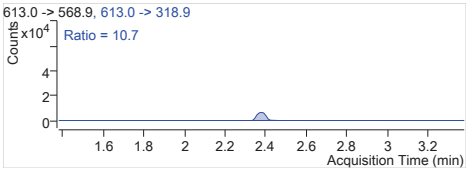
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Calibration



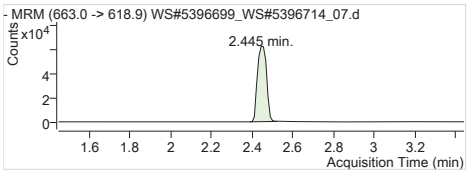


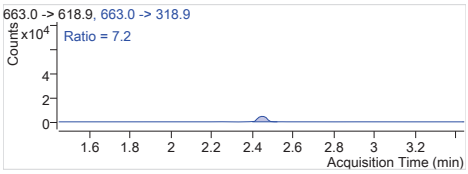
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 41.18 µg/L
Area ratio: 24.73839
Sample type: Calibration



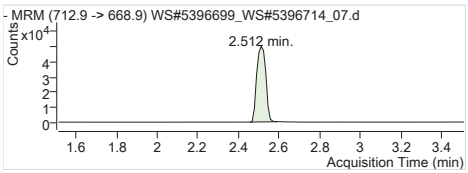


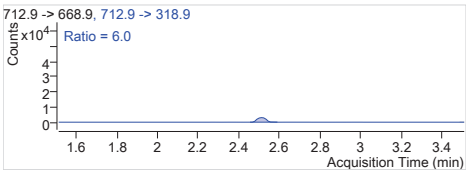
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 39.86 µg/L
Area ratio: 23.04944
Sample type: Calibration



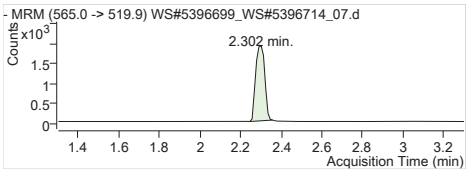


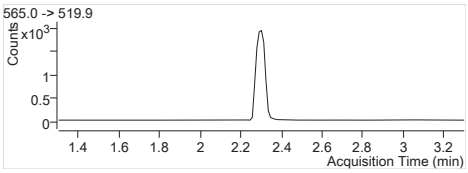
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.445 (2.445)
Calc. conc. 40.58 µg/L
Area ratio: 27.38164
Sample type: Calibration



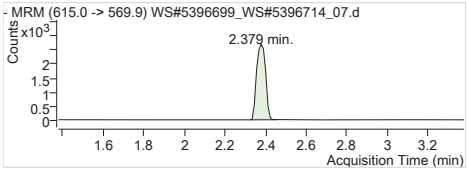


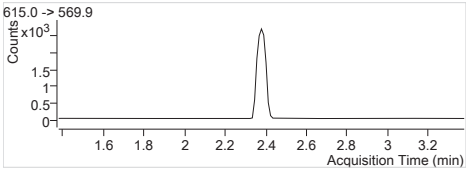
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 40.35 µg/L
Area ratio: 21.62828
Sample type: Calibration



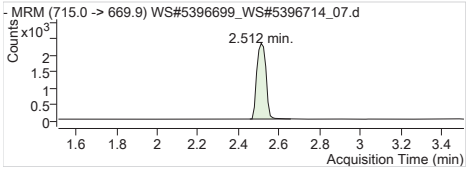


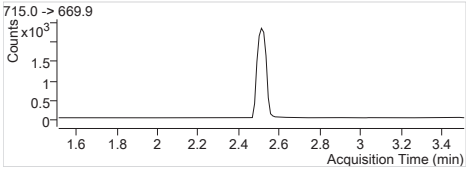
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 102.73 µg/L
Area ratio: 0.24152
Sample type: Calibration



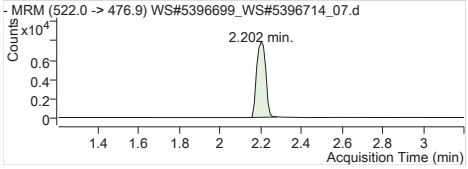


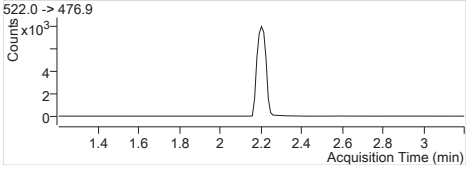
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 109.85 µg/L
Area ratio: 0.33618
Sample type: Calibration





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 110.34 µg/L
Area ratio: 0.29848
Sample type: Calibration





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 99.59 µg/L
Area ratio: 0
Sample type: Calibration

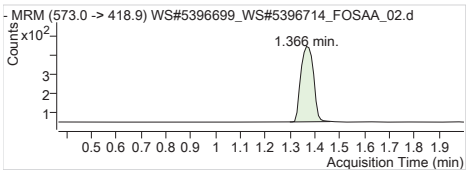
Quantitation Results

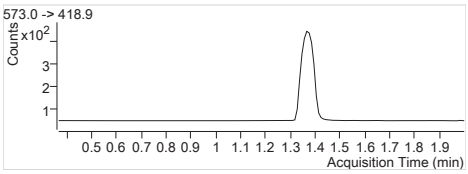
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/15 10:39:10 AM	**Injection Volume**	Per Method
Sample Annotation	-		

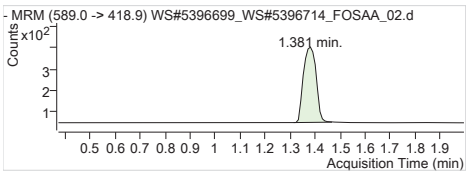
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1410	1.37	1 µg/L		
D5-EtFOSAA IS	1243	1.38	1 µg/L		
13C9-PFDA IS	27678	1.14	1 µg/L		

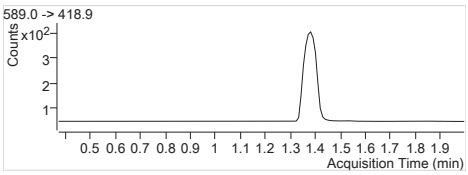
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	476	1.37	0.83	0.92 µg/L	111.25
EtFOSAA 1	472	1.37	0.83	0.94 µg/L	113.39
D3-MeFOSAA	1420	1.37	100.00	93.19 µg/L	93.19
D5-EtFOSAA	1250	1.38	100.00	94.21 µg/L	94.21
13C9-PFDA	27108	1.14	100.00	102.08 µg/L	102.08



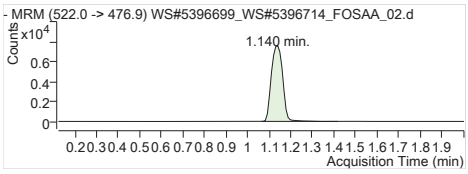


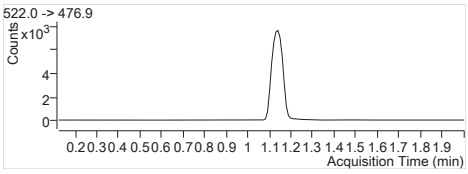
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.366 (1.366)
Concentration: 1 µg/L
Sample type: Calibration



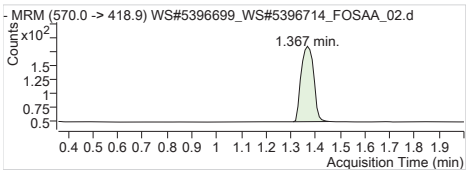


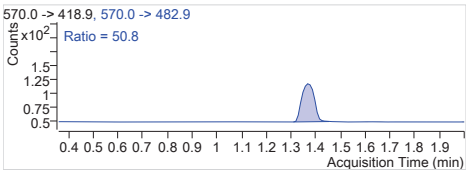
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.381 (1.371)
Concentration: 1 µg/L
Sample type: Calibration



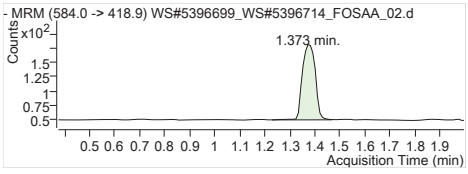


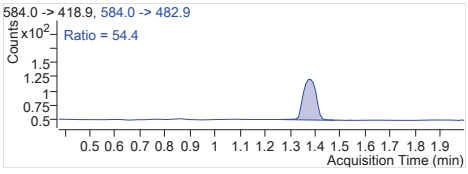
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.140 (1.121)
Concentration: 1 µg/L
Sample type: Calibration



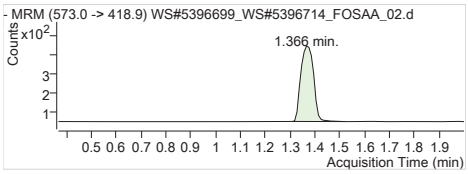


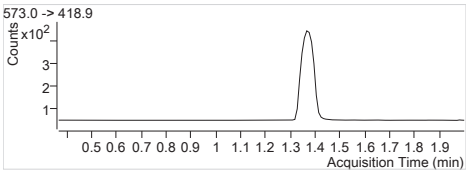
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.367 (1.358)
Calc. conc. 0.92 µg/L
Area ratio: 0.33759
Sample type: Calibration



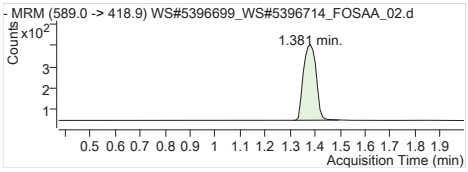


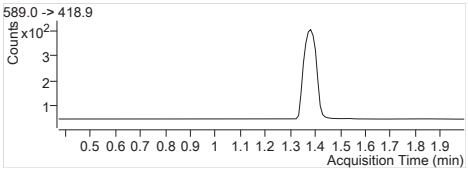
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 0.94 µg/L
Area ratio: 0.37973
Sample type: Calibration



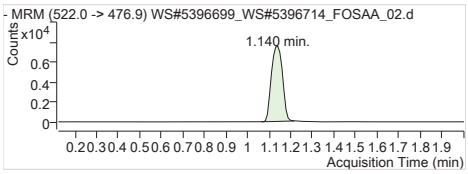


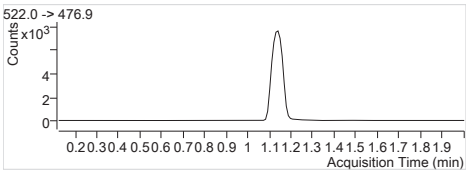
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.366 (1.366)
Calc. conc. 93.19 µg/L
Area ratio: 0.05130
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.381 (1.371)
Calc. conc.	94.21 µg/L
Area ratio:	0.04516
Sample type:	Calibration



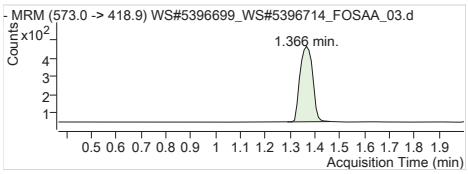


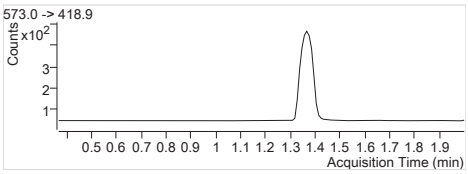
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.140 (1.121)
Calc. conc.	102.08 µg/L
Area ratio:	0
Sample type:	Calibration

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A3
Acq. Date	2018/02/15 10:41:35 AM	**Injection Volume**	Per Method
Sample Annotation	-		

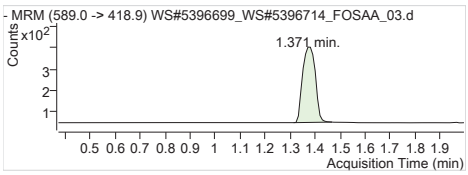
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1468	1.37	1 µg/L		
D5-EtFOSAA IS	1257	1.37	1 µg/L		
13C9-PFDA IS	27671	1.13	1 µg/L		

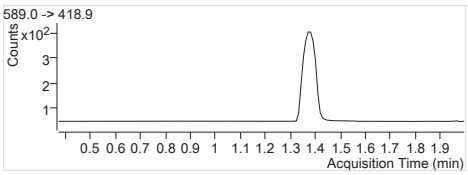
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	1031	1.37	1.70	1.64 µg/L	96.54
EtFOSAA 1	1008	1.37	1.70	1.65 µg/L	96.95
D3-MeFOSAA	1474	1.37	100.00	96.76 µg/L	96.76
D5-EtFOSAA	1264	1.37	100.00	95.29 µg/L	95.29
13C9-PFDA	27294	1.13	100.00	102.78 µg/L	102.78



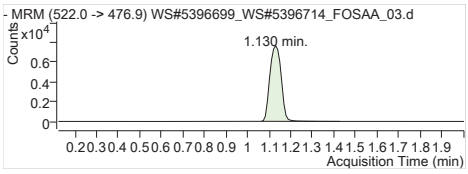


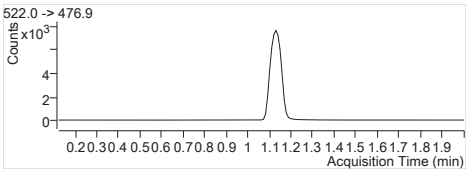
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.366 (1.366)
Concentration: 1 µg/L
Sample type: Calibration



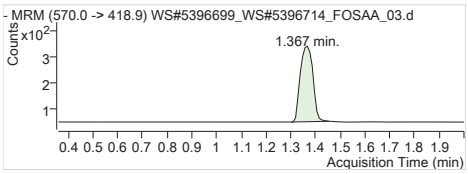


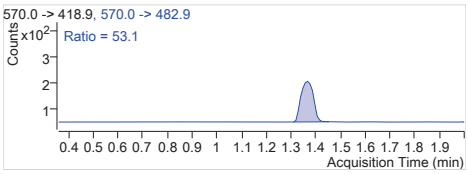
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Calibration



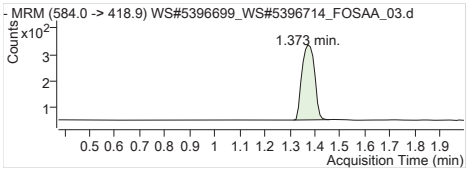


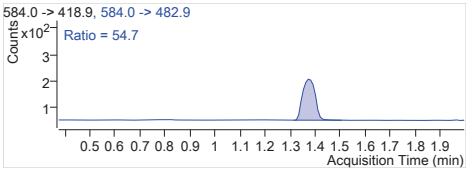
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.130 (1.121)
Concentration: 1 µg/L
Sample type: Calibration



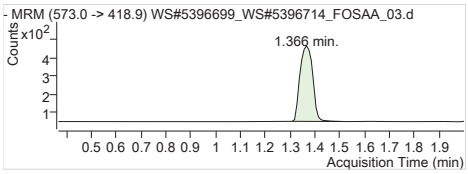


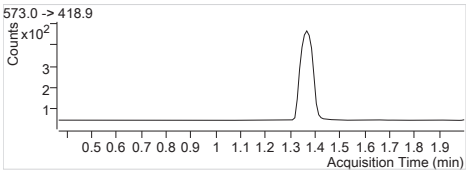
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.367 (1.358)
Calc. conc. 1.64 µg/L
Area ratio: 0.70232
Sample type: Calibration



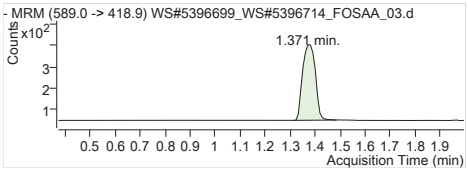


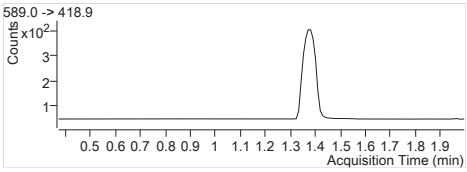
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 1.65 µg/L
Area ratio: 0.80191
Sample type: Calibration



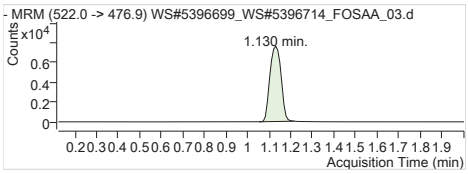


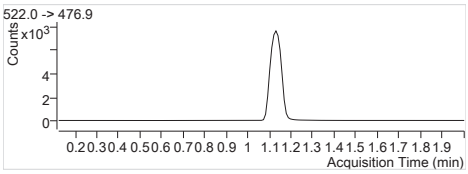
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.366 (1.366)
Calc. conc. 96.76 µg/L
Area ratio: 0.05327
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	95.29 µg/L
Area ratio:	0.04568
Sample type:	Calibration



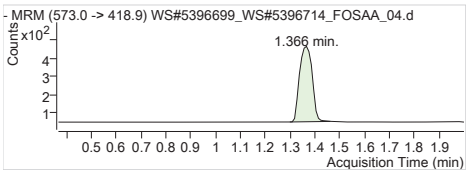


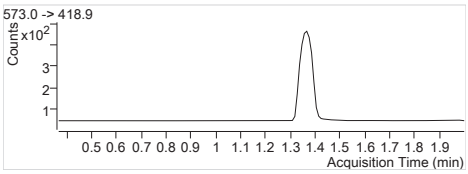
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.130 (1.121)
Calc. conc.	102.78 µg/L
Area ratio:	0
Sample type:	Calibration

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A4
Acq. Date	2018/02/15 10:44:00 AM	**Injection Volume**	Per Method
Sample Annotation	-		

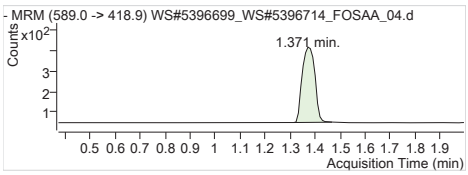
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1459	1.37	1 µg/L		
D5-EtFOSAA IS	1290	1.37	1 µg/L		
13C9-PFDA IS	27255	1.12	1 µg/L		

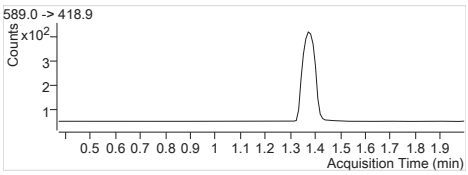
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	3138	1.37	5.00	4.49 µg/L	89.84
EtFOSAA 1	3049	1.37	5.00	4.26 µg/L	85.27
D3-MeFOSAA	1484	1.37	100.00	98.91 µg/L	98.91
D5-EtFOSAA	1307	1.37	100.00	100.03 µg/L	100.03
13C9-PFDA	26793	1.12	100.00	100.89 µg/L	100.89



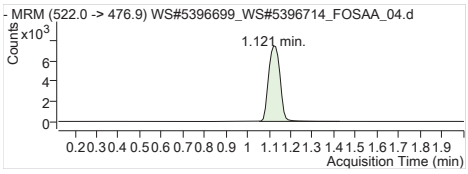


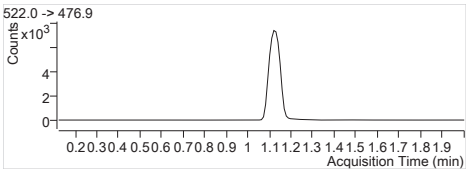
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.366 (1.366)
Concentration: 1 µg/L
Sample type: Calibration



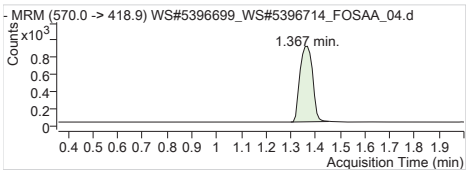


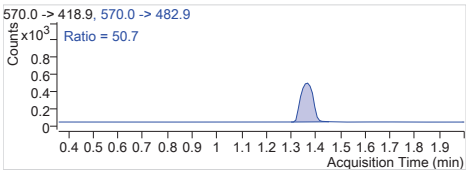
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Calibration



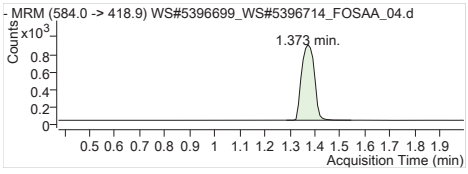


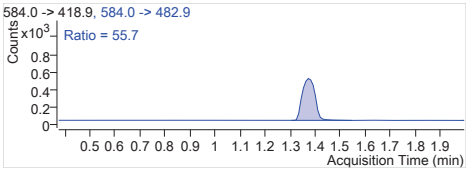
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: Calibration



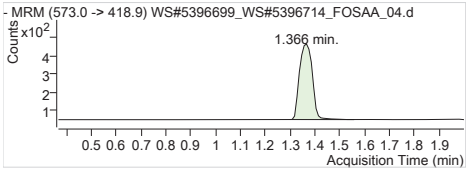


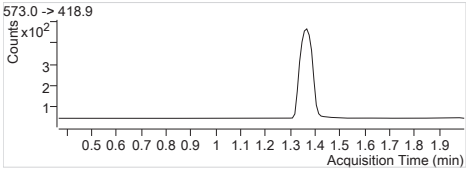
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.367 (1.358)
Calc. conc. 4.49 µg/L
Area ratio: 2.15079
Sample type: Calibration



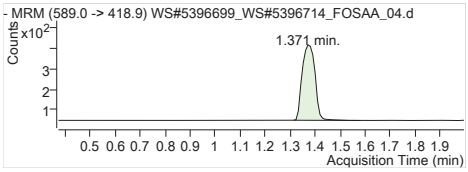


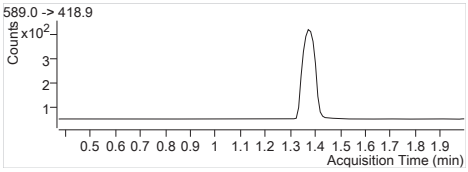
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 4.26 µg/L
Area ratio: 2.36357
Sample type: Calibration



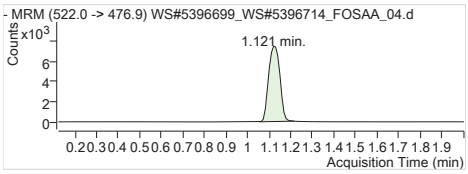


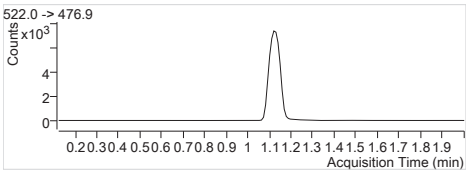
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.366 (1.366)
Calc. conc. 98.91 µg/L
Area ratio: 0.05445
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	100.03 µg/L
Area ratio:	0.04795
Sample type:	Calibration



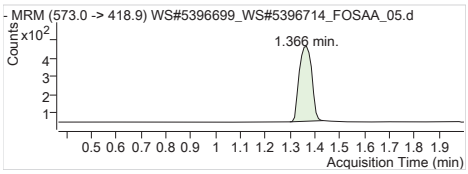


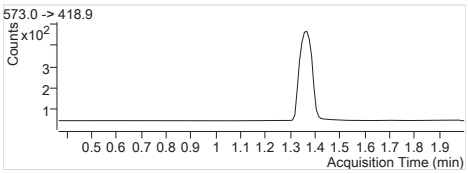
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	100.89 µg/L
Area ratio:	0
Sample type:	Calibration

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/15 10:46:25 AM	**Injection Volume**	Per Method
Sample Annotation	-		

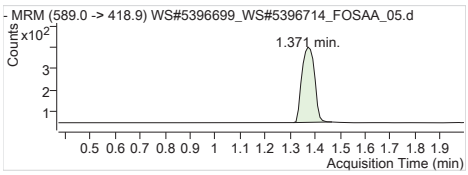
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1448	1.37	1 µg/L		
D5-EtFOSAA IS	1237	1.37	1 µg/L		
13C9-PFDA IS	25796	1.12	1 µg/L		

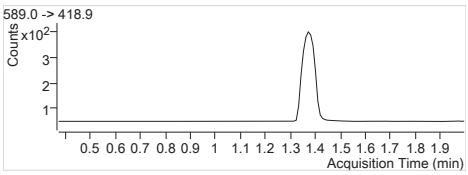
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8714	1.36	12.50	12.10 µg/L	96.83
EtFOSAA 1	8968	1.37	12.50	12.45 µg/L	99.57
D3-MeFOSAA	1484	1.37	100.00	104.50 µg/L	104.50
D5-EtFOSAA	1257	1.37	100.00	101.65 µg/L	101.65
13C9-PFDA	25303	1.12	100.00	95.28 µg/L	95.28



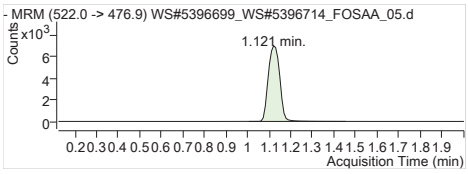


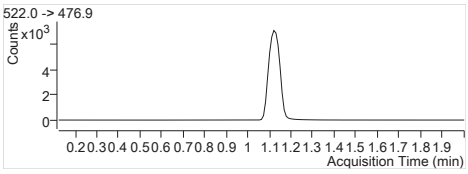
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.366 (1.366)
Concentration: 1 µg/L
Sample type: Calibration



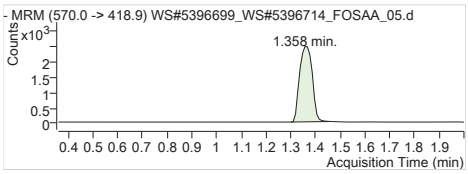


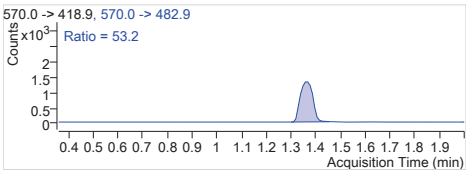
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Calibration



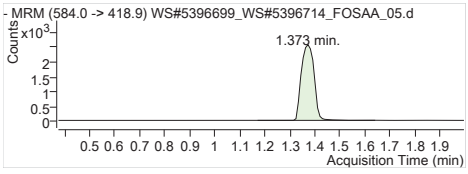


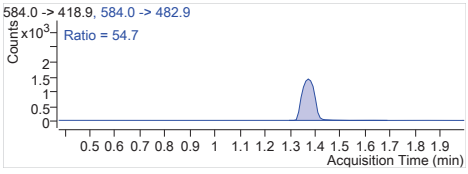
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: Calibration



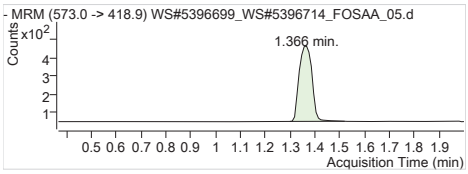


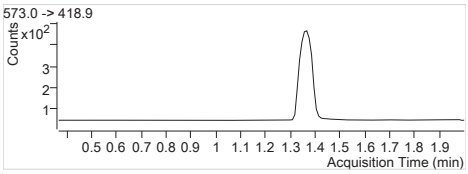
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 12.10 µg/L
Area ratio: 6.01796
Sample type: Calibration



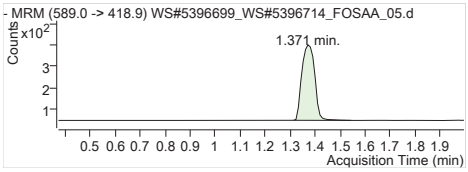


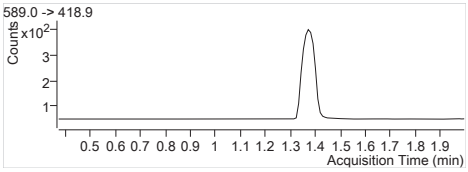
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 12.45 µg/L
Area ratio: 7.24980
Sample type: Calibration



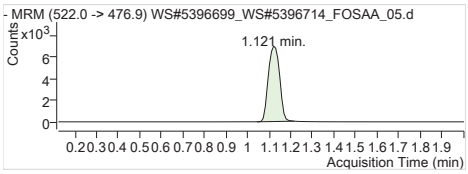


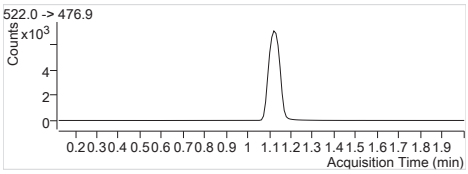
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.366 (1.366)
Calc. conc. 104.50 µg/L
Area ratio: 0.05753
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	101.65 µg/L
Area ratio:	0.04873
Sample type:	Calibration



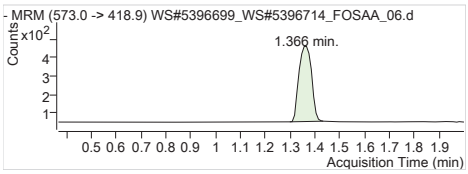


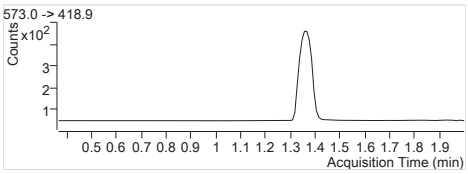
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	95.28 µg/L
Area ratio:	0
Sample type:	Calibration

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A6
Acq. Date	2018/02/15 10:48:50 AM	**Injection Volume**	Per Method
Sample Annotation	-		

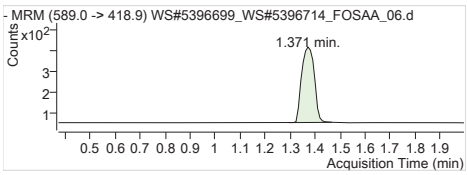
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1457	1.37	1 µg/L		
D5-EtFOSAA IS	1294	1.37	1 µg/L		
13C9-PFDA IS	26388	1.12	1 µg/L		

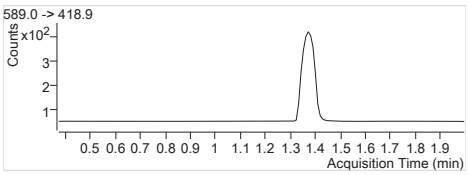
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	19911	1.36	25.00	27.16 µg/L	108.62
EtFOSAA 1	20560	1.37	25.00	26.91 µg/L	107.65
D3-MeFOSAA	1483	1.37	100.00	102.09 µg/L	102.09
D5-EtFOSAA	1302	1.37	100.00	102.92 µg/L	102.92
13C9-PFDA	25904	1.12	100.00	97.55 µg/L	97.55



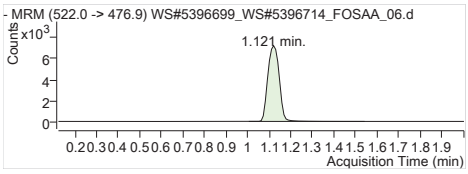


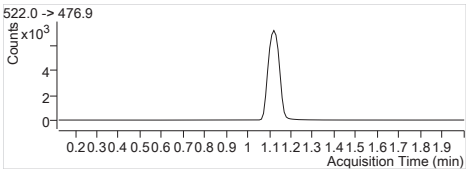
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.366 (1.366)
Concentration: 1 µg/L
Sample type: Calibration



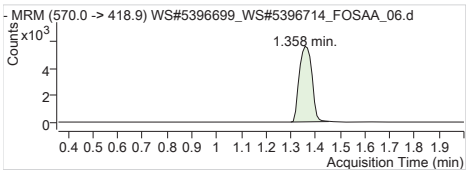


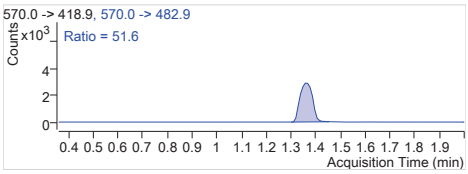
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Calibration



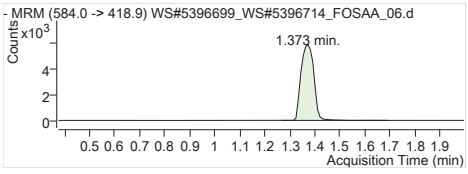


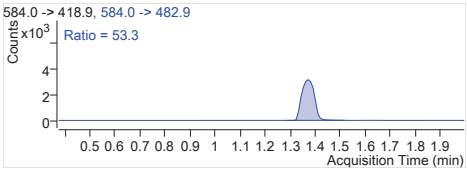
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: Calibration



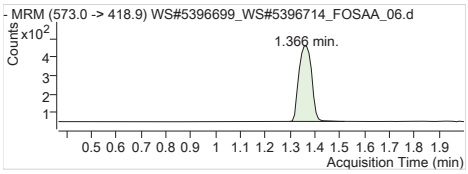


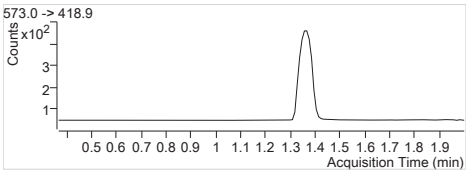
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 27.16 µg/L
Area ratio: 13.66575
Sample type: Calibration



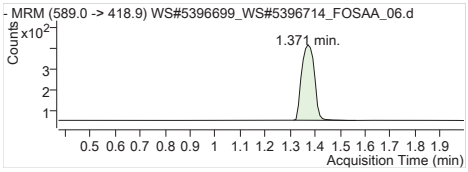


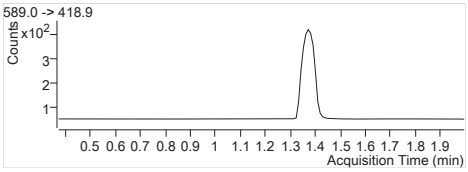
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 26.91 µg/L
Area ratio: 15.88872
Sample type: Calibration



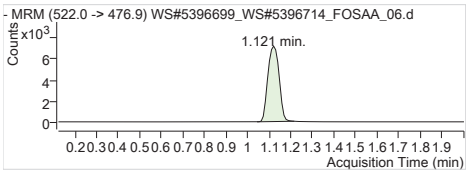


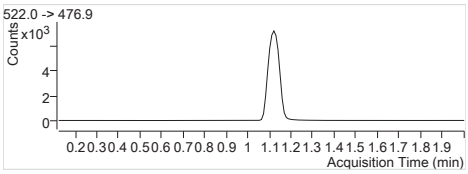
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.366 (1.366)
Calc. conc. 102.09 µg/L
Area ratio: 0.05620
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	102.92 µg/L
Area ratio:	0.04934
Sample type:	Calibration



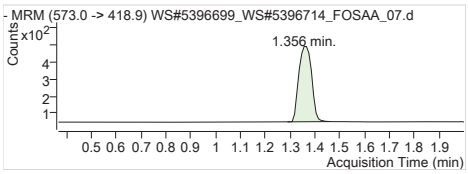


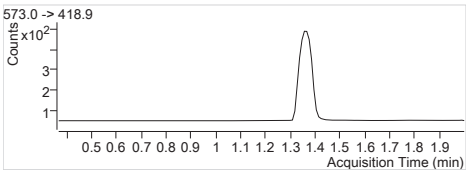
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	97.55 µg/L
Area ratio:	0
Sample type:	Calibration

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A7
Acq. Date	2018/02/15 10:51:15 AM	**Injection Volume**	Per Method
Sample Annotation	-		

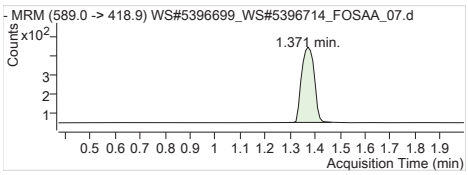
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1574	1.36	1 µg/L		
D5-EtFOSAA IS	1388	1.37	1 µg/L		
13C9-PFDA IS	27400	1.12	1 µg/L		

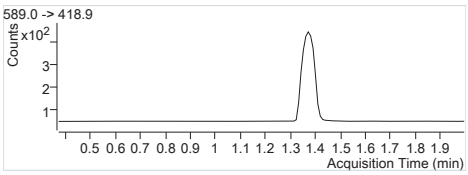
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	32114	1.36	41.70	40.41 µg/L	96.92
EtFOSAA 1	33330	1.37	41.70	40.52 µg/L	97.17
D3-MeFOSAA	1577	1.36	100.00	104.55 µg/L	104.55
D5-EtFOSAA	1391	1.37	100.00	105.90 µg/L	105.90
13C9-PFDA	26931	1.12	100.00	101.41 µg/L	101.41



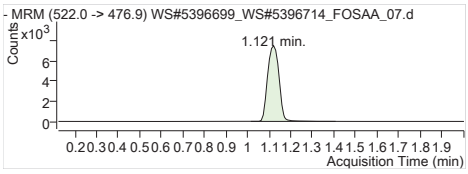


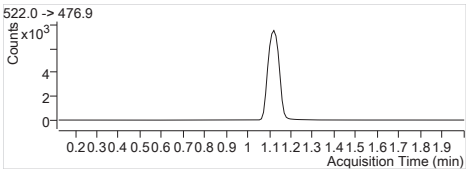
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Calibration



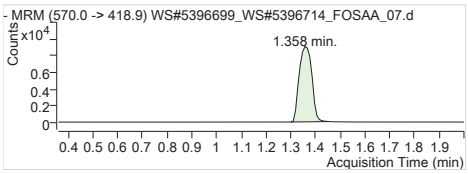


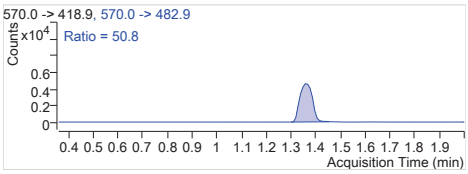
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Calibration



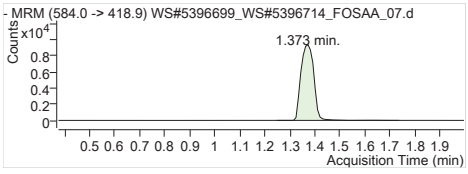


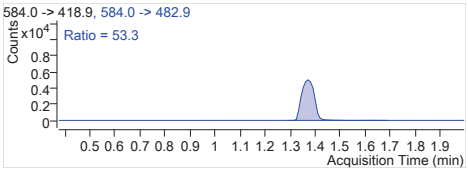
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: Calibration



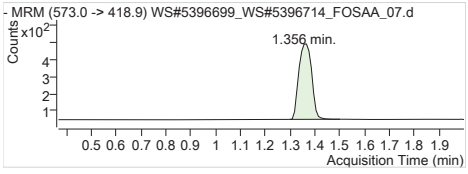


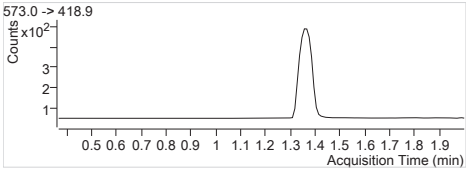
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 40.41 µg/L
Area ratio: 20.40280
Sample type: Calibration



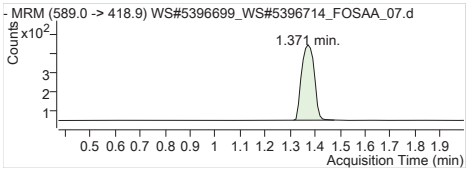


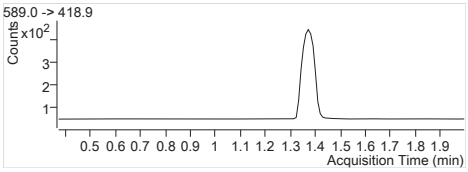
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 40.52 µg/L
Area ratio: 24.01297
Sample type: Calibration



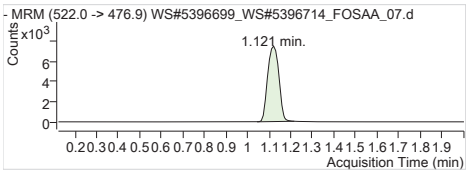


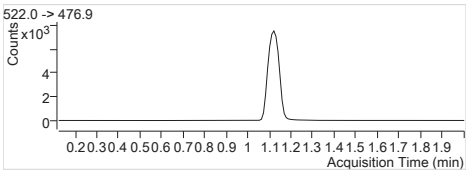
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 104.55 µg/L
Area ratio: 0.05755
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	105.90 µg/L
Area ratio:	0.05077
Sample type:	Calibration





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	101.41 µg/L
Area ratio:	0
Sample type:	Calibration

Quantitation Results

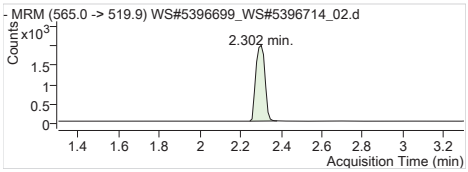
Agilent Technologies

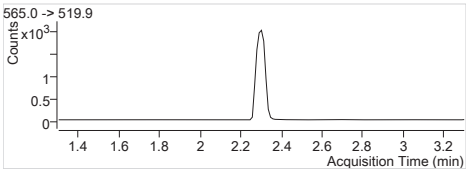
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/15 4:15:51 PM	**Injection Volume**	Per Method
Sample Annotation	-		

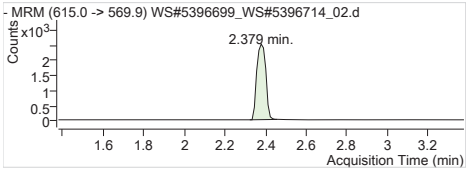
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6168	2.30	1 µg/L		
MPFDoA	7706	2.38	1 µg/L		
MPFTeDA	6867	2.51	1 µg/L		
13C9-PFDA IS	25927	2.20	1 µg/L		

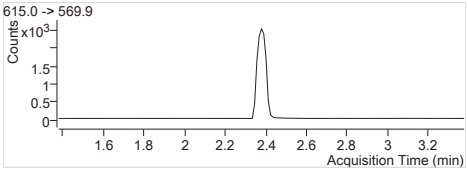
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	2510	2.30	0.83	0.94 µg/L	112.67
PFDoA 1	2949	2.38	0.83	0.91 µg/L	109.10
PFTeDA 1	2545	2.51	0.83	0.92 µg/L	110.88
13C2-PFUnA	6168	2.30	100.00	101.19 µg/L	101.19
13C2-PFDoA	7706	2.38	100.00	97.12 µg/L	97.12
13C2-PFTeDA	6881	2.51	100.00	98.11 µg/L	98.11
13C9-PFDA	25927	2.20	100.00	106.49 µg/L	106.49



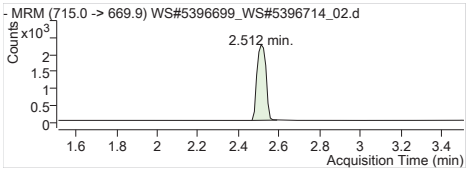


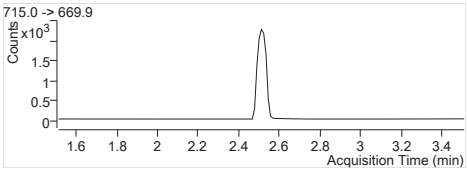
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Calibration



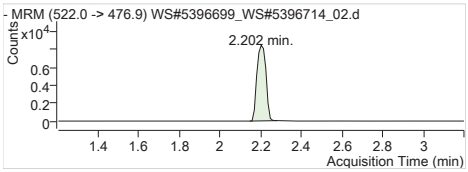


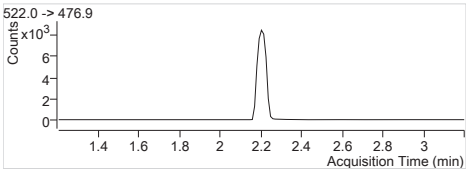
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Calibration



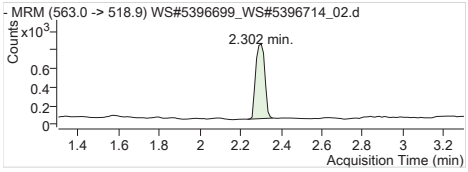


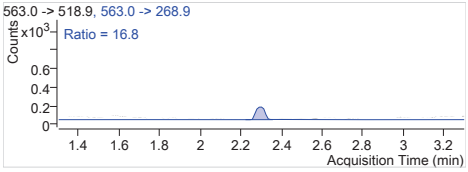
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Calibration



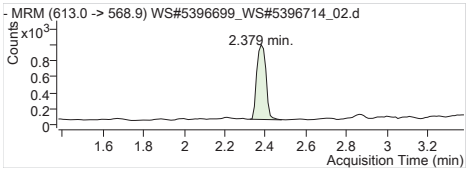


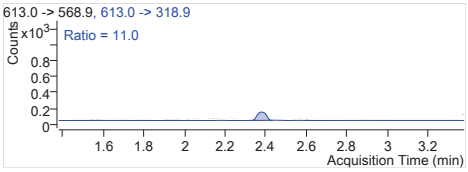
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Calibration



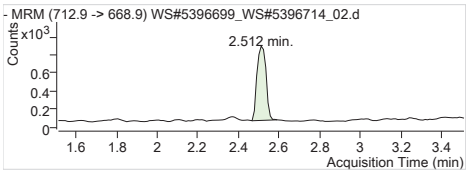


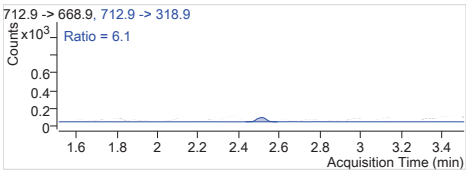
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 0.94 µg/L
Area ratio: 0.40694
Sample type: Calibration



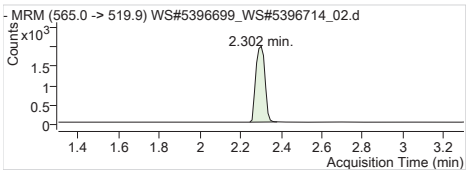


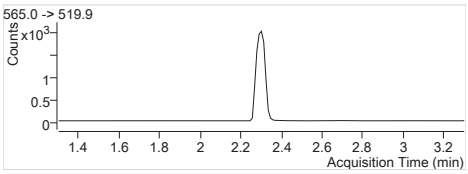
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 0.91 µg/L
Area ratio: 0.38269
Sample type: Calibration



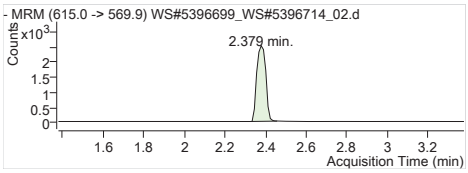


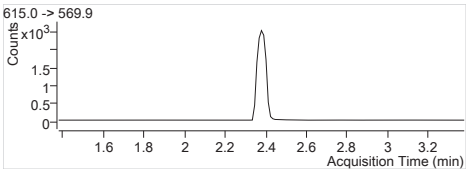
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 0.92 µg/L
Area ratio: 0.37061
Sample type: Calibration



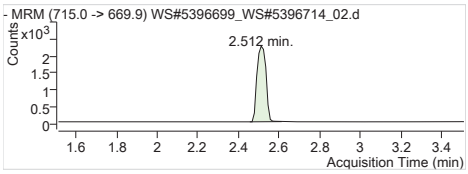


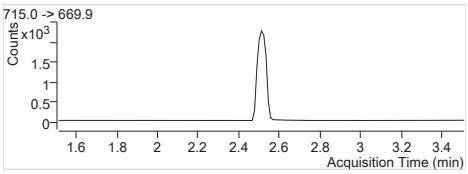
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 101.19 µg/L
Area ratio: 0.23790
Sample type: Calibration



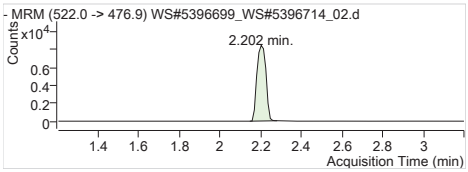


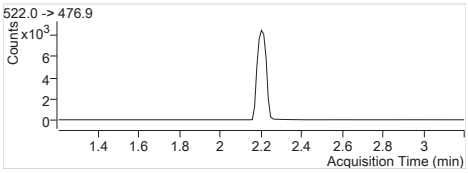
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 97.12 µg/L
Area ratio: 0.29722
Sample type: Calibration





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 98.11 µg/L
Area ratio: 0.26540
Sample type: Calibration





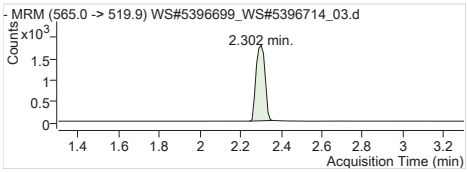
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 106.49 µg/L
Area ratio: 0
Sample type: Calibration

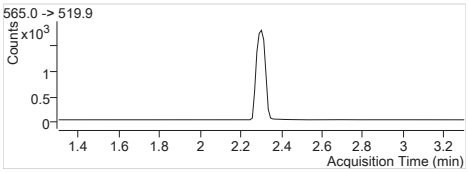
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A3
Acq. Date	2018/02/15 4:20:46 PM	**Injection Volume**	Per Method
Sample Annotation	-		

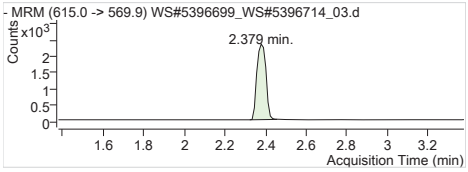
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5424	2.30	1 µg/L		
MPFDoA	7237	2.38	1 µg/L		
MPFTeDA	6223	2.51	1 µg/L		
13C9-PFDA IS	24969	2.20	1 µg/L		

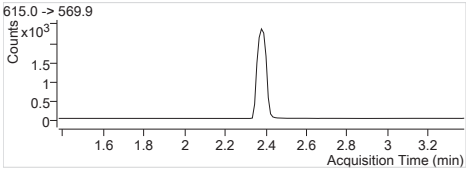
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	4875	2.30	1.70	1.75 µg/L	102.86
PFDoA 1	5881	2.38	1.70	1.64 µg/L	96.73
PFTeDA 1	4651	2.51	1.70	1.62 µg/L	95.25
13C2-PFUnA	5424	2.30	100.00	92.40 µg/L	92.40
13C2-PFDoA	7237	2.38	100.00	94.71 µg/L	94.71
13C2-PFTeDA	6269	2.51	100.00	92.81 µg/L	92.81
13C9-PFDA	24969	2.20	100.00	102.56 µg/L	102.56



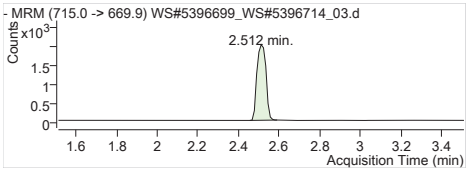


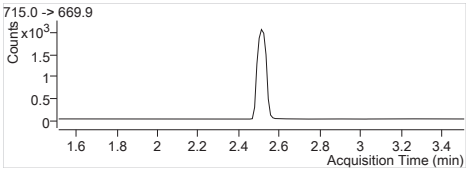
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Calibration



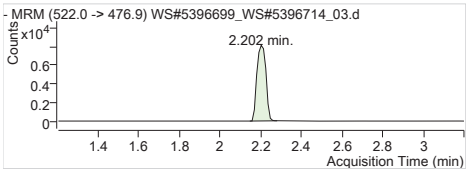


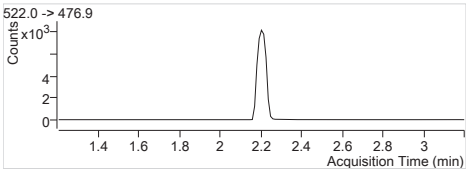
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Calibration



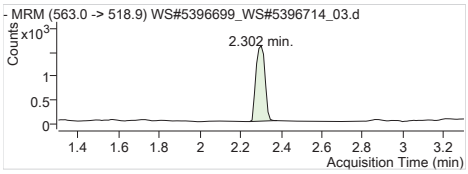


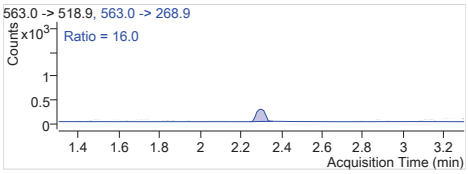
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Calibration



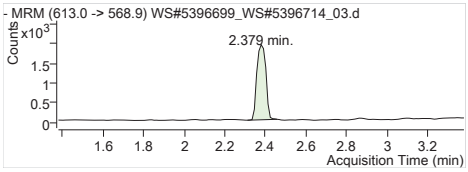


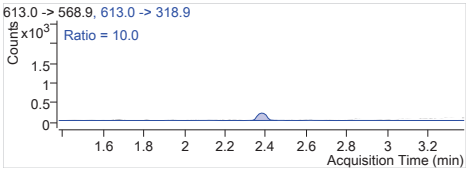
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Calibration



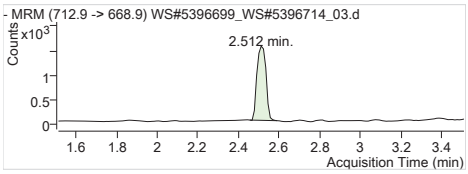


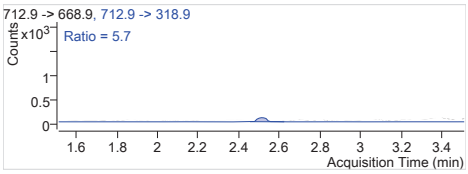
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 1.75 µg/L
Area ratio: 0.89878
Sample type: Calibration



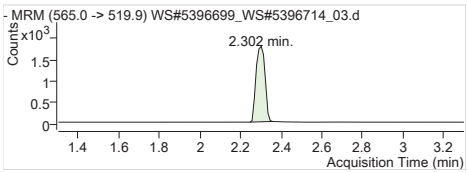


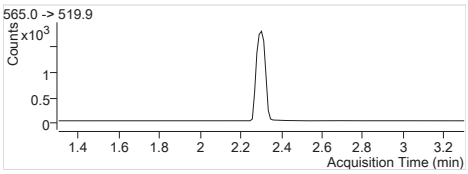
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 1.64 µg/L
Area ratio: 0.81263
Sample type: Calibration



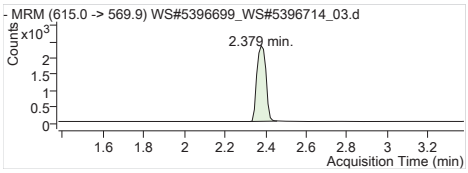


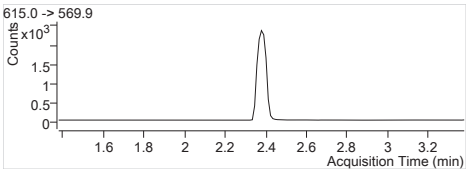
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 1.62 µg/L
Area ratio: 0.74739
Sample type: Calibration



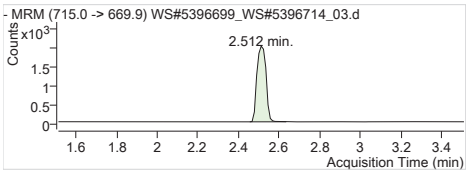


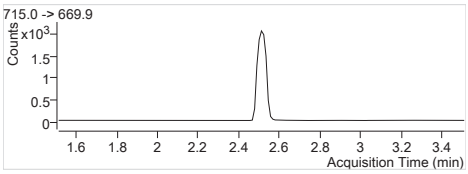
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 92.40 µg/L
Area ratio: 0.21723
Sample type: Calibration



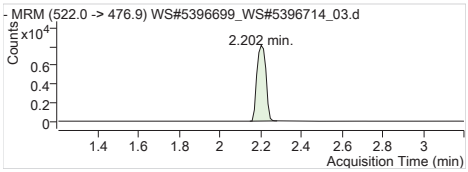


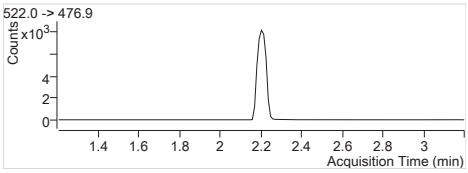
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 94.71 µg/L
Area ratio: 0.28984
Sample type: Calibration





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 92.81 µg/L
Area ratio: 0.25107
Sample type: Calibration





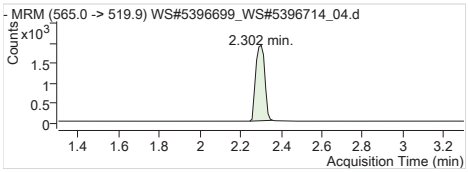
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 102.56 µg/L
Area ratio: 0
Sample type: Calibration

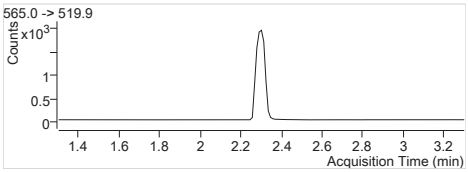
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A4
Acq. Date	2018/02/15 4:25:43 PM	**Injection Volume**	Per Method
Sample Annotation	-		

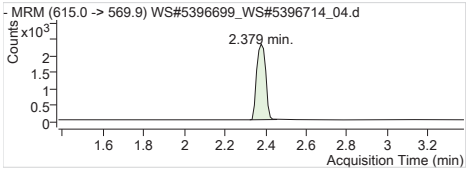
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5911	2.30	1 µg/L		
MPFDoA	7133	2.38	1 µg/L		
MPFTeDA	6233	2.51	1 µg/L		
13C9-PFDA IS	25417	2.20	1 µg/L		

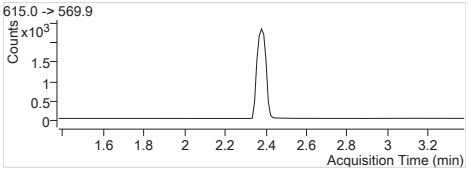
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	13534	2.30	5.00	4.05 µg/L	80.98
PFDoA 1	17518	2.38	5.00	4.47 µg/L	89.36
PFTeDA 1	14263	2.51	5.00	4.48 µg/L	89.55
13C2-PFUnA	5911	2.30	100.00	98.92 µg/L	98.92
13C2-PFDoA	7133	2.38	100.00	91.70 µg/L	91.70
13C2-PFTeDA	6254	2.51	100.00	90.96 µg/L	90.96
13C9-PFDA	25417	2.20	100.00	104.40 µg/L	104.40



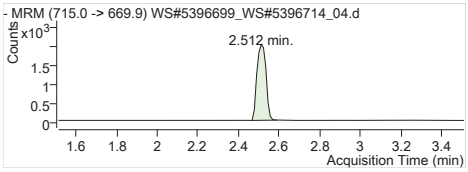


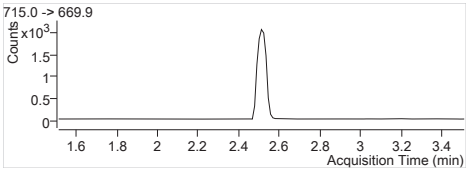
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Calibration



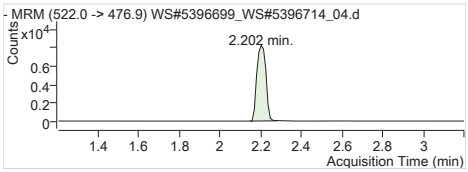


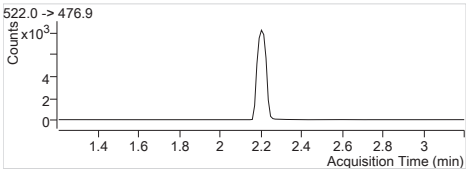
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Calibration



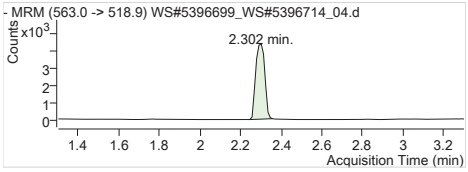


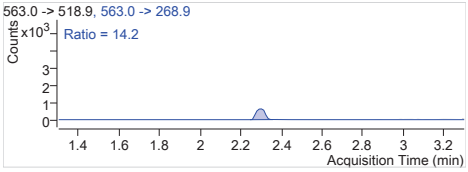
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Calibration



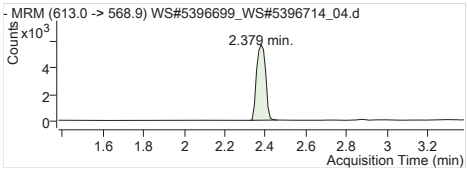


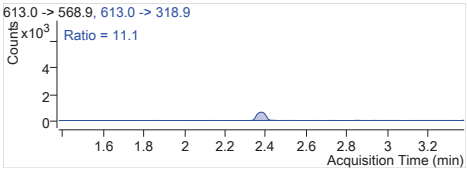
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Calibration



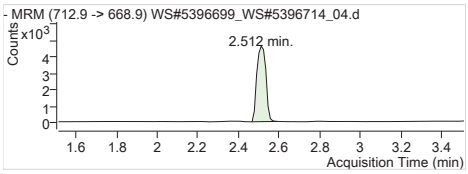


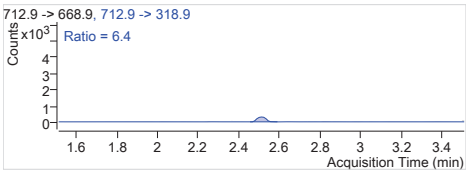
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 4.05 µg/L
Area ratio: 2.28963
Sample type: Calibration



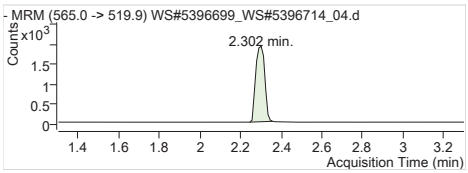


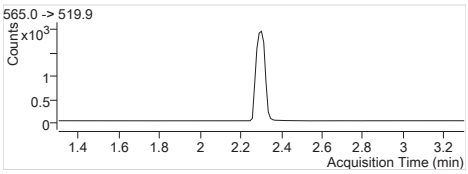
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 4.47 µg/L
Area ratio: 2.45591
Sample type: Calibration



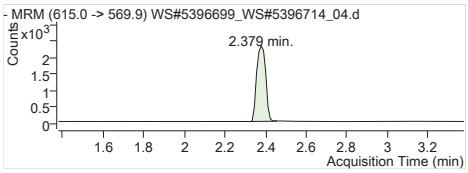


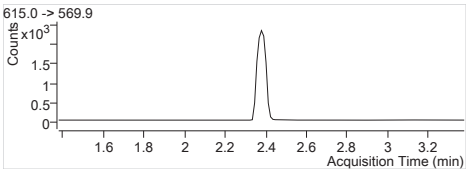
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 4.48 µg/L
Area ratio: 2.28830
Sample type: Calibration



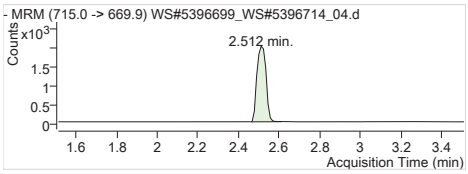


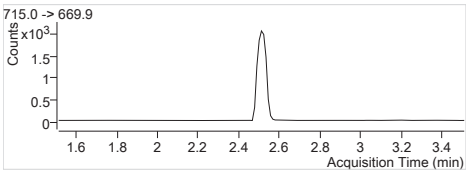
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 98.92 µg/L
Area ratio: 0.23256
Sample type: Calibration



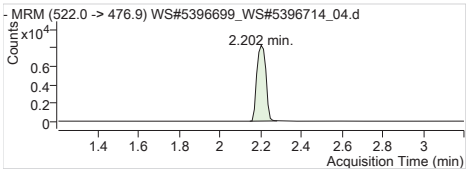


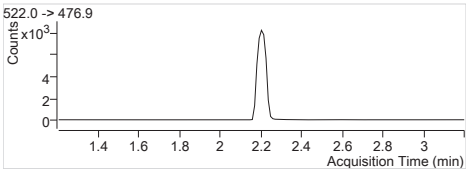
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 91.70 µg/L
Area ratio: 0.28064
Sample type: Calibration





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 90.96 µg/L
Area ratio: 0.24606
Sample type: Calibration





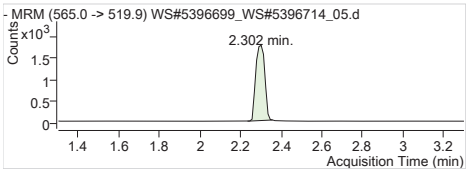
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 104.40 µg/L
Area ratio: 0
Sample type: Calibration

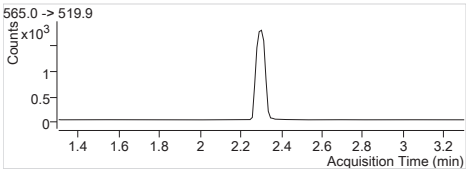
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/15 4:30:38 PM	**Injection Volume**	Per Method
Sample Annotation	-		

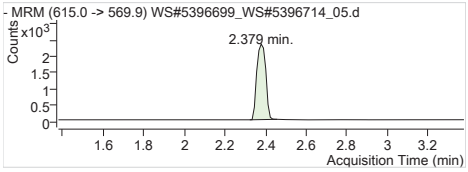
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5414	2.30	1 µg/L		
MPFDoA	7139	2.38	1 µg/L		
MPFTeDA	6143	2.51	1 µg/L		
13C9-PFDA IS	22554	2.20	1 µg/L		

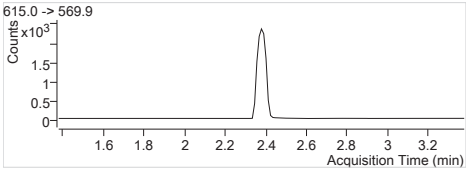
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	39617	2.30	12.50	12.37 µg/L	98.92
PFDoA 1	50698	2.38	12.50	12.45 µg/L	99.61
PFTeDA 1	40717	2.51	12.50	12.53 µg/L	100.22
13C2-PFUnA	5414	2.30	100.00	102.10 µg/L	102.10
13C2-PFDoA	7139	2.38	100.00	103.43 µg/L	103.43
13C2-PFTeDA	6167	2.51	100.00	101.08 µg/L	101.08
13C9-PFDA	22554	2.20	100.00	92.64 µg/L	92.64



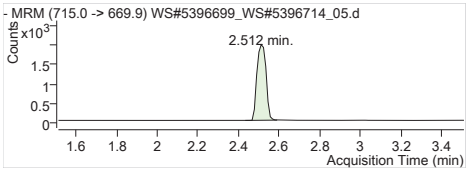


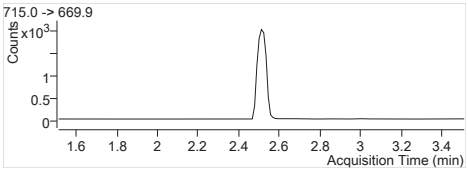
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Calibration



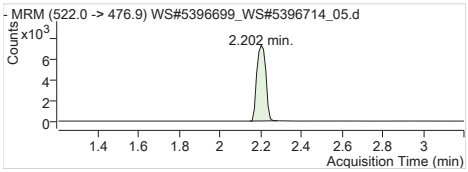


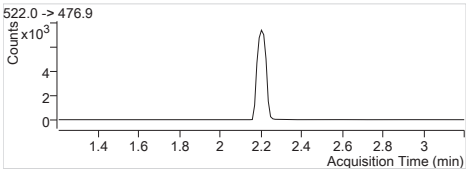
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Calibration



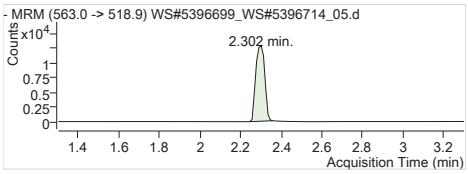


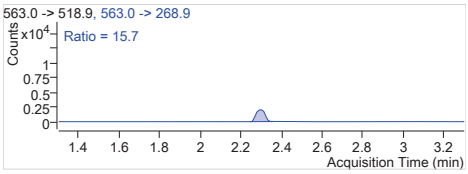
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Calibration



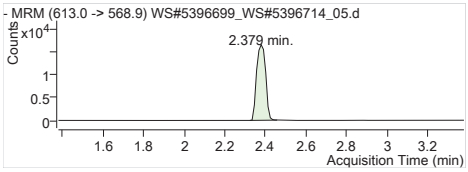


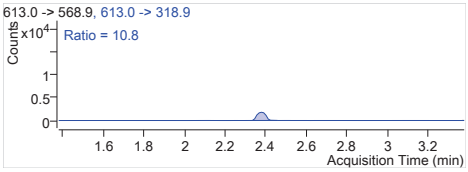
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Calibration



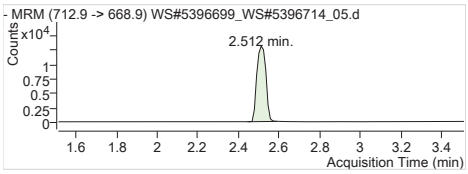


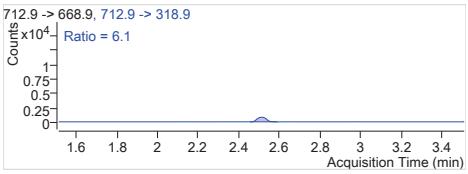
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 12.37 µg/L
Area ratio: 7.31751
Sample type: Calibration



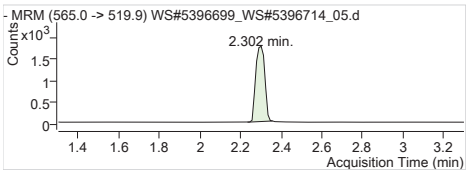


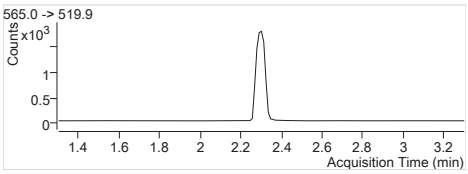
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	12.45 µg/L
Area ratio:	7.10155
Sample type:	Calibration



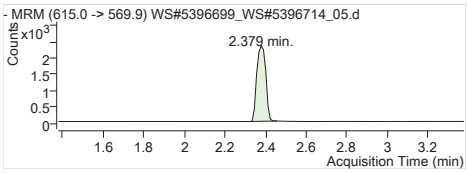


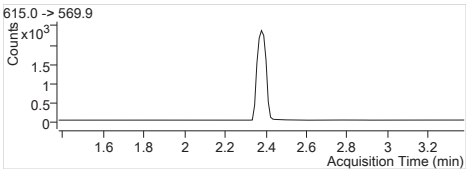
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	12.53 µg/L
Area ratio:	6.62819
Sample type:	Calibration



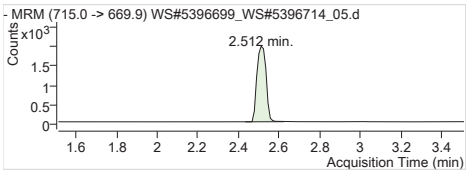


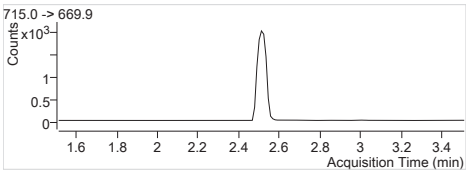
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.302 (2.302)
Calc. conc.	102.10 µg/L
Area ratio:	0.24005
Sample type:	Calibration



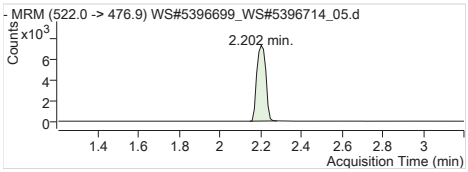


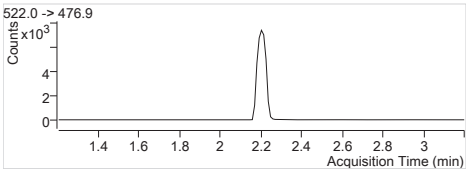
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	103.43 µg/L
Area ratio:	0.31653
Sample type:	Calibration





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	101.08 µg/L
Area ratio:	0.27343
Sample type:	Calibration





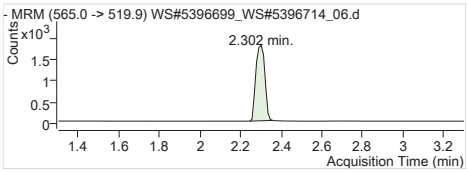
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	92.64 µg/L
Area ratio:	0
Sample type:	Calibration

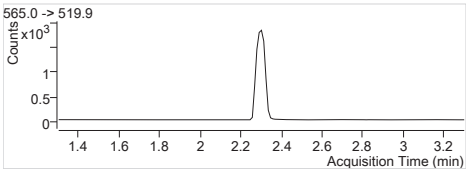
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A6
Acq. Date	2018/02/15 4:35:35 PM	**Injection Volume**	Per Method
Sample Annotation	-		

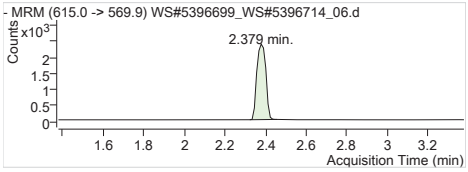
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5543	2.30	1 µg/L		
MPFDoA	7252	2.38	1 µg/L		
MPFTeDA	6584	2.51	1 µg/L		
13C9-PFDA IS	22966	2.20	1 µg/L		

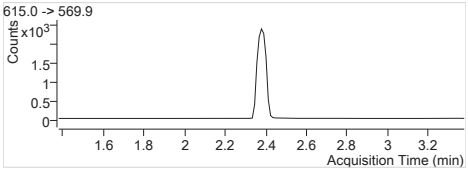
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	87768	2.30	25.00	26.45 µg/L	105.81
PFDoA 1	114607	2.38	25.00	27.40 µg/L	109.62
PFTeDA 1	94425	2.51	25.00	26.83 µg/L	107.34
13C2-PFUnA	5543	2.30	100.00	102.66 µg/L	102.66
13C2-PFDoA	7252	2.38	100.00	103.18 µg/L	103.18
13C2-PFTeDA	6630	2.51	100.00	106.72 µg/L	106.72
13C9-PFDA	22966	2.20	100.00	94.33 µg/L	94.33



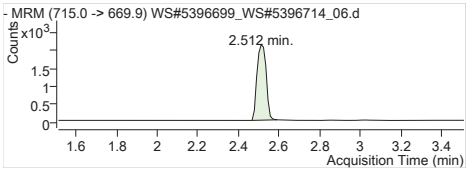


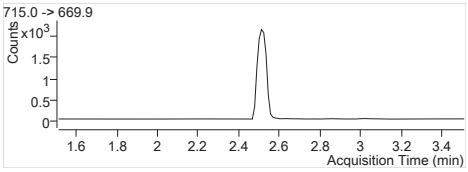
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Calibration



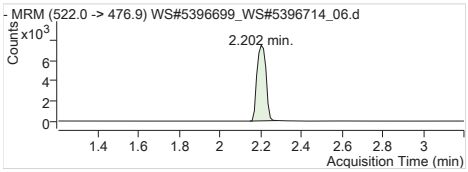


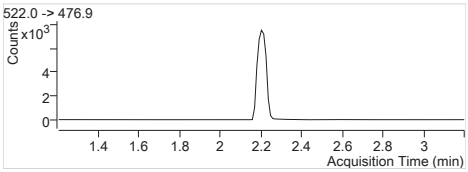
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Calibration



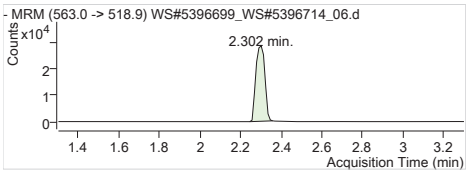


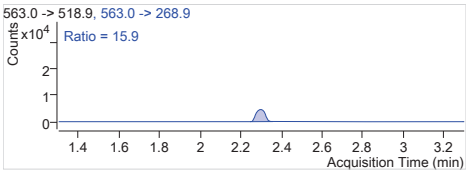
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Calibration



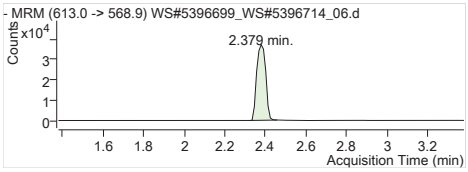


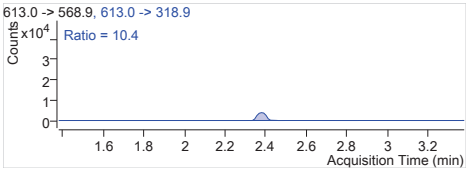
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Calibration



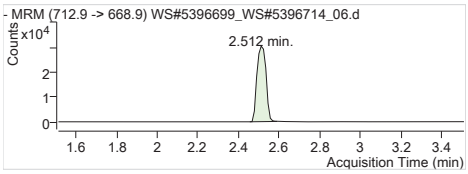


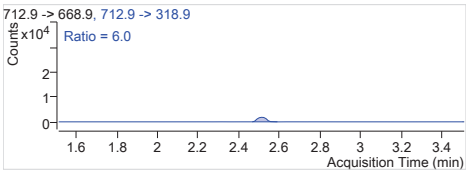
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 26.45 µg/L
Area ratio: 15.83402
Sample type: Calibration



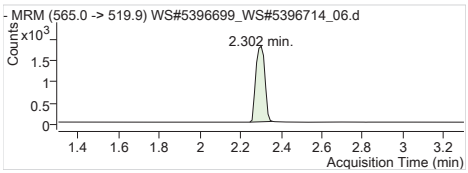


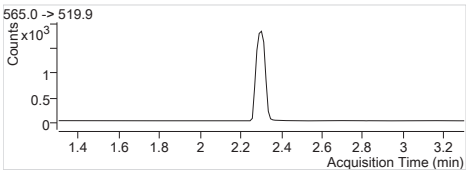
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 27.40 µg/L
Area ratio: 15.80350
Sample type: Calibration



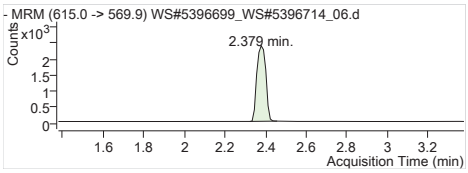


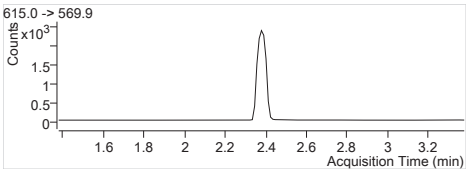
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 26.83 µg/L
Area ratio: 14.34159
Sample type: Calibration



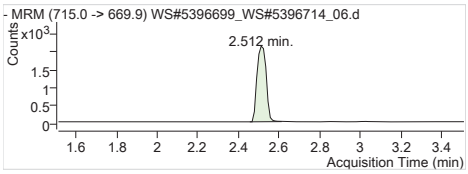


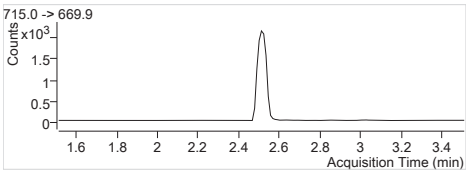
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 102.66 µg/L
Area ratio: 0.24136
Sample type: Calibration



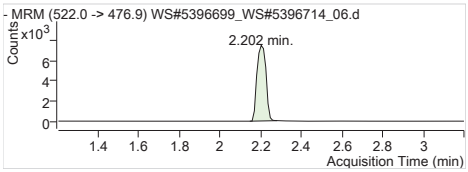


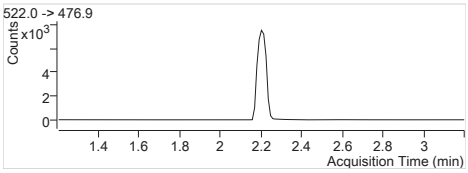
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 103.18 µg/L
Area ratio: 0.31577
Sample type: Calibration





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 106.72 µg/L
Area ratio: 0.28869
Sample type: Calibration





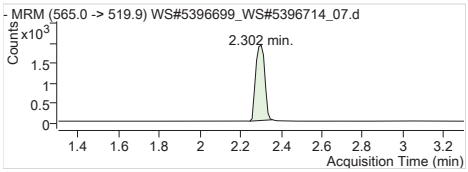
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 94.33 µg/L
Area ratio: 0
Sample type: Calibration

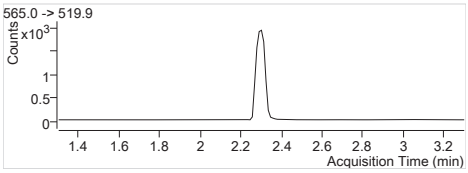
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A7
Acq. Date	2018/02/15 4:40:31 PM	**Injection Volume**	Per Method
Sample Annotation	-		

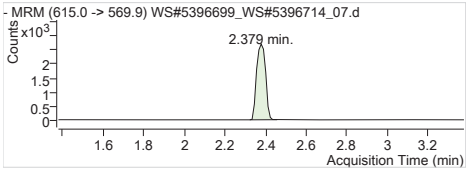
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5856	2.30	1 µg/L		
MPFDoA	8151	2.38	1 µg/L		
MPFTeDA	7156	2.51	1 µg/L		
13C9-PFDA IS	24246	2.20	1 µg/L		

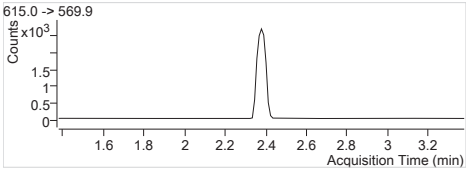
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	144868	2.30	41.70	41.18 µg/L	98.75
PFDoA 1	187876	2.38	41.70	39.86 µg/L	95.58
PFTeDA 1	154772	2.51	41.70	40.35 µg/L	96.76
13C2-PFUnA	5856	2.30	100.00	102.73 µg/L	102.73
13C2-PFDoA	8151	2.38	100.00	109.85 µg/L	109.85
13C2-PFTeDA	7237	2.51	100.00	110.34 µg/L	110.34
13C9-PFDA	24246	2.20	100.00	99.59 µg/L	99.59



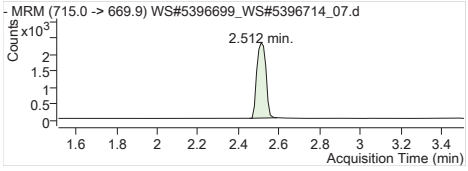


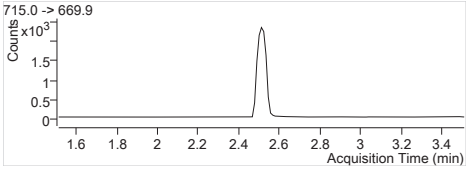
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: Calibration



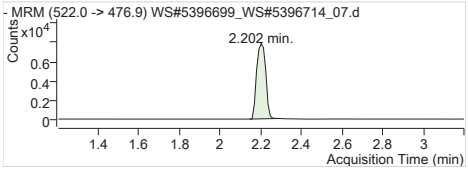


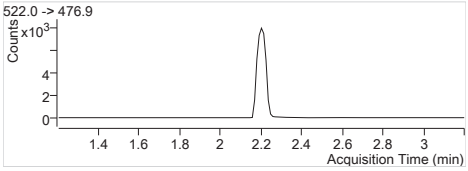
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: Calibration



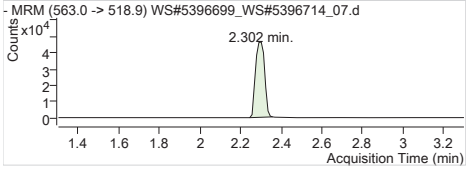


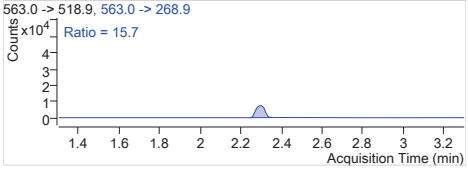
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: Calibration



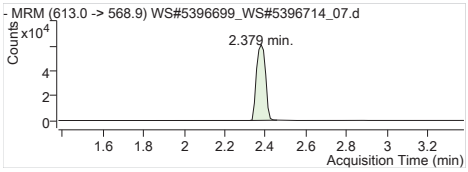


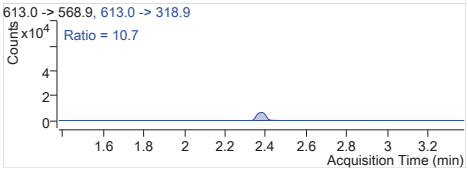
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: Calibration



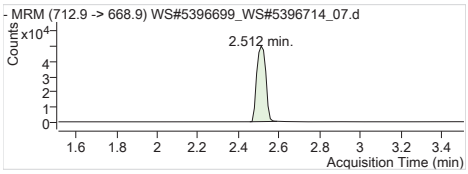


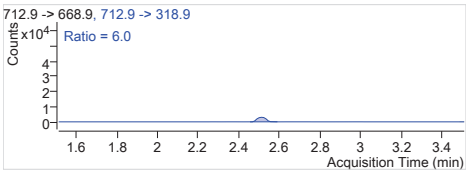
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 41.18 µg/L
Area ratio: 24.73839
Sample type: Calibration



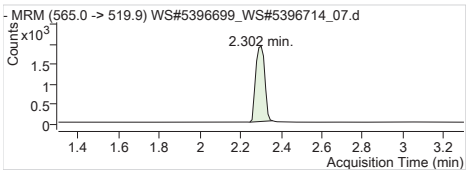


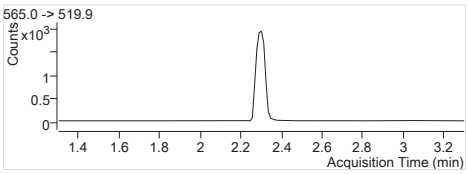
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	39.86 µg/L
Area ratio:	23.04944
Sample type:	Calibration



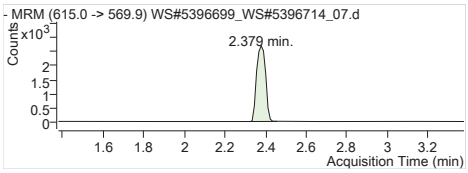


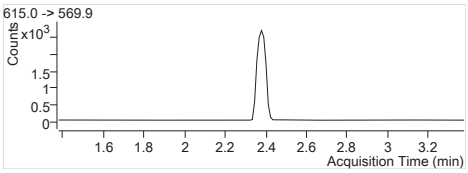
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	40.35 µg/L
Area ratio:	21.62828
Sample type:	Calibration



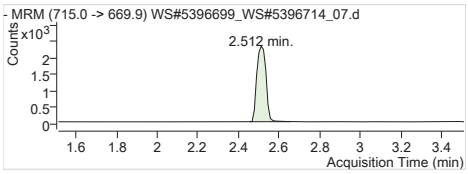


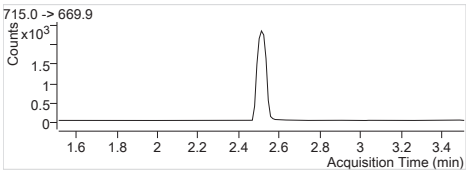
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.302 (2.302)
Calc. conc.	102.73 µg/L
Area ratio:	0.24152
Sample type:	Calibration



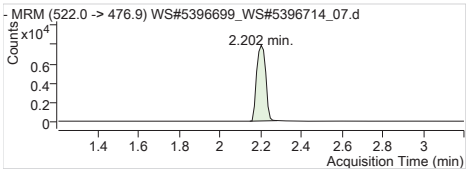


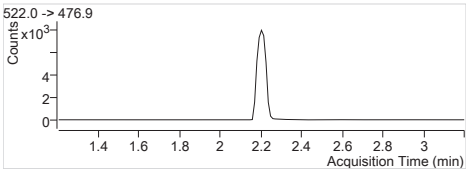
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	109.85 µg/L
Area ratio:	0.33618
Sample type:	Calibration





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	110.34 µg/L
Area ratio:	0.29848
Sample type:	Calibration





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	99.59 µg/L
Area ratio:	0
Sample type:	Calibration

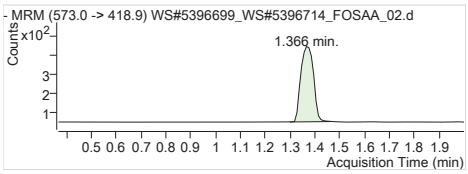
Quantitation Results

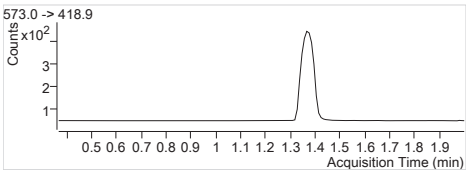
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	**STD 1**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_02.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/15 10:39:10 AM	**Injection Volume**	Per Method
Sample Annotation	-		

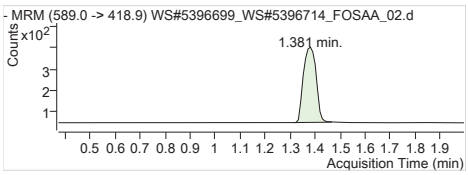
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1410	1.37	1 µg/L		
D5-EtFOSAA IS	1243	1.38	1 µg/L		
13C9-PFDA IS	27678	1.14	1 µg/L		

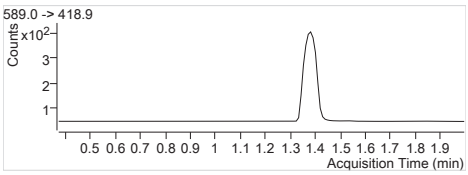
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	476	1.37	0.83	0.92 µg/L	111.25
EtFOSAA 1	472	1.37	0.83	0.94 µg/L	113.39
D3-MeFOSAA	1420	1.37	100.00	93.19 µg/L	93.19
D5-EtFOSAA	1250	1.38	100.00	94.21 µg/L	94.21
13C9-PFDA	27108	1.14	100.00	102.08 µg/L	102.08



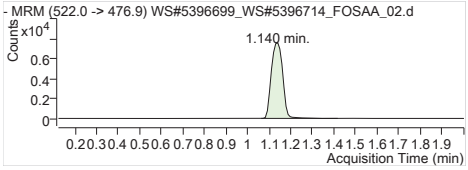


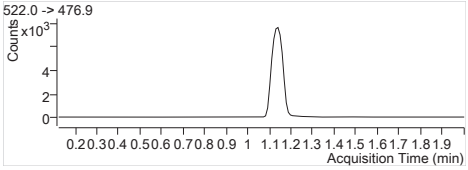
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.366 (1.366)
Concentration: 1 µg/L
Sample type: Calibration



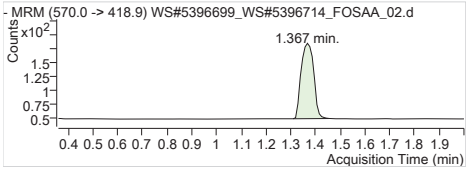


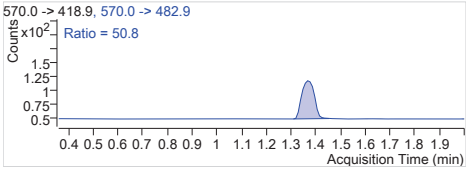
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.381 (1.371)
Concentration: 1 µg/L
Sample type: Calibration



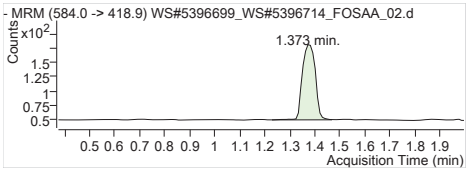


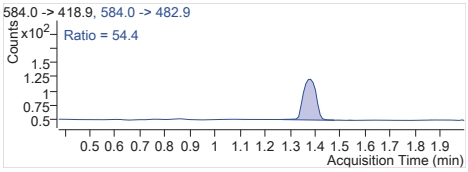
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.140 (1.121)
Concentration: 1 µg/L
Sample type: Calibration



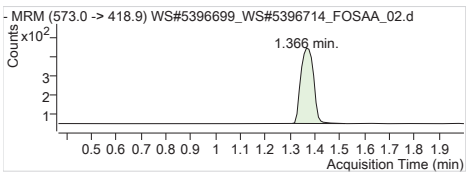


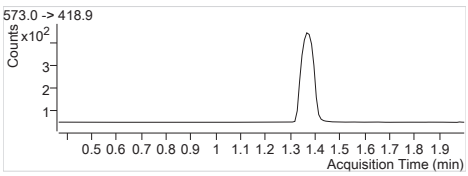
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.367 (1.358)
Calc. conc. 0.92 µg/L
Area ratio: 0.33759
Sample type: Calibration



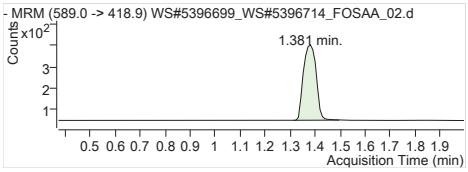


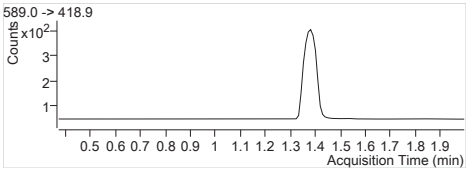
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 0.94 µg/L
Area ratio: 0.37973
Sample type: Calibration



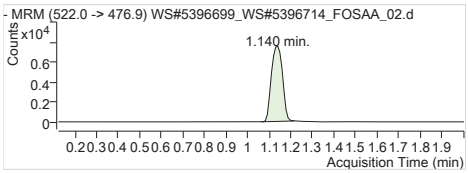


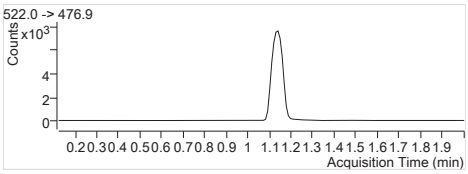
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.366 (1.366)
Calc. conc. 93.19 µg/L
Area ratio: 0.05130
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.381 (1.371)
Calc. conc.	94.21 µg/L
Area ratio:	0.04516
Sample type:	Calibration



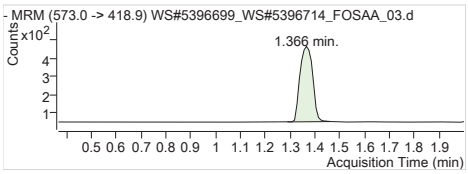


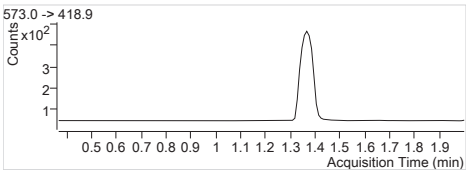
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.140 (1.121)
Calc. conc.	102.08 µg/L
Area ratio:	0
Sample type:	Calibration

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	**STD 2**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_03.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A3
Acq. Date	2018/02/15 10:41:35 AM	**Injection Volume**	Per Method
Sample Annotation	-		

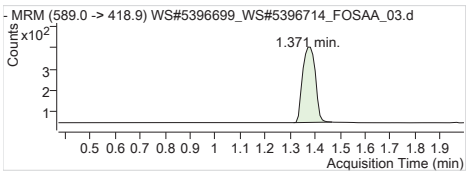
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1468	1.37	1 µg/L		
D5-EtFOSAA IS	1257	1.37	1 µg/L		
13C9-PFDA IS	27671	1.13	1 µg/L		

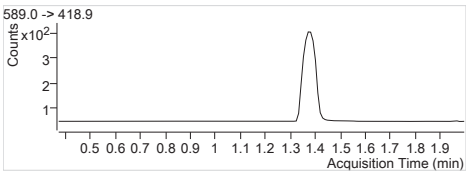
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	1031	1.37	1.70	1.64 µg/L	96.54
EtFOSAA 1	1008	1.37	1.70	1.65 µg/L	96.95
D3-MeFOSAA	1474	1.37	100.00	96.76 µg/L	96.76
D5-EtFOSAA	1264	1.37	100.00	95.29 µg/L	95.29
13C9-PFDA	27294	1.13	100.00	102.78 µg/L	102.78



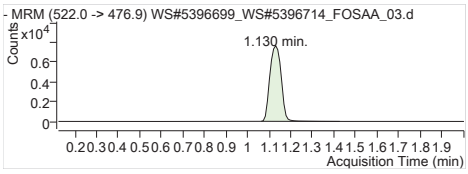


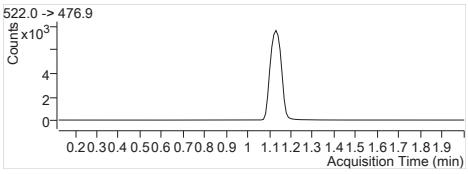
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.366 (1.366)
Concentration: 1 µg/L
Sample type: Calibration



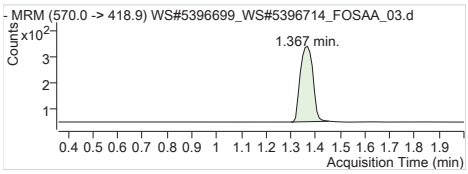


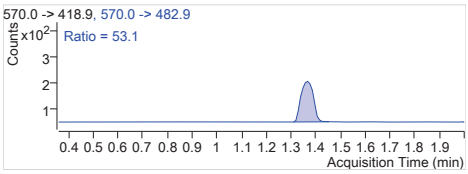
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Calibration



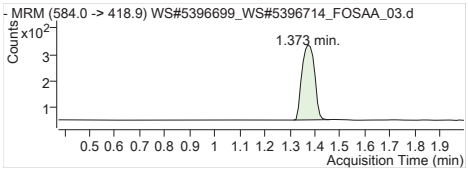


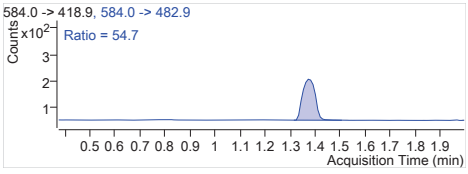
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.130 (1.121)
Concentration: 1 µg/L
Sample type: Calibration



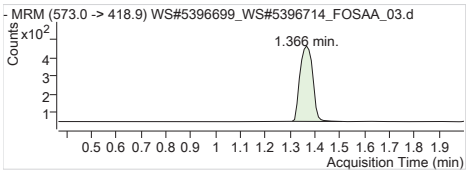


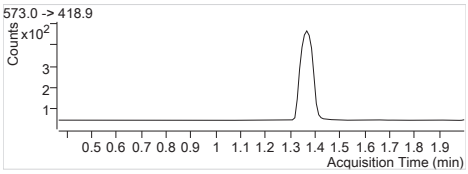
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.367 (1.358)
Calc. conc. 1.64 µg/L
Area ratio: 0.70232
Sample type: Calibration



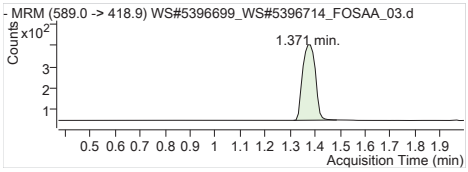


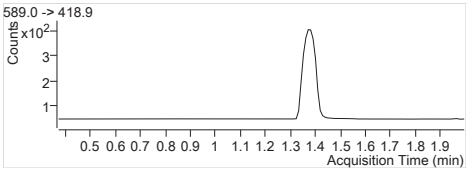
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 1.65 µg/L
Area ratio: 0.80191
Sample type: Calibration



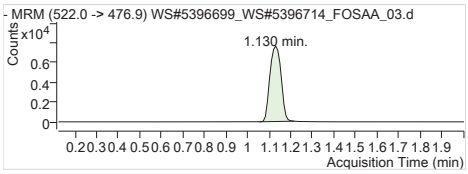


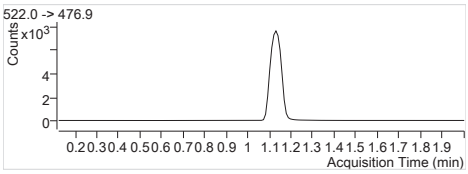
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.366 (1.366)
Calc. conc. 96.76 µg/L
Area ratio: 0.05327
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	95.29 µg/L
Area ratio:	0.04568
Sample type:	Calibration



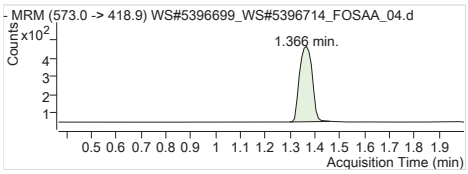


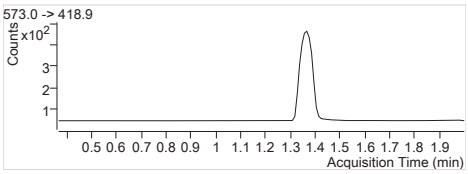
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.130 (1.121)
Calc. conc.	102.78 µg/L
Area ratio:	0
Sample type:	Calibration

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	**STD 3**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_04.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A4
Acq. Date	2018/02/15 10:44:00 AM	**Injection Volume**	Per Method
Sample Annotation	-		

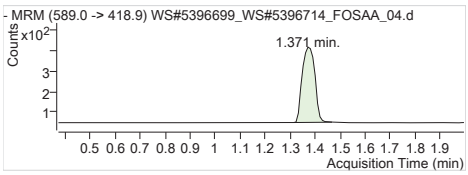
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1459	1.37	1 µg/L		
D5-EtFOSAA IS	1290	1.37	1 µg/L		
13C9-PFDA IS	27255	1.12	1 µg/L		

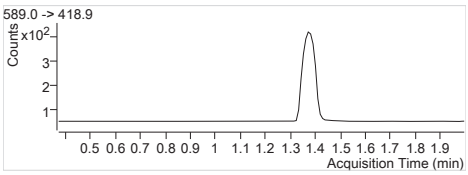
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	3138	1.37	5.00	4.49 µg/L	89.84
EtFOSAA 1	3049	1.37	5.00	4.26 µg/L	85.27
D3-MeFOSAA	1484	1.37	100.00	98.91 µg/L	98.91
D5-EtFOSAA	1307	1.37	100.00	100.03 µg/L	100.03
13C9-PFDA	26793	1.12	100.00	100.89 µg/L	100.89



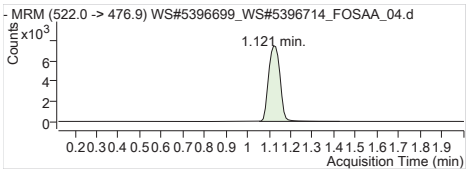


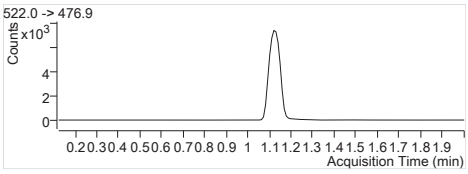
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.366 (1.366)
Concentration: 1 µg/L
Sample type: Calibration



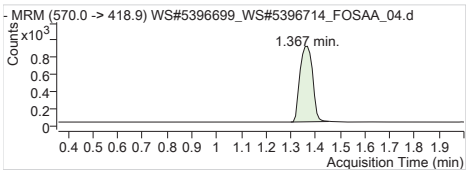


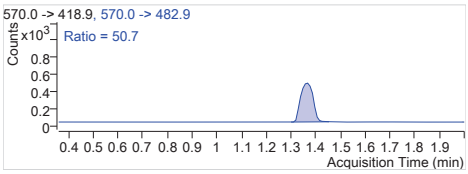
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Calibration



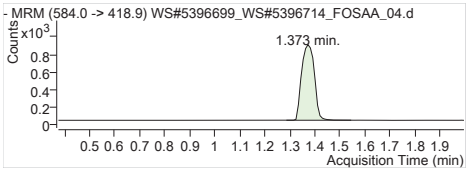


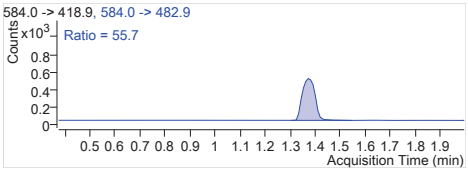
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: Calibration



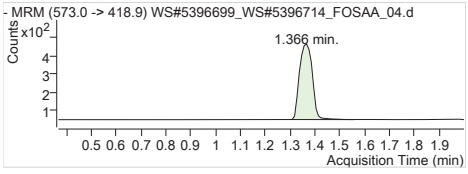


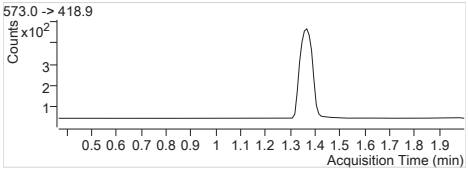
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.367 (1.358)
Calc. conc. 4.49 µg/L
Area ratio: 2.15079
Sample type: Calibration



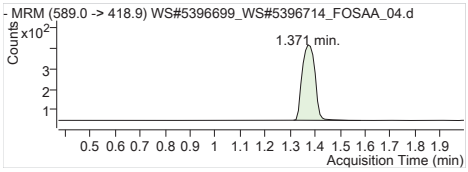


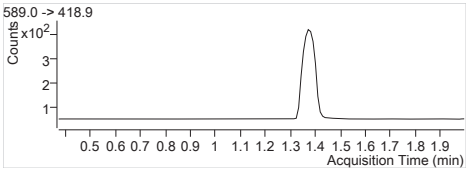
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 4.26 µg/L
Area ratio: 2.36357
Sample type: Calibration



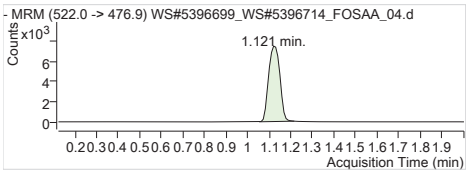


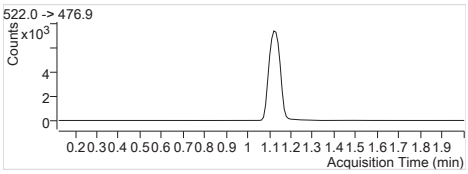
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.366 (1.366)
Calc. conc. 98.91 µg/L
Area ratio: 0.05445
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	100.03 µg/L
Area ratio:	0.04795
Sample type:	Calibration



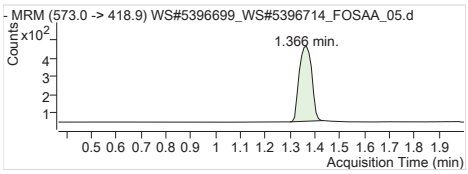


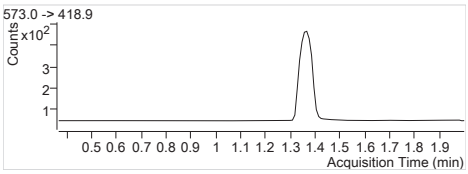
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	100.89 µg/L
Area ratio:	0
Sample type:	Calibration

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	**STD 4**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_05.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/15 10:46:25 AM	**Injection Volume**	Per Method
Sample Annotation	-		

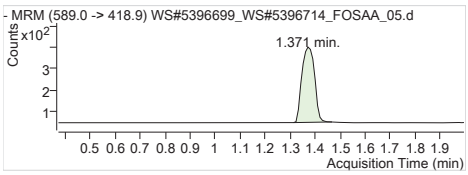
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1448	1.37	1 µg/L		
D5-EtFOSAA IS	1237	1.37	1 µg/L		
13C9-PFDA IS	25796	1.12	1 µg/L		

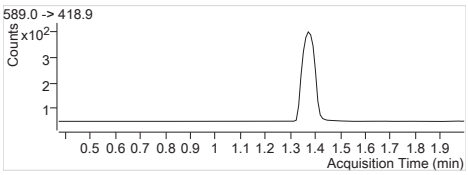
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8714	1.36	12.50	12.10 µg/L	96.83
EtFOSAA 1	8968	1.37	12.50	12.45 µg/L	99.57
D3-MeFOSAA	1484	1.37	100.00	104.50 µg/L	104.50
D5-EtFOSAA	1257	1.37	100.00	101.65 µg/L	101.65
13C9-PFDA	25303	1.12	100.00	95.28 µg/L	95.28



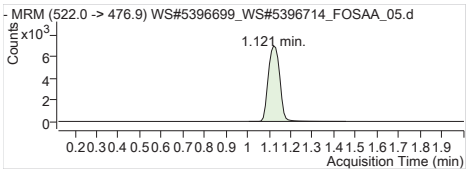


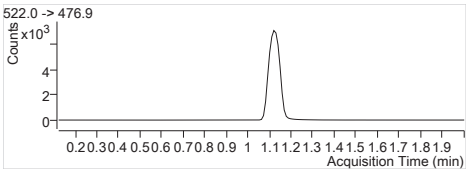
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.366 (1.366)
Concentration: 1 µg/L
Sample type: Calibration



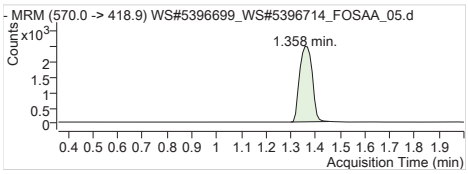


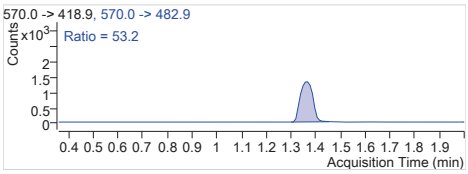
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Calibration



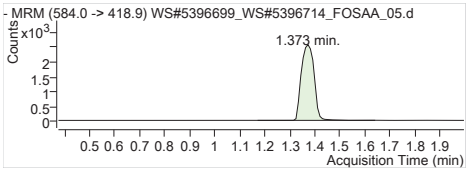


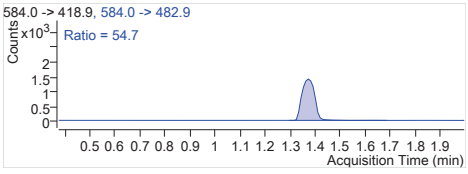
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: Calibration



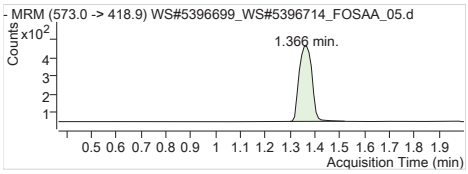


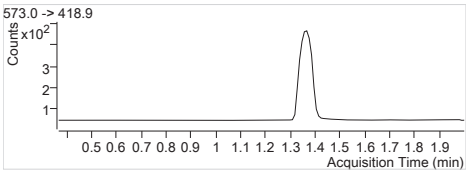
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 12.10 µg/L
Area ratio: 6.01796
Sample type: Calibration



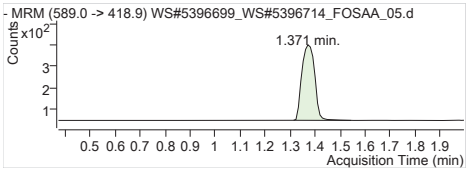


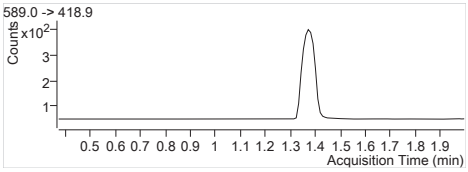
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 12.45 µg/L
Area ratio: 7.24980
Sample type: Calibration



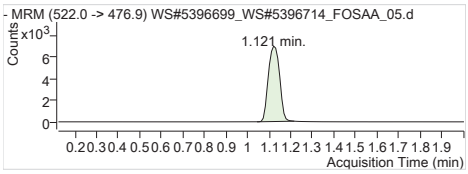


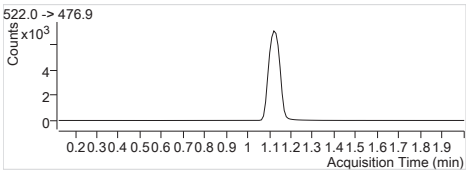
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.366 (1.366)
Calc. conc. 104.50 µg/L
Area ratio: 0.05753
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	101.65 µg/L
Area ratio:	0.04873
Sample type:	Calibration



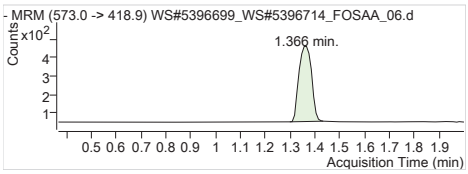


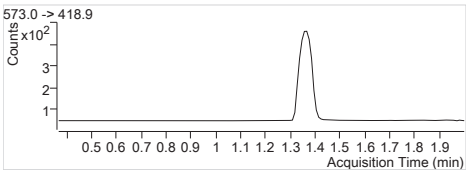
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	95.28 µg/L
Area ratio:	0
Sample type:	Calibration

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	**STD 5**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_06.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A6
Acq. Date	2018/02/15 10:48:50 AM	**Injection Volume**	Per Method
Sample Annotation	-		

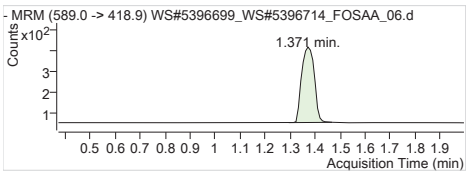
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1457	1.37	1 µg/L		
D5-EtFOSAA IS	1294	1.37	1 µg/L		
13C9-PFDA IS	26388	1.12	1 µg/L		

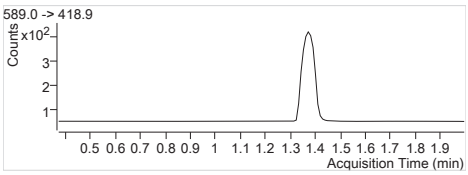
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	19911	1.36	25.00	27.16 µg/L	108.62
EtFOSAA 1	20560	1.37	25.00	26.91 µg/L	107.65
D3-MeFOSAA	1483	1.37	100.00	102.09 µg/L	102.09
D5-EtFOSAA	1302	1.37	100.00	102.92 µg/L	102.92
13C9-PFDA	25904	1.12	100.00	97.55 µg/L	97.55



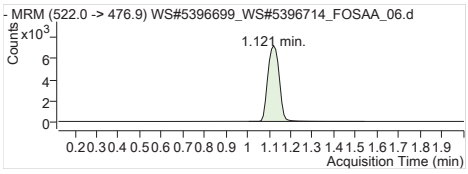


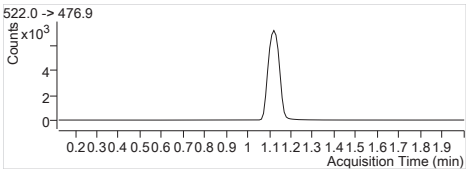
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.366 (1.366)
Concentration: 1 µg/L
Sample type: Calibration



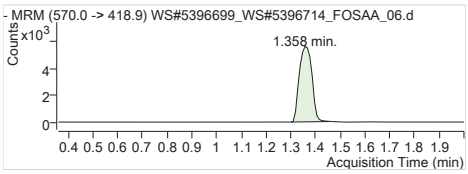


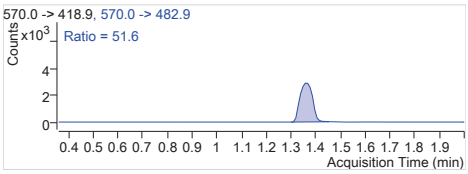
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Calibration



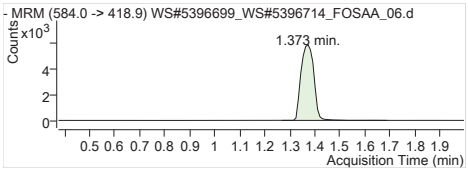


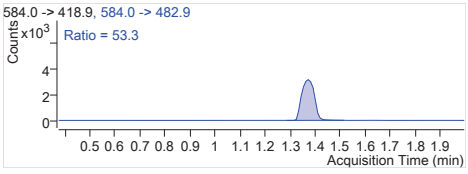
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: Calibration



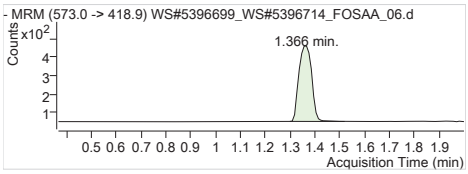


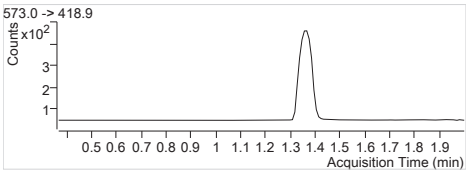
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 27.16 µg/L
Area ratio: 13.66575
Sample type: Calibration



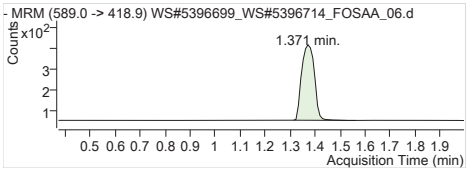


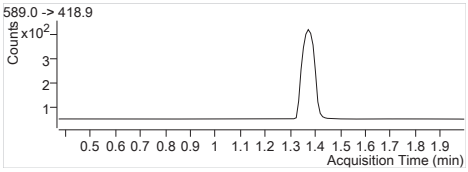
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 26.91 µg/L
Area ratio: 15.88872
Sample type: Calibration



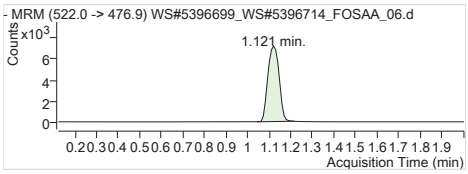


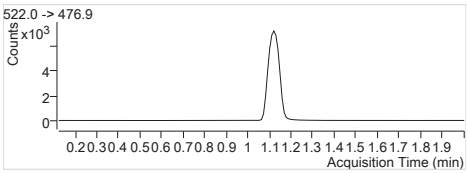
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.366 (1.366)
Calc. conc. 102.09 µg/L
Area ratio: 0.05620
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	102.92 µg/L
Area ratio:	0.04934
Sample type:	Calibration



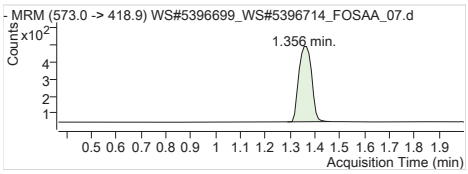


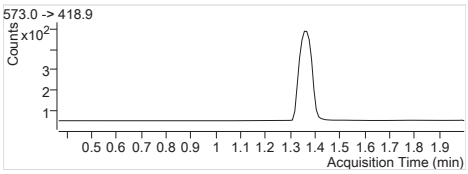
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	97.55 µg/L
Area ratio:	0
Sample type:	Calibration

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	**STD 6**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_07.d	**Operator**	
Sample Type	Cal	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A7
Acq. Date	2018/02/15 10:51:15 AM	**Injection Volume**	Per Method
Sample Annotation	-		

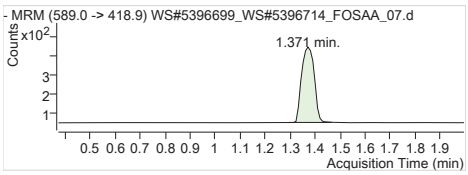
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1574	1.36	1 µg/L		
D5-EtFOSAA IS	1388	1.37	1 µg/L		
13C9-PFDA IS	27400	1.12	1 µg/L		

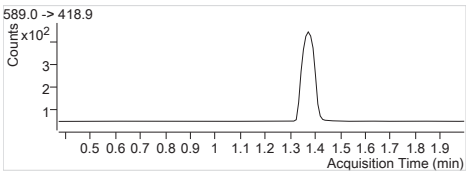
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	32114	1.36	41.70	40.41 µg/L	96.92
EtFOSAA 1	33330	1.37	41.70	40.52 µg/L	97.17
D3-MeFOSAA	1577	1.36	100.00	104.55 µg/L	104.55
D5-EtFOSAA	1391	1.37	100.00	105.90 µg/L	105.90
13C9-PFDA	26931	1.12	100.00	101.41 µg/L	101.41



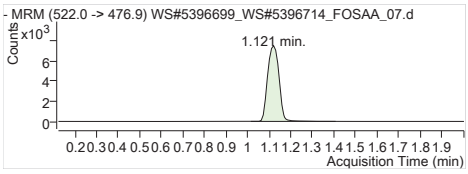


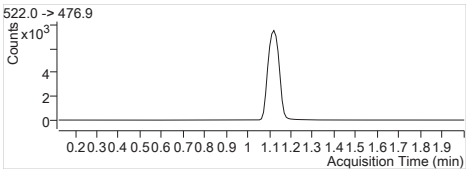
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: Calibration



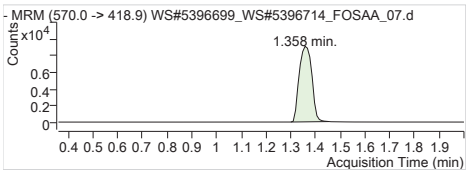


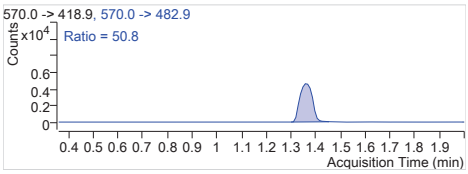
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: Calibration



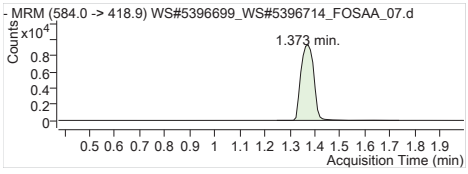


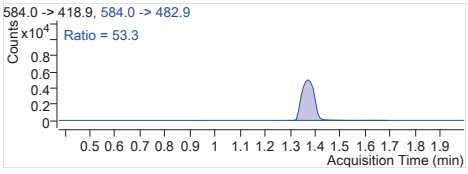
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.121 (1.121)
Concentration: 1 µg/L
Sample type: Calibration



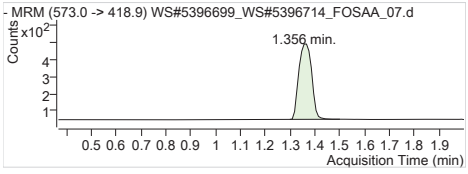


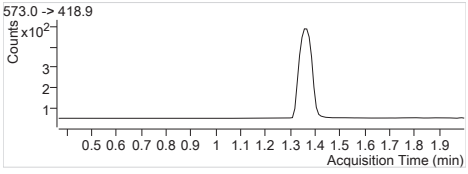
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 40.41 µg/L
Area ratio: 20.40280
Sample type: Calibration



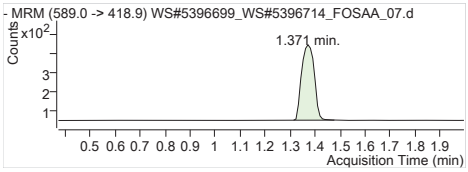


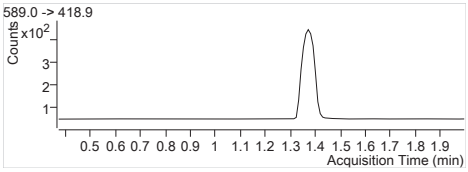
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 40.52 µg/L
Area ratio: 24.01297
Sample type: Calibration



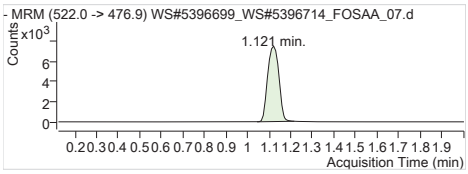


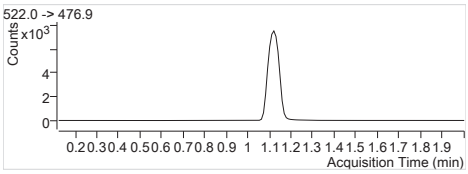
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 104.55 µg/L
Area ratio: 0.05755
Sample type: Calibration





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	105.90 µg/L
Area ratio:	0.05077
Sample type:	Calibration





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.121 (1.121)
Calc. conc.	101.41 µg/L
Area ratio:	0
Sample type:	Calibration

Quantitation Results

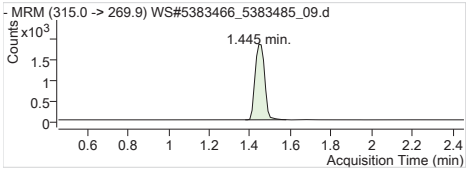
Agilent Technologies

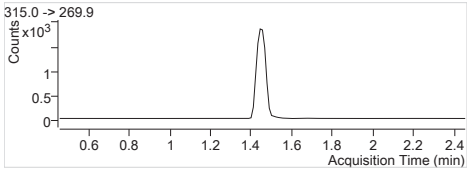
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A9
Acq. Date	2018/02/06 6:46:20 PM	**Injection Volume**	Per Method
Sample Annotation	-		

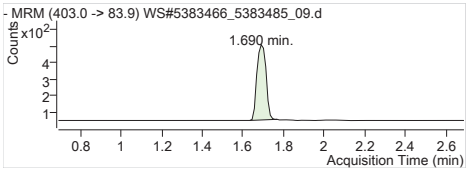
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5913	1.44	1 µg/L		
MPFHxS	1432	1.69	1 µg/L		
MPFHpA	8107	1.71	1 µg/L		
MPFOA	7826	1.89	1 µg/L		
MPFOS	1819	1.99	1 µg/L		
MPFNA	8593	2.04	1 µg/L		
MPFDA	7168	2.15	1 µg/L		
MPFUnA	7767	2.25	1 µg/L		
MPFDoA	10681	2.33	1 µg/L		
MPFTeDA	11576	2.48	1 µg/L		
13C6-PFHxA IS	28001	1.46	1 µg/L		
13C9-PFDA IS	33648	2.15	1 µg/L		

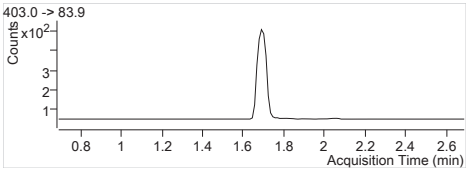
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	14343	1.11	20.80	22.81 µg/L	109.66
PFHxA 1	48319	1.46	20.80	20.49 µg/L	98.51
PFHxS 1	13637	1.69	20.80	21.55 µg/L	103.59
PFHpA 1	63700	1.71	20.80	18.83 µg/L	90.54
PFOA 1	72431	1.89	20.80	21.86 µg/L	105.12
PFOS 1	13253	1.98	20.80	21.21 µg/L	101.95
PFNA 1	61956	2.04	20.80	19.33 µg/L	92.92
PFDA 1	64629	2.15	20.80	19.18 µg/L	92.23
PFUnA 1	75265	2.25	20.80	22.88 µg/L	110.02
PFDoA 1	91414	2.33	20.80	20.94 µg/L	100.69
PFTrDA 1	105639	2.41	20.80	22.07 µg/L	106.10
PFTeDA 1	84131	2.48	20.80	21.11 µg/L	101.49
13C2-PFHxA	5913	1.44	100.00	89.13 µg/L	89.13
18O2-PFHxS	1432	1.69	100.00	88.01 µg/L	88.01
13C4-PFHpA	8107	1.71	100.00	99.10 µg/L	99.10
13C4-PFOA	7826	1.89	100.00	89.04 µg/L	89.04
13C4-PFOS	1819	1.99	100.00	94.12 µg/L	94.12
13C5-PFNA	8538	2.04	100.00	98.59 µg/L	98.59
13C2-PFDA	7010	2.15	100.00	103.82 µg/L	103.82
13C2-PFUnA	7767	2.25	100.00	95.43 µg/L	95.43
13C2-PFDoA	10681	2.33	100.00	98.61 µg/L	98.61
13C2-PFTeDA	11907	2.48	100.00	96.48 µg/L	96.48
13C6-PFHxA	28001	1.46	100.00	98.49 µg/L	98.49
13C9-PFDA	33648	2.15	100.00	94.06 µg/L	94.06



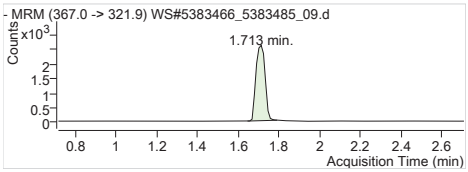


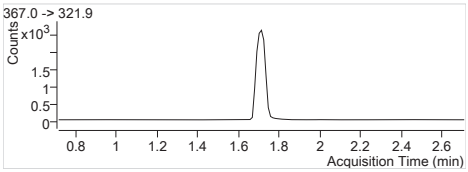
MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	QC



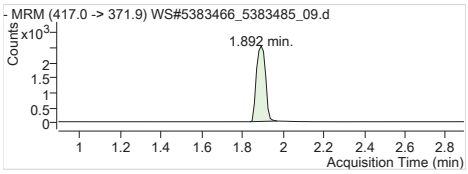


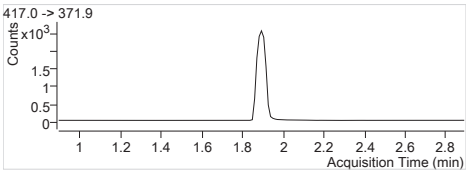
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



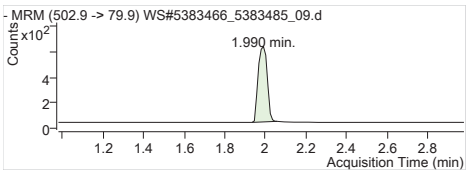


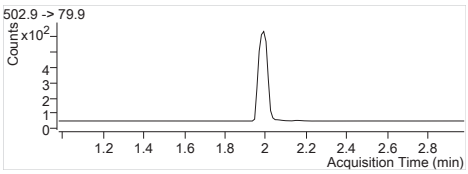
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: QC



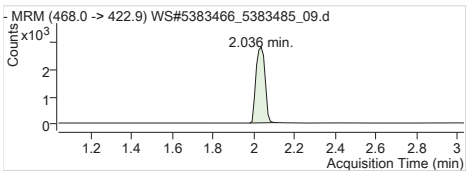


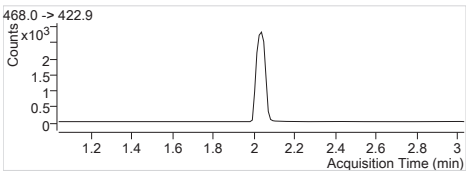
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: QC



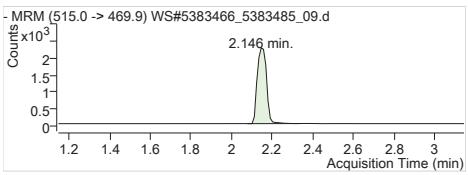


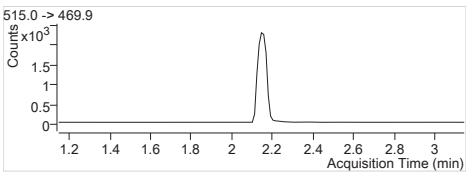
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: QC



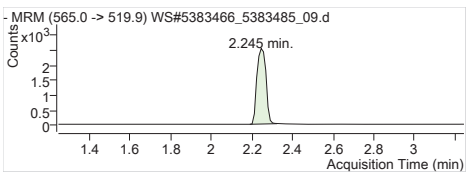


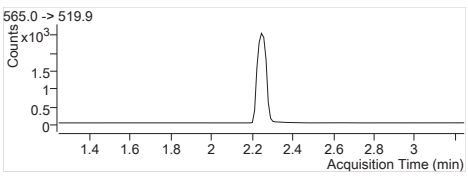
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: QC



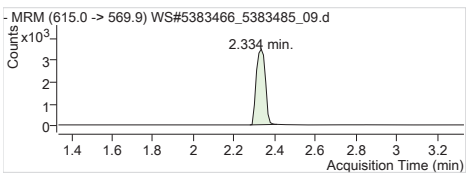


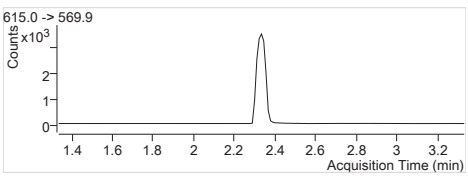
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



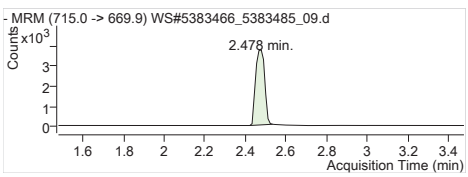


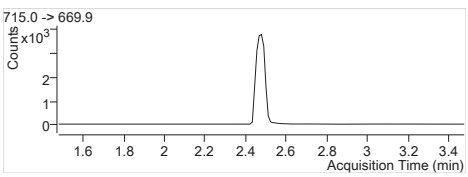
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC



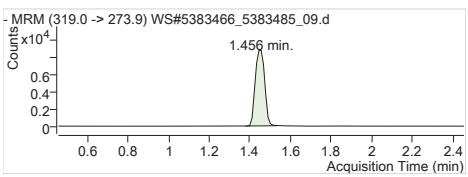


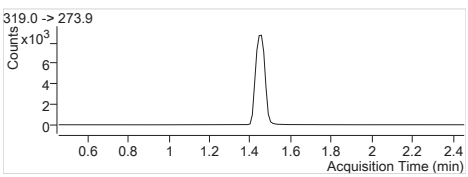
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: QC



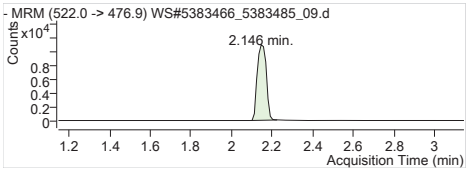


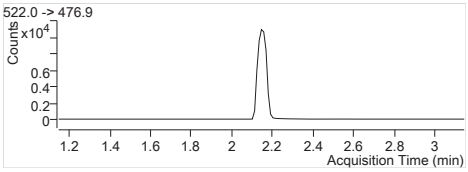
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: QC



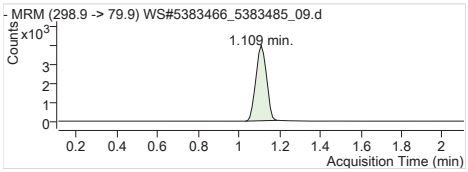


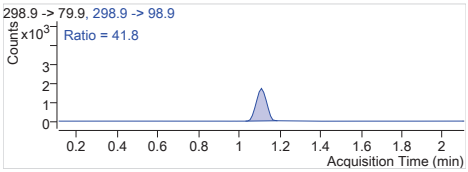
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: QC



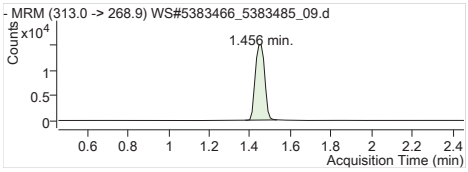


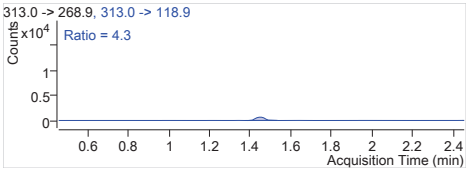
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



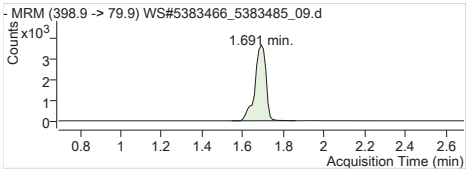


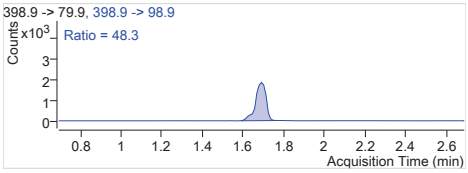
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 22.81 µg/L
Area ratio: 10.01606
Sample type: QC



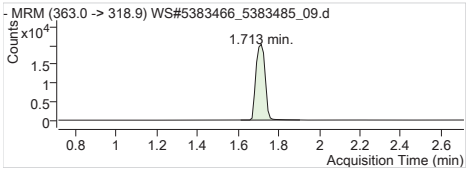


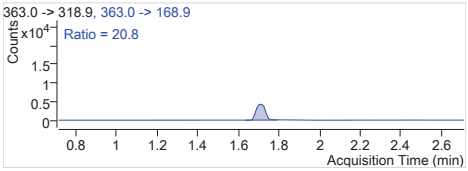
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 20.49 µg/L
Area ratio: 8.17166
Sample type: QC



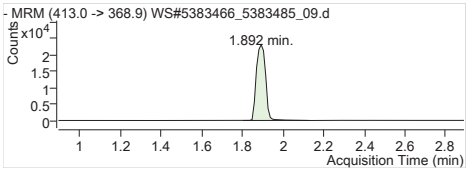


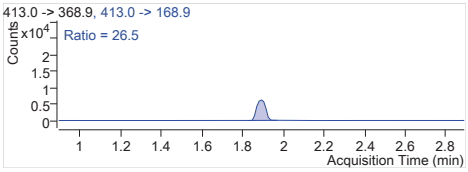
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 21.55 µg/L
Area ratio: 9.52304
Sample type: QC



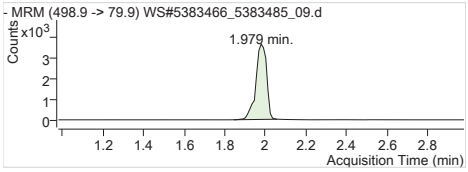


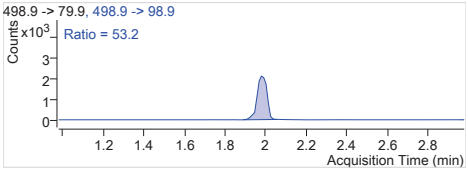
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 18.83 µg/L
Area ratio: 7.85741
Sample type: QC



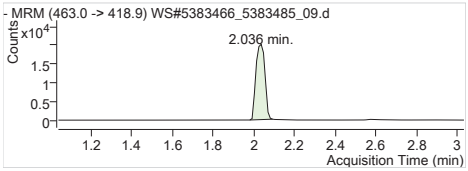


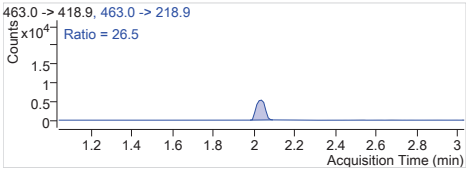
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 21.86 µg/L
Area ratio: 9.25518
Sample type: QC



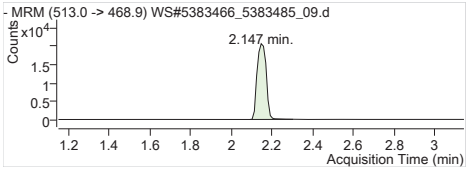


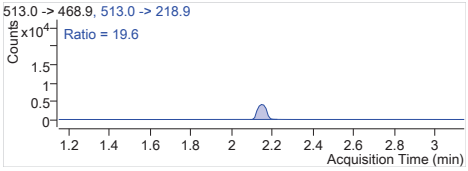
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 21.21 µg/L
Area ratio: 7.28587
Sample type: QC



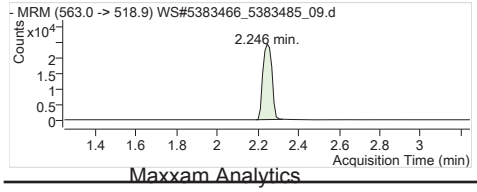


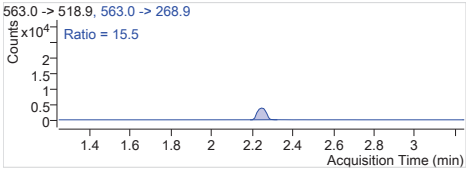
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 19.33 µg/L
Area ratio: 7.21005
Sample type: QC



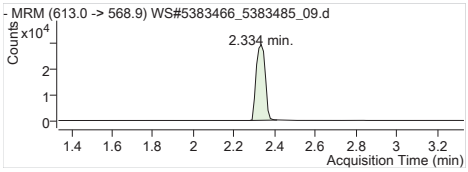


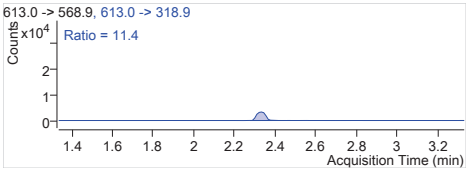
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 19.18 µg/L
Area ratio: 9.01632
Sample type: QC



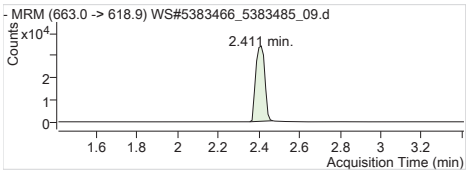


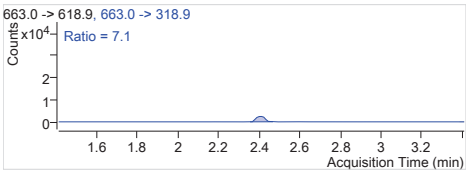
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 22.88 µg/L
Area ratio: 9.69036
Sample type: QC



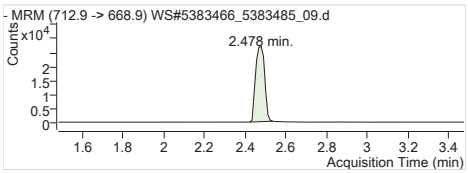


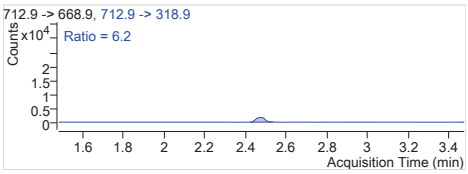
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.334 (2.334)
Calc. conc.	20.94 µg/L
Area ratio:	8.55856
Sample type:	QC



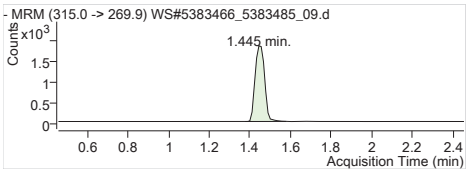


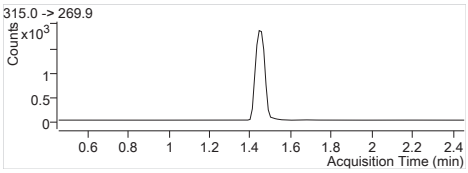
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.411 (2.411)
Calc. conc.	22.07 µg/L
Area ratio:	9.12569
Sample type:	QC



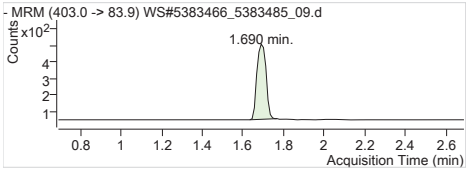


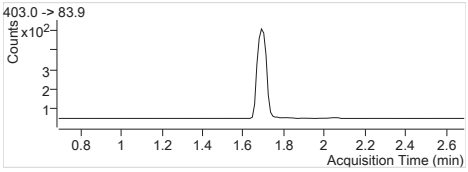
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.478 (2.478)
Calc. conc.	21.11 µg/L
Area ratio:	7.26771
Sample type:	QC



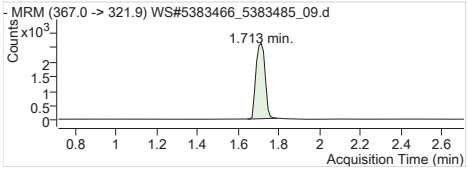


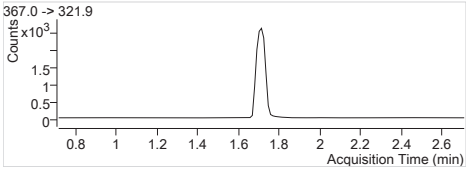
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.445 (1.456)
Calc. conc.	89.13 µg/L
Area ratio:	0.21117
Sample type:	QC



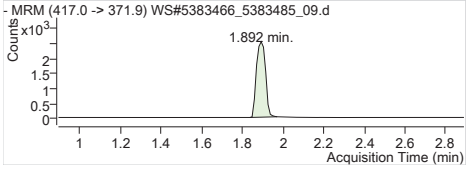


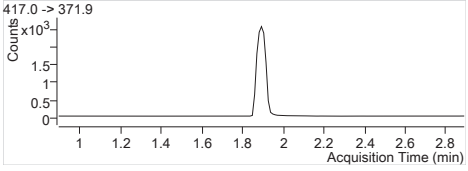
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	88.01 µg/L
Area ratio:	0.05114
Sample type:	QC



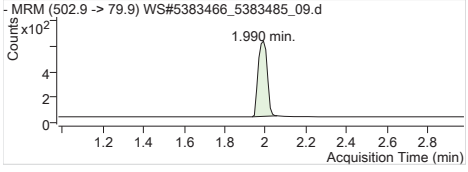


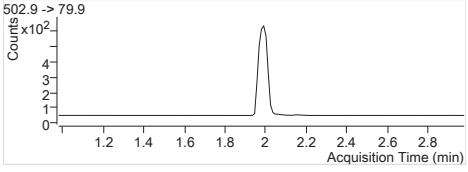
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	99.10 µg/L
Area ratio:	0.28953
Sample type:	QC



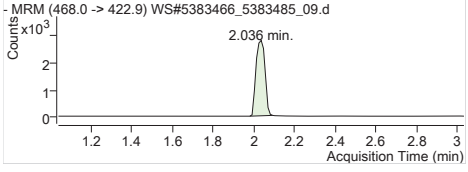


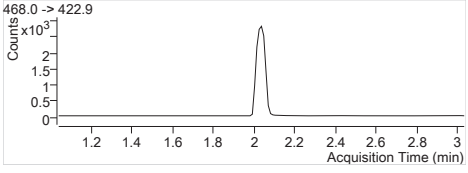
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	89.04 µg/L
Area ratio:	0.27949
Sample type:	QC



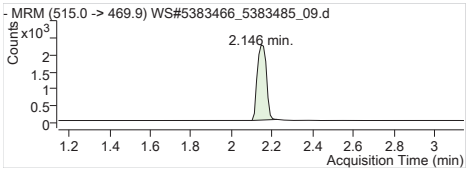


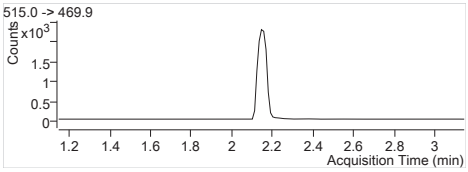
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	94.12 µg/L
Area ratio:	0.06496
Sample type:	QC



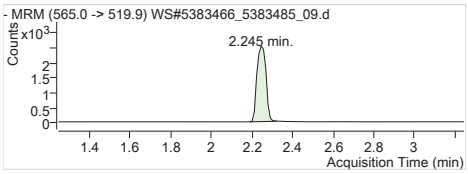


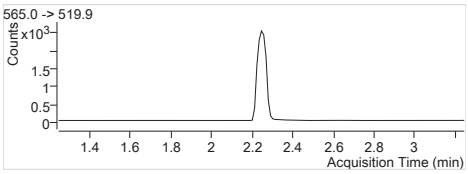
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	98.59 µg/L
Area ratio:	0.30492
Sample type:	QC



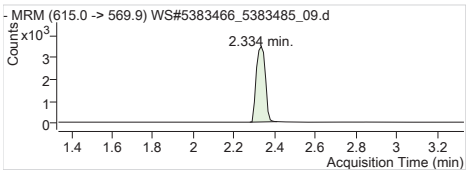


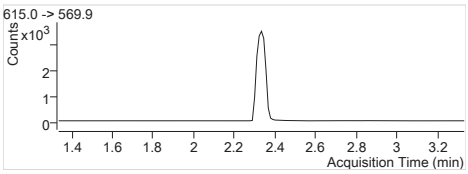
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 103.82 µg/L
Area ratio: 0.20833
Sample type: QC



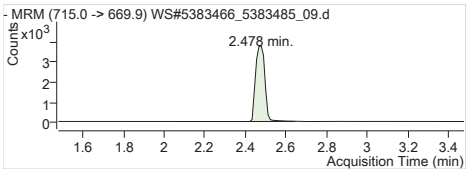


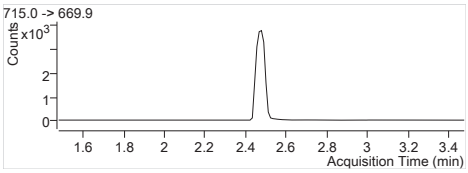
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 95.43 µg/L
Area ratio: 0.23083
Sample type: QC



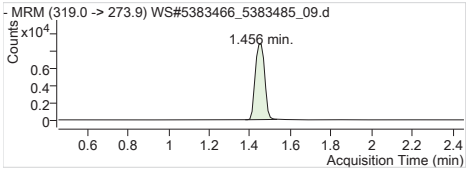


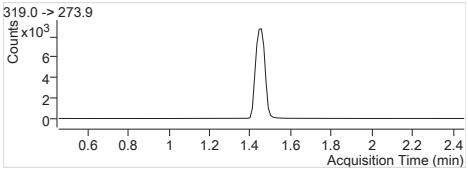
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 98.61 µg/L
Area ratio: 0.31743
Sample type: QC



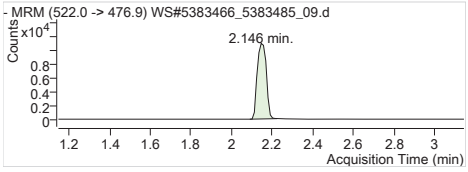


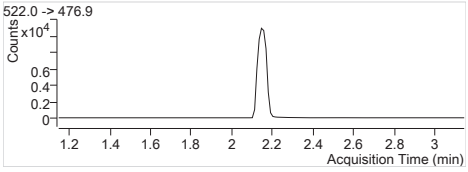
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 96.48 µg/L
Area ratio: 0.35387
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 98.49 µg/L
Area ratio: 0
Sample type: QC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 94.06 µg/L
Area ratio: 0
Sample type: QC

Quantitation Results

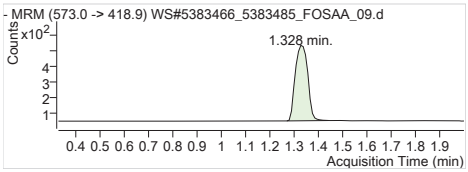
Agilent Technologies

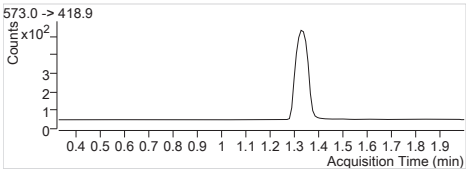
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A9
Acq. Date	2018/02/06 12:44:58 PM	**Injection Volume**	Per Method
Sample Annotation	-		

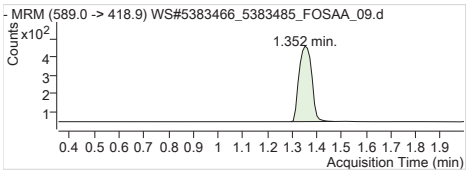
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1727	1.33	1 µg/L		
D5-EtFOSAA IS	1456	1.35	1 µg/L		
13C9-PFDA IS	27223	0.96	1 µg/L		

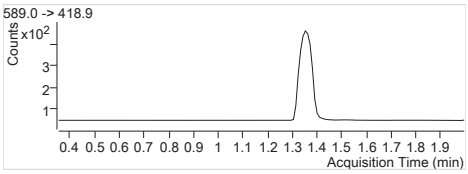
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	12867	1.33	20.80	20.60 µg/L	99.02
EtFOSAA 1	13233	1.35	20.80	21.45 µg/L	103.12
D3-MeFOSAA	1727	1.33	100.00	96.57 µg/L	96.57
D5-EtFOSAA	1456	1.35	100.00	94.50 µg/L	94.50
13C9-PFDA	27331	0.96	100.00	96.95 µg/L	96.95



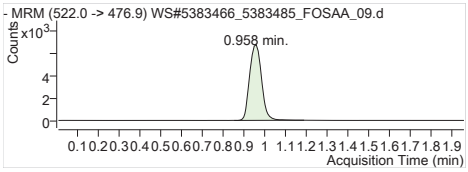


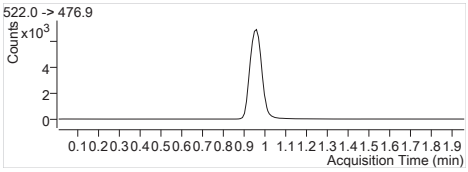
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: QC



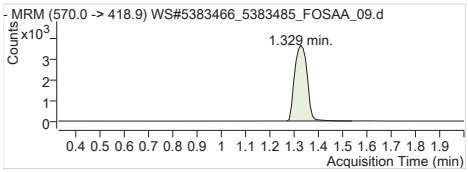


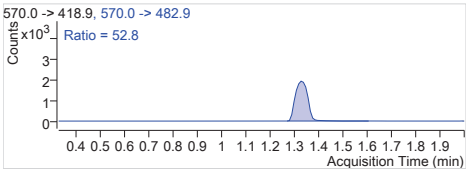
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: QC



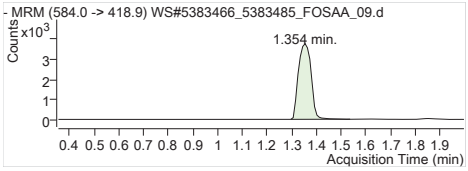


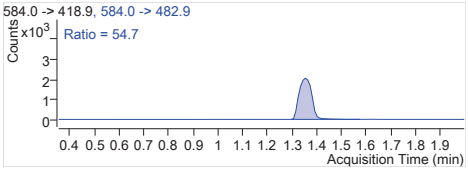
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: QC



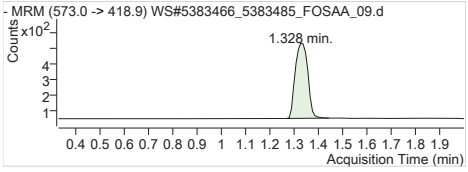


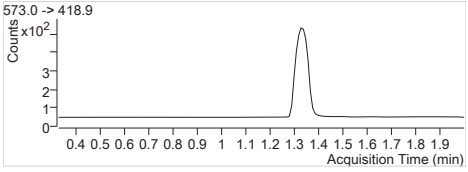
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 20.60 µg/L
Area ratio: 7.45049
Sample type: QC



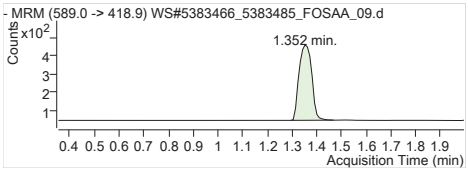


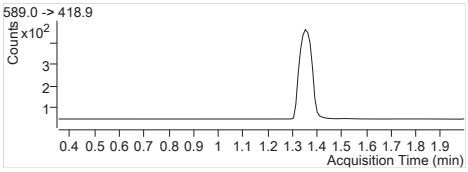
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 21.45 µg/L
Area ratio: 9.08860
Sample type: QC



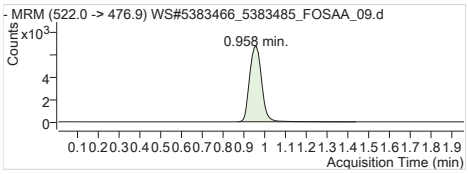


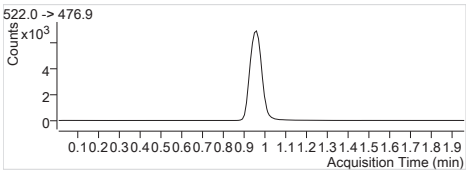
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 96.57 µg/L
Area ratio: 0.06344
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	94.50 µg/L
Area ratio:	0.05348
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	96.95 µg/L
Area ratio:	0
Sample type:	QC

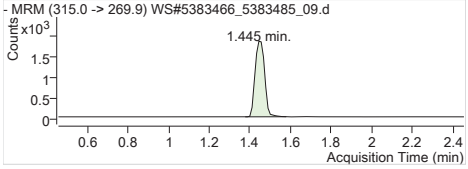
Quantitation Results

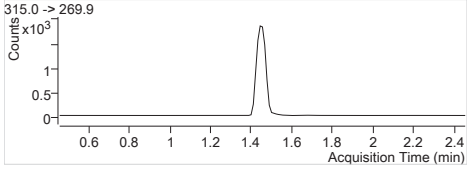
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics		
Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A9
Acq. Date	2018/02/06 6:46:20 PM	**Injection Volume**	Per Method
Sample Annotation	-		

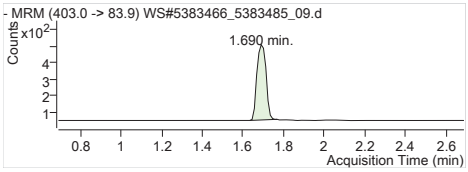
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5913	1.44	1 µg/L		
MPFHxS	1432	1.69	1 µg/L		
MPFHpA	8107	1.71	1 µg/L		
MPFOA	7826	1.89	1 µg/L		
MPFOS	1819	1.99	1 µg/L		
MPFNA	8593	2.04	1 µg/L		
MPFDA	7168	2.15	1 µg/L		
MPFUnA	7767	2.25	1 µg/L		
MPFDoA	10681	2.33	1 µg/L		
MPFTeDA	11576	2.48	1 µg/L		
13C6-PFHxA IS	28001	1.46	1 µg/L		
13C9-PFDA IS	33648	2.15	1 µg/L		

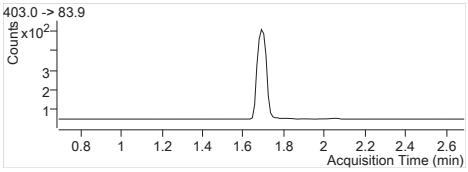
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	14343	1.11	20.80	22.81 µg/L	109.66
PFHxA 1	48319	1.46	20.80	20.49 µg/L	98.51
PFHxS 1	13637	1.69	20.80	21.55 µg/L	103.59
PFHpA 1	63700	1.71	20.80	18.83 µg/L	90.54
PFOA 1	72431	1.89	20.80	21.86 µg/L	105.12
PFOS 1	13253	1.98	20.80	21.21 µg/L	101.95
PFNA 1	61956	2.04	20.80	19.33 µg/L	92.92
PFDA 1	64629	2.15	20.80	19.18 µg/L	92.23
PFUnA 1	75265	2.25	20.80	22.88 µg/L	110.02
PFDoA 1	91414	2.33	20.80	20.94 µg/L	100.69
PFTrDA 1	105639	2.41	20.80	22.07 µg/L	106.10
PFTeDA 1	84131	2.48	20.80	21.11 µg/L	101.49
13C2-PFHxA	5913	1.44	100.00	89.13 µg/L	89.13
18O2-PFHxS	1432	1.69	100.00	88.01 µg/L	88.01
13C4-PFHpA	8107	1.71	100.00	99.10 µg/L	99.10
13C4-PFOA	7826	1.89	100.00	89.04 µg/L	89.04
13C4-PFOS	1819	1.99	100.00	94.12 µg/L	94.12
13C5-PFNA	8538	2.04	100.00	98.59 µg/L	98.59
13C2-PFDA	7010	2.15	100.00	103.82 µg/L	103.82
13C2-PFUnA	7767	2.25	100.00	95.43 µg/L	95.43
13C2-PFDoA	10681	2.33	100.00	98.61 µg/L	98.61
13C2-PFTeDA	11907	2.48	100.00	96.48 µg/L	96.48
13C6-PFHxA	28001	1.46	100.00	98.49 µg/L	98.49
13C9-PFDA	33648	2.15	100.00	94.06 µg/L	94.06



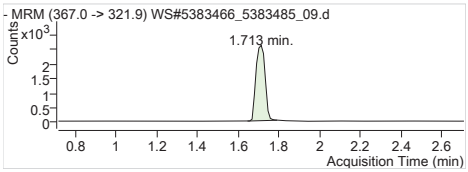


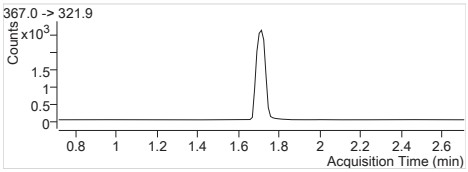
MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	QC



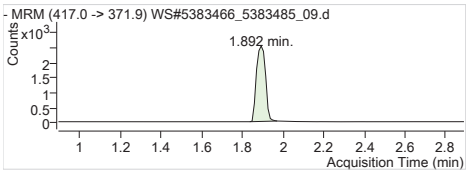


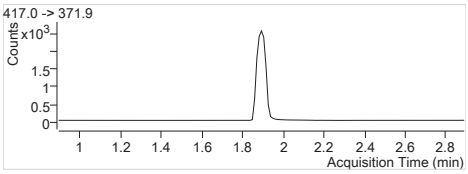
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



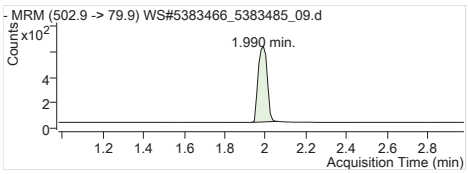


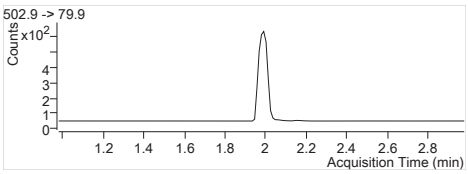
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: QC



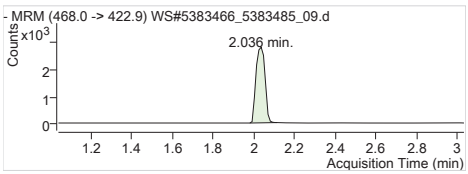


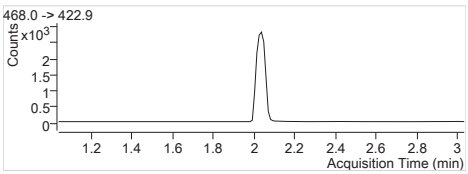
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: QC



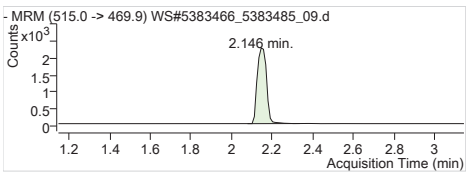


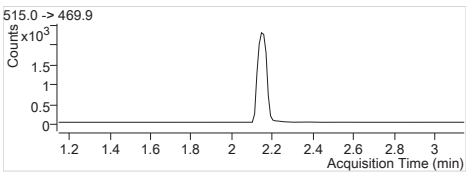
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: QC



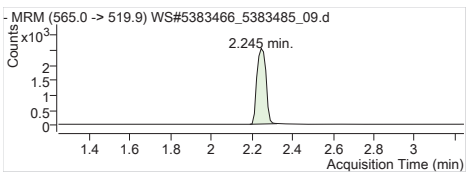


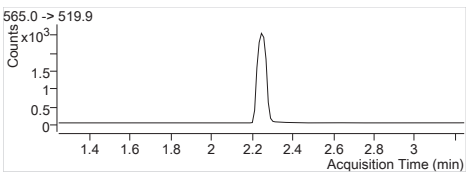
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: QC



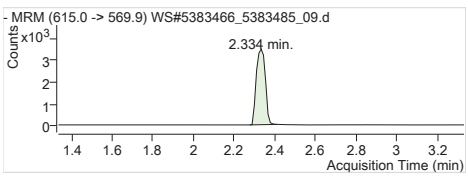


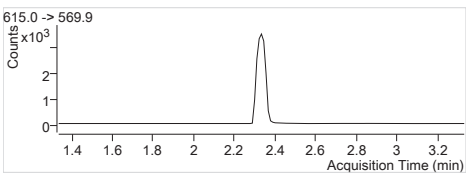
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



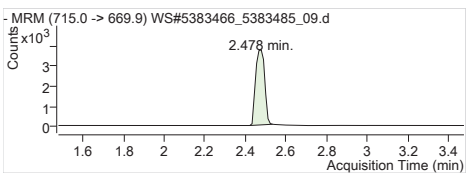


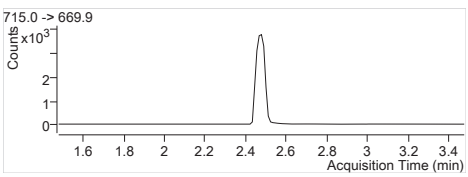
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: QC



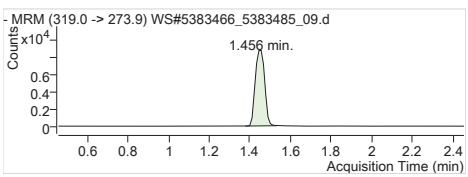


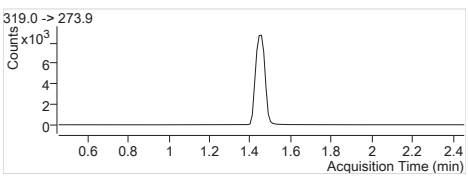
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: QC



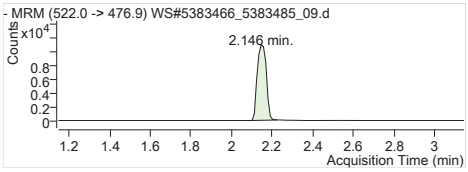


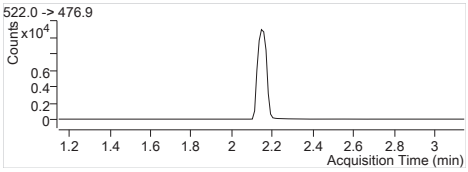
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: QC



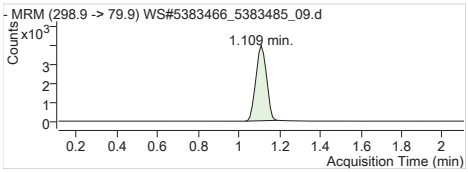


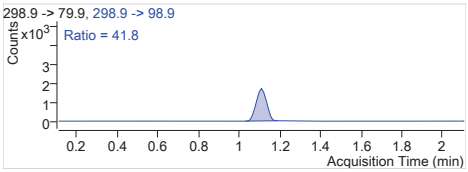
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: QC



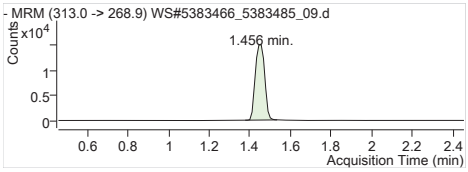


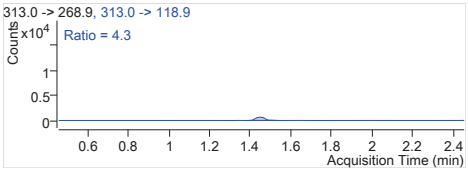
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



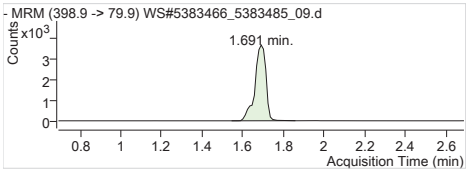


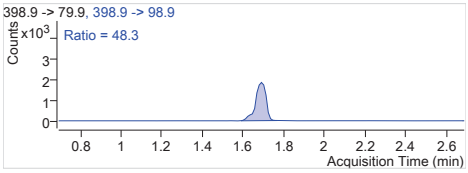
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 22.81 µg/L
Area ratio: 10.01606
Sample type: QC



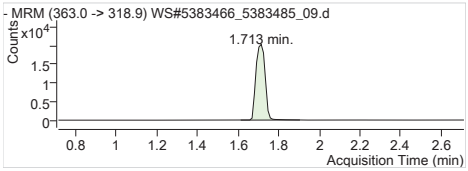


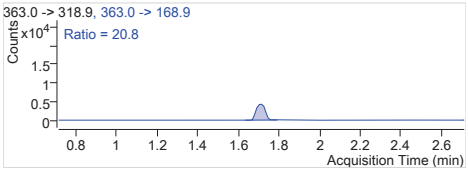
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 20.49 µg/L
Area ratio: 8.17166
Sample type: QC



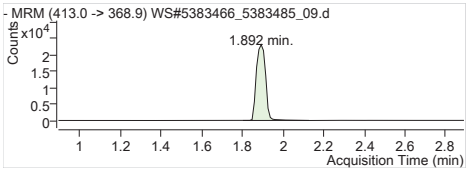


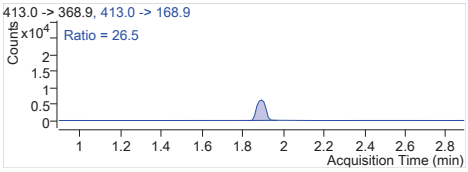
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 21.55 µg/L
Area ratio: 9.52304
Sample type: QC



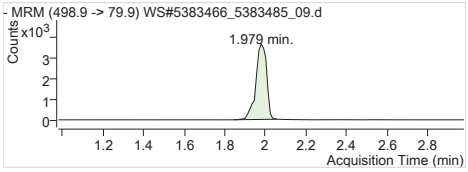


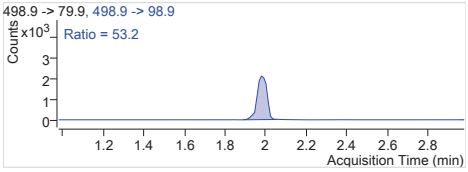
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 18.83 µg/L
Area ratio: 7.85741
Sample type: QC



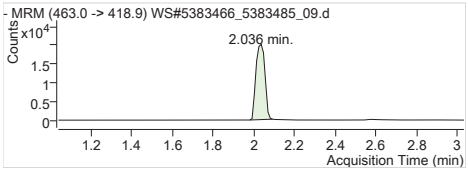


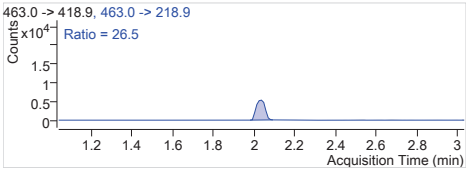
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 21.86 µg/L
Area ratio: 9.25518
Sample type: QC



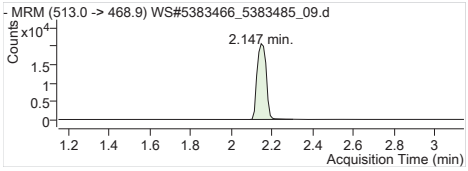


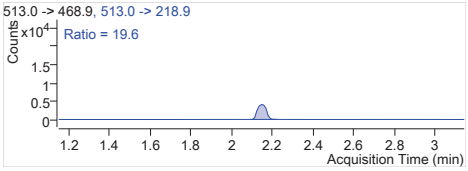
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 21.21 µg/L
Area ratio: 7.28587
Sample type: QC



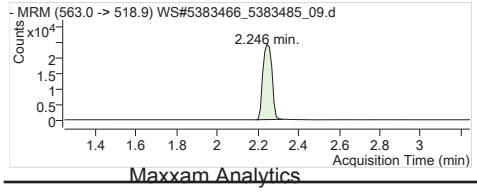


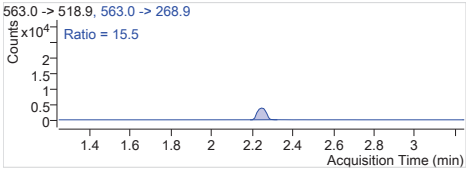
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 19.33 µg/L
Area ratio: 7.21005
Sample type: QC



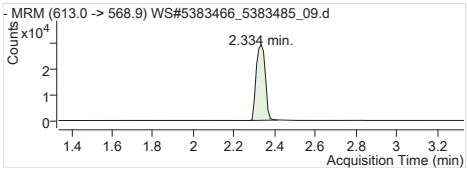


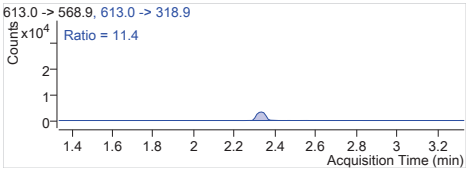
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 19.18 µg/L
Area ratio: 9.01632
Sample type: QC



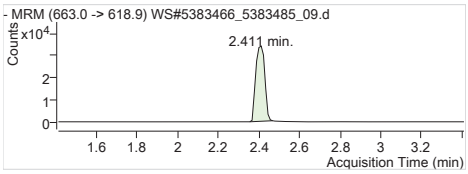


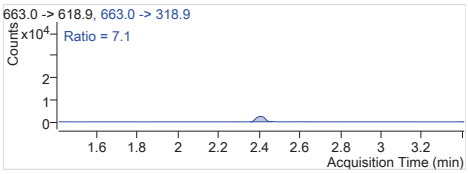
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 22.88 µg/L
Area ratio: 9.69036
Sample type: QC



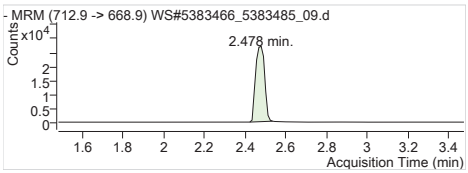


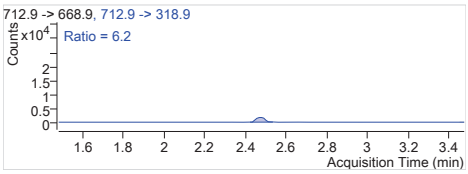
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 20.94 µg/L
Area ratio: 8.55856
Sample type: QC



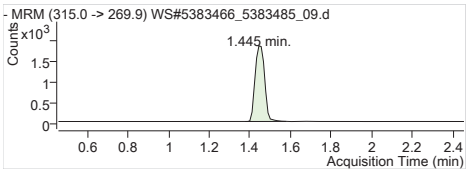


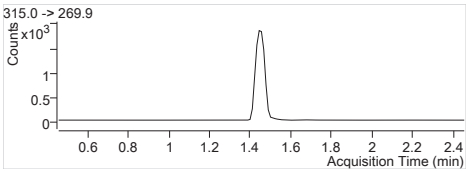
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 22.07 µg/L
Area ratio: 9.12569
Sample type: QC



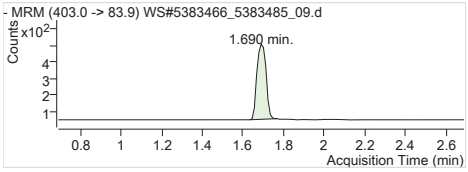


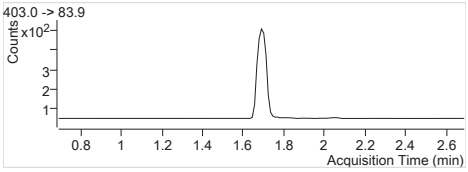
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 21.11 µg/L
Area ratio: 7.26771
Sample type: QC



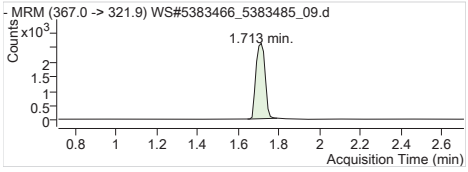


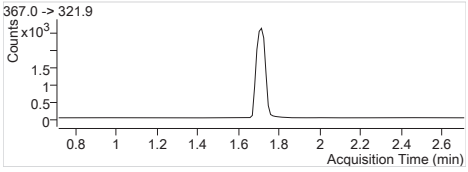
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 89.13 µg/L
Area ratio: 0.21117
Sample type: QC



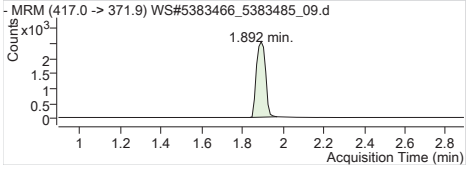


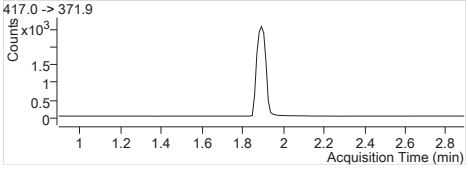
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 88.01 µg/L
Area ratio: 0.05114
Sample type: QC



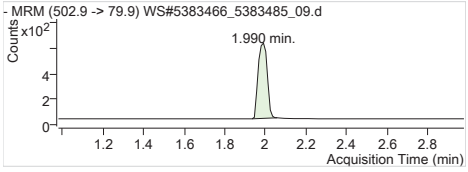


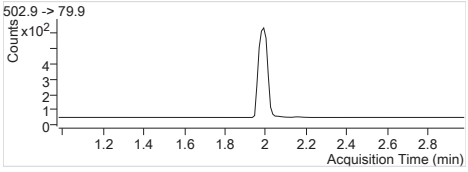
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 99.10 µg/L
Area ratio: 0.28953
Sample type: QC



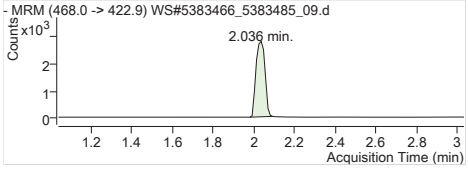


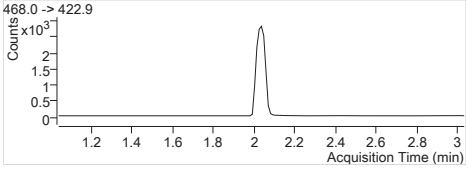
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 89.04 µg/L
Area ratio: 0.27949
Sample type: QC



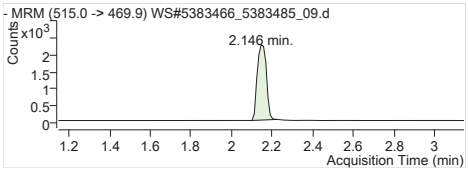


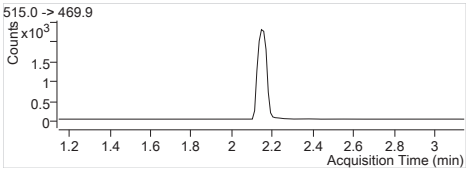
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 94.12 µg/L
Area ratio: 0.06496
Sample type: QC



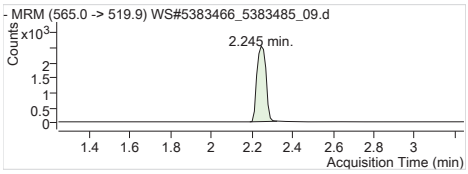


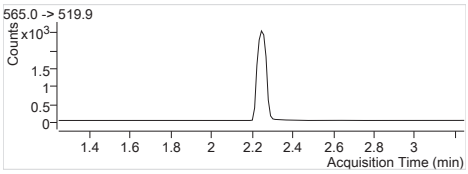
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 98.59 µg/L
Area ratio: 0.30492
Sample type: QC



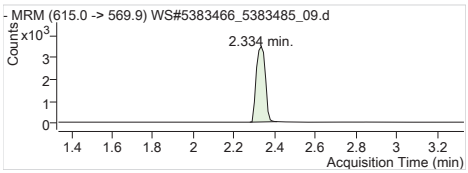


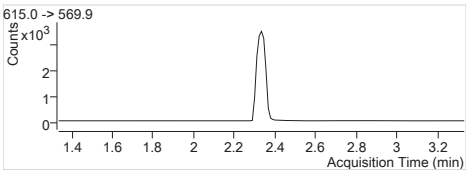
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 103.82 µg/L
Area ratio: 0.20833
Sample type: QC



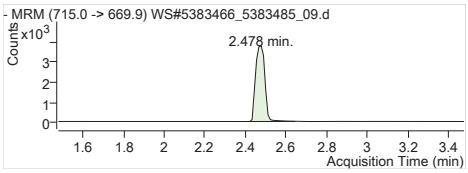


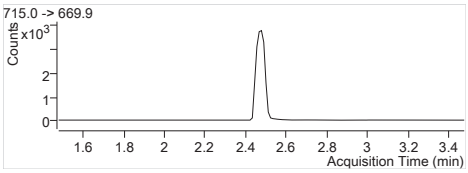
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 95.43 µg/L
Area ratio: 0.23083
Sample type: QC



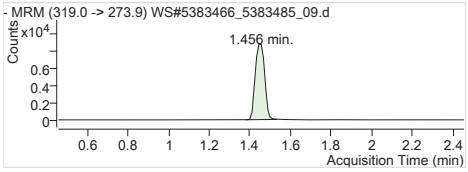


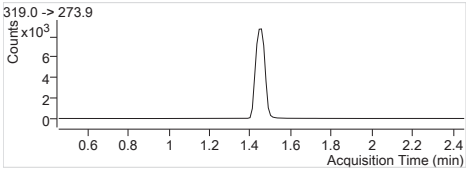
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 98.61 µg/L
Area ratio: 0.31743
Sample type: QC



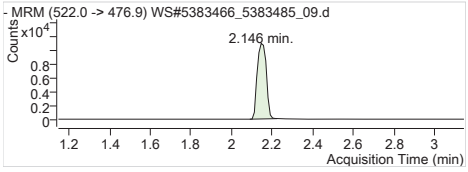


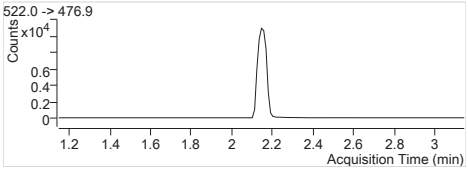
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 96.48 µg/L
Area ratio: 0.35387
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 98.49 µg/L
Area ratio: 0
Sample type: QC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 94.06 µg/L
Area ratio: 0
Sample type: QC

Quantitation Results

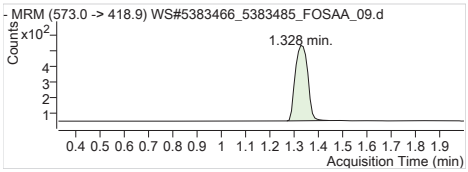
Agilent Technologies

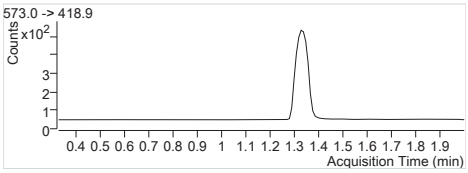
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A9
Acq. Date	2018/02/06 12:44:58 PM	**Injection Volume**	Per Method
Sample Annotation	-		

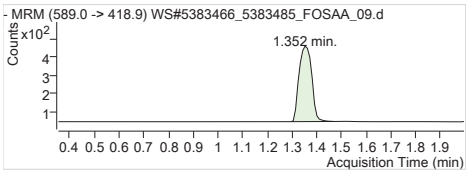
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1727	1.33	1 µg/L		
D5-EtFOSAA IS	1456	1.35	1 µg/L		
13C9-PFDA IS	27223	0.96	1 µg/L		

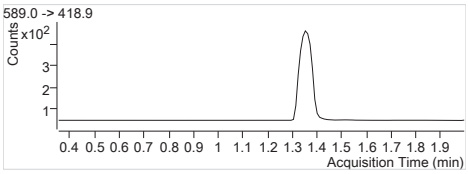
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	12867	1.33	20.80	20.60 µg/L	99.02
EtFOSAA 1	13233	1.35	20.80	21.45 µg/L	103.12
D3-MeFOSAA	1727	1.33	100.00	96.57 µg/L	96.57
D5-EtFOSAA	1456	1.35	100.00	94.50 µg/L	94.50
13C9-PFDA	27331	0.96	100.00	96.95 µg/L	96.95



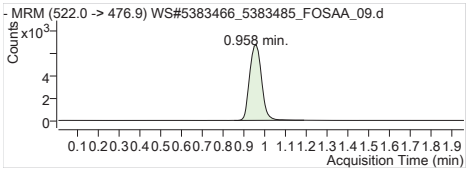


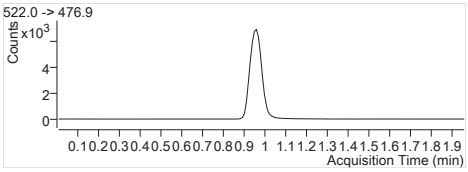
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: QC



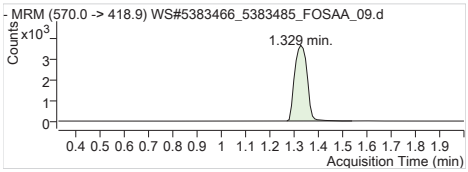


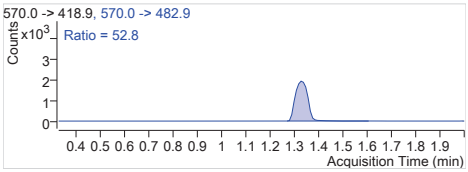
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: QC



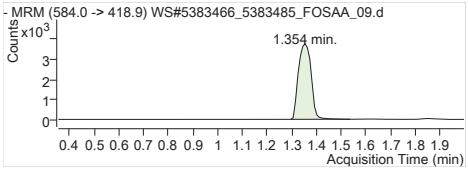


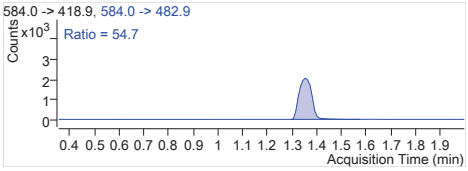
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: QC



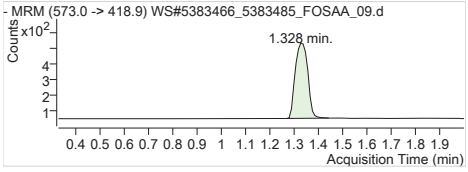


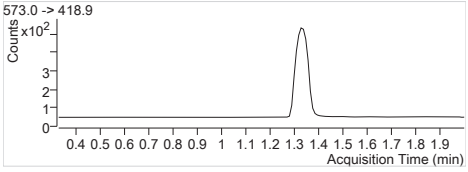
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 20.60 µg/L
Area ratio: 7.45049
Sample type: QC



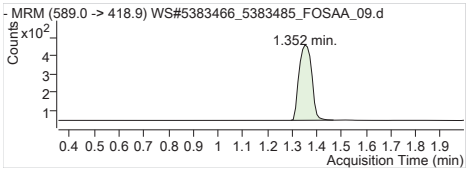


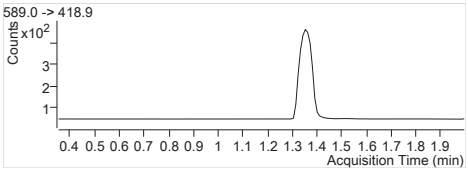
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 21.45 µg/L
Area ratio: 9.08860
Sample type: QC



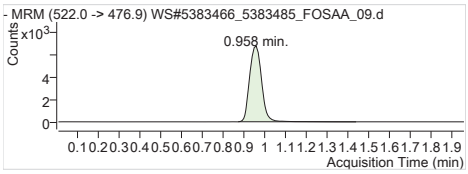


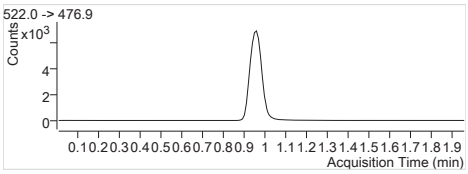
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 96.57 µg/L
Area ratio: 0.06344
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	94.50 µg/L
Area ratio:	0.05348
Sample type:	QC





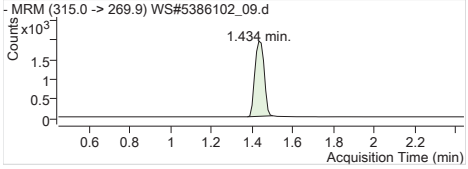
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	96.95 µg/L
Area ratio:	0
Sample type:	QC

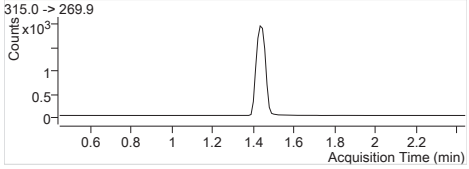
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5386102_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-D6
Acq. Date	2018/02/08 3:46:20 AM	**Injection Volume**	Per Method
Sample Annotation	-		

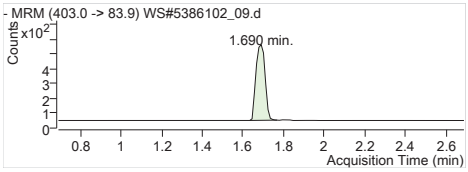
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6048	1.43	1 µg/L		
MPFHxS	1614	1.69	1 µg/L		
MPFHpA	8500	1.70	1 µg/L		
MPFOA	8705	1.88	1 µg/L		
MPFOS	1904	1.98	1 µg/L		
MPFNA	8980	2.02	1 µg/L		
MPFDA	7107	2.14	1 µg/L		
MPFUnA	8669	2.23	1 µg/L		
MPFDoA	10810	2.32	1 µg/L		
MPFTeDA	12959	2.47	1 µg/L		
13C6-PFHxA IS	32370	1.43	1 µg/L		
13C9-PFDA IS	43532	2.13	1 µg/L		

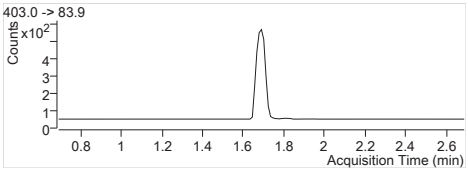
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	14439	1.10	20.80	21.09 µg/L	101.40
PFHxA 1	53482	1.43	20.80	21.79 µg/L	104.75
PFHxS 1	13939	1.69	20.80	20.84 µg/L	100.21
PFHpA 1	66922	1.70	20.80	19.87 µg/L	95.55
PFOA 1	76407	1.88	20.80	21.04 µg/L	101.17
PFOS 1	14029	1.98	20.80	20.05 µg/L	96.38
PFNA 1	67620	2.03	20.80	20.62 µg/L	99.14
PFDA 1	71762	2.14	20.80	20.87 µg/L	100.33
PFUnA 1	80595	2.23	20.80	19.85 µg/L	95.41
PFDoA 1	94359	2.32	20.80	20.98 µg/L	100.88
PFTrDA 1	115761	2.40	20.80	21.62 µg/L	103.95
PFTeDA 1	93875	2.47	20.80	20.77 µg/L	99.84
13C2-PFHxA	6048	1.43	100.00	96.15 µg/L	96.15
18O2-PFHxS	1614	1.69	100.00	100.29 µg/L	100.29
13C4-PFHpA	8500	1.70	100.00	103.19 µg/L	103.19
13C4-PFOA	8705	1.88	100.00	100.17 µg/L	100.17
13C4-PFOS	1904	1.98	100.00	97.15 µg/L	97.15
13C5-PFNA	8980	2.02	100.00	103.53 µg/L	103.53
13C2-PFDA	7008	2.14	100.00	94.58 µg/L	94.58
13C2-PFUnA	8669	2.23	100.00	98.66 µg/L	98.66
13C2-PFDoA	10810	2.32	100.00	88.62 µg/L	88.62
13C2-PFTeDA	13163	2.47	100.00	94.60 µg/L	94.60
13C6-PFHxA	32370	1.43	100.00	102.04 µg/L	102.04
13C9-PFDA	43532	2.13	100.00	107.34 µg/L	107.34



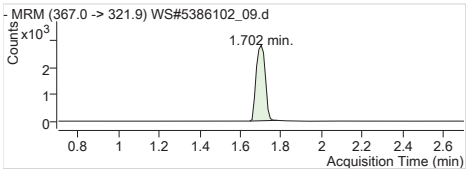


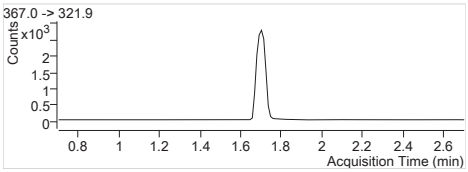
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.445)
Concentration: 1 µg/L
Sample type: QC



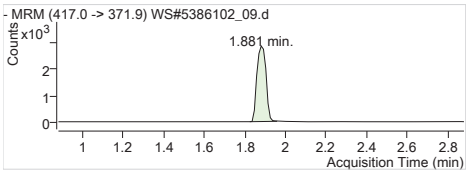


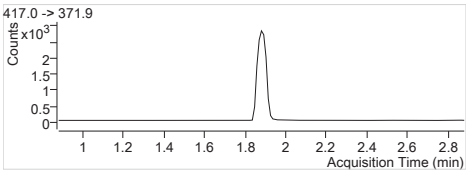
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



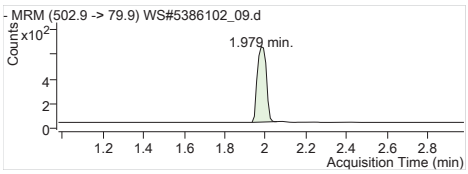


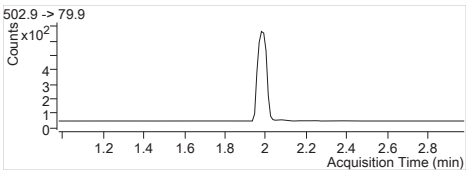
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: QC



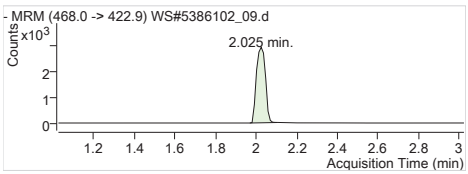


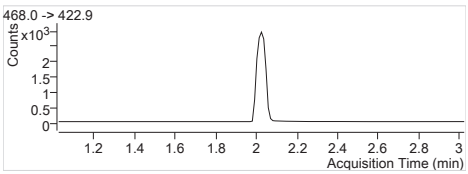
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: QC



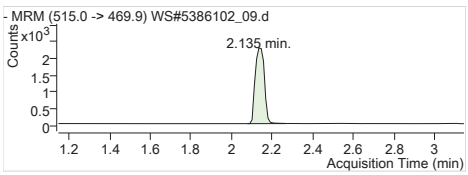


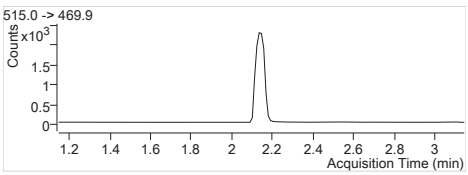
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



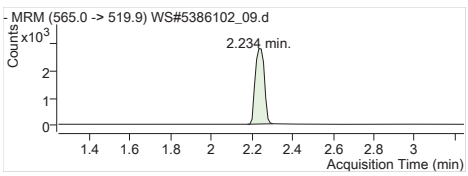


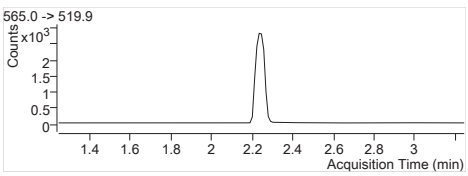
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: QC



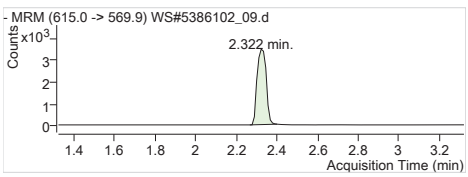


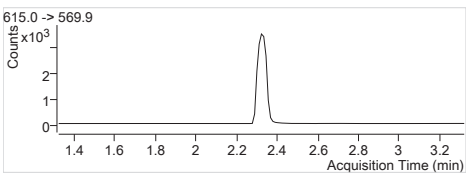
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: QC



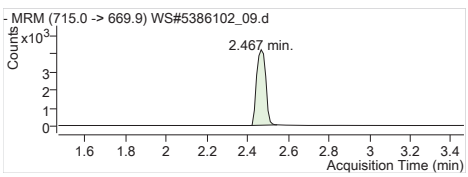


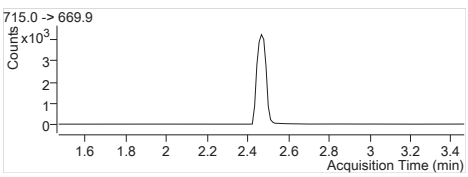
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.245)
Concentration: 1 µg/L
Sample type: QC



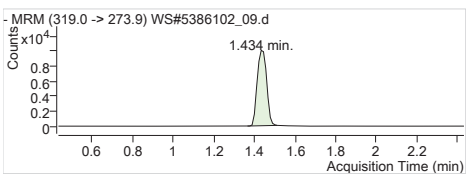


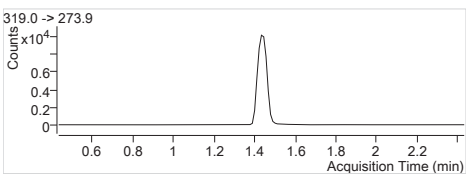
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



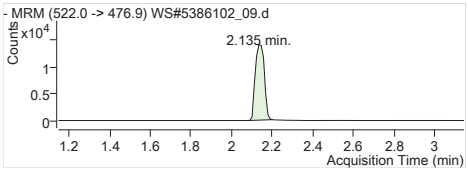


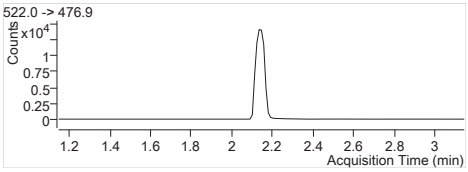
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



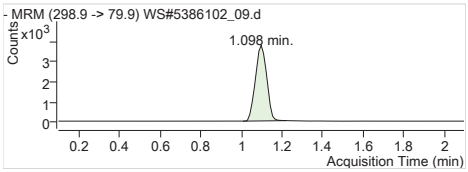


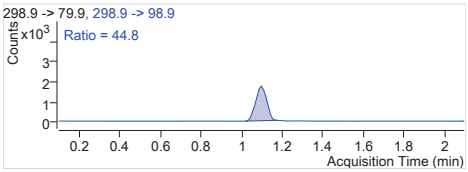
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: QC



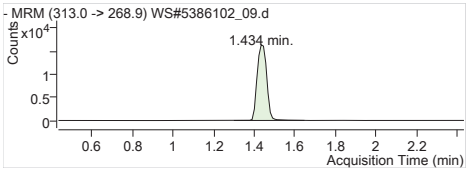


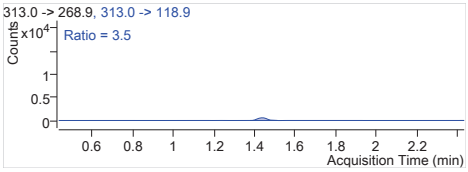
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: QC



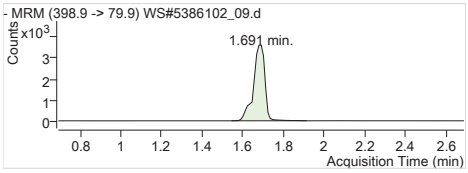


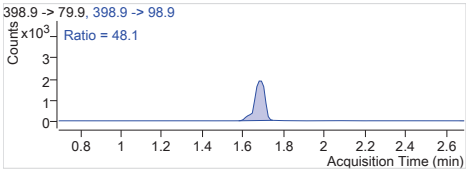
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 21.09 µg/L
Area ratio: 8.94610
Sample type: QC



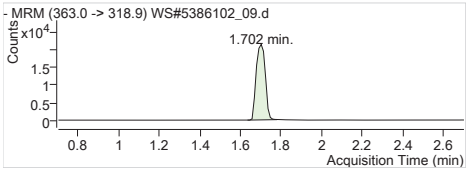


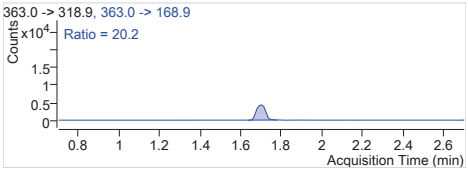
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 21.79 µg/L
Area ratio: 8.84292
Sample type: QC



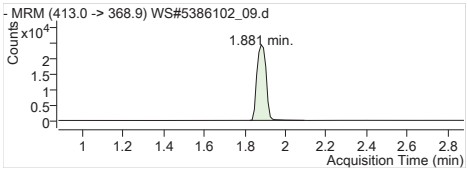


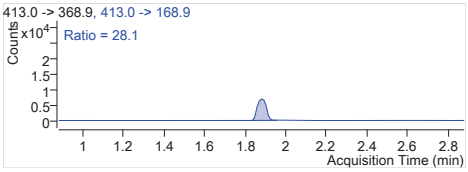
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 20.84 µg/L
Area ratio: 8.63631
Sample type: QC



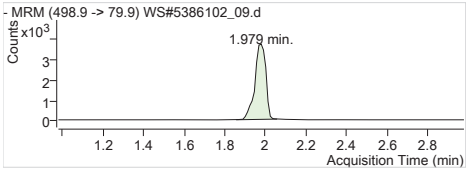


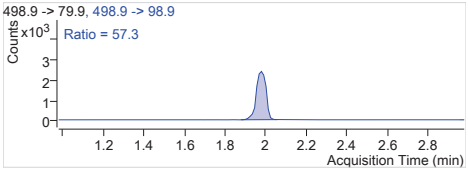
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 19.87 µg/L
Area ratio: 7.87318
Sample type: QC



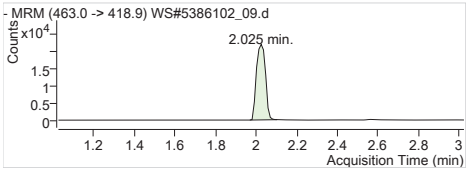


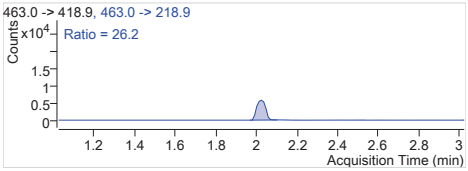
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 21.04 µg/L
Area ratio: 8.77737
Sample type: QC



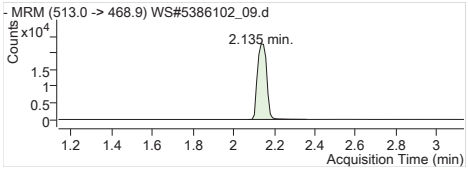


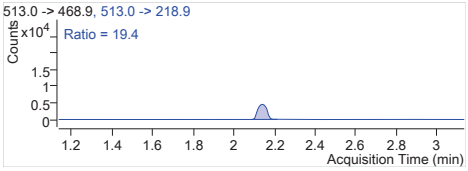
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 20.05 µg/L
Area ratio: 7.36817
Sample type: QC



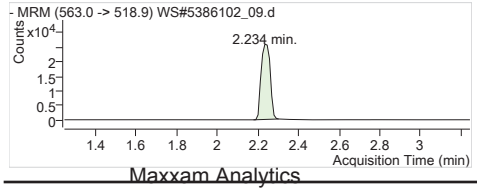


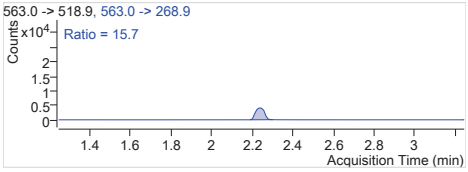
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 20.62 µg/L
Area ratio: 7.53007
Sample type: QC



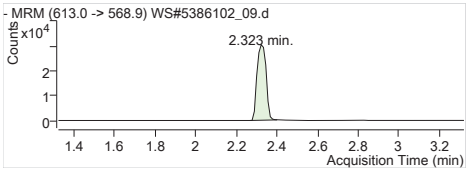


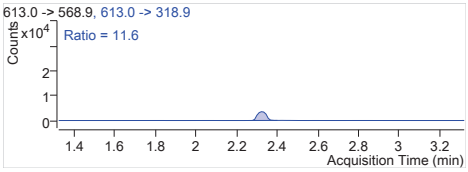
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 20.87 µg/L
Area ratio: 10.09737
Sample type: QC



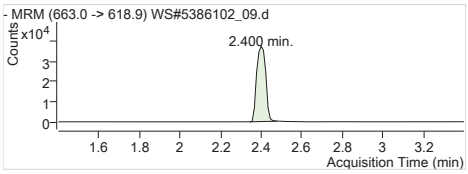


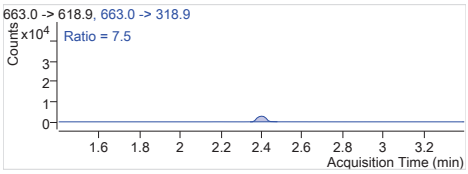
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.246)
Calc. conc. 19.85 µg/L
Area ratio: 9.29692
Sample type: QC



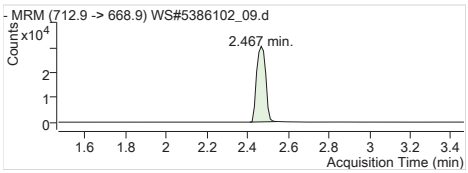


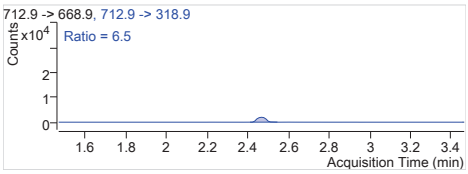
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 20.98 µg/L
Area ratio: 8.72886
Sample type: QC



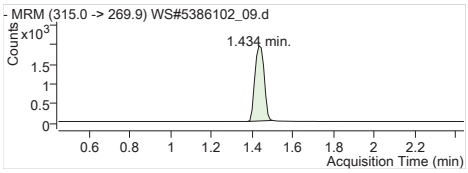


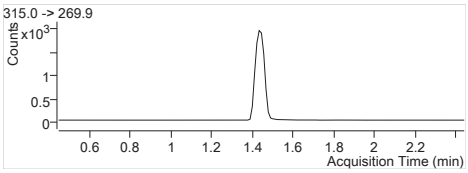
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 21.62 µg/L
Area ratio: 8.93287
Sample type: QC



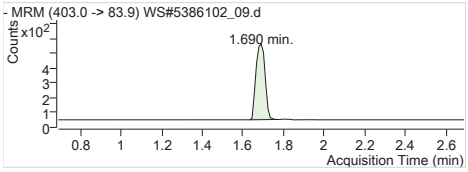


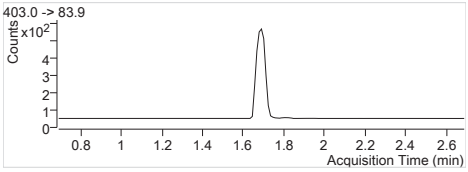
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 20.77 µg/L
Area ratio: 7.24400
Sample type: QC



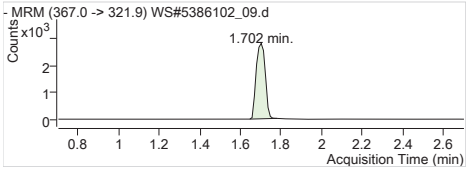


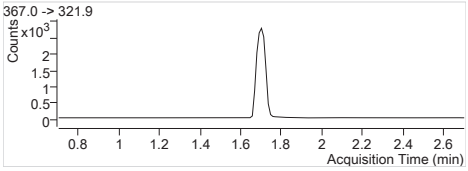
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 96.15 µg/L
Area ratio: 0.18684
Sample type: QC



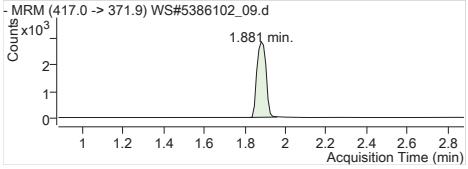


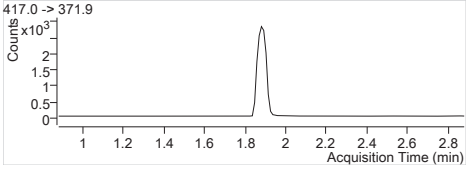
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 100.29 µg/L
Area ratio: 0.04986
Sample type: QC



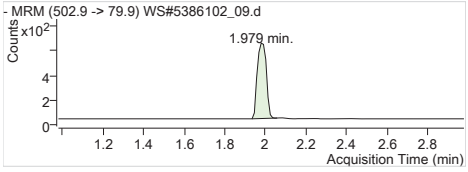


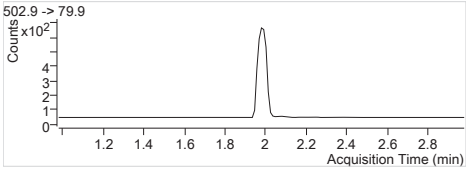
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 103.19 µg/L
Area ratio: 0.26259
Sample type: QC



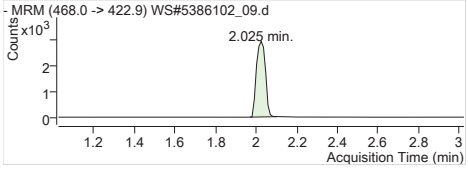


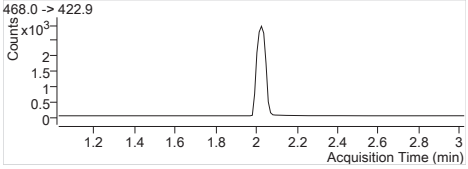
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 100.17 µg/L
Area ratio: 0.26892
Sample type: QC



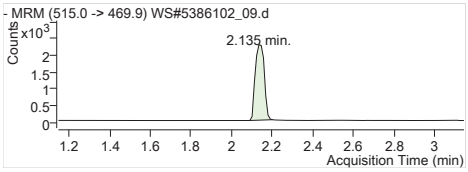


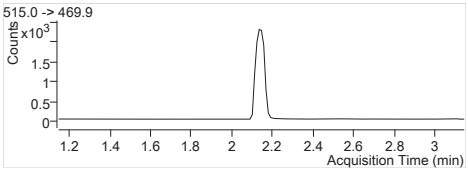
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 97.15 µg/L
Area ratio: 0.05882
Sample type: QC



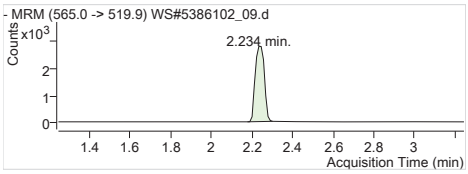


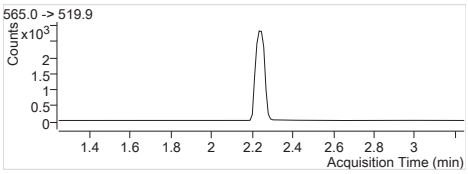
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 103.53 µg/L
Area ratio: 0.27742
Sample type: QC



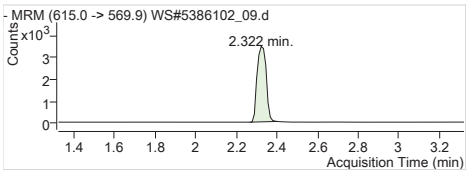


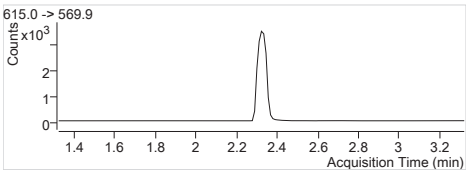
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 94.58 µg/L
Area ratio: 0.16099
Sample type: QC



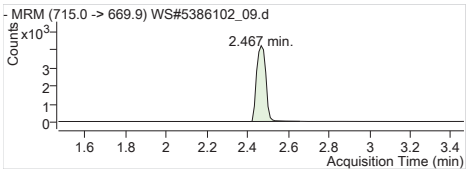


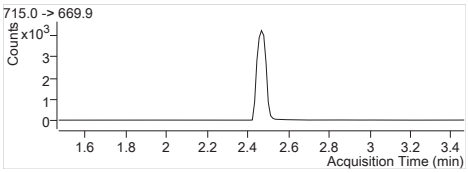
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.245)
Calc. conc. 98.66 µg/L
Area ratio: 0.19914
Sample type: QC



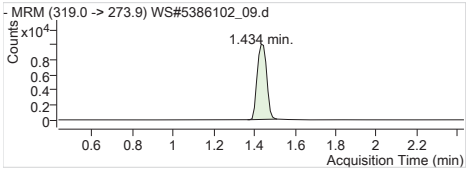


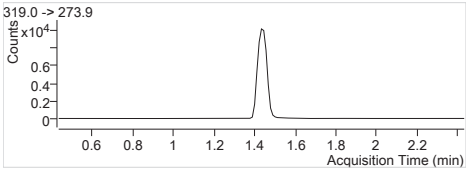
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 88.62 µg/L
Area ratio: 0.24832
Sample type: QC



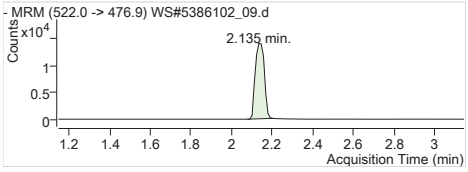


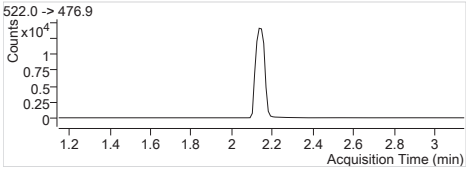
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 94.60 µg/L
Area ratio: 0.30238
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 102.04 µg/L
Area ratio: 0
Sample type: QC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 107.34 µg/L
Area ratio: 0
Sample type: QC

Quantitation Results

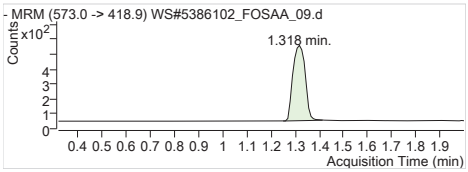
Agilent Technologies

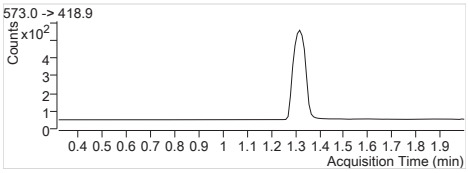
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D6
Acq. Date	2018/02/08 9:53:14 AM	**Injection Volume**	Per Method
Sample Annotation	-		

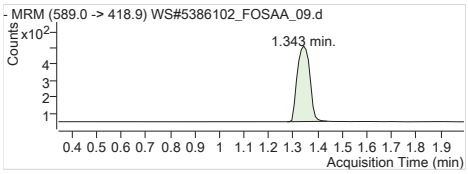
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1796	1.32	1 µg/L		
D5-EtFOSAA IS	1637	1.34	1 µg/L		
13C9-PFDA IS	36367	0.92	1 µg/L		

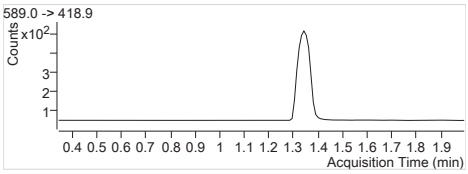
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13815	1.32	20.80	21.68 µg/L	104.23
EtFOSAA 1	14632	1.34	20.80	21.20 µg/L	101.90
D3-MeFOSAA	1808	1.32	100.00	93.43 µg/L	93.43
D5-EtFOSAA	1641	1.34	100.00	97.73 µg/L	97.73
13C9-PFDA	35298	0.92	100.00	105.66 µg/L	105.66



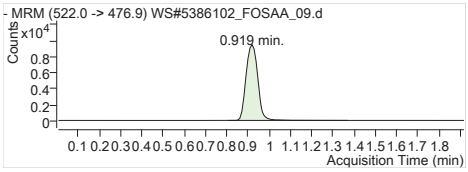


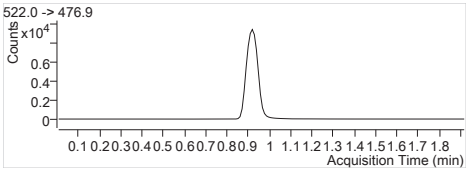
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: QC



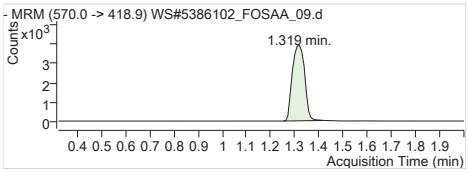


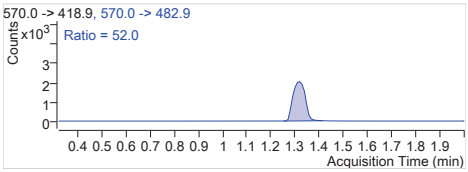
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: QC



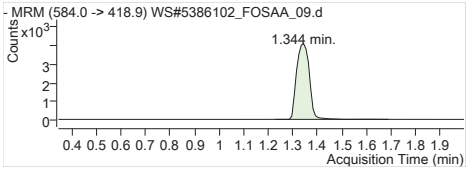


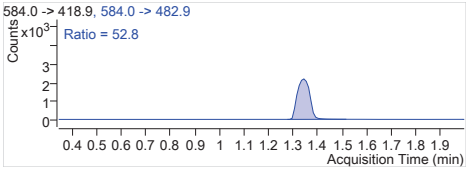
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: QC



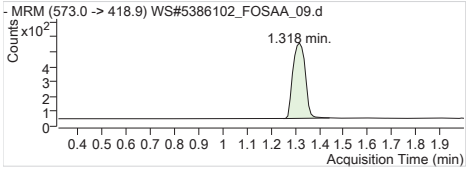


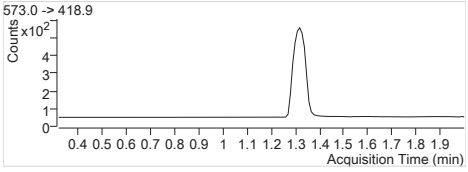
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 21.68 µg/L
Area ratio: 7.69209
Sample type: QC



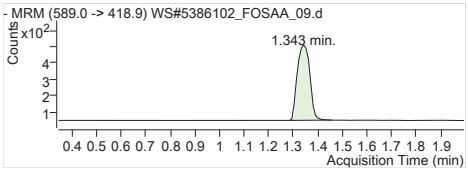


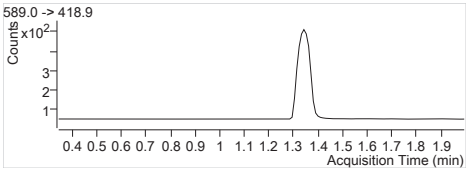
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 21.20 µg/L
Area ratio: 8.93830
Sample type: QC



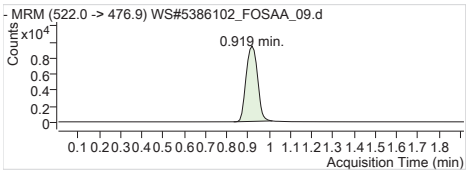


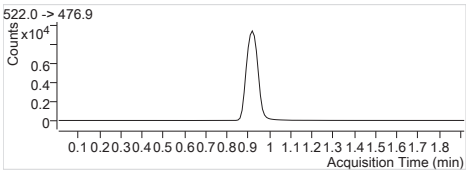
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 93.43 µg/L
Area ratio: 0.04972
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	97.73 µg/L
Area ratio:	0.04512
Sample type:	QC





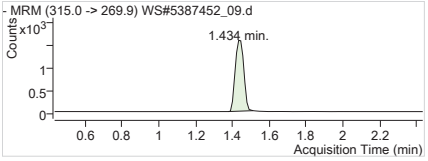
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	105.66 µg/L
Area ratio:	0
Sample type:	QC

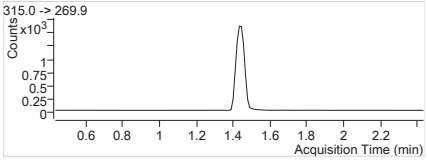
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5387452_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A9
Acq. Date	2018/02/08 1:08:29 AM	**Injection Volume**	Per Method
Sample Annotation	-		

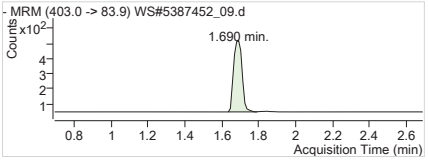
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5055	1.43	1 µg/L		
MPFHxS	1507	1.69	1 µg/L		
MPFHpA	6809	1.70	1 µg/L		
MPFOA	7884	1.88	1 µg/L		
MPFOS	1709	1.98	1 µg/L		
MPFNA	7748	2.02	1 µg/L		
MPFDA	6391	2.15	1 µg/L		
MPFUnA	7643	2.25	1 µg/L		
MPFDoA	10221	2.32	1 µg/L		
MPFTeDA	11256	2.47	1 µg/L		
13C6-PFHxA IS	25129	1.43	1 µg/L		
13C9-PFDA IS	34664	2.15	1 µg/L		

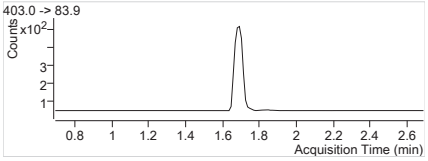
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	14383	1.10	20.80	18.26 µg/L	87.79
PFHxA 1	46903	1.43	20.80	21.86 µg/L	105.10
PFHxS 1	13468	1.68	20.80	17.86 µg/L	85.85
PFHpA 1	60517	1.70	20.80	21.78 µg/L	104.73
PFOA 1	68291	1.88	20.80	19.67 µg/L	94.57
PFOS 1	13618	1.98	20.80	20.55 µg/L	98.82
PFNA 1	63798	2.03	20.80	20.84 µg/L	100.19
PFDA 1	70515	2.15	20.80	21.22 µg/L	102.00
PFUnA 1	78650	2.25	20.80	22.27 µg/L	107.08
PFDoA 1	95601	2.32	20.80	21.24 µg/L	102.11
PFTrDA 1	108642	2.40	20.80	21.86 µg/L	105.08
PFTeDA 1	90226	2.47	20.80	21.25 µg/L	102.14
13C2-PFHxA	5055	1.43	100.00	94.13 µg/L	94.13
18O2-PFHxS	1507	1.69	100.00	103.41 µg/L	103.41
13C4-PFHpA	6809	1.70	100.00	98.27 µg/L	98.27
13C4-PFOA	7884	1.88	100.00	105.75 µg/L	105.75
13C4-PFOS	1709	1.98	100.00	95.12 µg/L	95.12
13C5-PFNA	7748	2.02	100.00	101.70 µg/L	101.70
13C2-PFDA	6292	2.15	100.00	99.57 µg/L	99.57
13C2-PFUnA	7643	2.25	100.00	96.41 µg/L	96.41
13C2-PFDoA	10221	2.32	100.00	94.93 µg/L	94.93
13C2-PFTeDA	11488	2.47	100.00	90.30 µg/L	90.30
13C6-PFHxA	25129	1.43	100.00	107.80 µg/L	107.80
13C9-PFDA	34664	2.15	100.00	109.99 µg/L	109.99



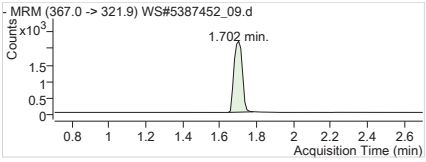


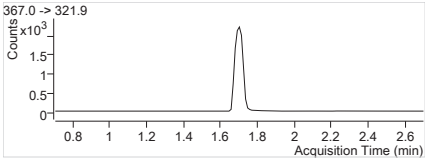
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: QC



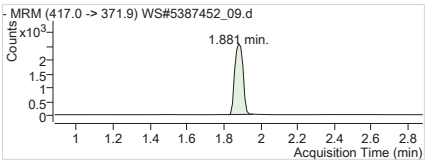


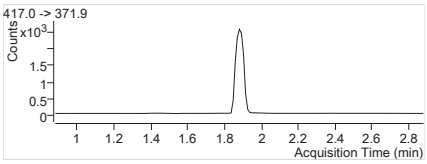
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC



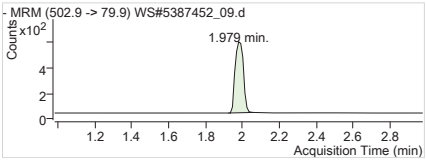


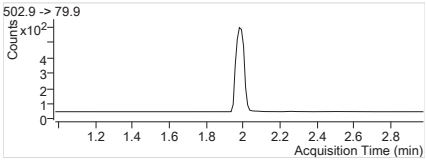
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: QC



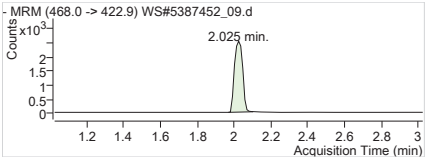


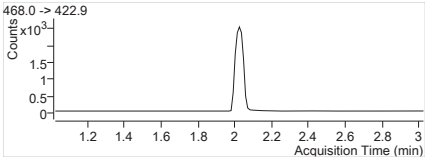
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: QC



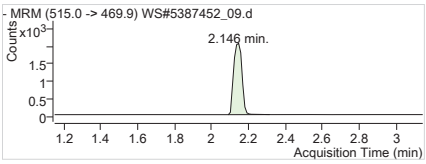


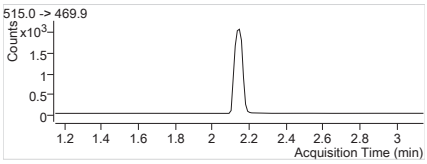
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



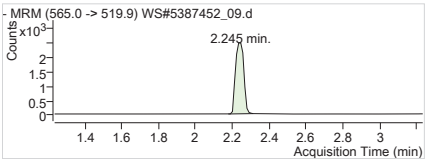


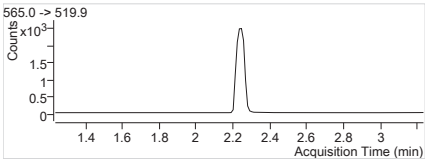
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: QC



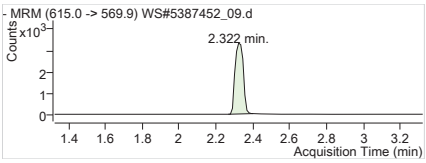


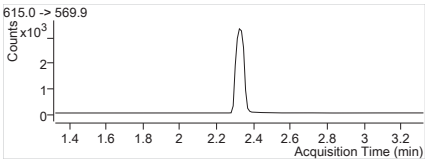
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



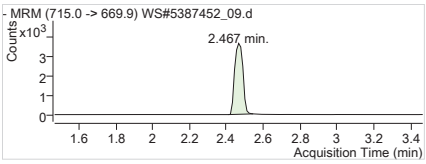


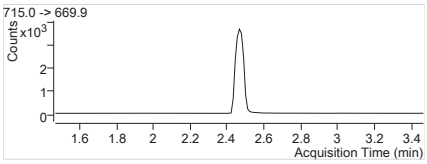
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: QC



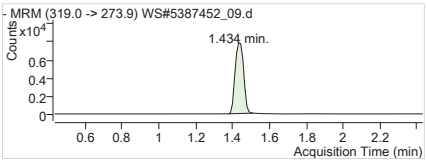


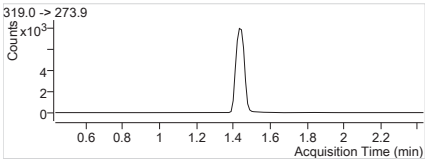
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



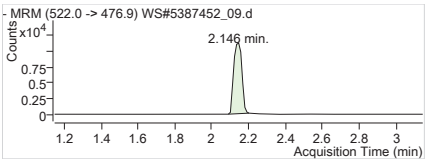


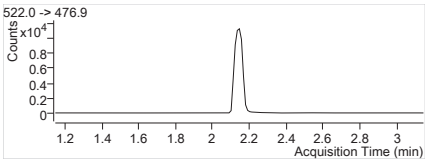
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



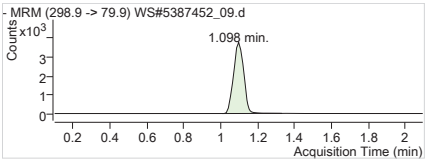


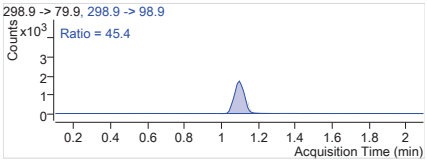
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: QC



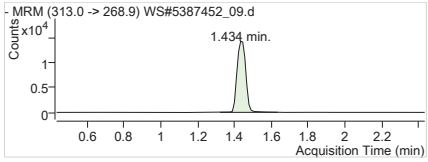


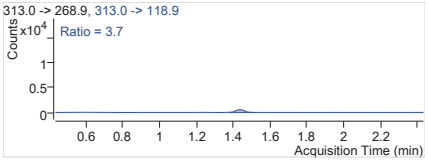
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: QC



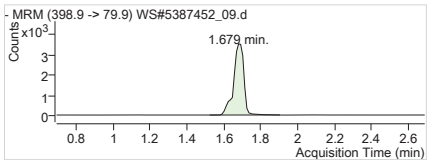


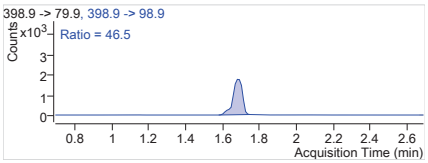
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 18.26 µg/L
Area ratio: 9.54413
Sample type: QC



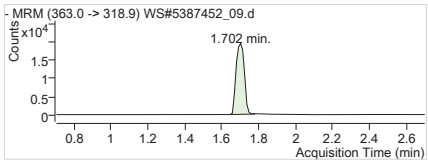


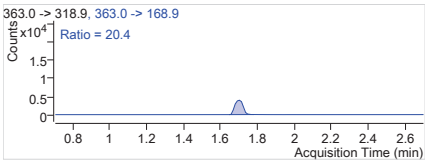
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 21.86 µg/L
Area ratio: 9.27854
Sample type: QC



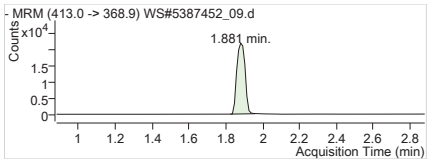


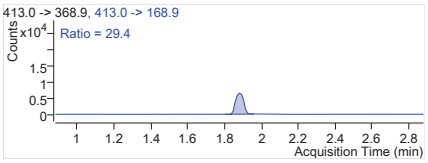
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 17.86 µg/L
Area ratio: 8.93696
Sample type: QC



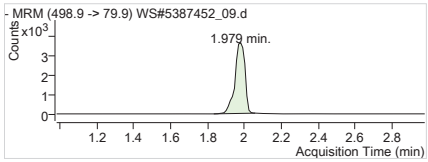


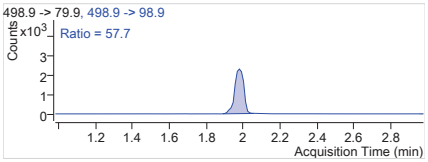
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 21.78 µg/L
Area ratio: 8.88780
Sample type: QC



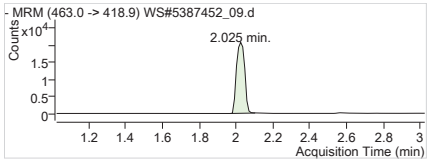


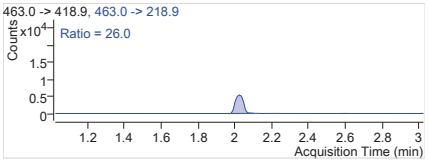
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 19.67 µg/L
Area ratio: 8.66197
Sample type: QC



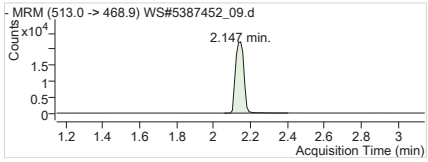


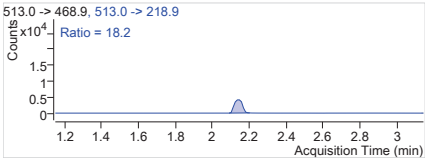
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 20.55 µg/L
Area ratio: 7.96840
Sample type: QC



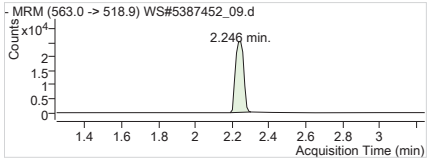


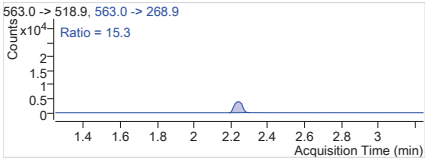
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 20.84 µg/L
Area ratio: 8.23412
Sample type: QC



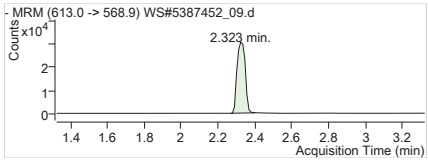


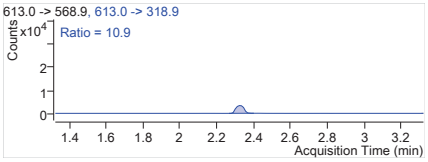
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 21.22 µg/L
Area ratio: 11.03348
Sample type: QC



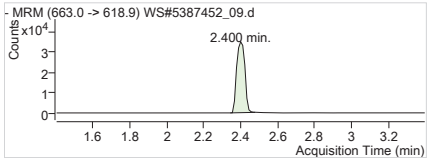


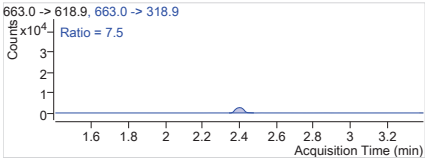
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 22.27 µg/L
Area ratio: 10.29046
Sample type: QC



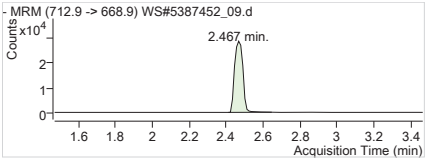


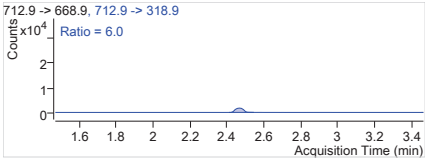
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 21.24 µg/L
Area ratio: 9.35339
Sample type: QC



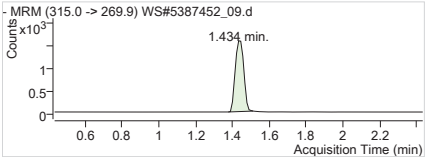


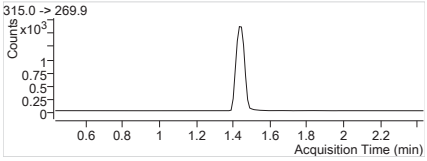
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 21.86 µg/L
Area ratio: 9.65192
Sample type: QC



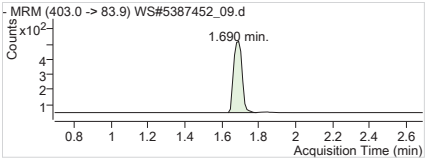


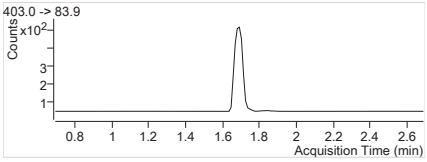
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 21.25 µg/L
Area ratio: 8.01581
Sample type: QC



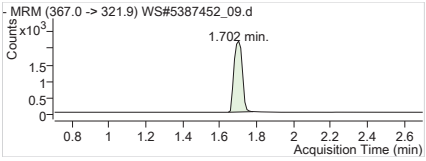


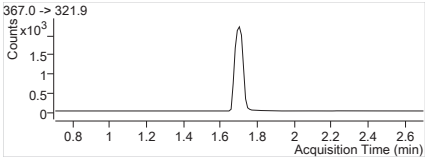
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 94.13 µg/L
Area ratio: 0.20116
Sample type: QC



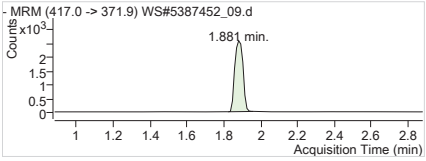


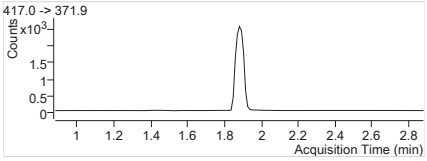
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 103.41 µg/L
Area ratio: 0.05997
Sample type: QC



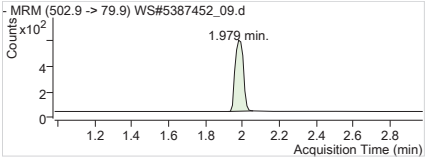


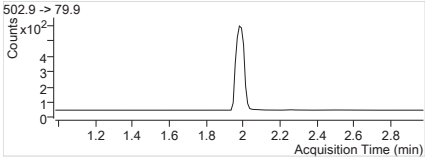
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 98.27 µg/L
Area ratio: 0.27096
Sample type: QC



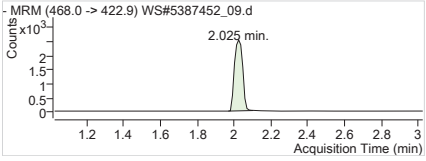


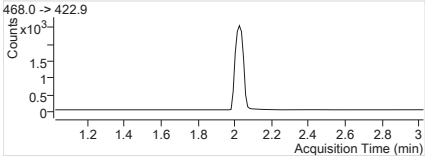
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 105.75 µg/L
Area ratio: 0.31374
Sample type: QC



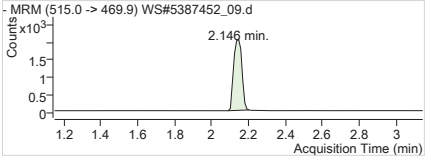


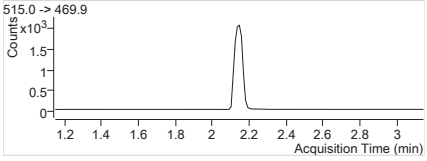
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 95.12 µg/L
Area ratio: 0.06801
Sample type: QC



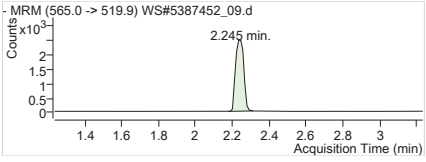


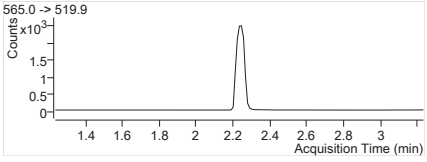
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 101.70 µg/L
Area ratio: 0.30833
Sample type: QC



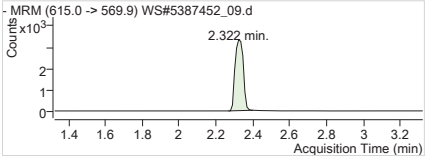


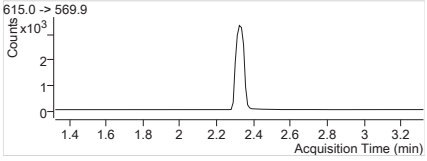
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 99.57 µg/L
Area ratio: 0.18151
Sample type: QC



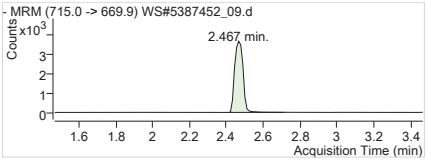


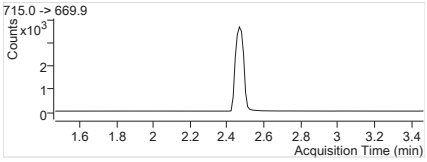
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 96.41 µg/L
Area ratio: 0.22049
Sample type: QC



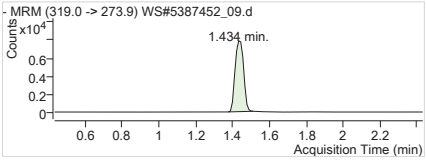


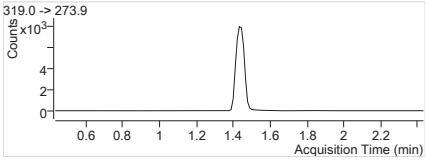
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 94.93 µg/L
Area ratio: 0.29486
Sample type: QC



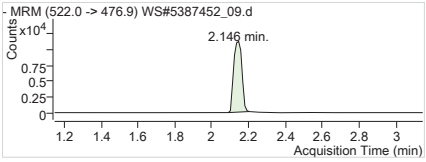


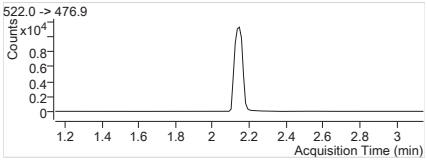
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	90.30 µg/L
Area ratio:	0.33141
Sample type:	QC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	107.80 µg/L
Area ratio:	0
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	109.99 µg/L
Area ratio:	0
Sample type:	QC

Quantitation Results

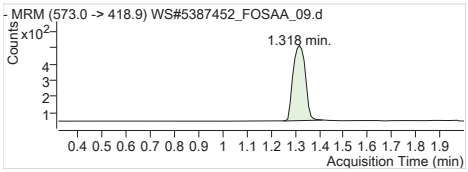
Agilent Technologies

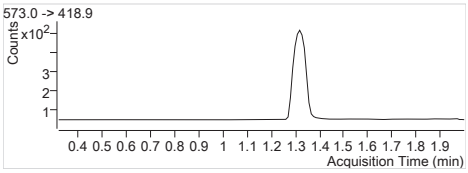
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A9
Acq. Date	2018/02/08 8:36:06 AM	**Injection Volume**	Per Method
Sample Annotation	-		

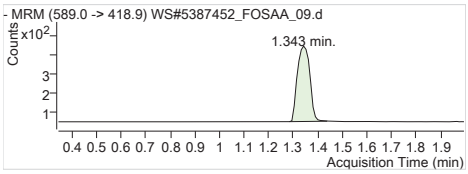
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1638	1.32	1 µg/L		
D5-EtFOSAA IS	1405	1.34	1 µg/L		
13C9-PFDA IS	30042	0.92	1 µg/L		

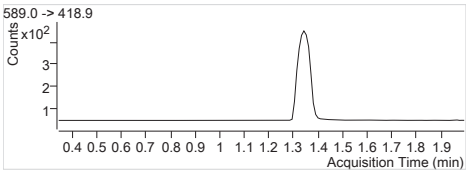
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13247	1.32	20.80	21.73 µg/L	104.48
EtFOSAA 1	13742	1.34	20.80	21.94 µg/L	105.46
D3-MeFOSAA	1653	1.32	100.00	98.12 µg/L	98.12
D5-EtFOSAA	1407	1.34	100.00	97.54 µg/L	97.54
13C9-PFDA	29357	0.92	100.00	99.40 µg/L	99.40



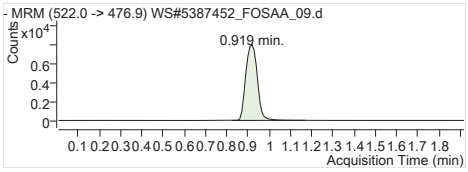


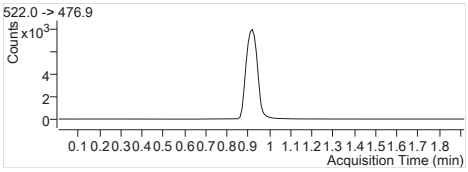
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: QC



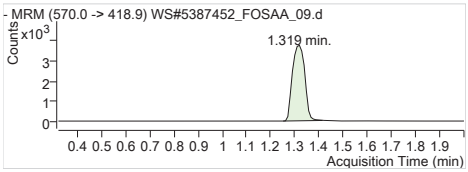


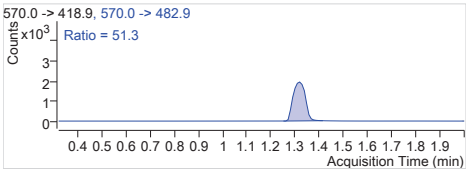
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: QC



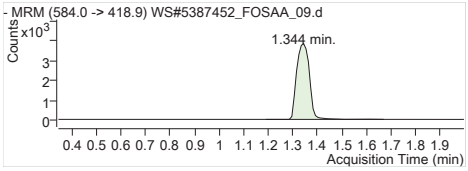


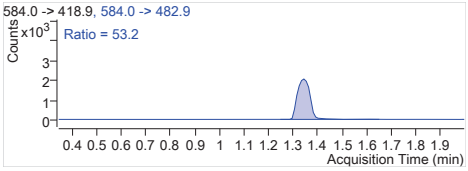
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: QC



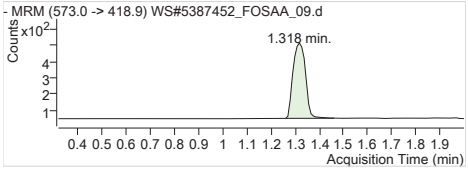


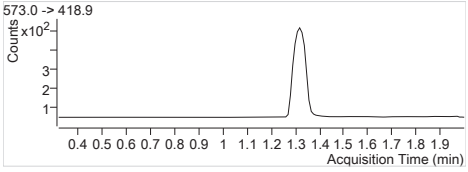
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 21.73 µg/L
Area ratio: 8.08730
Sample type: QC



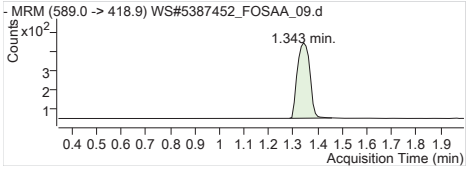


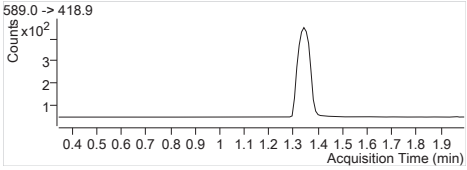
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 21.94 µg/L
Area ratio: 9.78078
Sample type: QC



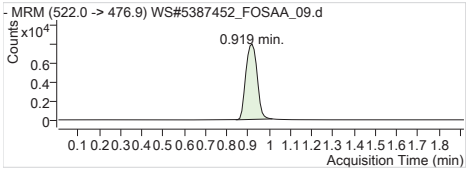


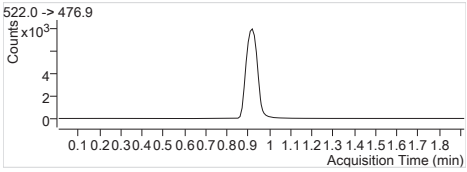
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 98.12 µg/L
Area ratio: 0.05502
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	97.54 µg/L
Area ratio:	0.04683
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	99.40 µg/L
Area ratio:	0
Sample type:	QC

Quantitation Results

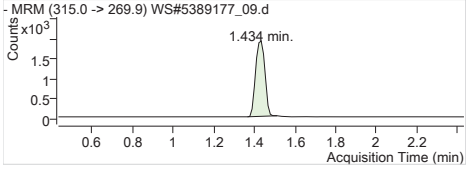
Agilent Technologies

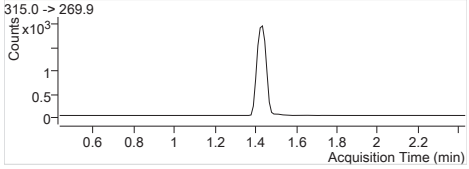
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5389177_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A9
Acq. Date	2018/02/09 12:36:53 AM	**Injection Volume**	Per Method
Sample Annotation	-		

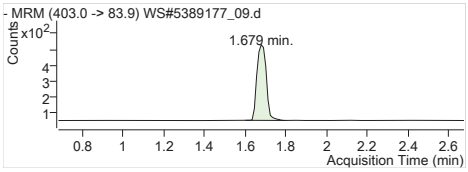
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6052	1.43	1 µg/L		
MPFHxS	1539	1.68	1 µg/L		
MPFHpA	8410	1.69	1 µg/L		
MPFOA	8752	1.88	1 µg/L		
MPFOS	1961	1.98	1 µg/L		
MPFNA	8850	2.01	1 µg/L		
MPFDA	7780	2.14	1 µg/L		
MPFUnA	8382	2.23	1 µg/L		
MPFDoA	11205	2.32	1 µg/L		
MPFTeDA	13067	2.47	1 µg/L		
13C6-PFHxA IS	22492	1.43	1 µg/L		
13C9-PFDA IS	30514	2.13	1 µg/L		

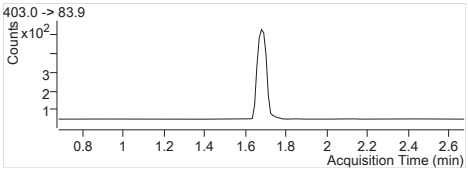
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	15737	1.09	20.80	22.21 µg/L	106.80
PFHxA 1	52710	1.43	20.80	20.99 µg/L	100.94
PFHxS 1	14656	1.68	20.80	21.22 µg/L	102.01
PFHpA 1	70648	1.69	20.80	20.32 µg/L	97.69
PFOA 1	79777	1.88	20.80	21.42 µg/L	102.97
PFOS 1	14655	1.97	20.80	19.70 µg/L	94.71
PFNA 1	70308	2.01	20.80	20.99 µg/L	100.90
PFDA 1	75227	2.14	20.80	20.09 µg/L	96.59
PFUnA 1	85693	2.23	20.80	23.05 µg/L	110.83
PFDoA 1	102052	2.32	20.80	20.85 µg/L	100.22
PFTrDA 1	118592	2.40	20.80	22.41 µg/L	107.72
PFTeDA 1	98304	2.47	20.80	21.26 µg/L	102.23
13C2-PFHxA	6052	1.43	100.00	95.97 µg/L	95.97
18O2-PFHxS	1539	1.68	100.00	94.73 µg/L	94.73
13C4-PFHpA	8410	1.69	100.00	100.27 µg/L	100.27
13C4-PFOA	8752	1.88	100.00	97.52 µg/L	97.52
13C4-PFOS	1961	1.98	100.00	98.44 µg/L	98.44
13C5-PFNA	8851	2.01	100.00	97.83 µg/L	97.83
13C2-PFDA	7651	2.14	100.00	99.55 µg/L	99.55
13C2-PFUnA	8382	2.23	100.00	91.44 µg/L	91.44
13C2-PFDoA	11205	2.32	100.00	92.66 µg/L	92.66
13C2-PFTeDA	13458	2.47	100.00	92.99 µg/L	92.99
13C6-PFHxA	22492	1.43	100.00	105.06 µg/L	105.06
13C9-PFDA	30514	2.13	100.00	106.77 µg/L	106.77



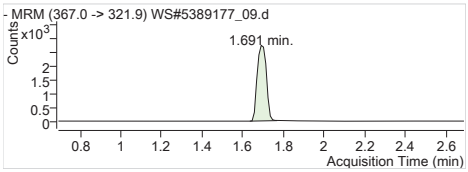


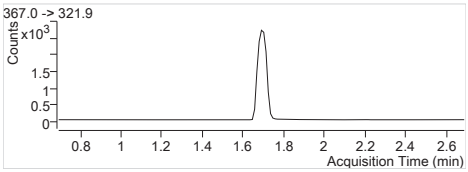
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	QC



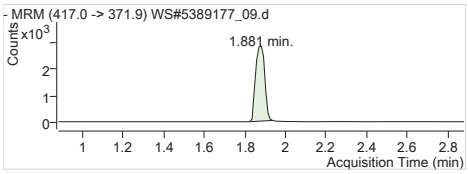


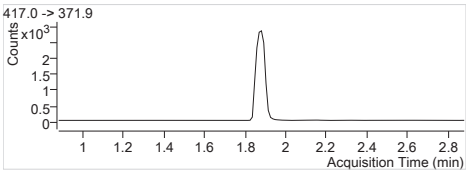
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



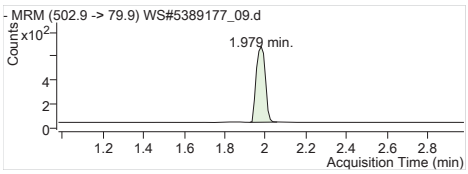


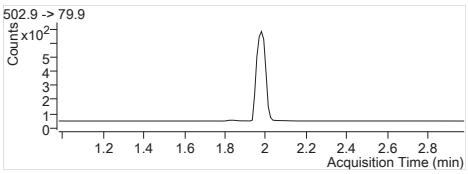
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: QC



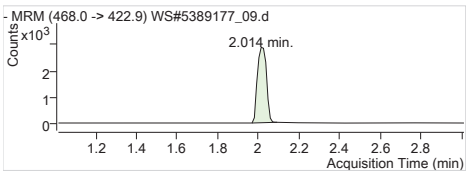


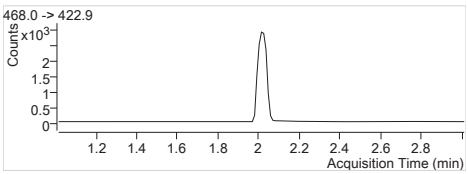
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: QC



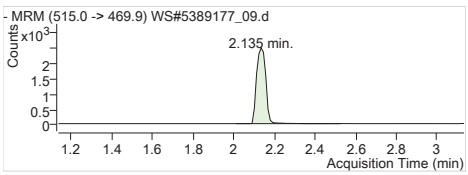


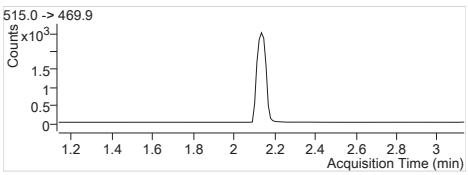
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



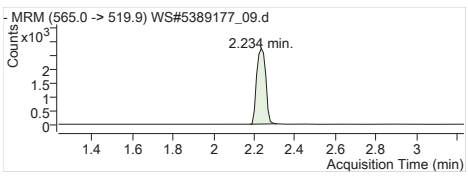


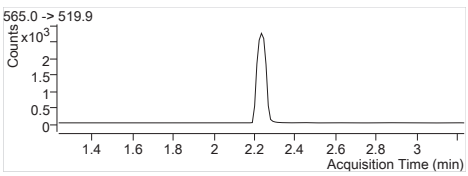
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: QC



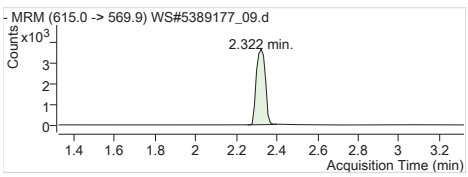


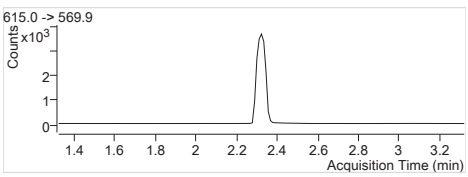
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



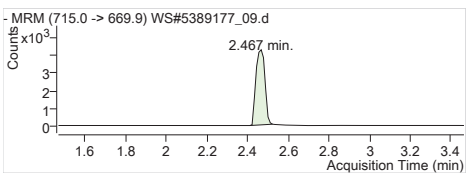


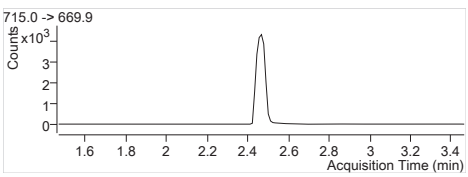
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: QC



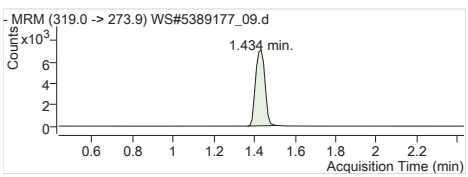


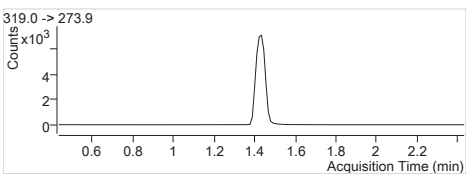
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



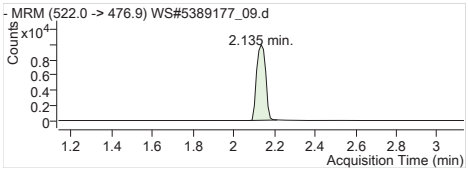


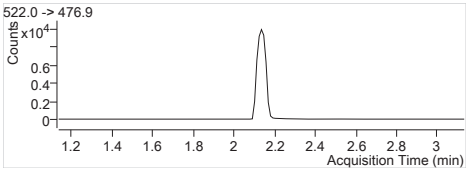
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



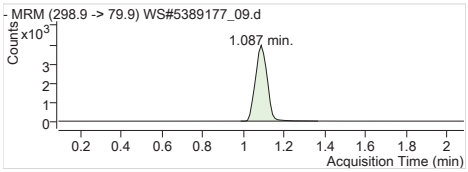


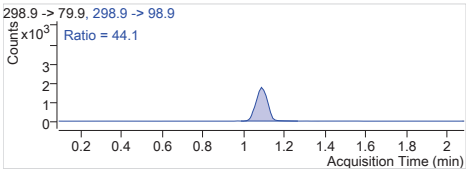
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: QC



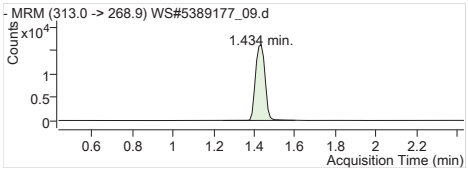


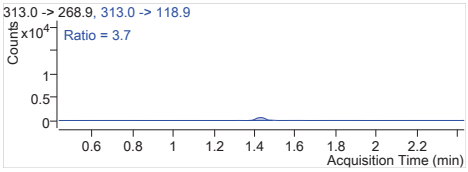
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



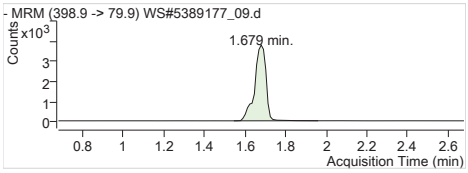


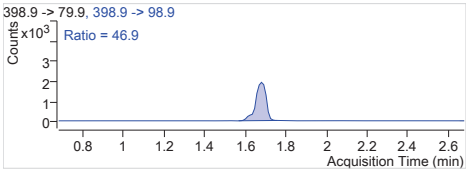
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 22.21 µg/L
Area ratio: 10.22547
Sample type: QC



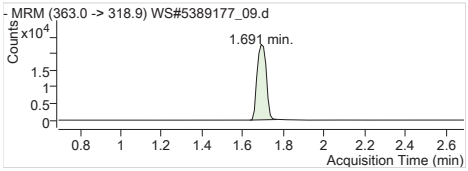


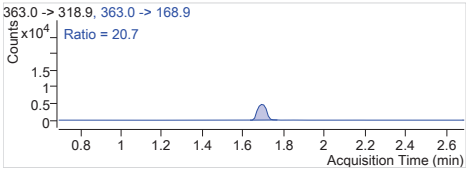
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 20.99 µg/L
Area ratio: 8.70952
Sample type: QC



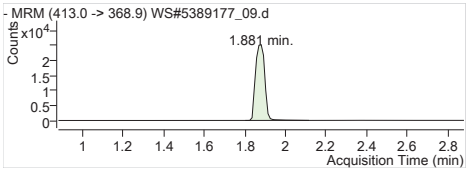


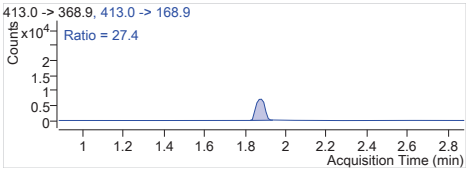
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 21.22 µg/L
Area ratio: 9.52307
Sample type: QC



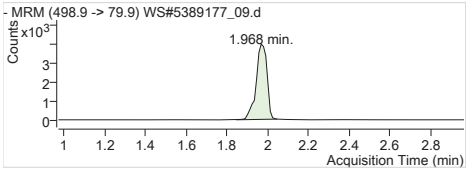


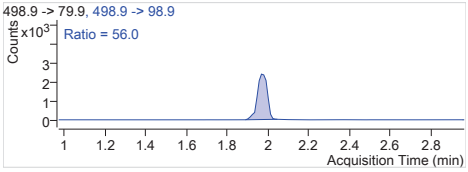
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 20.32 µg/L
Area ratio: 8.40048
Sample type: QC



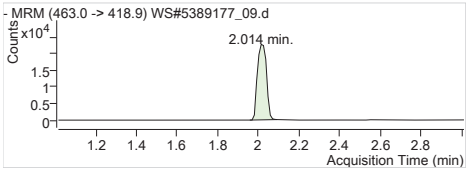


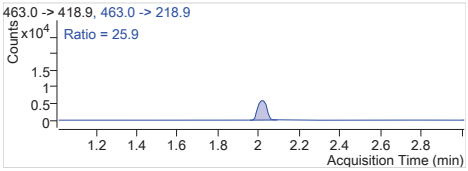
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 21.42 µg/L
Area ratio: 9.11529
Sample type: QC



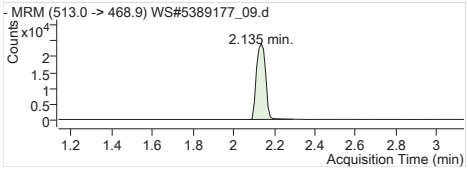


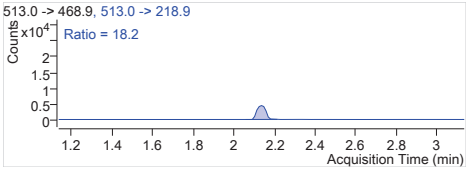
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 19.70 µg/L
Area ratio: 7.47323
Sample type: QC



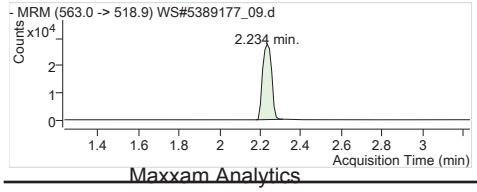


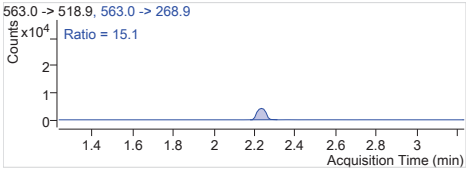
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 20.99 µg/L
Area ratio: 7.94441
Sample type: QC



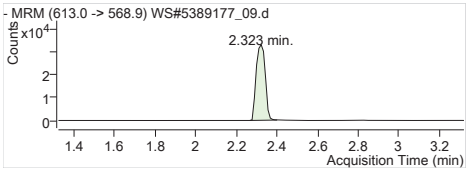


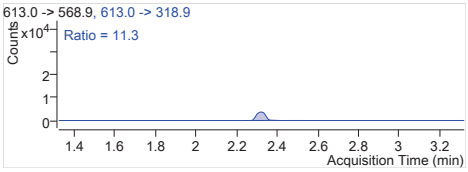
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 20.09 µg/L
Area ratio: 9.66928
Sample type: QC



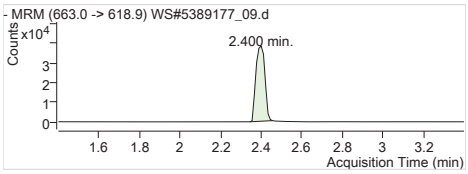


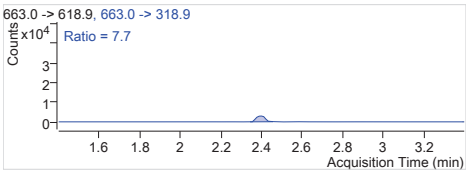
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 23.05 µg/L
Area ratio: 10.22346
Sample type: QC



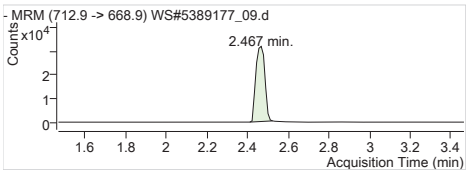


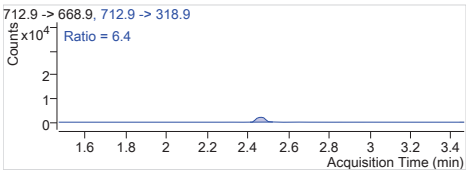
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 20.85 µg/L
Area ratio: 9.10772
Sample type: QC



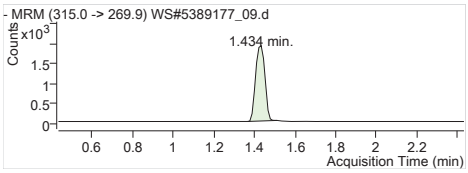


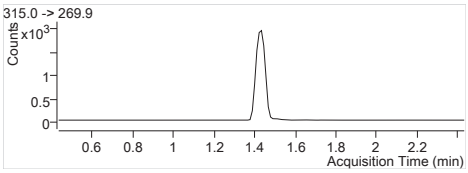
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 22.41 µg/L
Area ratio: 9.07569
Sample type: QC



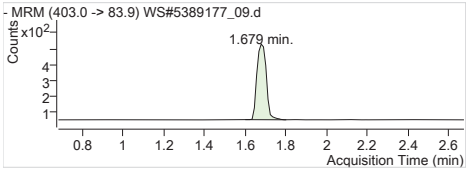


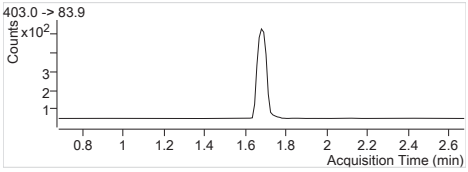
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 21.26 µg/L
Area ratio: 7.52307
Sample type: QC



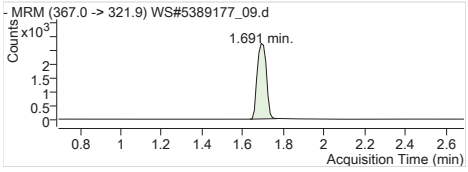


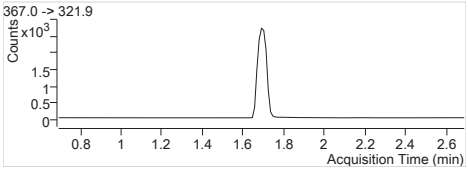
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 95.97 µg/L
Area ratio: 0.26907
Sample type: QC



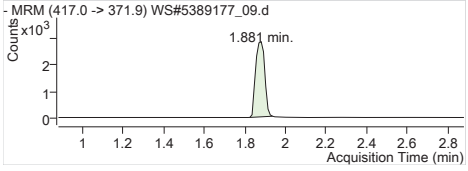


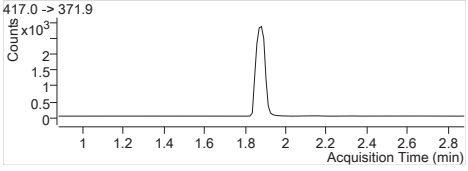
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 94.73 µg/L
Area ratio: 0.06842
Sample type: QC



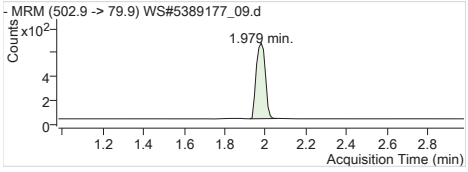


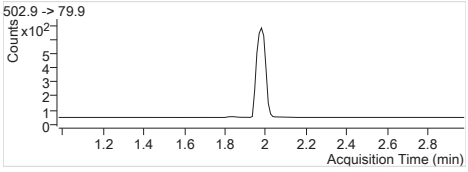
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 100.27 µg/L
Area ratio: 0.37391
Sample type: QC



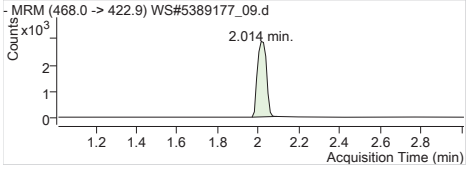


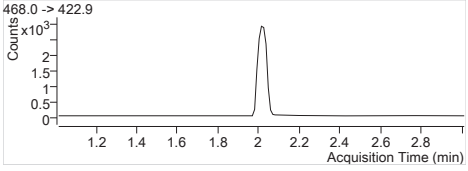
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 97.52 µg/L
Area ratio: 0.38912
Sample type: QC



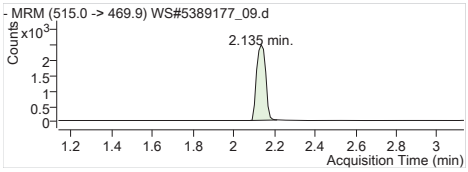


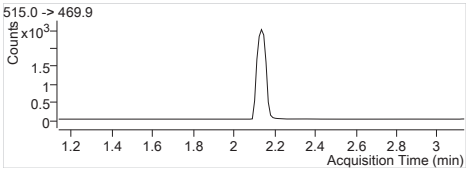
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 98.44 µg/L
Area ratio: 0.08719
Sample type: QC



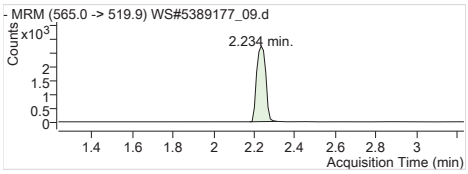


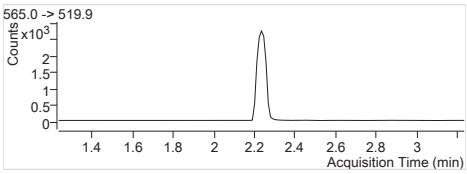
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 97.83 µg/L
Area ratio: 0.39352
Sample type: QC



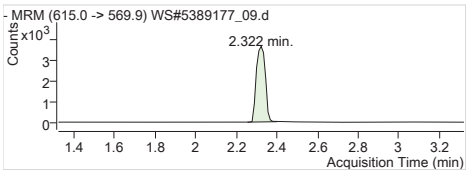


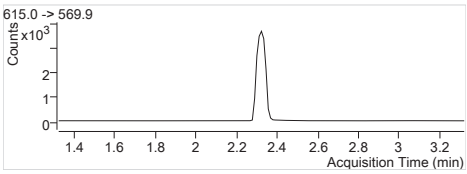
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 99.55 µg/L
Area ratio: 0.25074
Sample type: QC



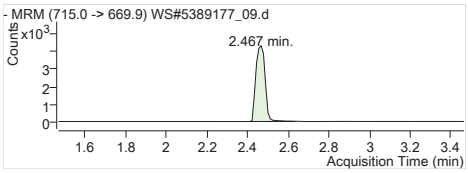


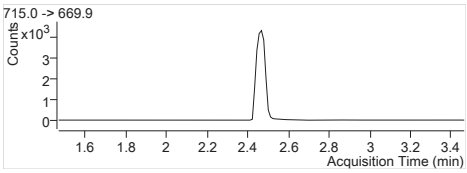
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 91.44 µg/L
Area ratio: 0.27469
Sample type: QC



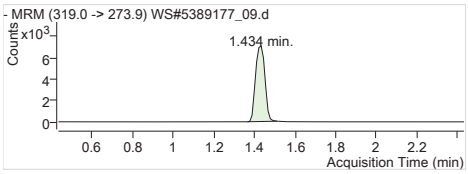


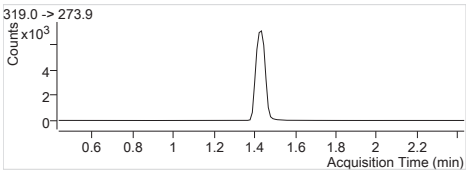
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 92.66 µg/L
Area ratio: 0.36721
Sample type: QC



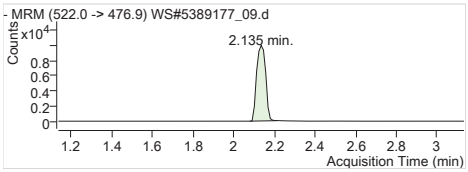


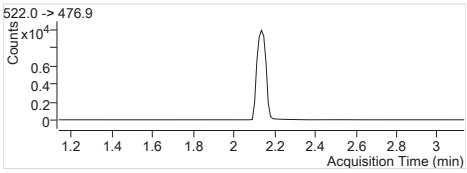
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 92.99 µg/L
Area ratio: 0.44104
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 105.06 µg/L
Area ratio: 0
Sample type: QC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 106.77 µg/L
Area ratio: 0
Sample type: QC

Quantitation Results

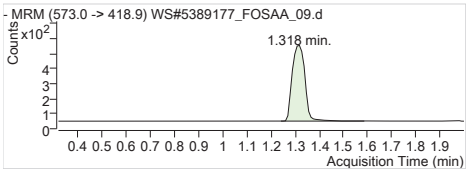
Agilent Technologies

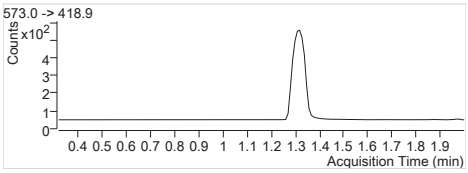
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A9
Acq. Date	2018/02/08 6:20:51 PM	**Injection Volume**	Per Method
Sample Annotation	-		

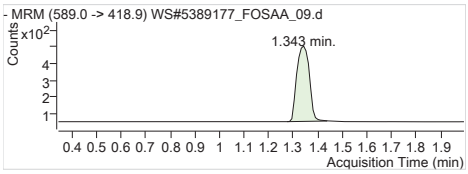
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1851	1.32	1 µg/L		
D5-EtFOSAA IS	1611	1.34	1 µg/L		
13C9-PFDA IS	21894	0.91	1 µg/L		

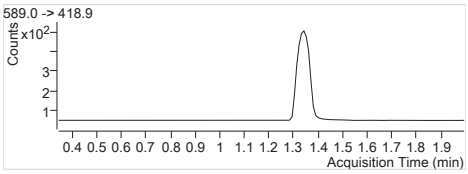
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13924	1.31	20.80	20.64 µg/L	99.22
EtFOSAA 1	15250	1.34	20.80	22.43 µg/L	107.82
D3-MeFOSAA	1829	1.32	100.00	100.28 µg/L	100.28
D5-EtFOSAA	1645	1.34	100.00	99.01 µg/L	99.01
13C9-PFDA	21067	0.91	100.00	97.29 µg/L	97.29



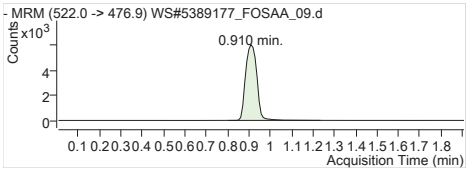


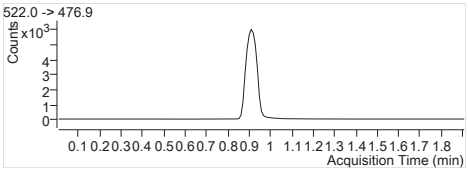
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: QC



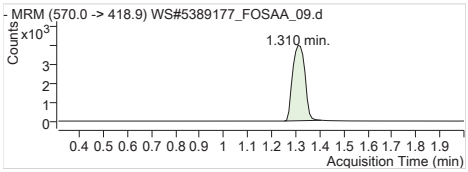


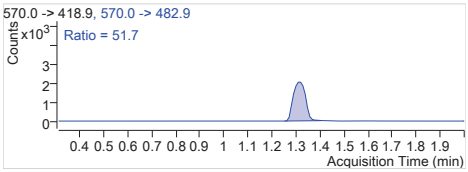
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: QC



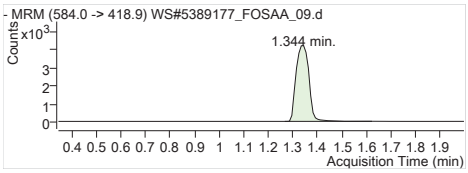


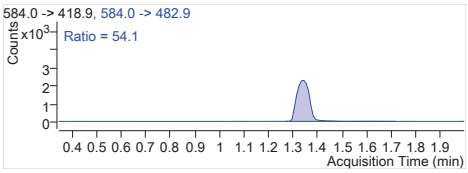
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: QC



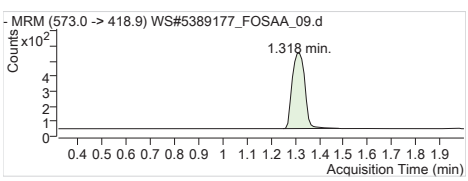


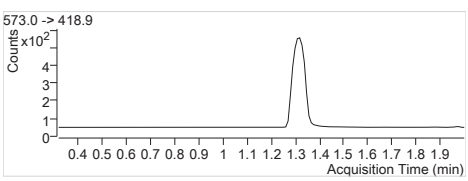
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 20.64 µg/L
Area ratio: 7.52242
Sample type: QC



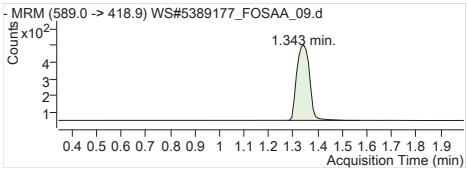


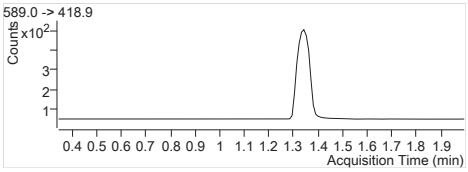
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 22.43 µg/L
Area ratio: 9.46617
Sample type: QC



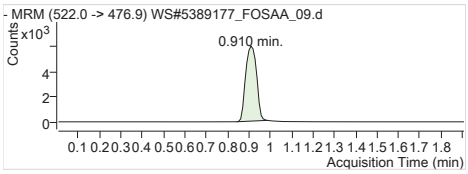


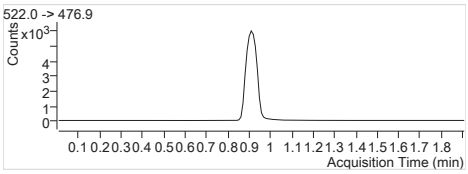
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 100.28 µg/L
Area ratio: 0.08354
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	99.01 µg/L
Area ratio:	0.07513
Sample type:	QC





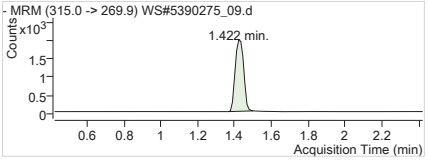
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	97.29 µg/L
Area ratio:	0
Sample type:	QC

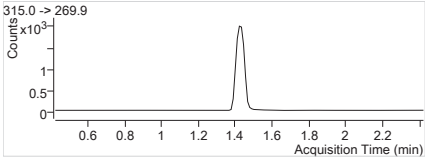
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5390275_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A9
Acq. Date	2018/02/09 5:13:42 PM	**Injection Volume**	Per Method
Sample Annotation	-		

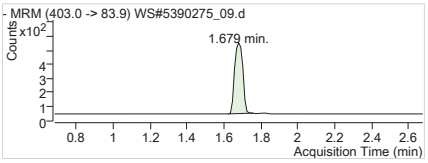
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6289	1.42	1 µg/L		
MPFHxS	1551	1.68	1 µg/L		
MPFHpA	7459	1.69	1 µg/L		
MPFOA	8591	1.87	1 µg/L		
MPFOS	1762	1.98	1 µg/L		
MPFNA	7638	2.01	1 µg/L		
MPFDA	6759	2.14	1 µg/L		
MPFUnA	8592	2.23	1 µg/L		
MPFDoA	10573	2.32	1 µg/L		
MPFTeDA	12551	2.47	1 µg/L		
13C6-PFHxA IS	24288	1.42	1 µg/L		
13C9-PFDA IS	32215	2.13	1 µg/L		

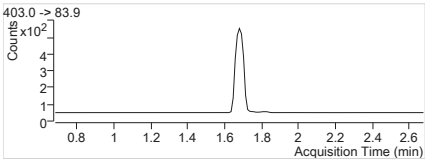
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	14160	1.09	20.80	20.32 µg/L	97.67
PFHxA 1	50267	1.42	20.80	19.76 µg/L	95.02
PFHxS 1	13585	1.68	20.80	19.63 µg/L	94.40
PFHpA 1	63512	1.69	20.80	21.08 µg/L	101.36
PFOA 1	72717	1.87	20.80	20.51 µg/L	98.60
PFOS 1	12891	1.97	20.80	20.68 µg/L	99.43
PFNA 1	61697	2.01	20.80	21.68 µg/L	104.25
PFDA 1	69266	2.14	20.80	20.29 µg/L	97.52
PFUnA 1	78627	2.23	20.80	21.55 µg/L	103.62
PFDoA 1	95987	2.32	20.80	21.76 µg/L	104.63
PFTrDA 1	105334	2.40	20.80	20.24 µg/L	97.31
PFTeDA 1	94279	2.47	20.80	21.81 µg/L	104.87
13C2-PFHxA	6289	1.42	100.00	103.75 µg/L	103.75
18O2-PFHxS	1551	1.68	100.00	102.14 µg/L	102.14
13C4-PFHpA	7459	1.69	100.00	94.41 µg/L	94.41
13C4-PFOA	8591	1.87	100.00	102.52 µg/L	102.52
13C4-PFOS	1762	1.98	100.00	92.48 µg/L	92.48
13C5-PFNA	7638	2.01	100.00	92.22 µg/L	92.22
13C2-PFDA	6613	2.14	100.00	98.52 µg/L	98.52
13C2-PFUnA	8592	2.23	100.00	101.21 µg/L	101.21
13C2-PFDoA	10573	2.32	100.00	96.28 µg/L	96.28
13C2-PFTeDA	12855	2.47	100.00	100.90 µg/L	100.90
13C6-PFHxA	24288	1.42	100.00	103.72 µg/L	103.72
13C9-PFDA	32215	2.13	100.00	104.09 µg/L	104.09



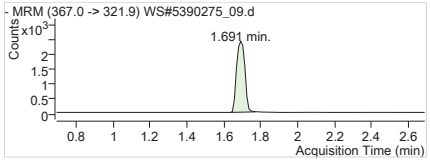


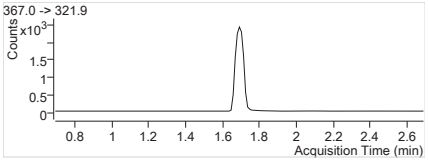
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: QC



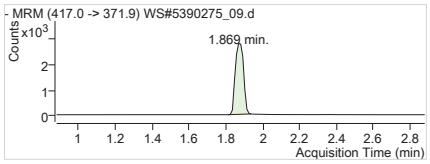


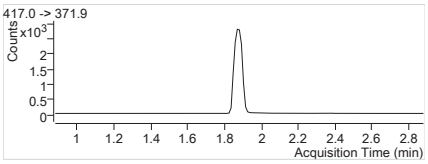
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



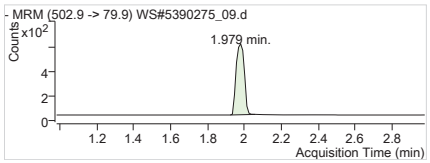


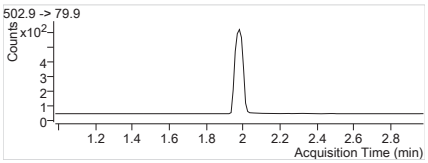
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: QC



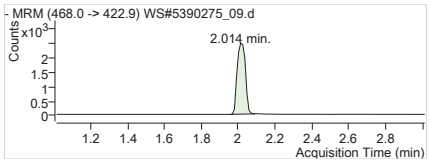


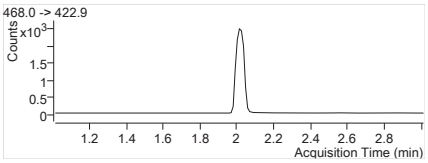
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: QC



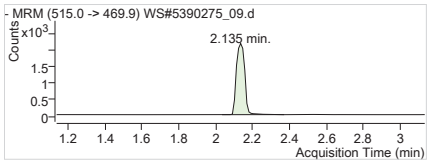


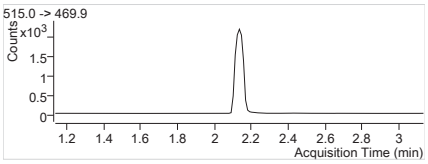
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



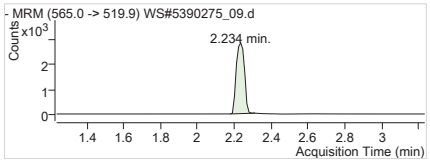


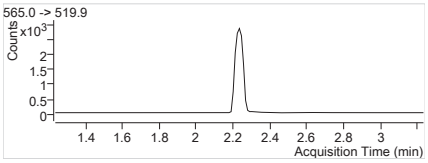
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: QC



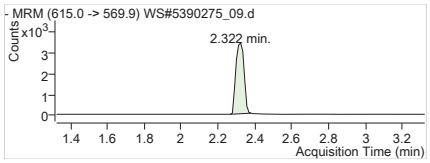


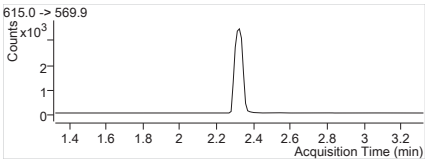
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



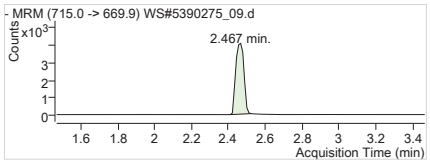


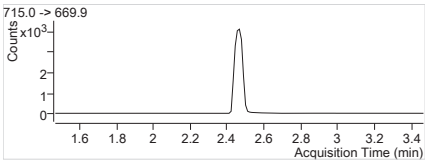
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: QC



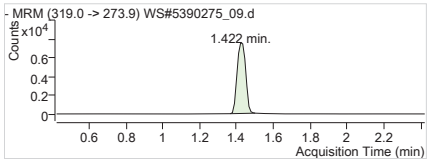


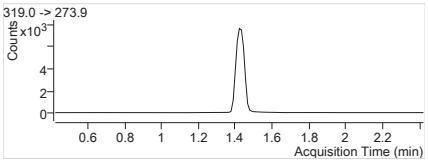
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



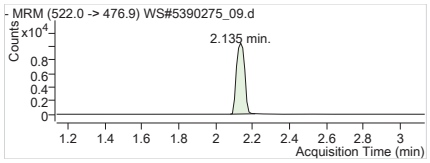


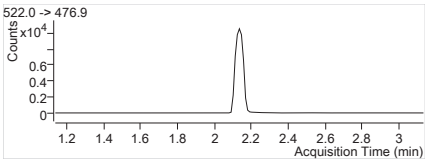
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



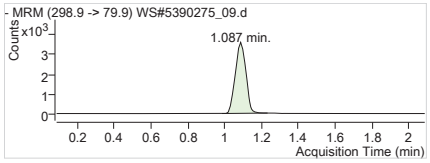


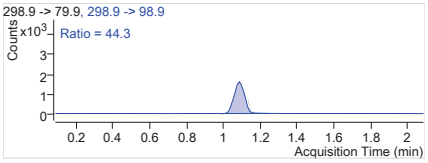
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: QC



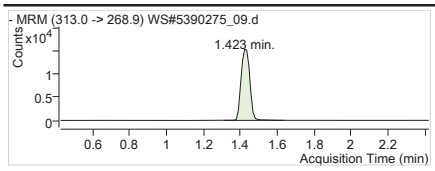


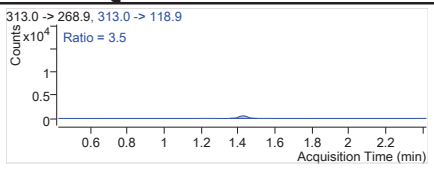
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



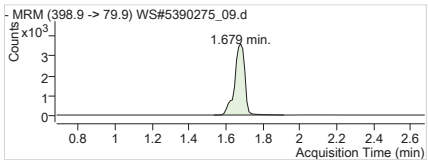


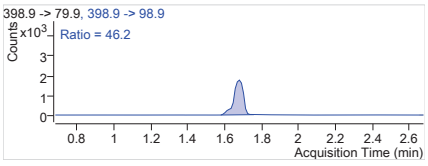
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 20.32 µg/L
Area ratio: 9.12959
Sample type: QC



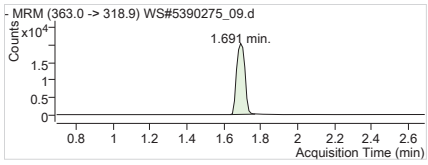


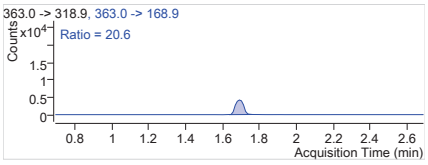
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 19.76 µg/L
Area ratio: 7.99284
Sample type: QC



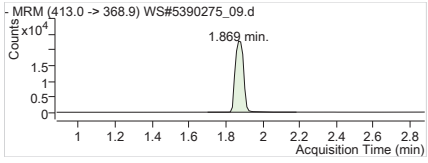


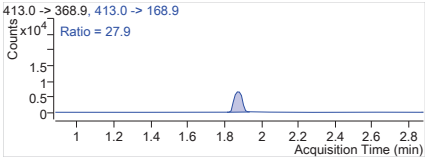
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 19.63 µg/L
Area ratio: 8.75887
Sample type: QC



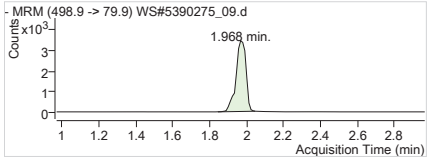


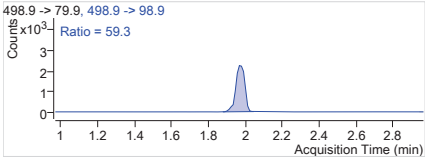
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 21.08 µg/L
Area ratio: 8.51481
Sample type: QC



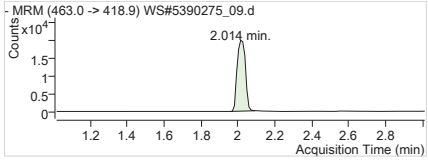


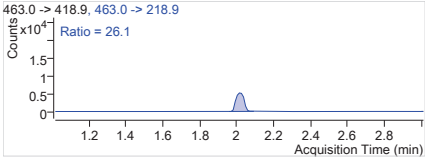
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 20.51 µg/L
Area ratio: 8.46432
Sample type: QC



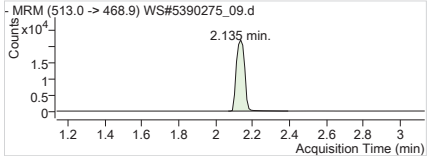


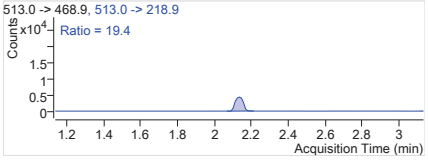
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 20.68 µg/L
Area ratio: 7.31612
Sample type: QC



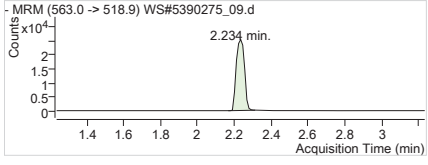


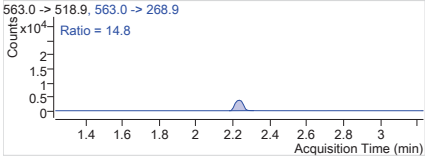
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 21.68 µg/L
Area ratio: 8.07764
Sample type: QC



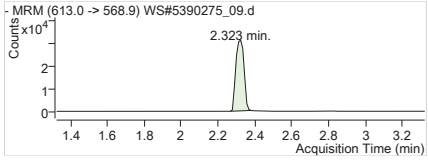


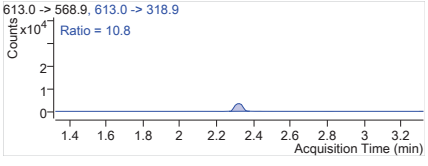
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 20.29 µg/L
Area ratio: 10.24797
Sample type: QC



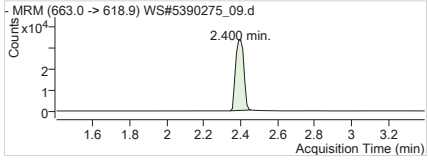


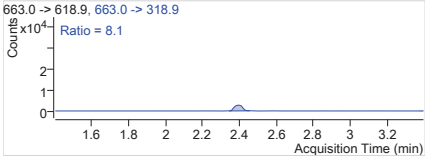
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 21.55 µg/L
Area ratio: 9.15119
Sample type: QC



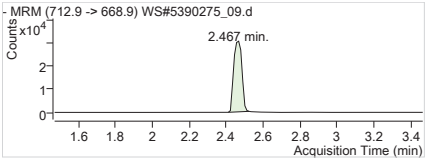


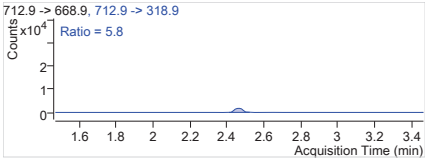
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 21.76 µg/L
Area ratio: 9.07850
Sample type: QC



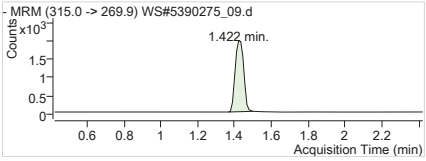


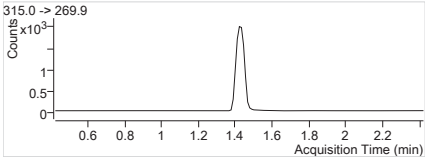
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 20.24 µg/L
Area ratio: 8.39248
Sample type: QC



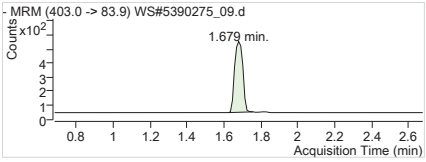


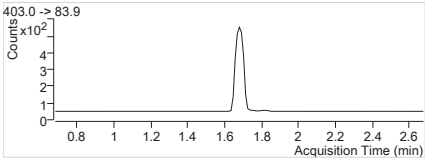
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 21.81 µg/L
Area ratio: 7.51167
Sample type: QC



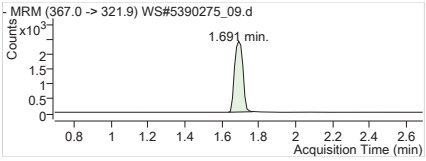


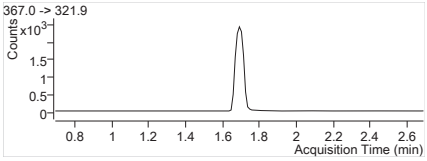
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 103.75 µg/L
Area ratio: 0.25893
Sample type: QC



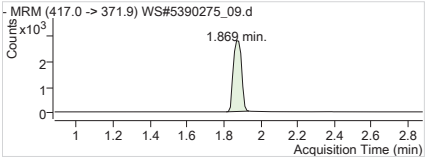


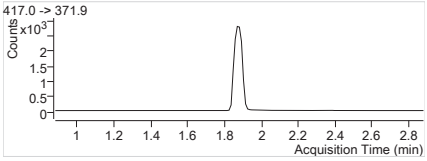
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 102.14 µg/L
Area ratio: 0.06386
Sample type: QC



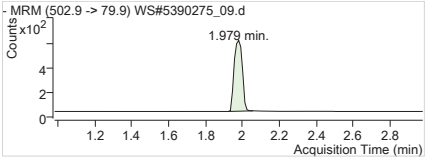


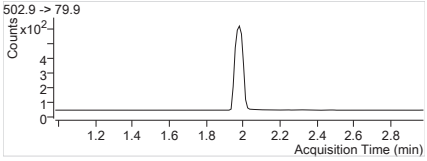
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 94.41 µg/L
Area ratio: 0.30711
Sample type: QC



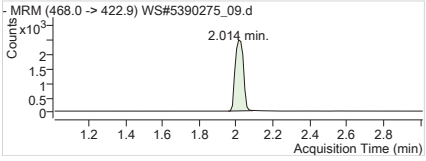


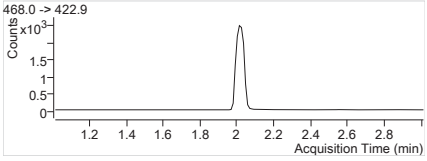
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 102.52 µg/L
Area ratio: 0.35371
Sample type: QC



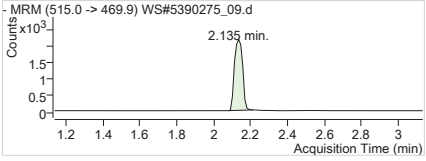


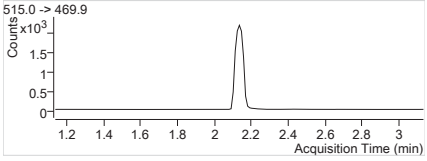
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 92.48 µg/L
Area ratio: 0.07255
Sample type: QC



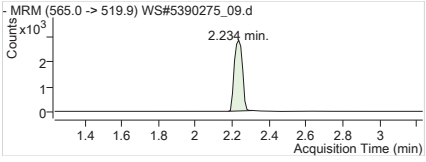


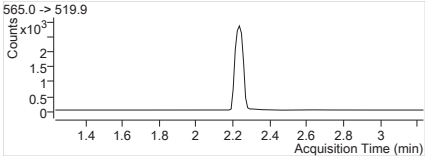
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 92.22 µg/L
Area ratio: 0.31448
Sample type: QC



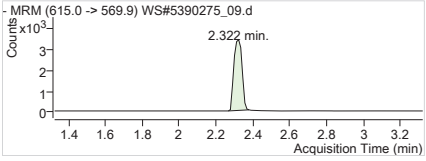


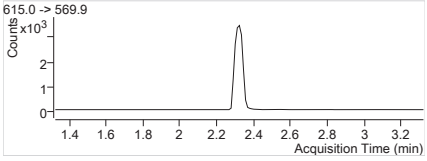
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 98.52 µg/L
Area ratio: 0.20528
Sample type: QC



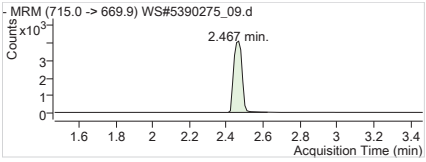


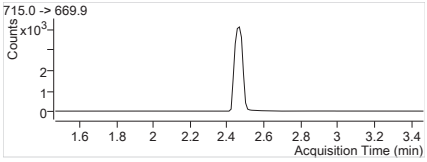
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 101.21 µg/L
Area ratio: 0.26671
Sample type: QC



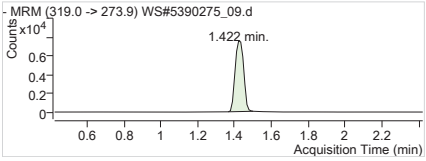


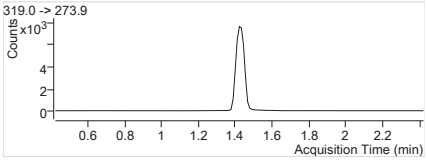
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 96.28 µg/L
Area ratio: 0.32820
Sample type: QC



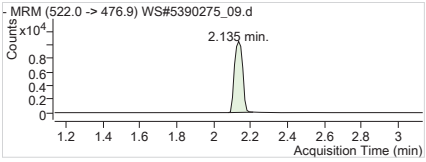


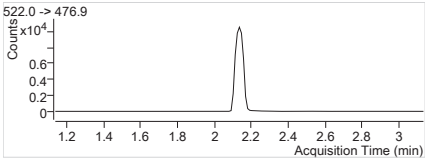
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	100.90 µg/L
Area ratio:	0.39904
Sample type:	QC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	103.72 µg/L
Area ratio:	0
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	104.09 µg/L
Area ratio:	0
Sample type:	QC

Quantitation Results

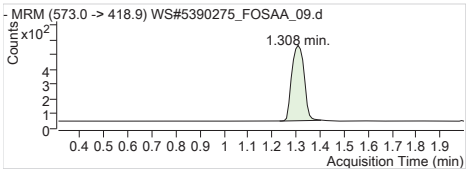
Agilent Technologies

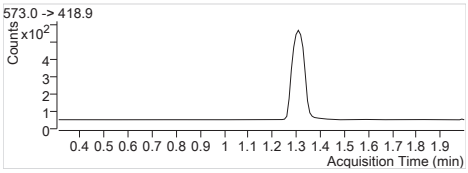
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A9
Acq. Date	2018/02/10 12:47:12 AM	**Injection Volume**	Per Method
Sample Annotation	-		

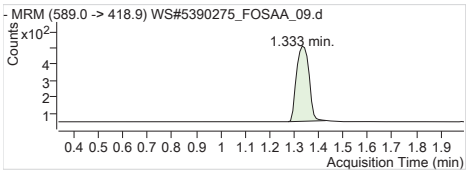
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1834	1.31	1 µg/L		
D5-EtFOSAA IS	1640	1.33	1 µg/L		
13C9-PFDA IS	24598	0.90	1 µg/L		

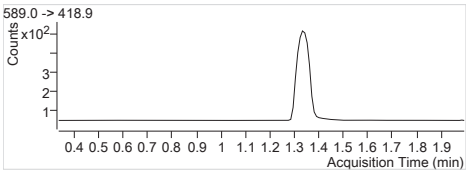
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13389	1.31	20.80	21.04 µg/L	101.13
EtFOSAA 1	14748	1.33	20.80	21.73 µg/L	104.46
D3-MeFOSAA	1871	1.31	100.00	103.72 µg/L	103.72
D5-EtFOSAA	1684	1.33	100.00	104.99 µg/L	104.99
13C9-PFDA	23828	0.90	100.00	100.49 µg/L	100.49



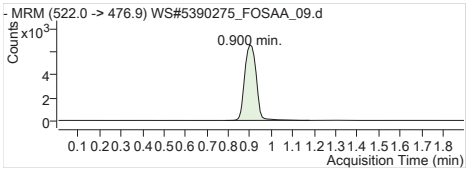


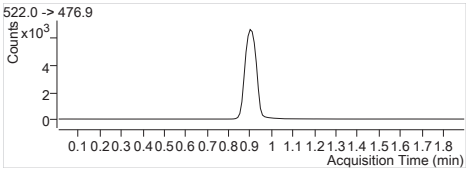
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: QC



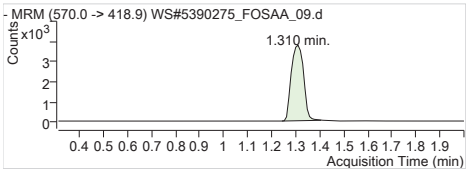


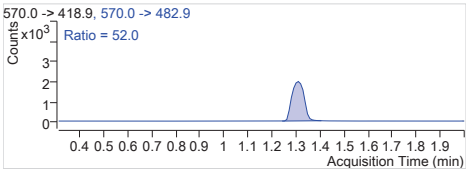
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: QC



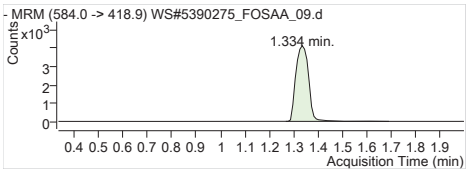


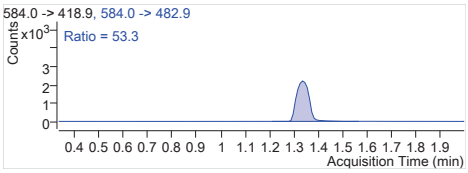
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: QC



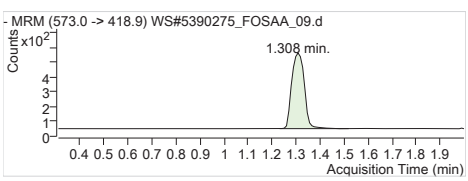


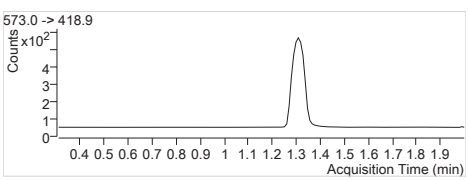
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 21.04 µg/L
Area ratio: 7.30044
Sample type: QC



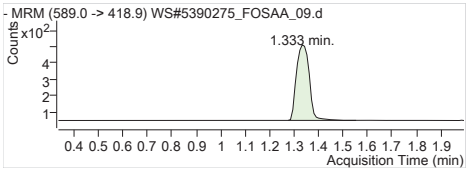


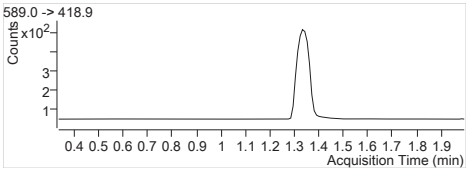
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 21.73 µg/L
Area ratio: 8.99268
Sample type: QC



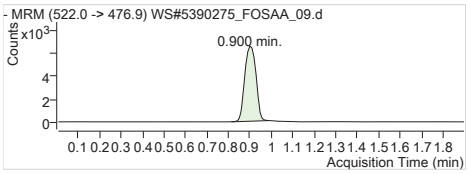


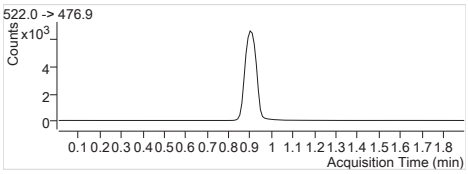
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 103.72 µg/L
Area ratio: 0.07606
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	104.99 µg/L
Area ratio:	0.06846
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	100.49 µg/L
Area ratio:	0
Sample type:	QC

Quantitation Results

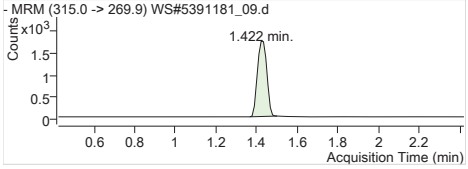
Agilent Technologies

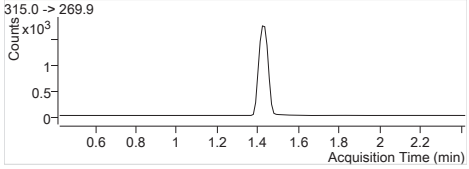
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5391181_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C8
Acq. Date	2018/02/09 1:06:46 PM	**Injection Volume**	Per Method
Sample Annotation	-		

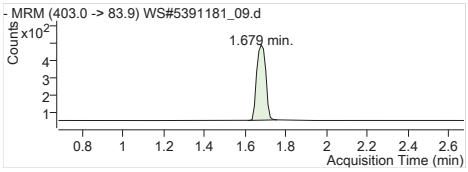
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5539	1.42	1 µg/L		
MPFHxS	1374	1.68	1 µg/L		
MPFHpA	6979	1.69	1 µg/L		
MPFOA	7456	1.87	1 µg/L		
MPFOS	1419	1.98	1 µg/L		
MPFNA	7100	2.01	1 µg/L		
MPFDA	6008	2.14	1 µg/L		
MPFUnA	7301	2.23	1 µg/L		
MPFDoA	9779	2.32	1 µg/L		
MPFTeDA	11020	2.47	1 µg/L		
13C6-PFHxA IS	21926	1.42	1 µg/L		
13C9-PFDA IS	28789	2.13	1 µg/L		

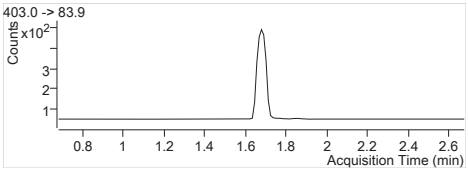
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	13741	1.09	20.80	20.70 µg/L	99.52
PFHxA 1	49050	1.43	20.80	19.71 µg/L	94.75
PFHxS 1	13403	1.68	20.80	20.96 µg/L	100.77
PFHpA 1	64383	1.69	20.80	21.24 µg/L	102.10
PFOA 1	70172	1.87	20.80	21.53 µg/L	103.51
PFOS 1	13419	1.97	20.80	23.97 µg/L	115.26
PFNA 1	63942	2.01	20.80	22.52 µg/L	108.26
PFDA 1	68142	2.14	20.80	21.18 µg/L	101.82
PFUnA 1	79657	2.23	20.80	22.31 µg/L	107.28
PFDoA 1	94883	2.32	20.80	21.18 µg/L	101.81
PFTrDA 1	105300	2.40	20.80	21.73 µg/L	104.48
PFTeDA 1	88959	2.47	20.80	21.62 µg/L	103.94
13C2-PFHxA	5539	1.42	100.00	97.01 µg/L	97.01
18O2-PFHxS	1374	1.68	100.00	96.39 µg/L	96.39
13C4-PFHpA	6979	1.69	100.00	95.71 µg/L	95.71
13C4-PFOA	7456	1.87	100.00	97.05 µg/L	97.05
13C4-PFOS	1419	1.98	100.00	83.01 µg/L	83.01
13C5-PFNA	7101	2.01	100.00	91.53 µg/L	91.53
13C2-PFDA	5925	2.14	100.00	94.66 µg/L	94.66
13C2-PFUnA	7301	2.23	100.00	97.06 µg/L	97.06
13C2-PFDoA	9779	2.32	100.00	94.97 µg/L	94.97
13C2-PFTeDA	11357	2.47	100.00	93.66 µg/L	93.66
13C6-PFHxA	21926	1.42	100.00	102.14 µg/L	102.14
13C9-PFDA	28789	2.13	100.00	102.41 µg/L	102.41



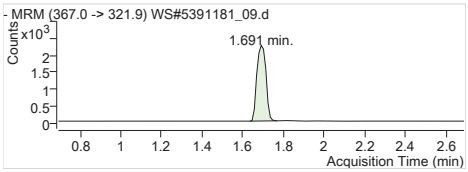


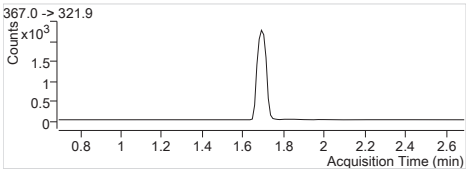
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	QC



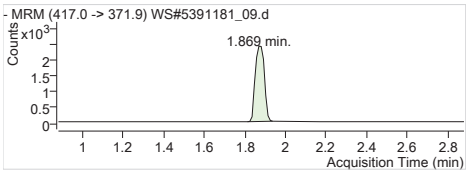


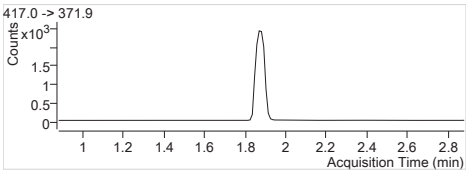
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC



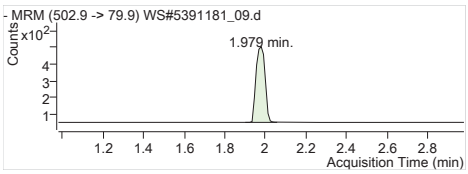


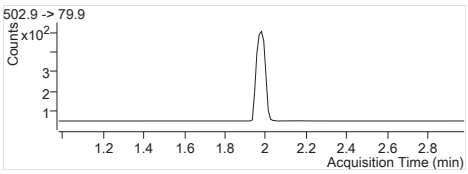
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: QC



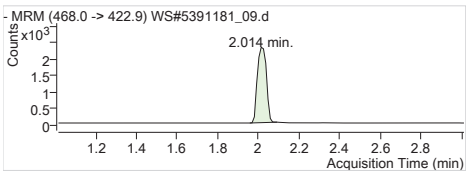


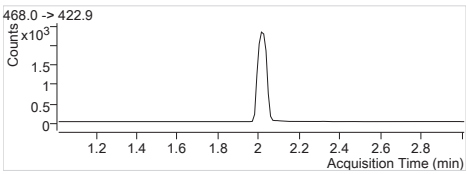
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: QC



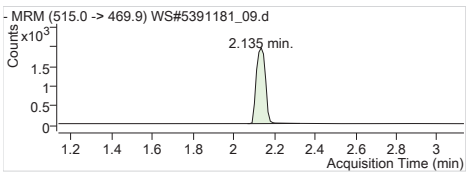


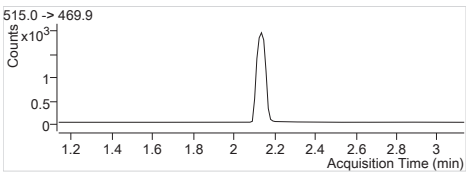
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: QC



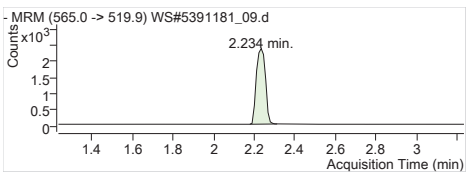


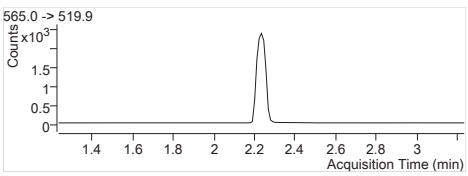
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: QC



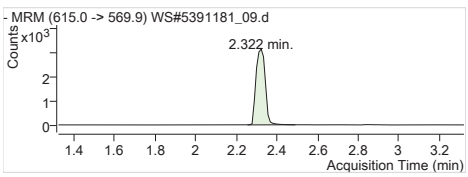


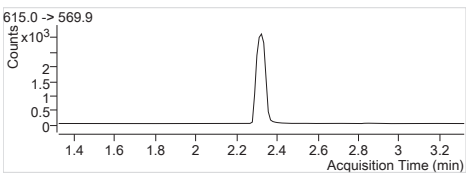
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



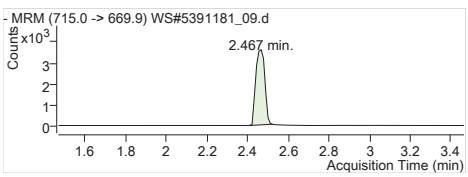


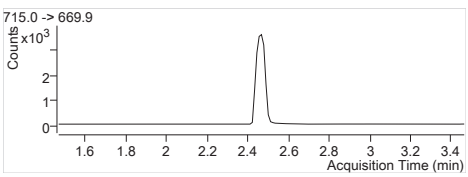
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: QC



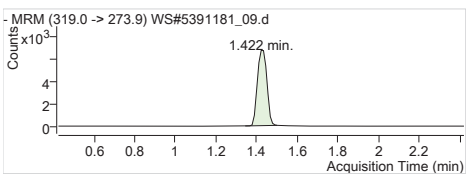


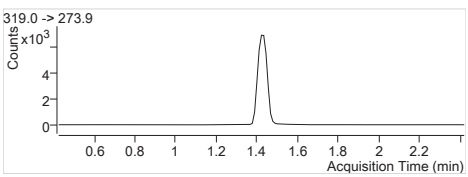
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: QC



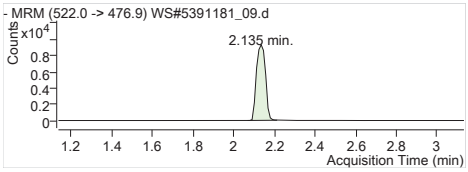


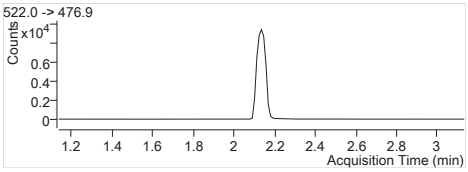
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: QC



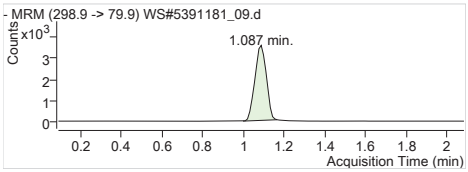


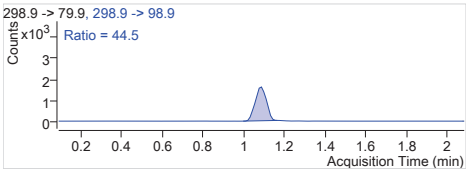
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: QC



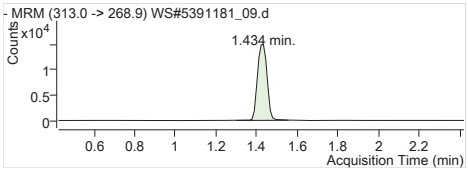


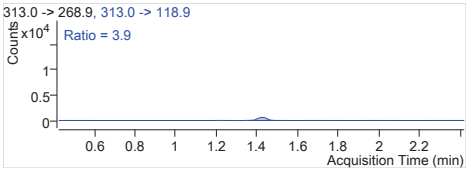
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: QC



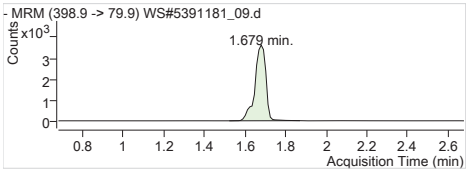


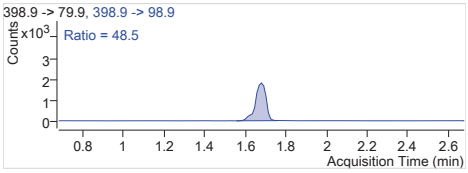
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 20.70 µg/L
Area ratio: 10.00073
Sample type: QC



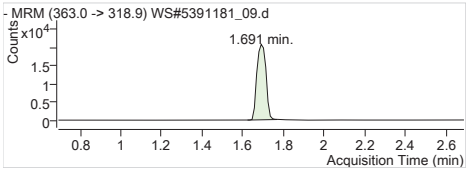


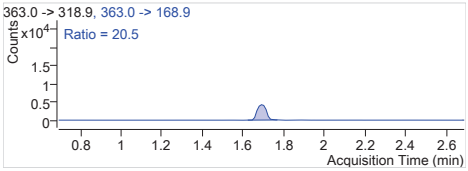
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.423)
Calc. conc. 19.71 µg/L
Area ratio: 8.85539
Sample type: QC



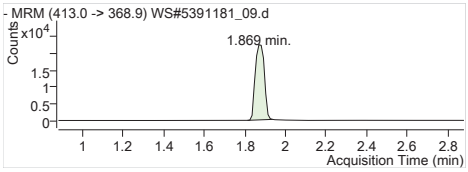


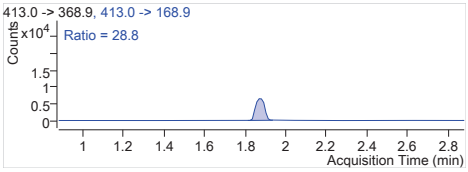
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 20.96 µg/L
Area ratio: 9.75473
Sample type: QC



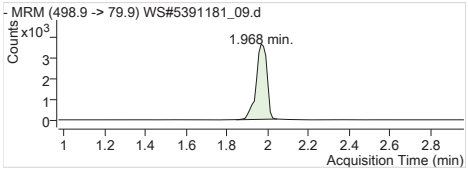


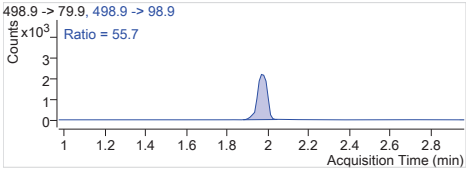
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 21.24 µg/L
Area ratio: 9.22525
Sample type: QC



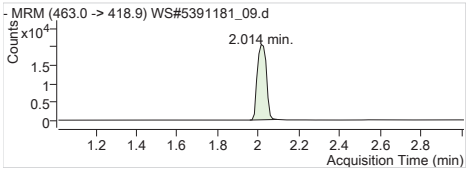


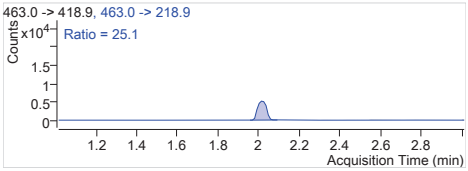
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 21.53 µg/L
Area ratio: 9.41148
Sample type: QC



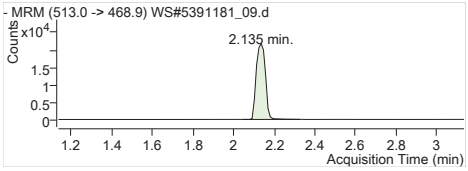


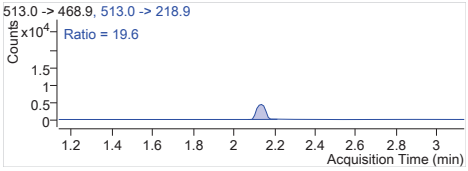
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 23.97 µg/L
Area ratio: 9.45666
Sample type: QC



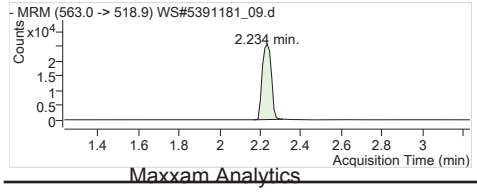


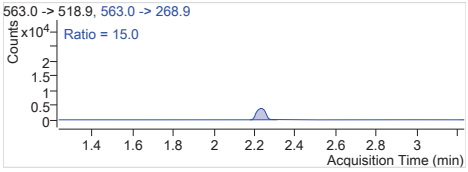
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 22.52 µg/L
Area ratio: 9.00592
Sample type: QC



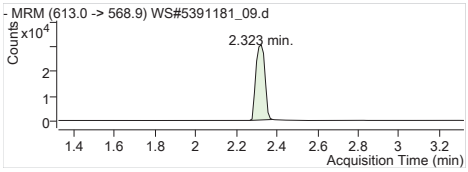


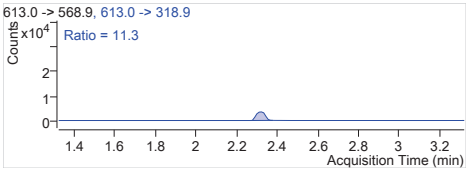
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 21.18 µg/L
Area ratio: 11.34188
Sample type: QC



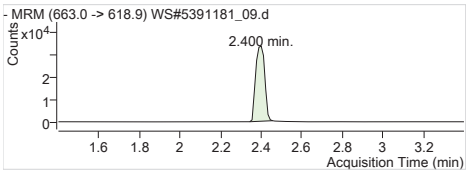


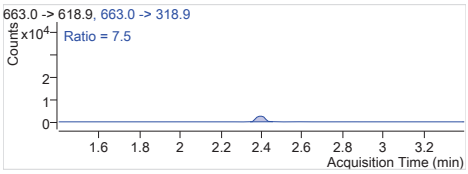
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 22.31 µg/L
Area ratio: 10.91042
Sample type: QC



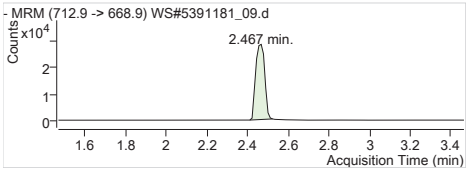


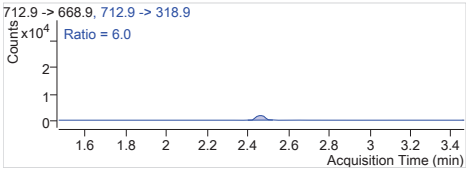
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 21.18 µg/L
Area ratio: 9.70273
Sample type: QC



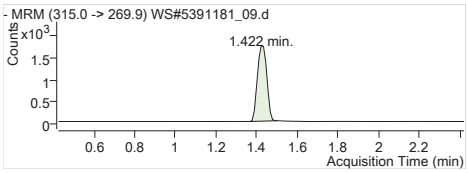


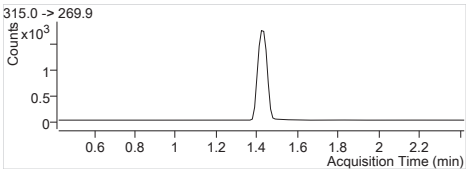
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 21.73 µg/L
Area ratio: 9.55535
Sample type: QC



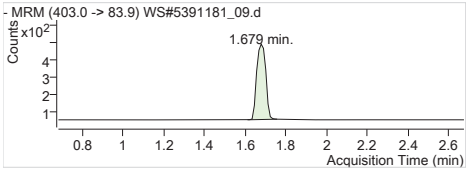


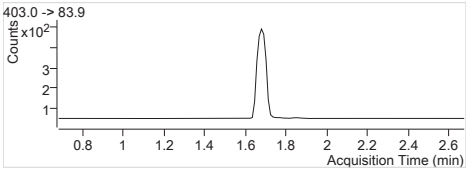
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 21.62 µg/L
Area ratio: 8.07250
Sample type: QC



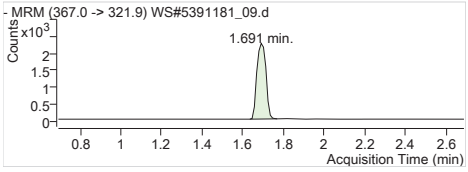


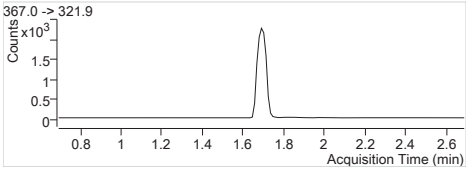
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 97.01 µg/L
Area ratio: 0.25262
Sample type: QC



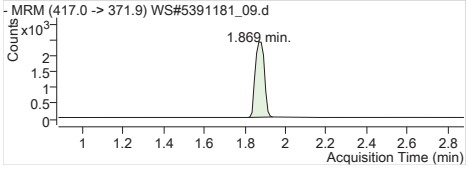


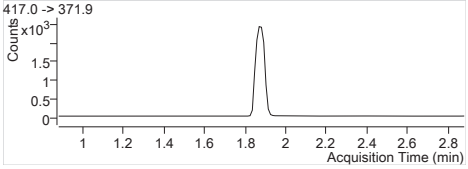
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 96.39 µg/L
Area ratio: 0.06267
Sample type: QC



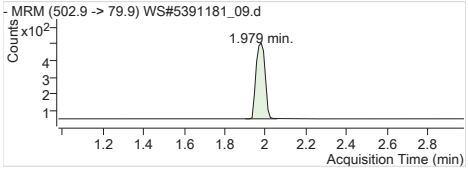


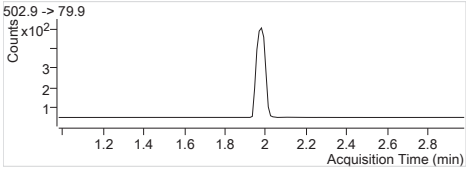
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 95.71 µg/L
Area ratio: 0.31830
Sample type: QC



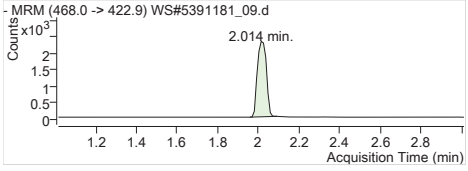


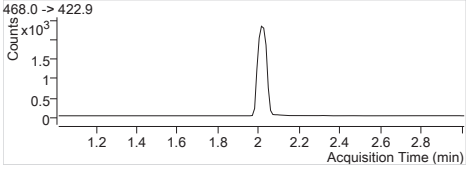
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 97.05 µg/L
Area ratio: 0.34005
Sample type: QC



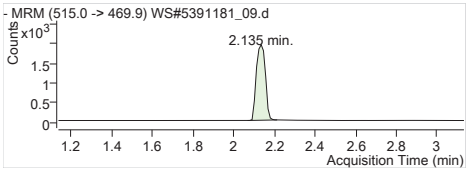


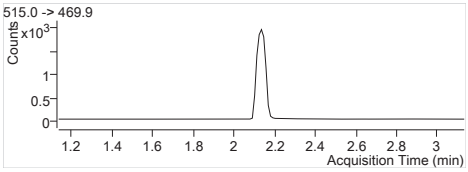
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 83.01 µg/L
Area ratio: 0.06472
Sample type: QC



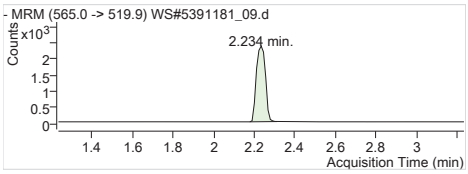


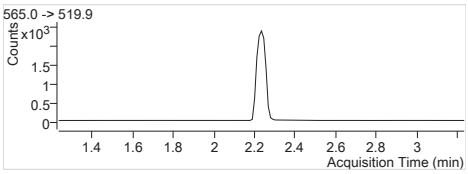
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 91.53 µg/L
Area ratio: 0.32386
Sample type: QC



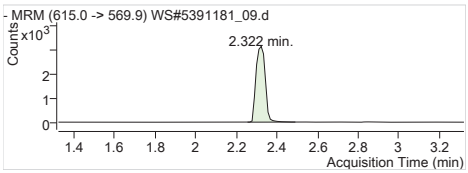


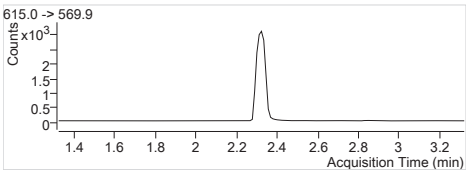
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 94.66 µg/L
Area ratio: 0.20581
Sample type: QC



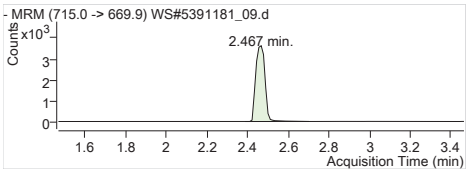


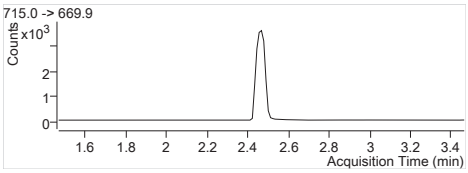
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 97.06 µg/L
Area ratio: 0.25360
Sample type: QC



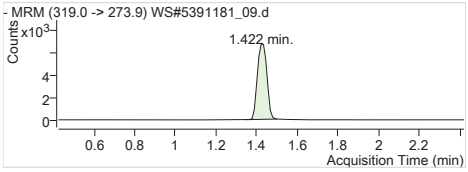


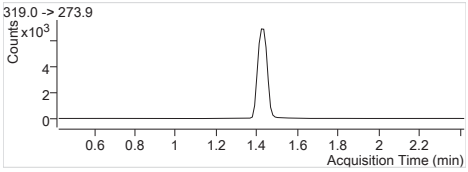
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 94.97 µg/L
Area ratio: 0.33968
Sample type: QC



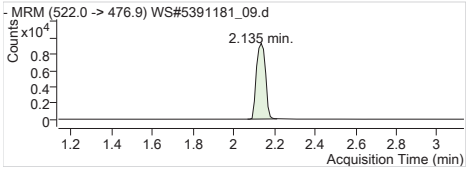


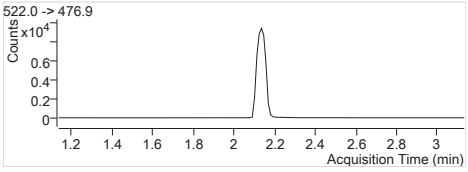
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 93.66 µg/L
Area ratio: 0.39449
Sample type: QC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 102.14 µg/L
Area ratio: 0
Sample type: QC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 102.41 µg/L
Area ratio: 0
Sample type: QC

Quantitation Results

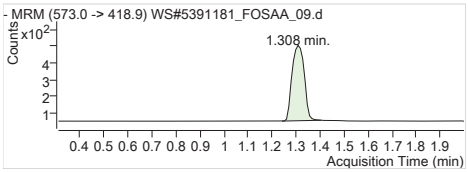
Agilent Technologies

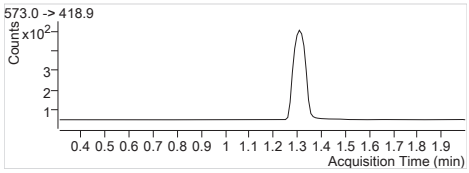
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C8
Acq. Date	2018/02/09 10:46:24 PM	**Injection Volume**	Per Method
Sample Annotation	-		

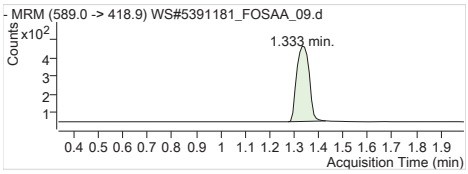
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1609	1.31	1 µg/L		
D5-EtFOSAA IS	1473	1.33	1 µg/L		
13C9-PFDA IS	23300	0.90	1 µg/L		

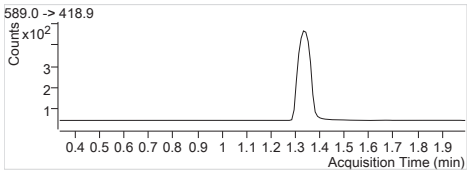
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13289	1.31	20.80	21.52 µg/L	103.47
EtFOSAA 1	14535	1.33	20.80	21.43 µg/L	103.02
D3-MeFOSAA	1614	1.31	100.00	93.76 µg/L	93.76
D5-EtFOSAA	1510	1.33	100.00	97.64 µg/L	97.64
13C9-PFDA	22425	0.90	100.00	100.58 µg/L	100.58



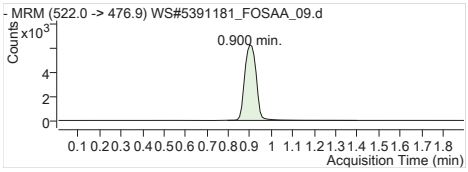


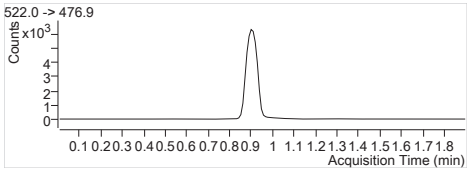
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: QC



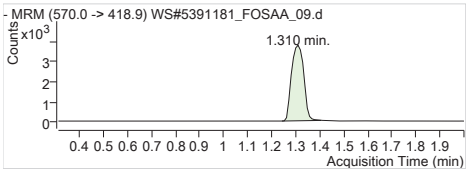


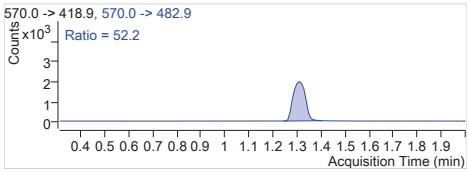
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: QC



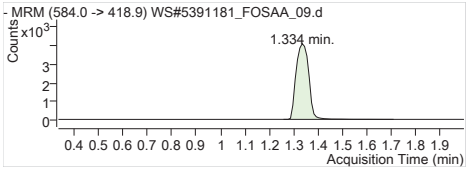


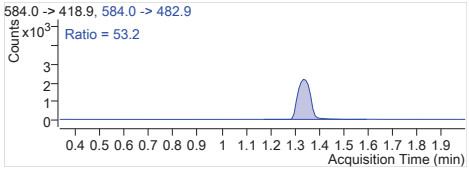
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: QC



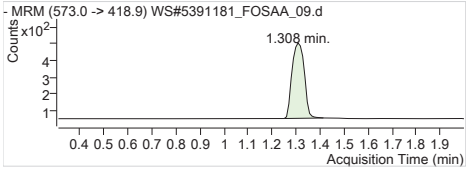


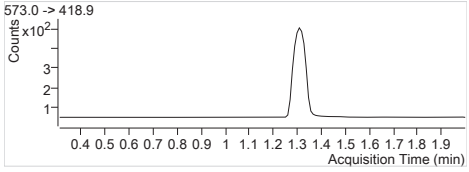
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 21.52 µg/L
Area ratio: 8.25917
Sample type: QC



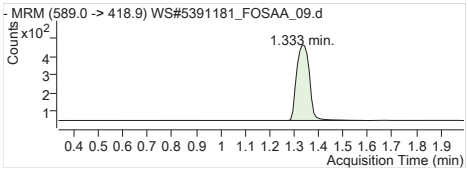


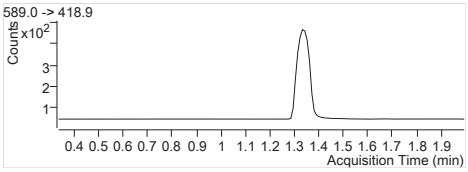
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 21.43 µg/L
Area ratio: 9.86762
Sample type: QC



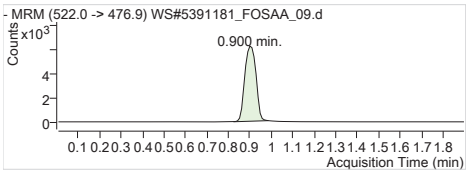


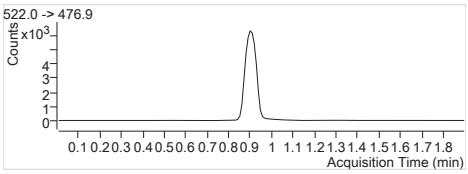
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 93.76 µg/L
Area ratio: 0.06927
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	97.64 µg/L
Area ratio:	0.06481
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	100.58 µg/L
Area ratio:	0
Sample type:	QC

Quantitation Results

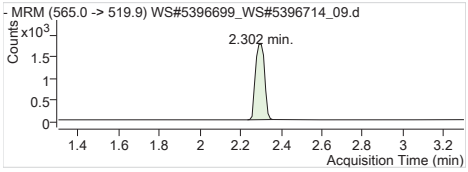
Agilent Technologies

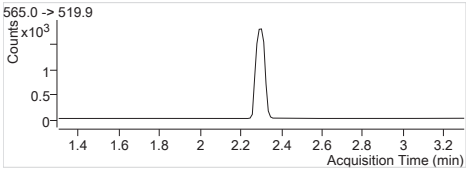
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A9
Acq. Date	2018/02/15 4:50:23 PM	**Injection Volume**	Per Method
Sample Annotation	-		

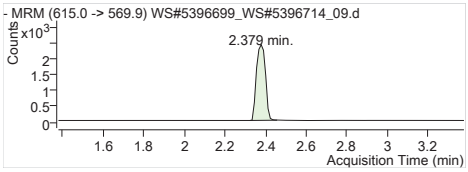
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5474	2.30	1 µg/L		
MPFDoA	7422	2.38	1 µg/L		
MPFTeDA	6580	2.51	1 µg/L		
13C9-PFDA IS	25421	2.20	1 µg/L		

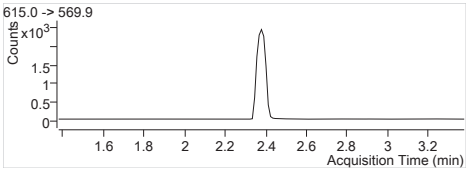
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	66871	2.29	20.80	20.47 µg/L	98.40
PFDoA 1	86416	2.38	20.80	20.26 µg/L	97.38
PFTrDA 1	88056	2.44	20.80	19.96 µg/L	95.97
PFTeDA 1	71404	2.51	20.80	20.36 µg/L	97.89
13C2-PFUnA	5474	2.30	100.00	91.59 µg/L	91.59
13C2-PFDoA	7422	2.38	100.00	95.40 µg/L	95.40
13C2-PFTeDA	6595	2.51	100.00	95.90 µg/L	95.90
13C9-PFDA	25421	2.20	100.00	104.41 µg/L	104.41



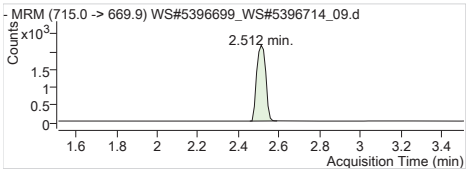


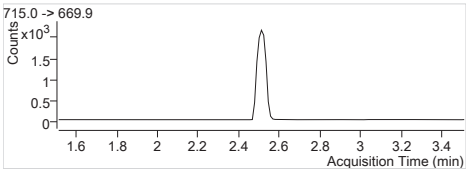
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: QC



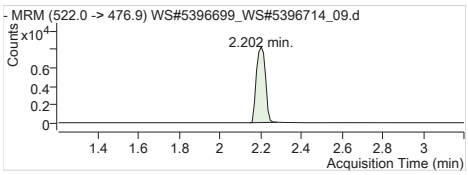


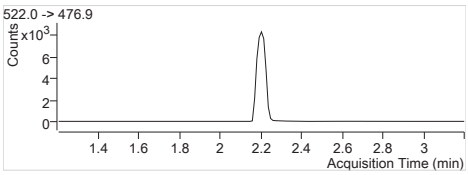
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: QC



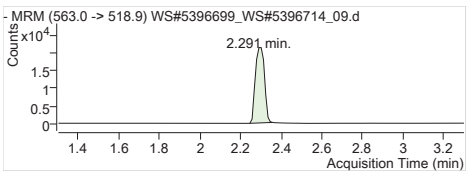


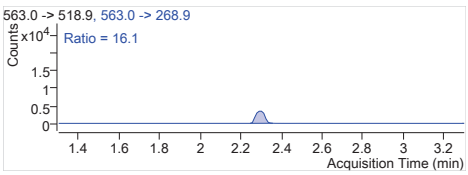
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: QC



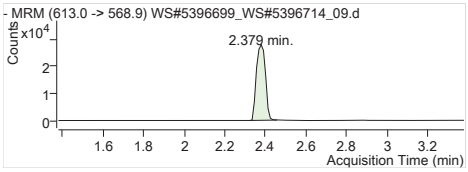


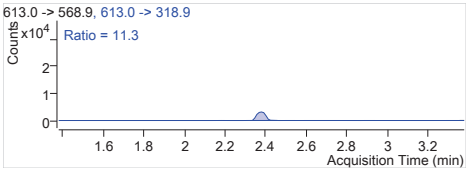
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: QC



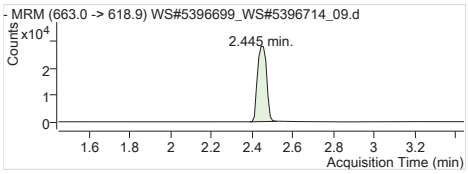


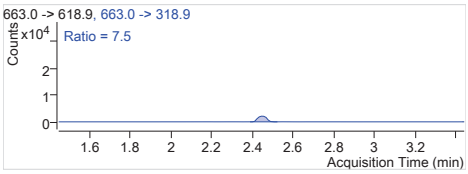
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 20.47 µg/L
Area ratio: 12.21611
Sample type: QC



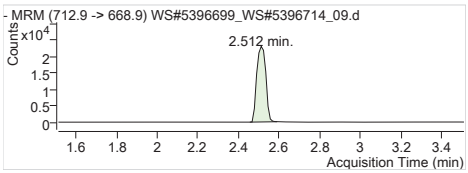


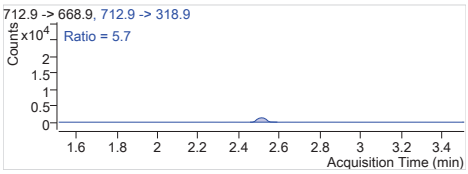
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 20.26 µg/L
Area ratio: 11.64322
Sample type: QC



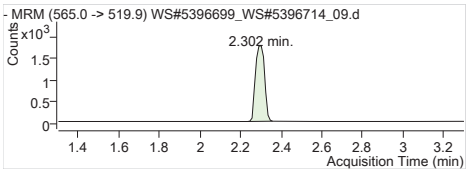


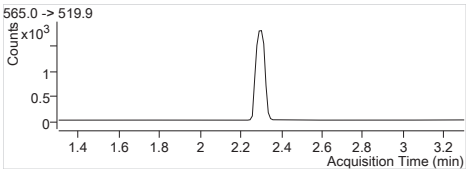
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.445 (2.445)
Calc. conc. 19.96 µg/L
Area ratio: 13.38237
Sample type: QC



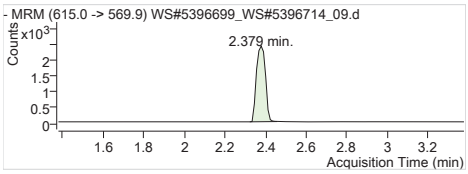


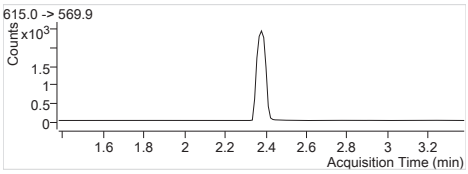
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 20.36 µg/L
Area ratio: 10.85167
Sample type: QC



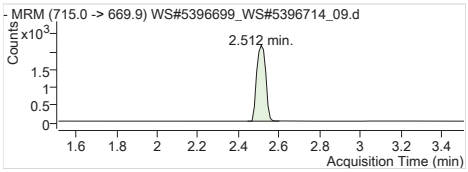


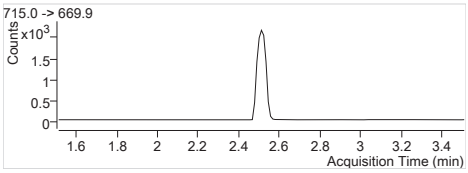
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 91.59 µg/L
Area ratio: 0.21533
Sample type: QC



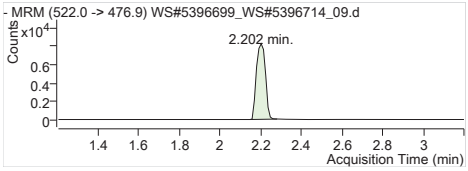


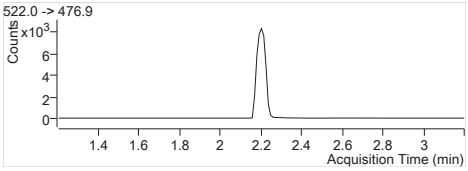
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 95.40 µg/L
Area ratio: 0.29196
Sample type: QC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 95.90 µg/L
Area ratio: 0.25943
Sample type: QC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 104.41 µg/L
Area ratio: 0
Sample type: QC

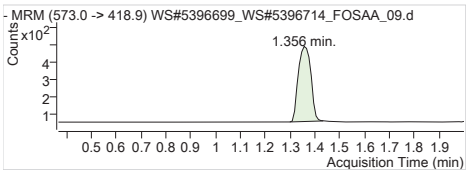
Quantitation Results

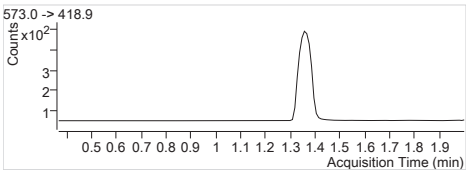
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	ICV	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A9
Acq. Date	2018/02/15 10:56:04 AM	**Injection Volume**	Per Method
Sample Annotation	-		

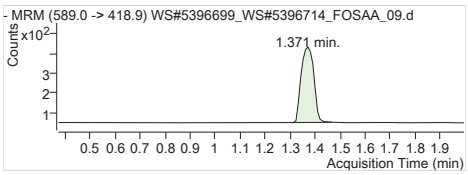
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1543	1.36	1 µg/L		
D5-EtFOSAA IS	1346	1.37	1 µg/L		
13C9-PFDA IS	28101	1.11	1 µg/L		

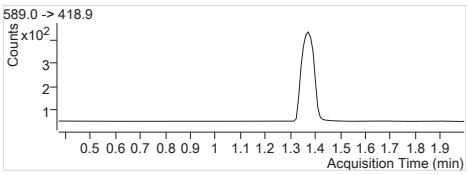
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	15484	1.36	20.80	20.01 µg/L	96.20
EtFOSAA 1	16102	1.37	20.80	20.34 µg/L	97.78
D3-MeFOSAA	1575	1.36	100.00	101.81 µg/L	101.81
D5-EtFOSAA	1357	1.37	100.00	100.73 µg/L	100.73
13C9-PFDA	27642	1.11	100.00	104.09 µg/L	104.09



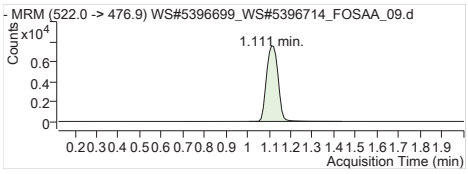


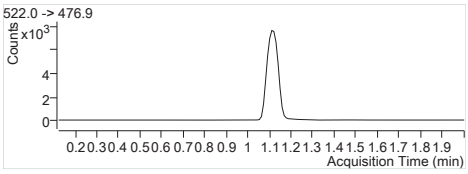
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: QC



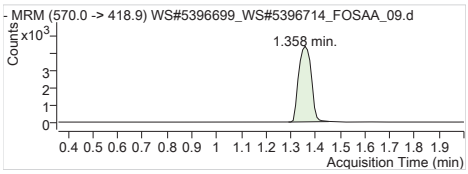


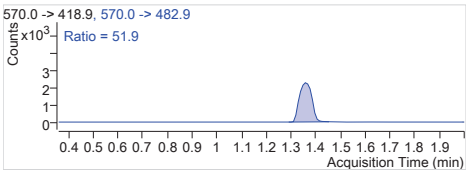
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: QC



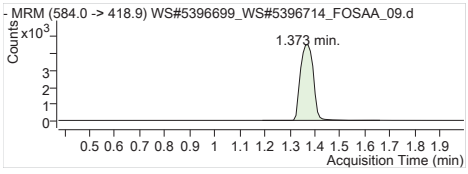


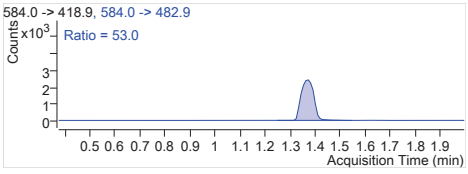
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.111 (1.121)
Concentration: 1 µg/L
Sample type: QC



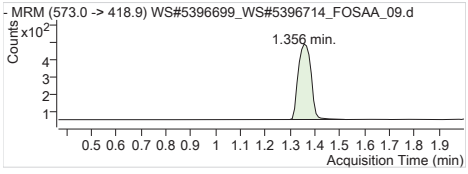


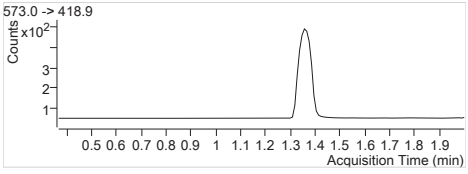
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 20.01 µg/L
Area ratio: 10.03500
Sample type: QC



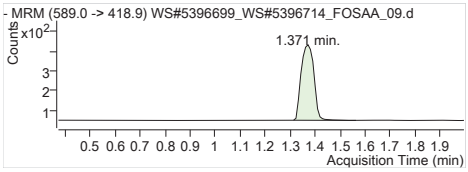


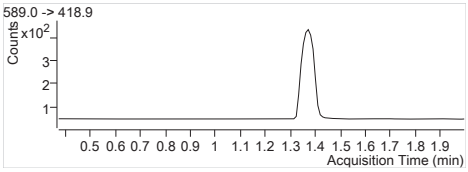
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 20.34 µg/L
Area ratio: 11.96285
Sample type: QC



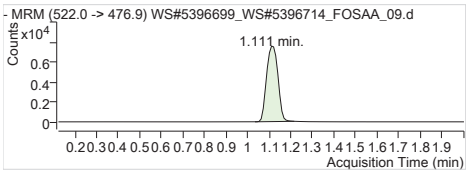


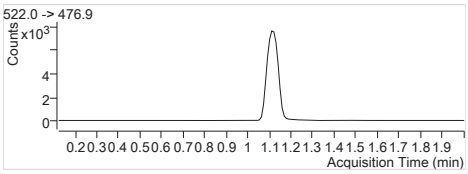
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 101.81 µg/L
Area ratio: 0.05605
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	100.73 µg/L
Area ratio:	0.04829
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.111 (1.121)
Calc. conc.	104.09 µg/L
Area ratio:	0
Sample type:	QC

Quantitation Results

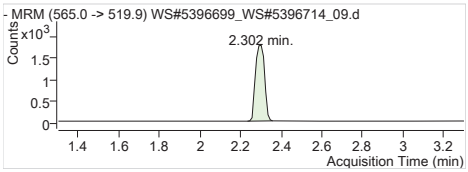
Agilent Technologies

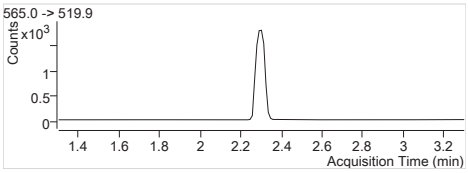
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A9
Acq. Date	2018/02/15 4:50:23 PM	**Injection Volume**	Per Method
Sample Annotation	-		

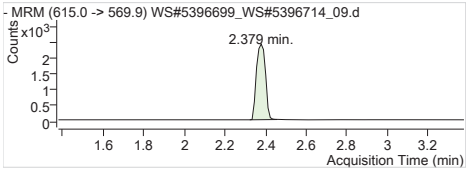
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5474	2.30	1 µg/L		
MPFDoA	7422	2.38	1 µg/L		
MPFTeDA	6580	2.51	1 µg/L		
13C9-PFDA IS	25421	2.20	1 µg/L		

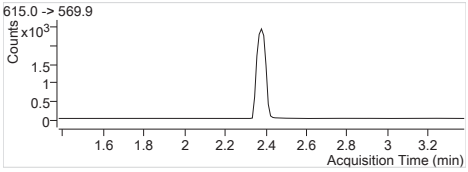
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	66871	2.29	20.80	20.47 µg/L	98.40
PFDoA 1	86416	2.38	20.80	20.26 µg/L	97.38
PFTeDA 1	71404	2.51	20.80	20.36 µg/L	97.89
13C2-PFUnA	5474	2.30	100.00	91.59 µg/L	91.59
13C2-PFDoA	7422	2.38	100.00	95.40 µg/L	95.40
13C2-PFTeDA	6595	2.51	100.00	95.90 µg/L	95.90
13C9-PFDA	25421	2.20	100.00	104.41 µg/L	104.41



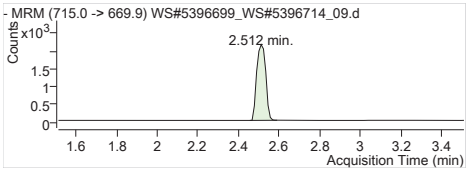


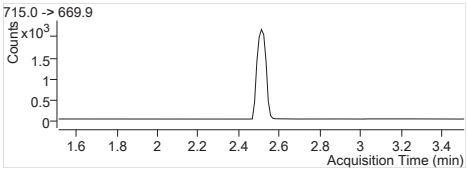
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: QC



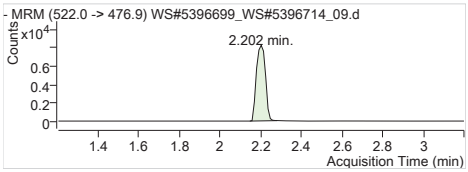


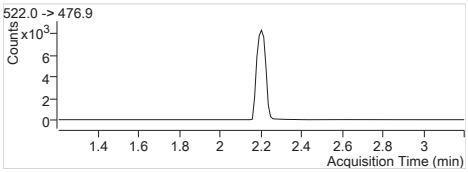
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: QC



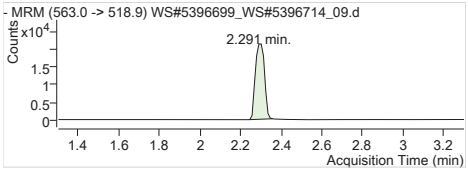


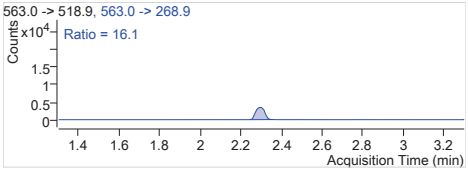
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: QC



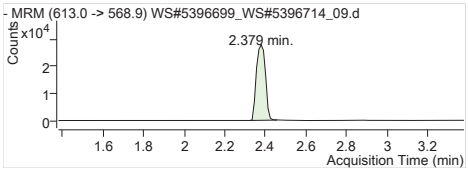


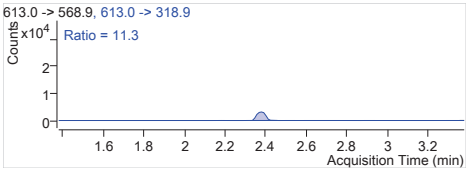
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: QC



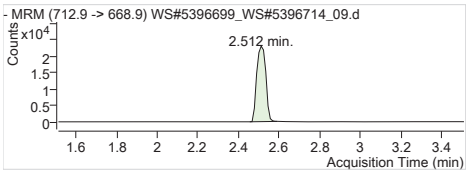


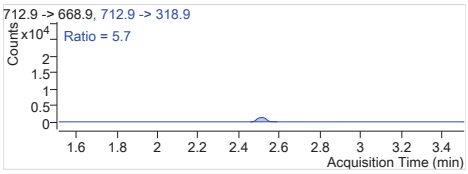
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 20.47 µg/L
Area ratio: 12.21611
Sample type: QC



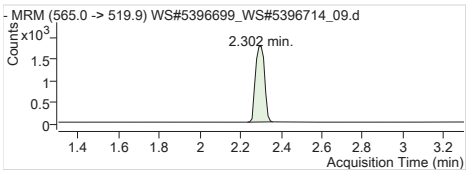


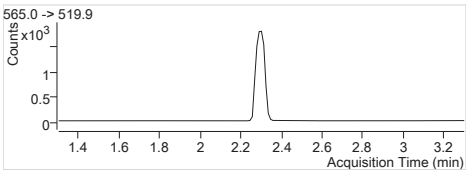
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 20.26 µg/L
Area ratio: 11.64322
Sample type: QC



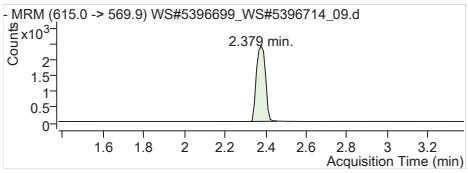


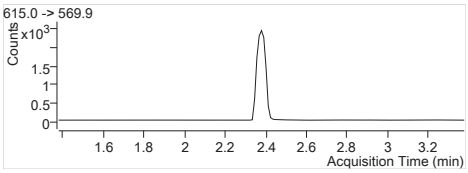
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 20.36 µg/L
Area ratio: 10.85167
Sample type: QC



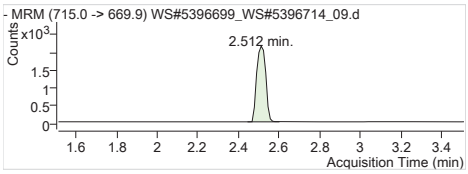


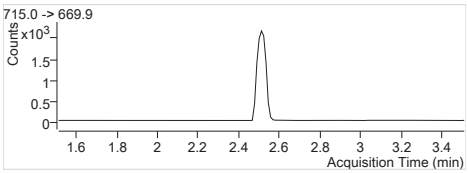
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 91.59 µg/L
Area ratio: 0.21533
Sample type: QC



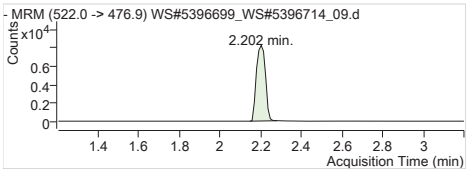


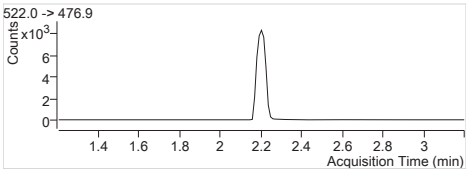
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 95.40 µg/L
Area ratio: 0.29196
Sample type: QC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 95.90 µg/L
Area ratio: 0.25943
Sample type: QC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 104.41 µg/L
Area ratio: 0
Sample type: QC

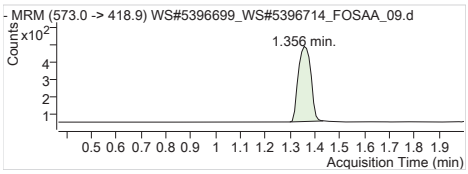
Quantitation Results

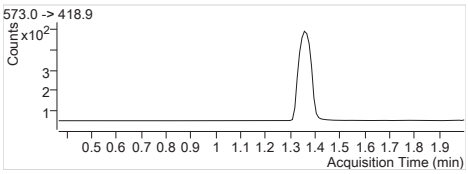
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A9
Acq. Date	2018/02/15 10:56:04 AM	**Injection Volume**	Per Method
Sample Annotation	-		

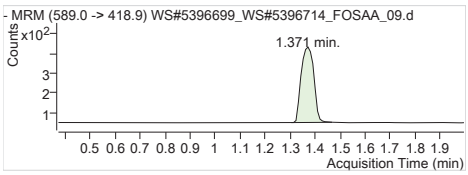
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1543	1.36	1 µg/L		
D5-EtFOSAA IS	1346	1.37	1 µg/L		
13C9-PFDA IS	28101	1.11	1 µg/L		

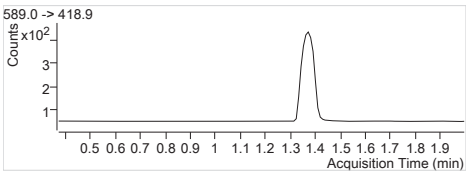
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	15484	1.36	20.80	20.01 µg/L	96.20
EtFOSAA 1	16102	1.37	20.80	20.34 µg/L	97.78
D3-MeFOSAA	1575	1.36	100.00	101.81 µg/L	101.81
D5-EtFOSAA	1357	1.37	100.00	100.73 µg/L	100.73
13C9-PFDA	27642	1.11	100.00	104.09 µg/L	104.09



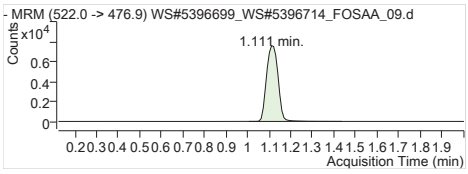


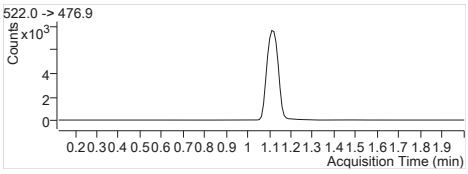
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: QC



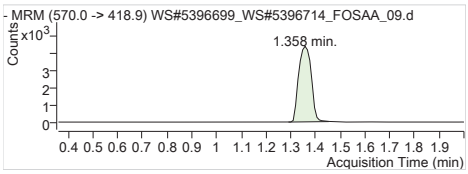


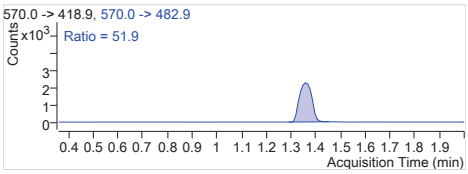
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: QC



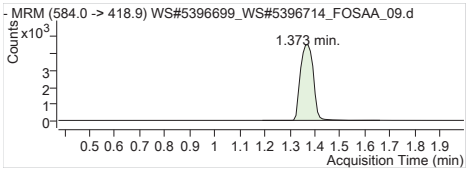


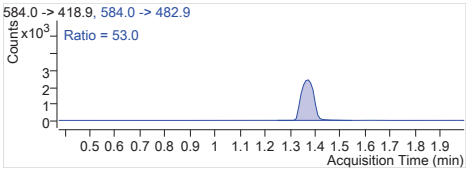
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.111 (1.121)
Concentration: 1 µg/L
Sample type: QC



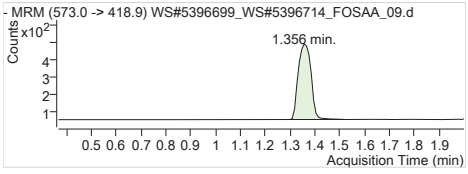


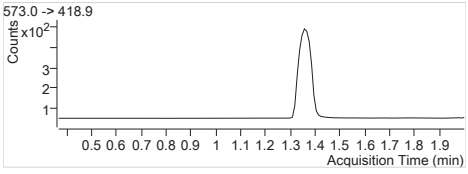
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 20.01 µg/L
Area ratio: 10.03500
Sample type: QC



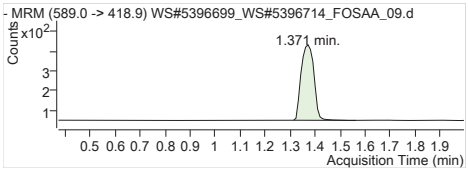


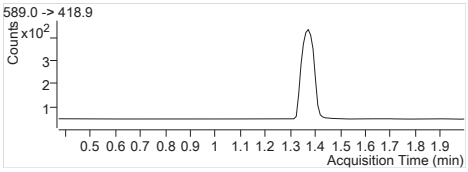
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 20.34 µg/L
Area ratio: 11.96285
Sample type: QC



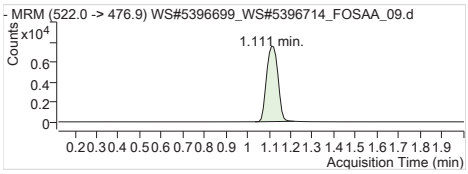


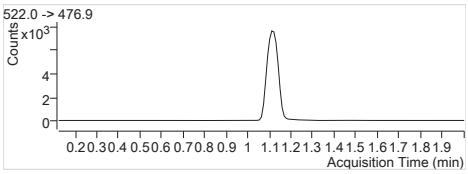
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 101.81 µg/L
Area ratio: 0.05605
Sample type: QC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	100.73 µg/L
Area ratio:	0.04829
Sample type:	QC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.111 (1.121)
Calc. conc.	104.09 µg/L
Area ratio:	0
Sample type:	QC

By Compound Report

Agilent Technologies

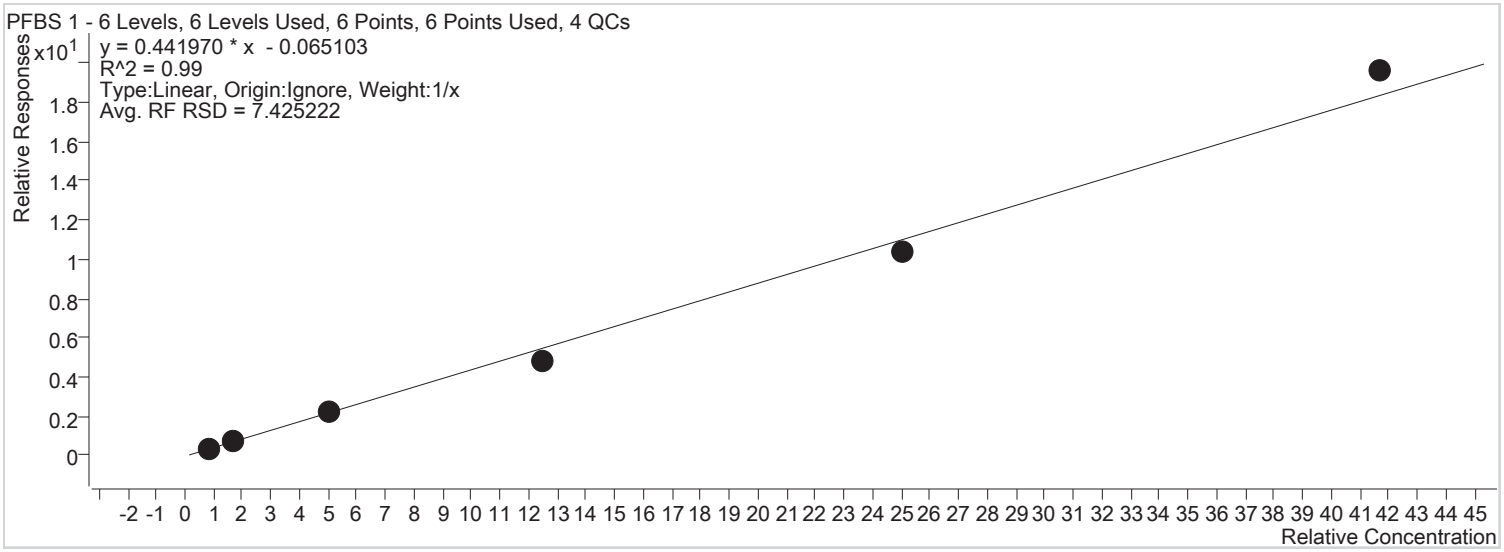
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFBS 1

Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.89	560	0.3948	57	107.1
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.77	1174	0.4229	207	104.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.00	3442	0.4289	103	100.0
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	10.92	7910	0.3810	165	87.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	23.59	18029	0.4145	120	94.4
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	44.55	30068	0.4707	187	106.8

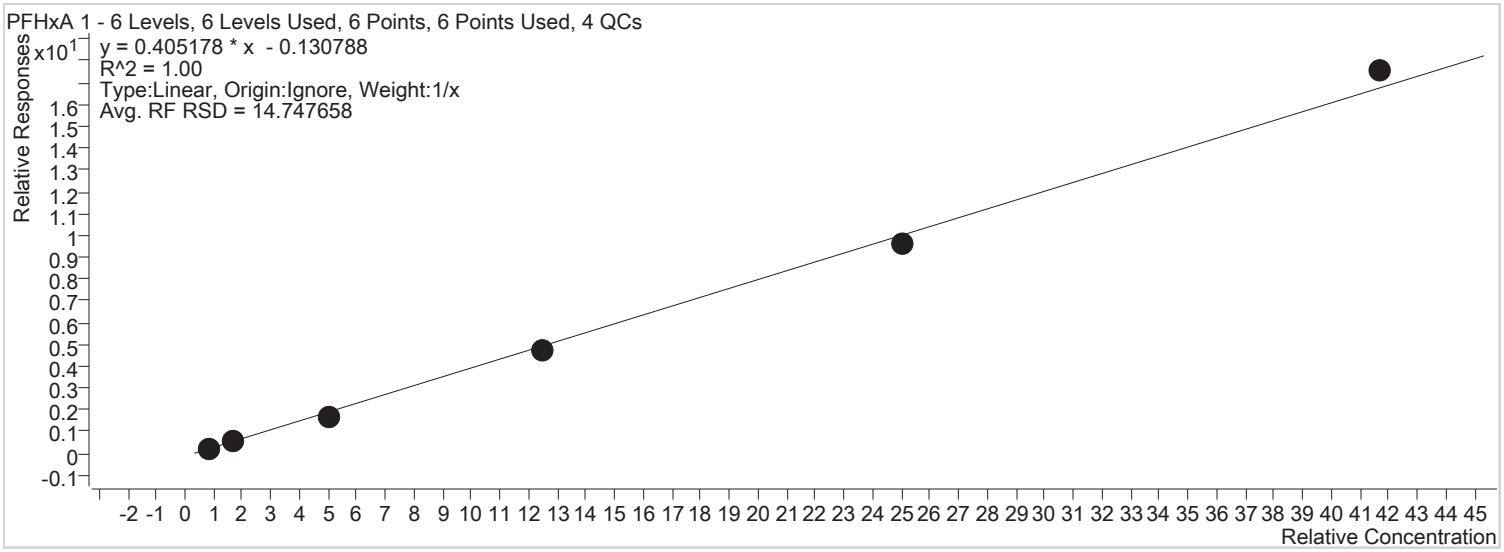
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFHxA 1

Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.86	1612	0.2639	65	104.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.86	4054	0.3665	319	109.5
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.56	11982	0.3431	1042	91.1
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.87	29220	0.3744	3543	95.0
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	23.94	67616	0.3827	2597	95.7
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.64	107039	0.4209	8065	104.6

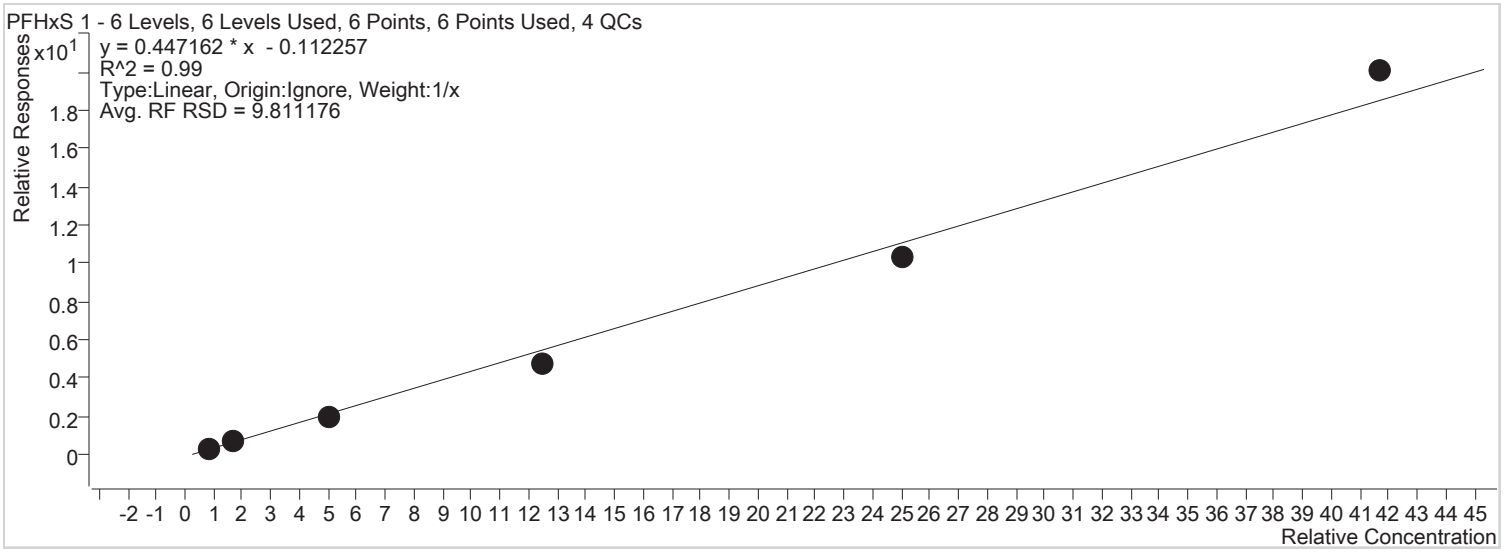
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFHxS 1

Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.94	524	0.3694	114	112.9
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.78	1115	0.4016	66	104.6
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.73	3214	0.4005	429	94.6
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	10.80	7832	0.3772	361	86.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	23.32	17949	0.4126	1264	93.3
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	45.17	30772	0.4817	2986	108.3

Agilent Technologies

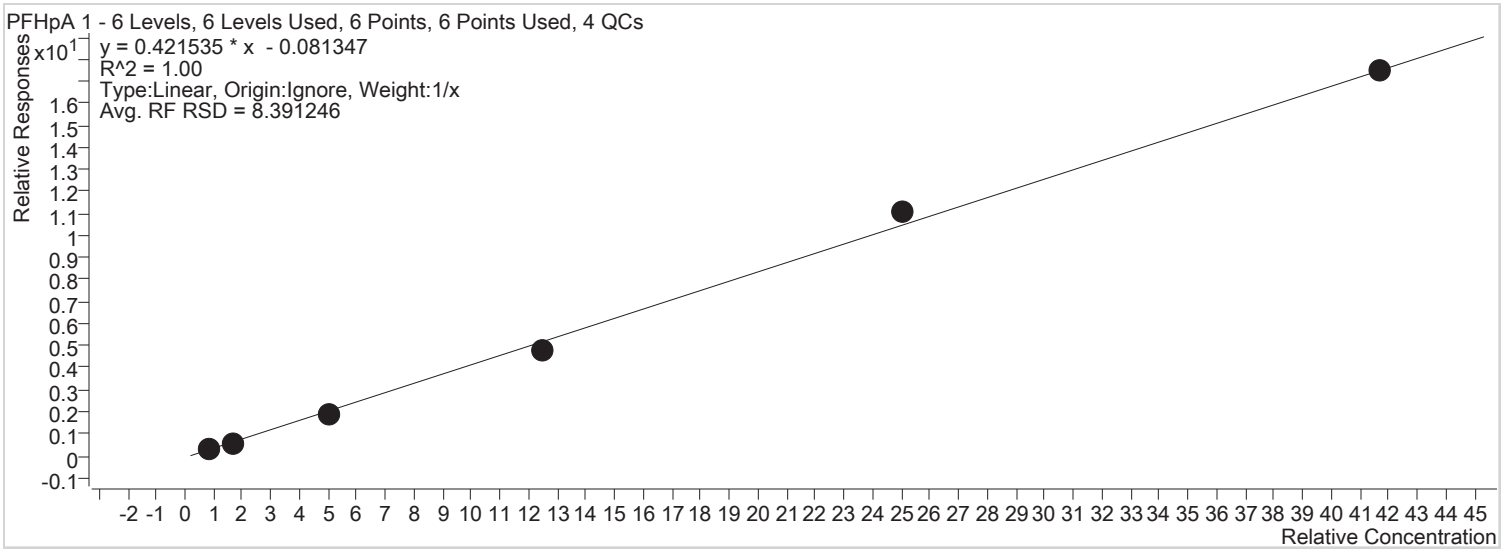
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFHpA 1

Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.96	2769	0.3900	28	115.8
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.63	5056	0.3562	60	95.9
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.55	15761	0.3676	190	91.1
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.43	38005	0.3789	352	91.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	26.49	87578	0.4433	1189	105.9
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	41.67	144581	0.4193	1765	99.9

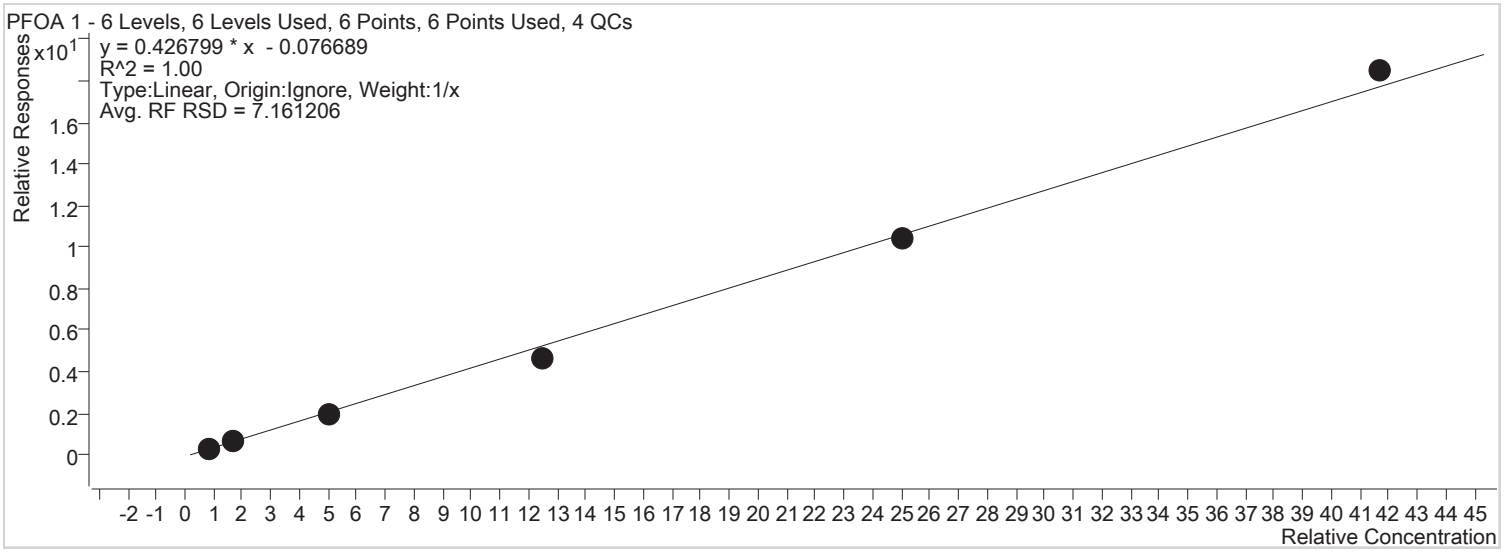
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFOA 1

Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.89	2835	0.3675	27	107.8
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.77	5942	0.4001	55	104.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.82	17315	0.3960	251	96.4
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.06	42523	0.3716	363	88.5
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	24.69	94546	0.4184	1057	98.7
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.49	154971	0.4433	1698	104.3

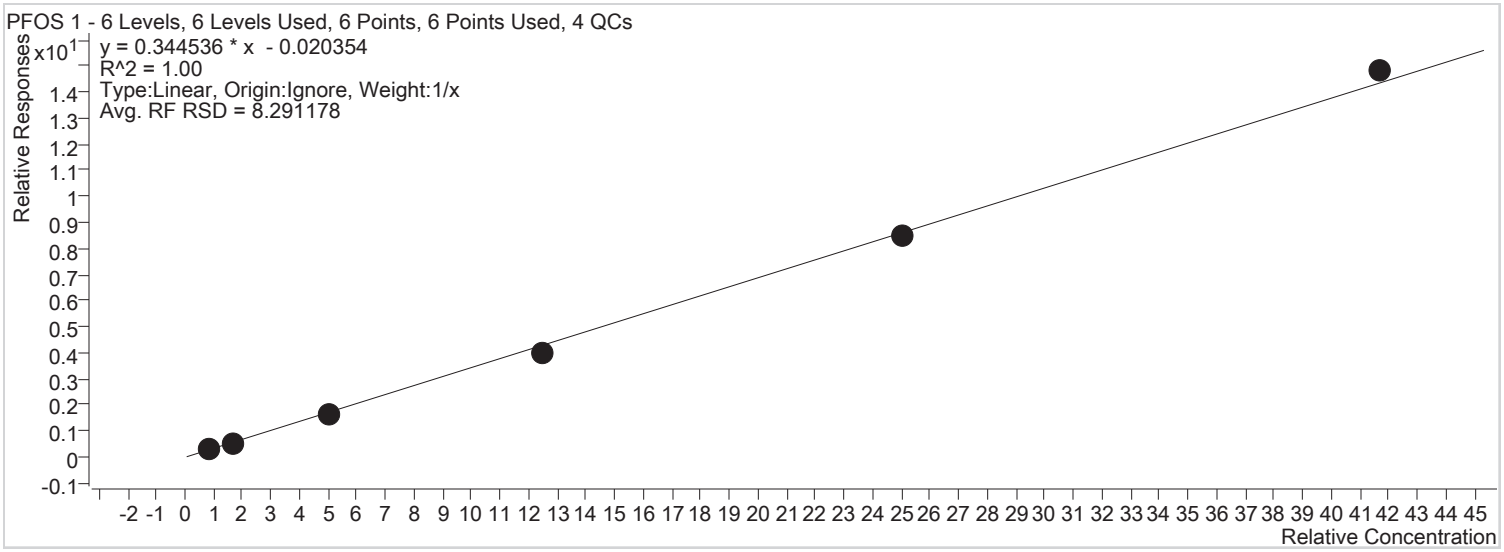
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFOS 1

Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.97	592	0.3794	90	117.2
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.54	961	0.2993	162	90.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.87	3310	0.3318	213	97.5
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.63	7727	0.3190	147	93.1
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	24.66	17307	0.3390	292	98.6
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.06	29880	0.3553	242	103.3

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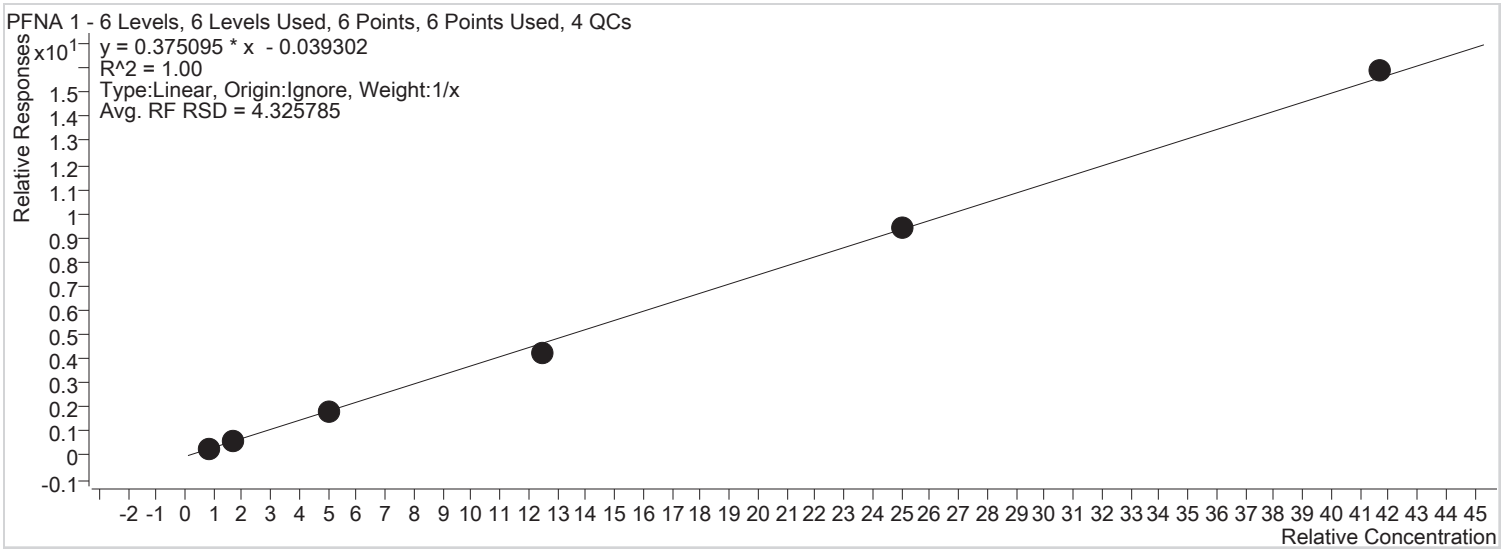
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFNA 1

Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.88	2562	0.3499	48	105.9
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.71	5291	0.3533	151	100.4
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.95	16213	0.3636	293	99.0
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.49	37466	0.3417	727	91.9
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.23	84183	0.3770	1433	100.9
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	42.47	137494	0.3811	1911	101.9

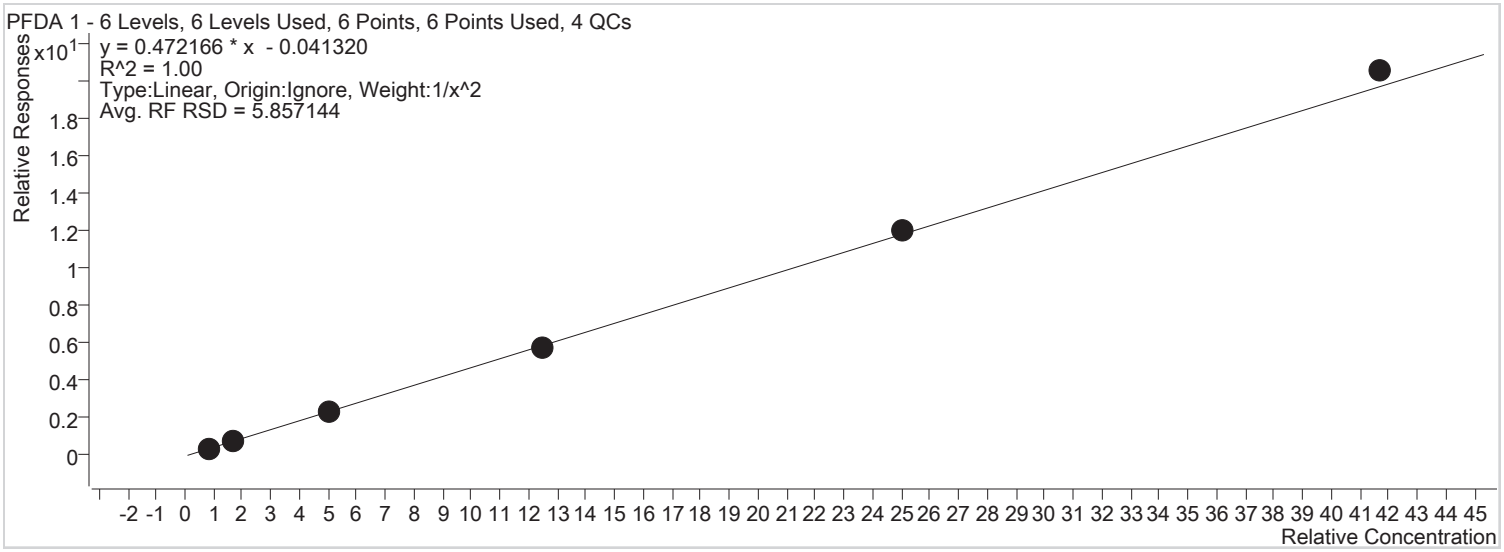
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFDA 1

Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.86	2686	0.4377	29	103.3
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.60	5351	0.4187	62	93.8
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.92	16796	0.4562	188	98.4
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	12.26	39281	0.4599	409	98.1
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.54	87430	0.4806	700	102.1
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.49	147759	0.4915	1476	104.3

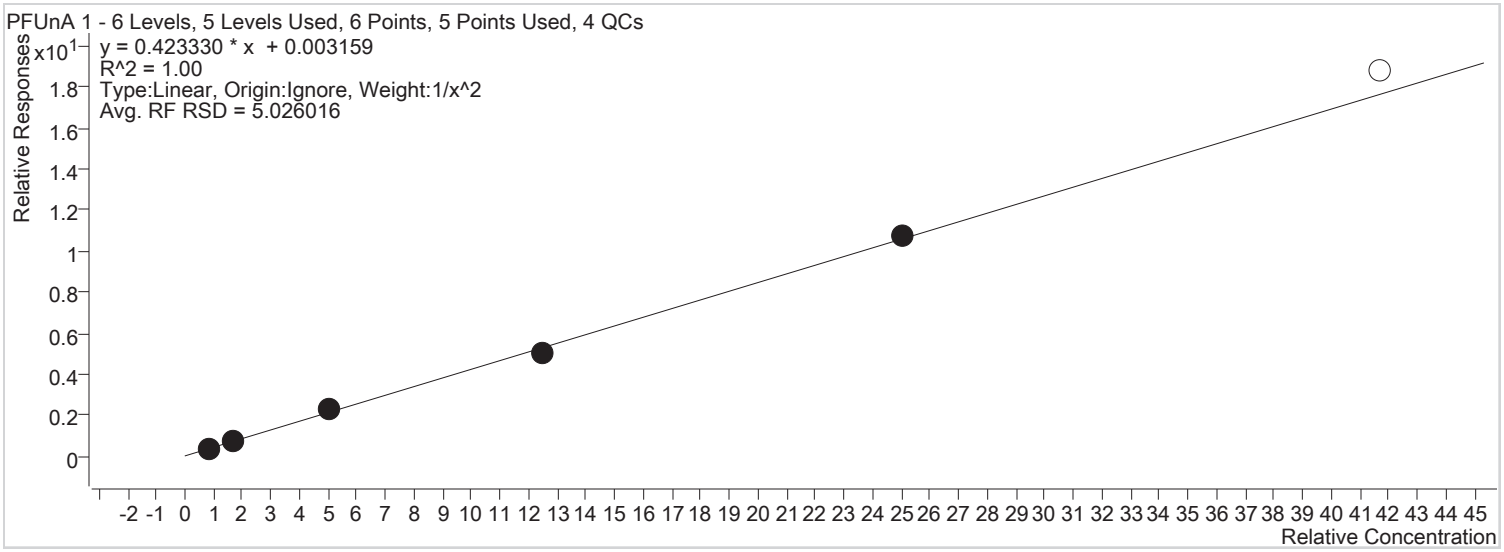
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFUnA 1

Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.85	3117	0.4360	20	102.1
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.60	5994	0.3998	71	94.0
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.32	19129	0.4508	113	106.3
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.98	42745	0.4059	217	95.8
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.43	96084	0.4308	236	101.7
STD 6	STD 6		2018/02/06 6:36:29 PM	41.70	44.42	162248	0.4511	303	106.5

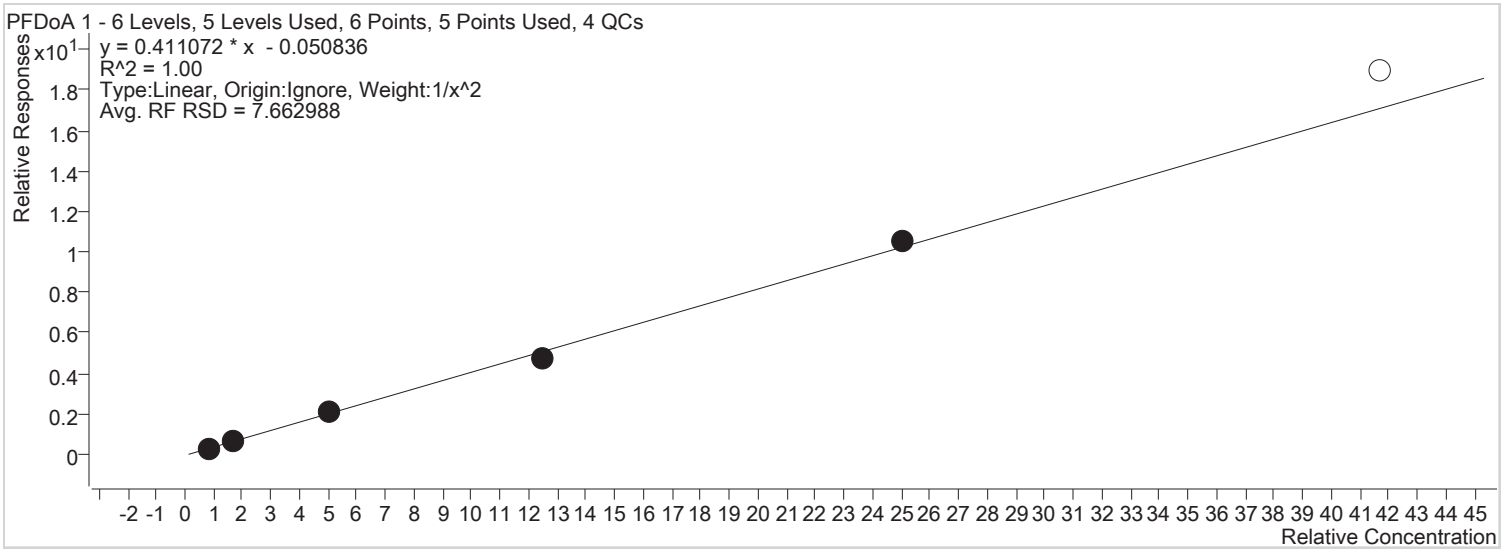
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFDoA 1

Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.82	3531	0.3457	89	99.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.73	7517	0.3894	128	102.0
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.11	23281	0.4097	657	102.1
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.67	54842	0.3799	1503	93.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.87	122186	0.4233	2081	103.5
STD 6	STD 6		2018/02/06 6:36:29 PM	41.70	46.23	206576	0.4545	3325	110.9

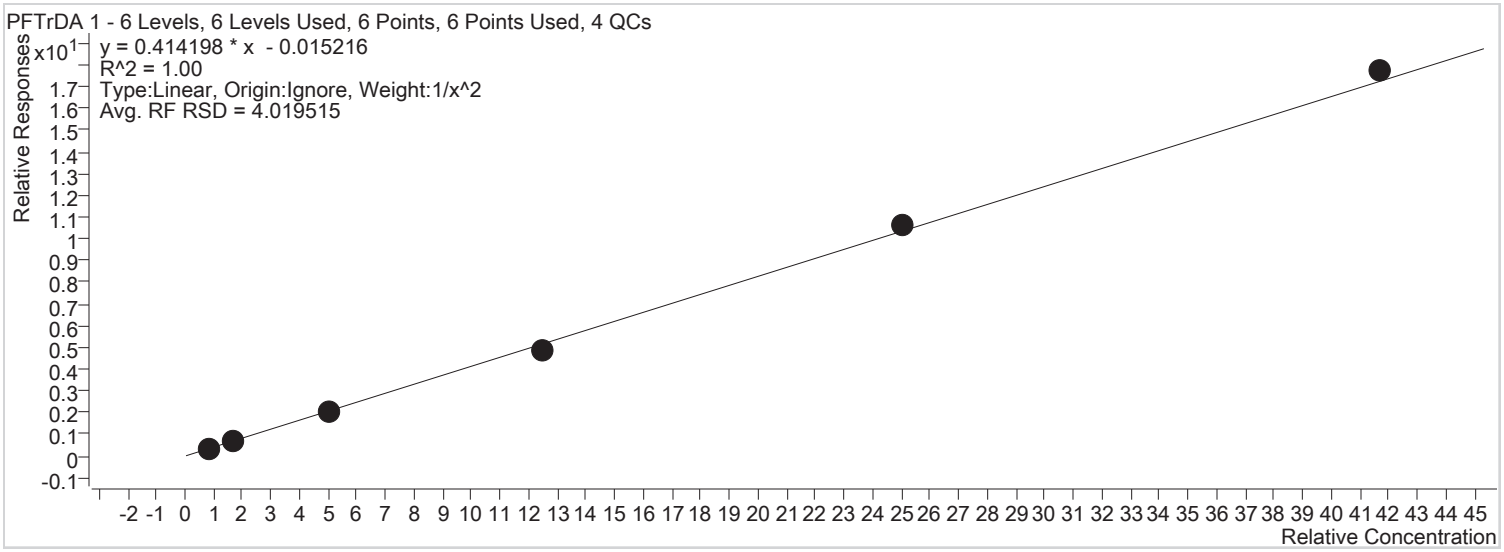
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFTrDA 1

Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.84	4399	0.4002	42	101.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.67	8288	0.3973	53	98.1
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.05	27306	0.4149	174	100.9
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.72	61125	0.3871	125	93.8
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.85	138442	0.4277	142	103.4
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	42.87	231782	0.4255	161	102.8

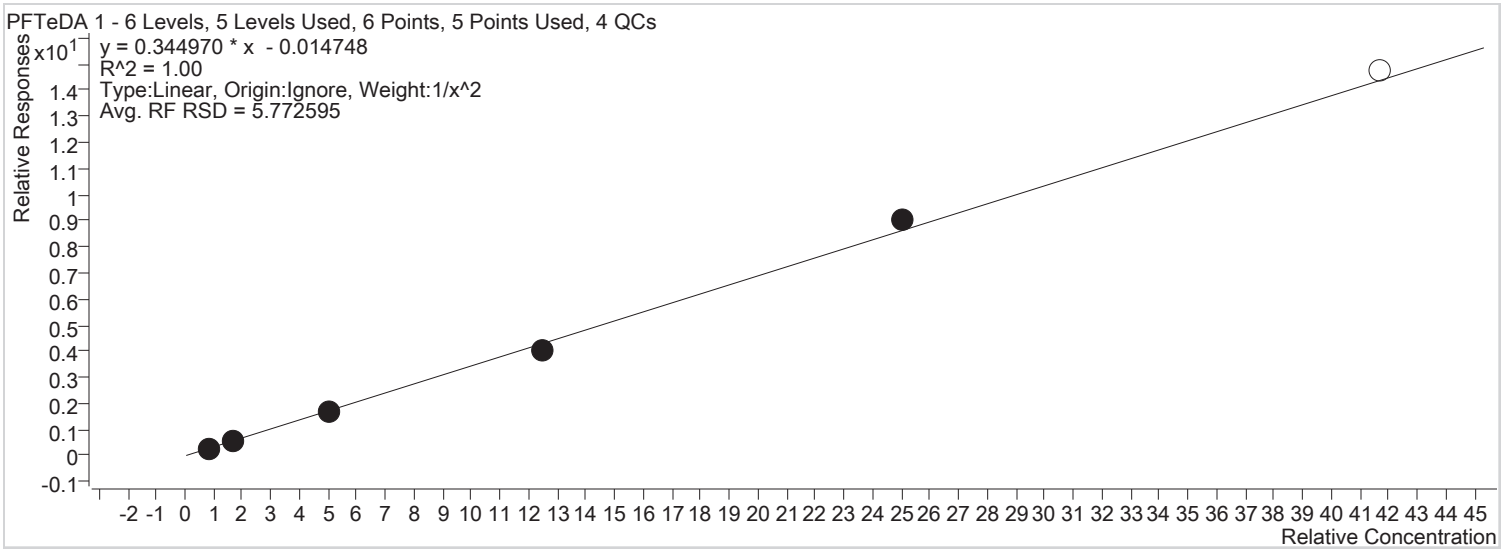
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFTeDA 1

Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.81	3520	0.3202	18	98.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.79	7406	0.3550	45	105.4
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.89	22027	0.3347	86	97.9
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.67	50660	0.3209	113	93.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	26.34	117482	0.3629	124	105.4
STD 6	STD 6		2018/02/06 6:36:29 PM	41.70	42.78	192586	0.3535	126	102.6

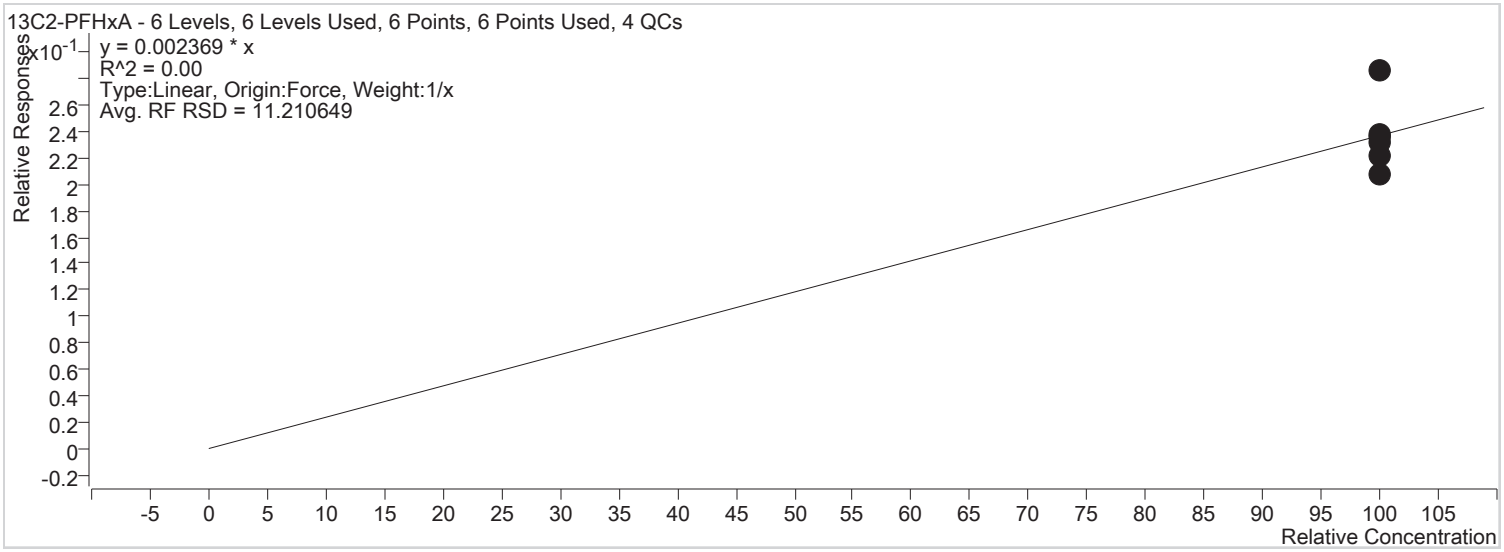
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: 13C2-PFHxA

Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	120.68	7360	0.0029	243	120.7
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	98.14	6506	0.0023	235	98.1
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	100.18	6984	0.0024	241	100.2
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	93.61	6243	0.0022	181	93.6
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	99.89	7067	0.0024	332	99.9
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	87.49	6099	0.0021	578	87.5

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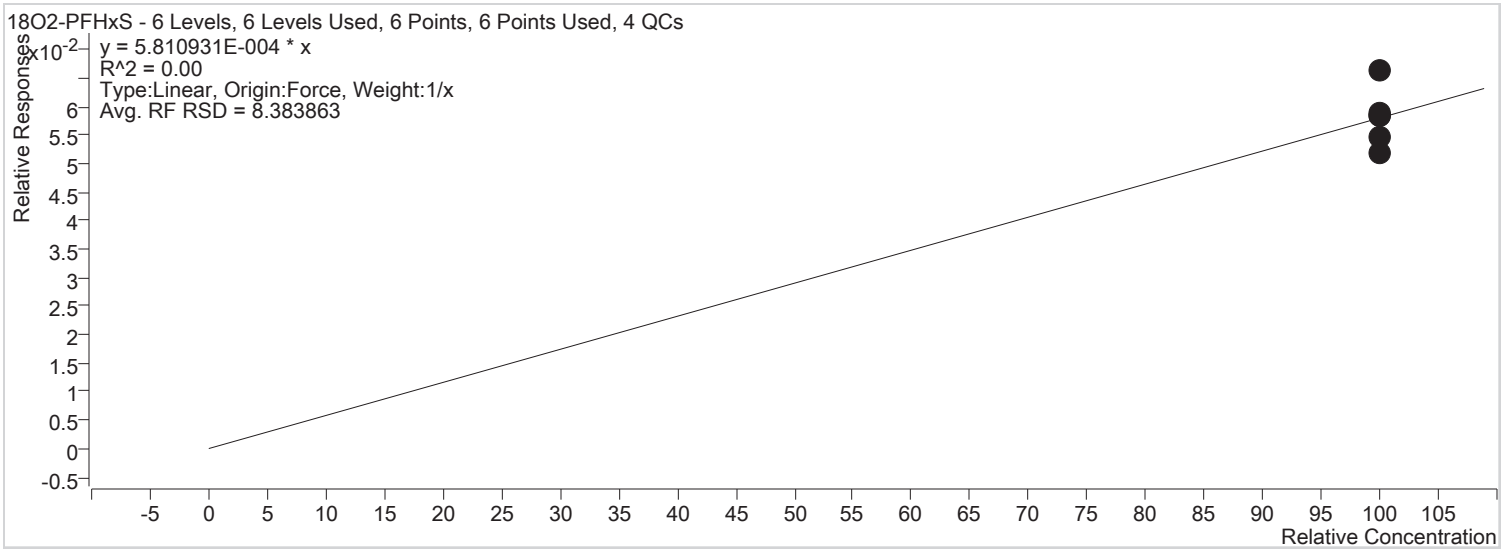
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: 18O2-PFHxS

Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	114.25	1709	0.0007	183	114.3
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	100.43	1633	0.0006	267	100.4
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	93.87	1605	0.0005	292	93.9
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	101.55	1661	0.0006	211	101.6
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	100.28	1740	0.0006	239	100.3
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	89.61	1532	0.0005	317	89.6

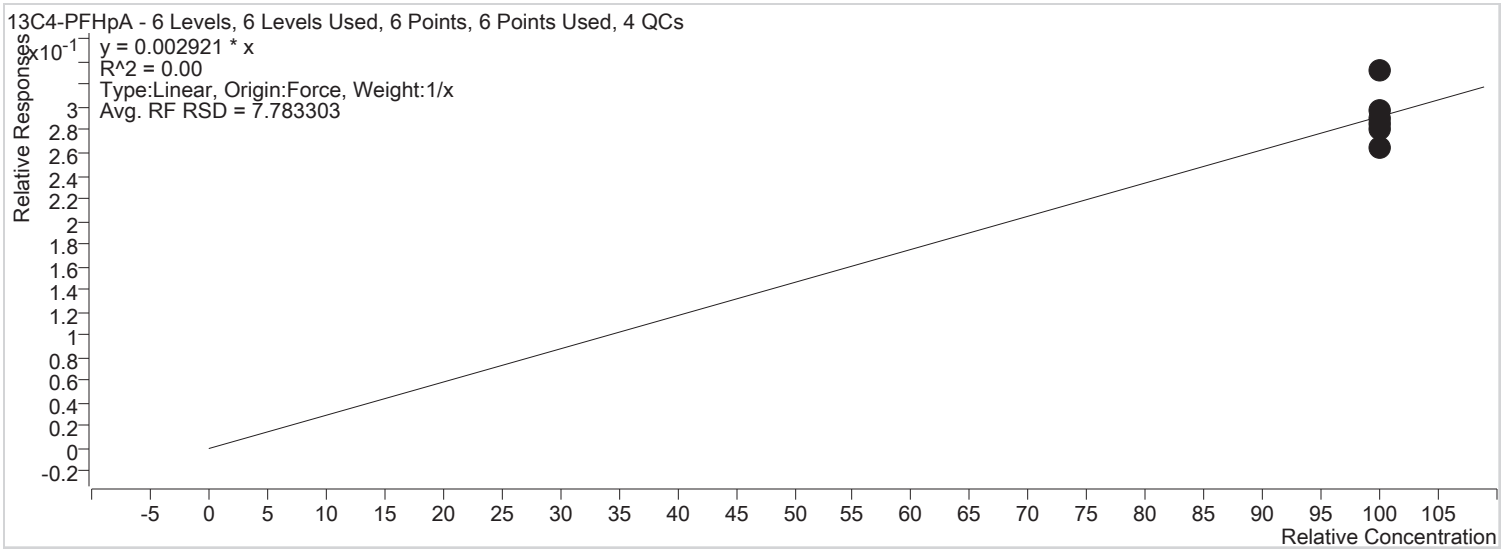
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: 13C4-PFHpA

Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	113.76	8555	0.0033	103	113.8
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	102.13	8349	0.0030	204	102.1
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	99.74	8574	0.0029	469	99.7
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	97.58	8024	0.0029	316	97.6
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	90.59	7902	0.0026	366	90.6
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	96.20	8269	0.0028	667	96.2

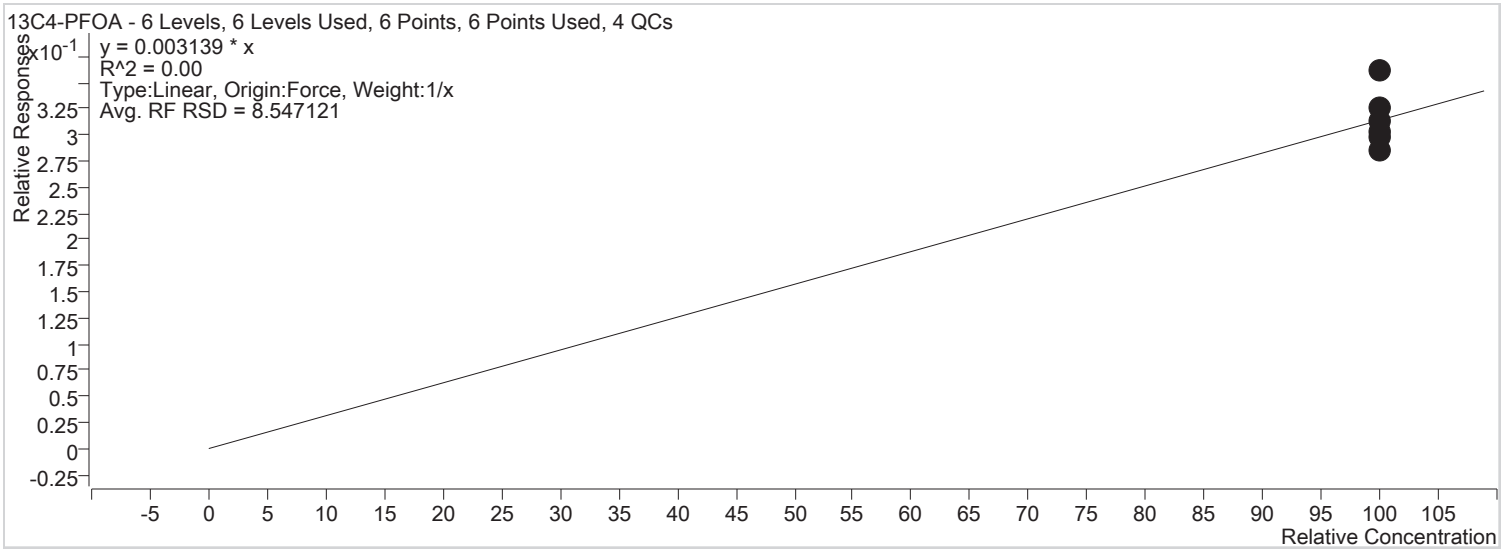
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: 13C4-PFOA

Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	115.02	9294	0.0036	363	115.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	99.46	8736	0.0031	219	99.5
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	94.68	8745	0.0030	189	94.7
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	103.62	9155	0.0033	280	103.6
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	96.44	9039	0.0030	230	96.4
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	90.77	8383	0.0028	186	90.8

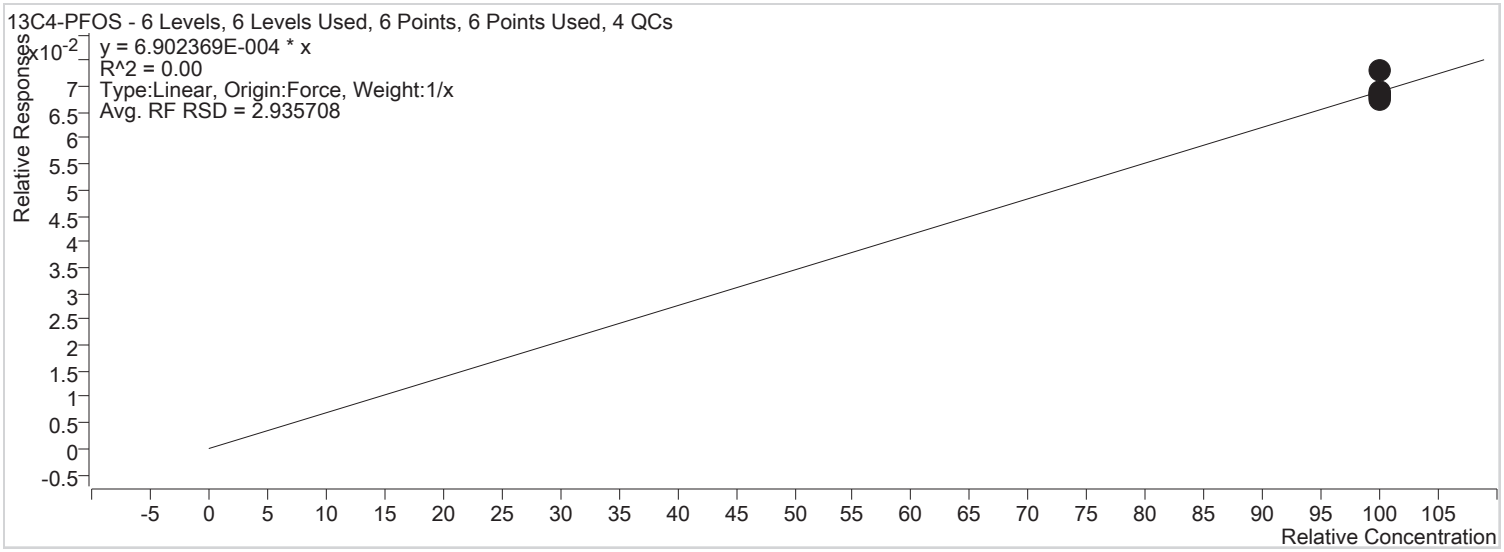
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: 13C4-PFOS

Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	105.81	1880	0.0007	201	105.8
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	97.81	1889	0.0007	284	97.8
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	98.23	1995	0.0007	153	98.2
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	99.75	1938	0.0007	321	99.8
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	99.08	2042	0.0007	139	99.1
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	99.32	2017	0.0007	398	99.3

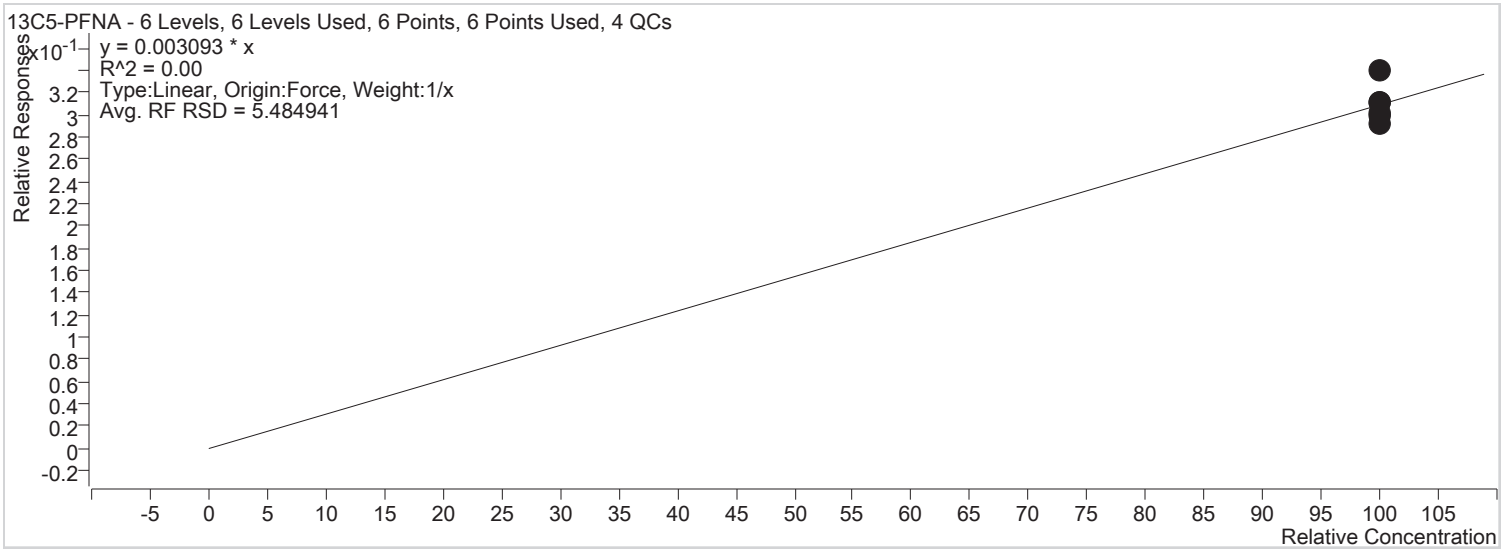
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: 13C5-PFNA

Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	109.89	8749	0.0034	149	109.9
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	101.06	8746	0.0031	224	101.1
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	97.30	8855	0.0030	136	97.3
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	100.75	8771	0.0031	551	100.8
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	96.73	8933	0.0030	340	96.7
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	94.26	8578	0.0029	162	94.3

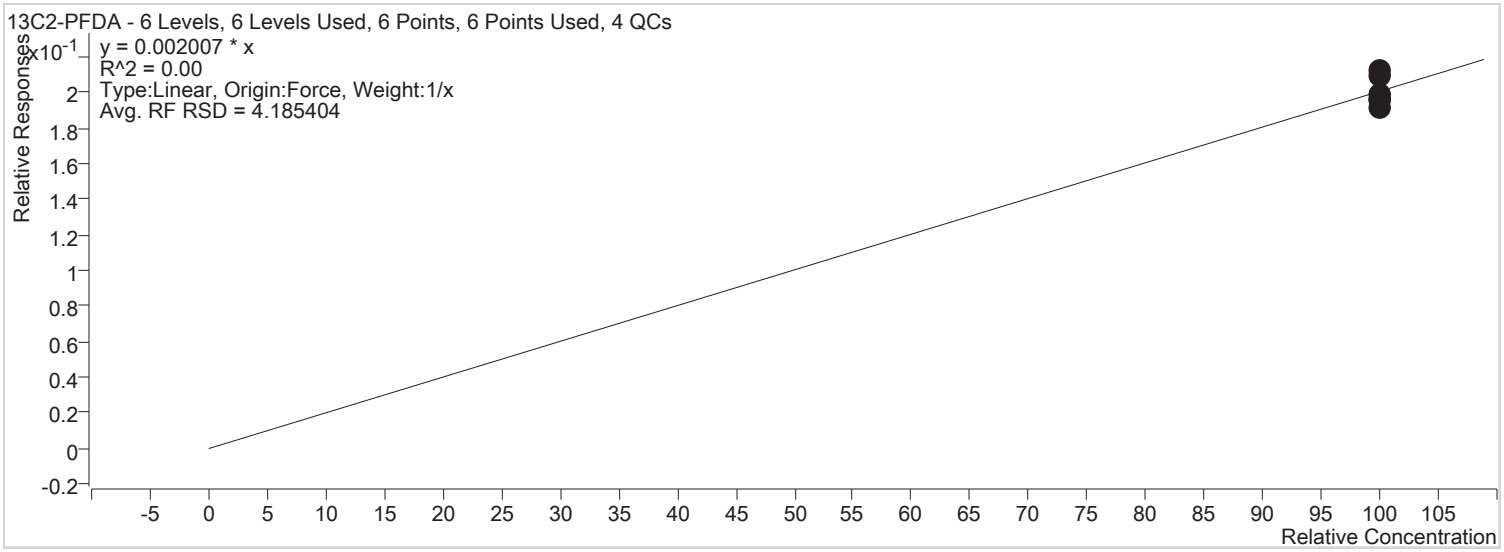
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: 13C2-PFDA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	105.73	7298	0.0021	271	105.7
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	104.50	7451	0.0021	298	104.5
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	97.75	7249	0.0020	269	97.8
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	95.15	6743	0.0019	250	95.2
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	97.70	7229	0.0020	358	97.7
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	99.16	7078	0.0020	223	99.2

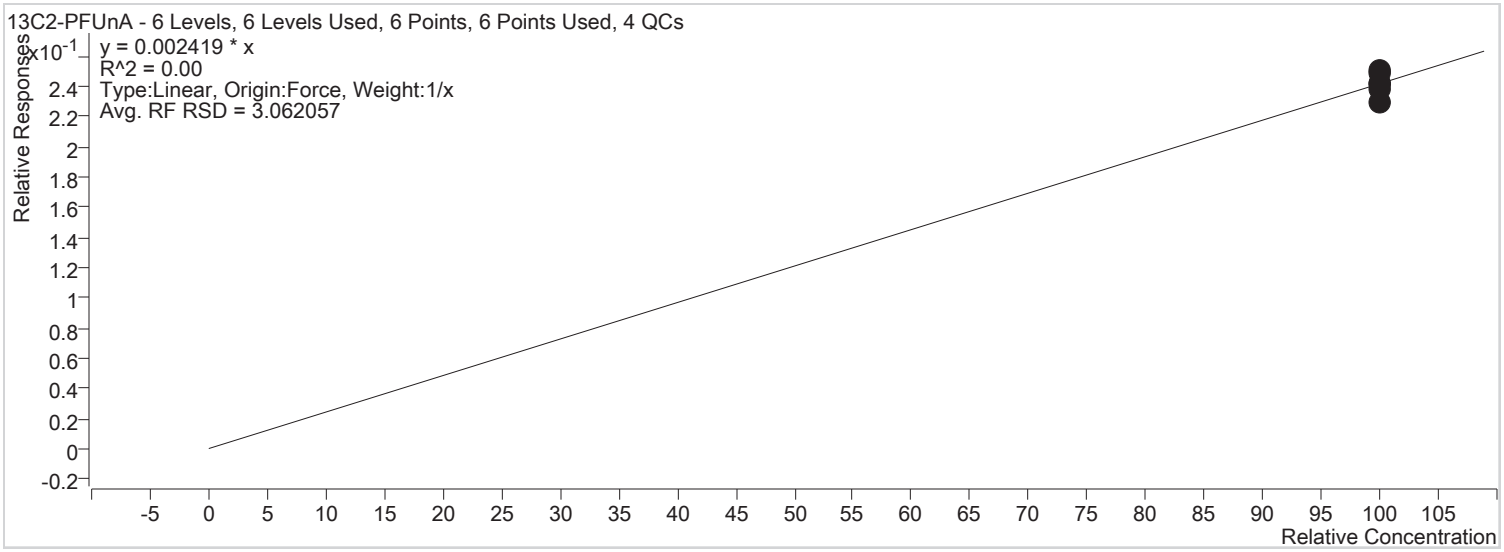
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: 13C2-PFUnA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	103.52	8613	0.0025	213	103.5
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	102.63	8820	0.0025	181	102.6
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	94.94	8486	0.0023	159	94.9
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	98.62	8424	0.0024	194	98.6
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	100.04	8922	0.0024	328	100.0
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	100.26	8626	0.0024	297	100.3

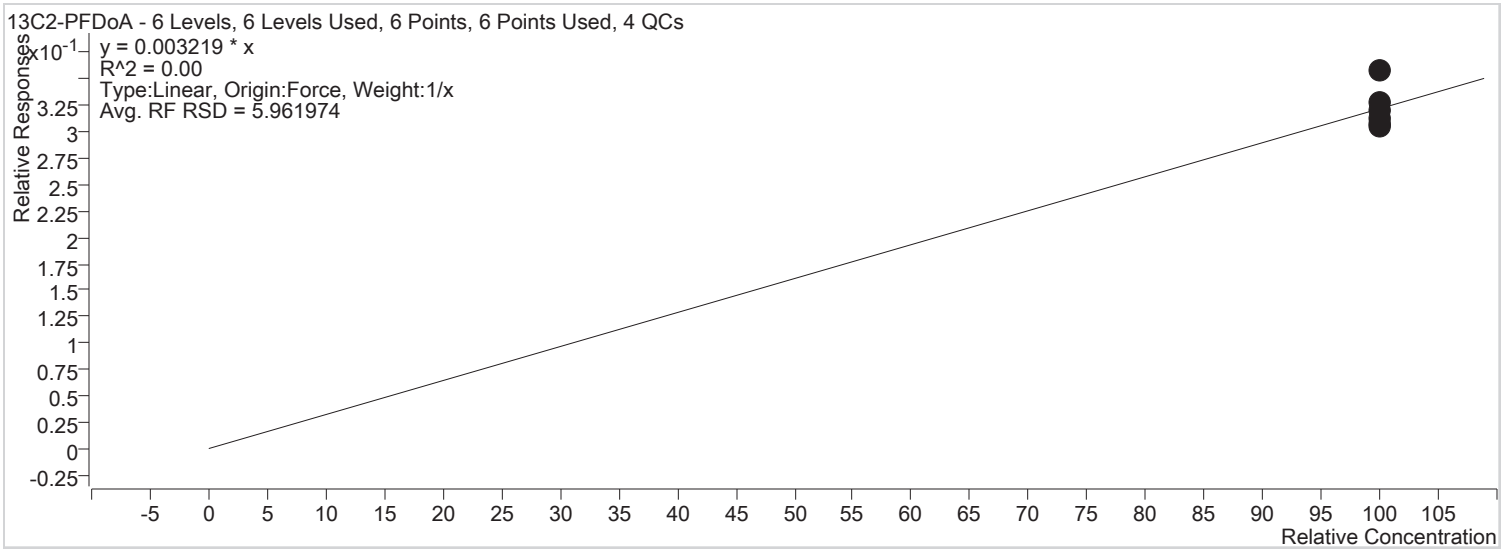
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: 13C2-PFDoA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	111.14	12307	0.0036	222	111.1
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	99.27	11355	0.0032	304	99.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	95.54	11366	0.0031	199	95.5
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	101.60	11550	0.0033	223	101.6
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	97.26	11545	0.0031	165	97.3
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	95.18	10899	0.0031	205	95.2

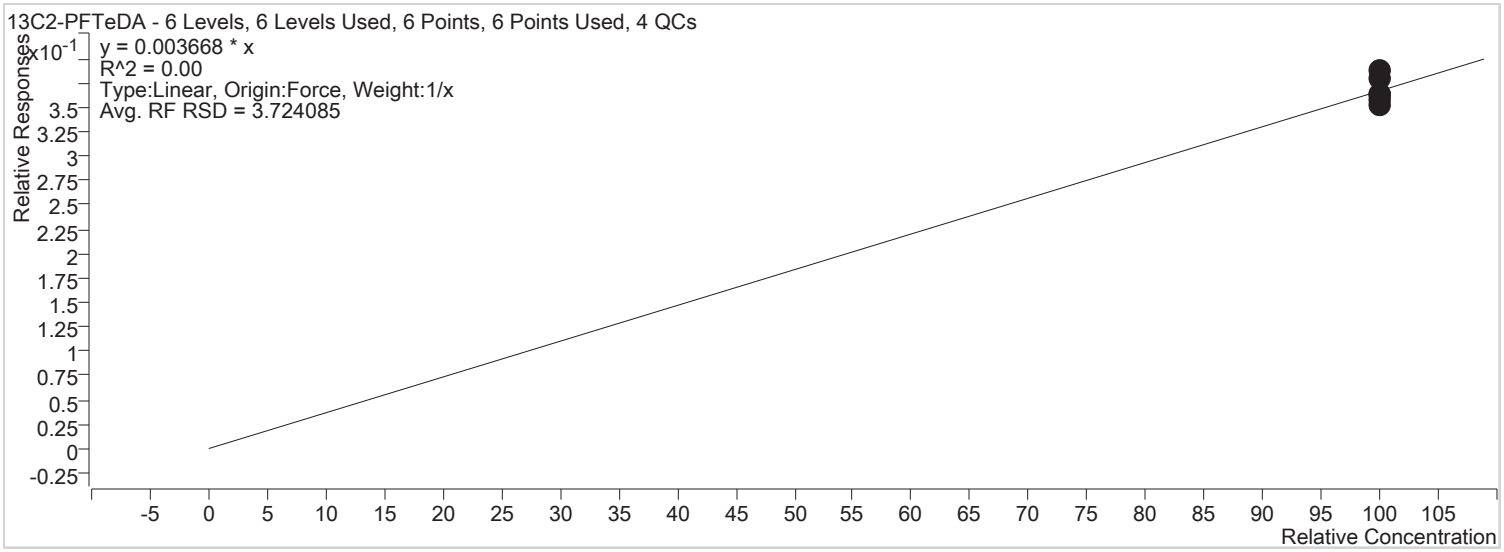
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: 13C2-PFTeDA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	105.61	13325	0.0039	217	105.6
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	95.72	12474	0.0035	477	95.7
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	98.84	13397	0.0036	310	98.8
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	99.38	12873	0.0036	320	99.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	97.25	13153	0.0036	455	97.3
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	103.20	13464	0.0038	477	103.2

By Compound Report

Agilent Technologies

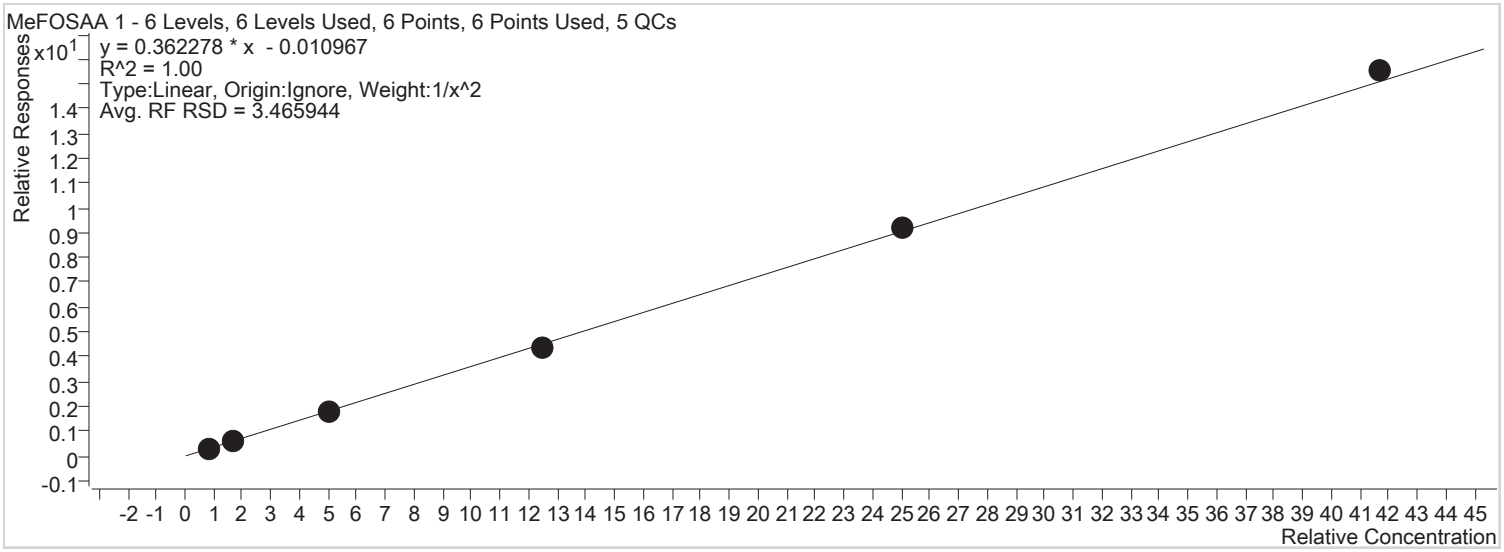
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/08 3:32:49 PM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 12:28:01 PM	0.83	0.84	581	0.3546	187	101.5
STD 2	STD 2	x	2018/02/06 12:30:26 PM	1.70	1.64	1088	0.3437	497	96.7
STD 3	STD 3	x	2018/02/06 12:32:51 PM	5.00	5.09	3380	0.3664	578	101.7
STD 4	STD 4	x	2018/02/06 12:35:16 PM	12.50	11.93	7647	0.3448	1165	95.4
STD 5	STD 5	x	2018/02/06 12:37:42 PM	25.00	25.44	17314	0.3682	913	101.8
STD 6	STD 6	x	2018/02/06 12:40:07 PM	41.70	42.90	27554	0.3725	1045	102.9

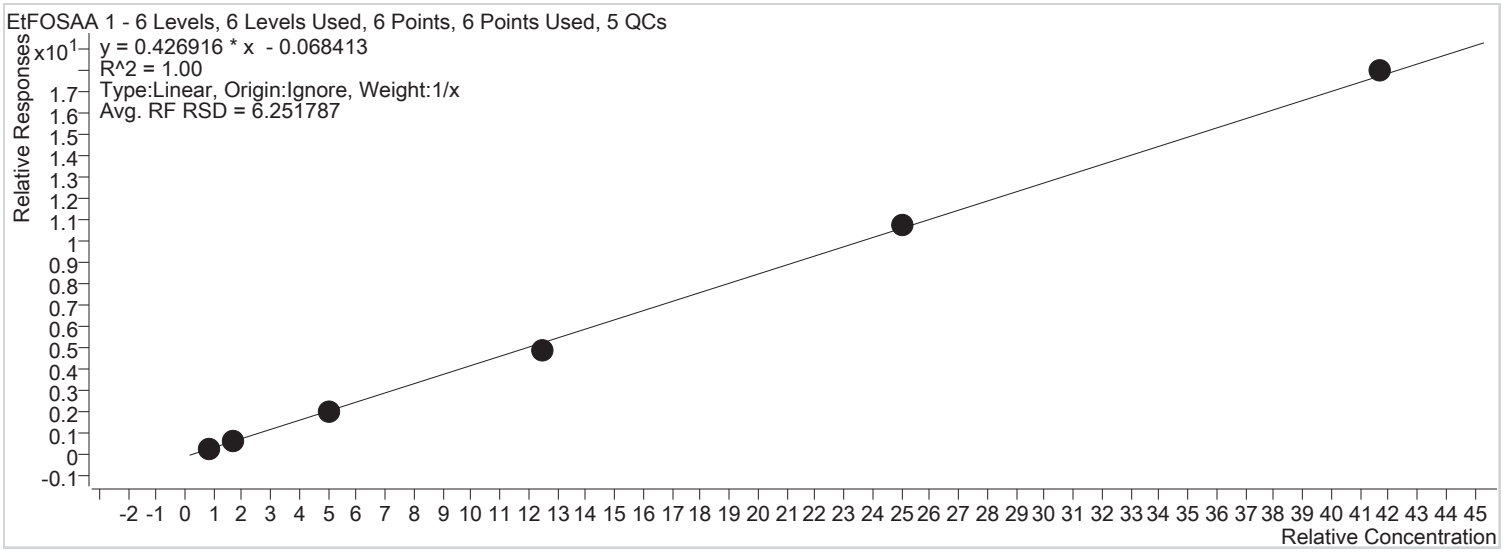
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/08 3:32:49 PM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 12:28:01 PM	0.83	0.89	520	0.3761	76	107.4
STD 2	STD 2	x	2018/02/06 12:30:26 PM	1.70	1.66	1054	0.3778	119	97.9
STD 3	STD 3	x	2018/02/06 12:32:51 PM	5.00	4.97	3261	0.4104	283	99.3
STD 4	STD 4	x	2018/02/06 12:35:16 PM	12.50	11.55	7583	0.3891	591	92.4
STD 5	STD 5	x	2018/02/06 12:37:42 PM	25.00	25.39	17091	0.4308	1008	101.5
STD 6	STD 6	x	2018/02/06 12:40:07 PM	41.70	42.27	27557	0.4311	1223	101.4

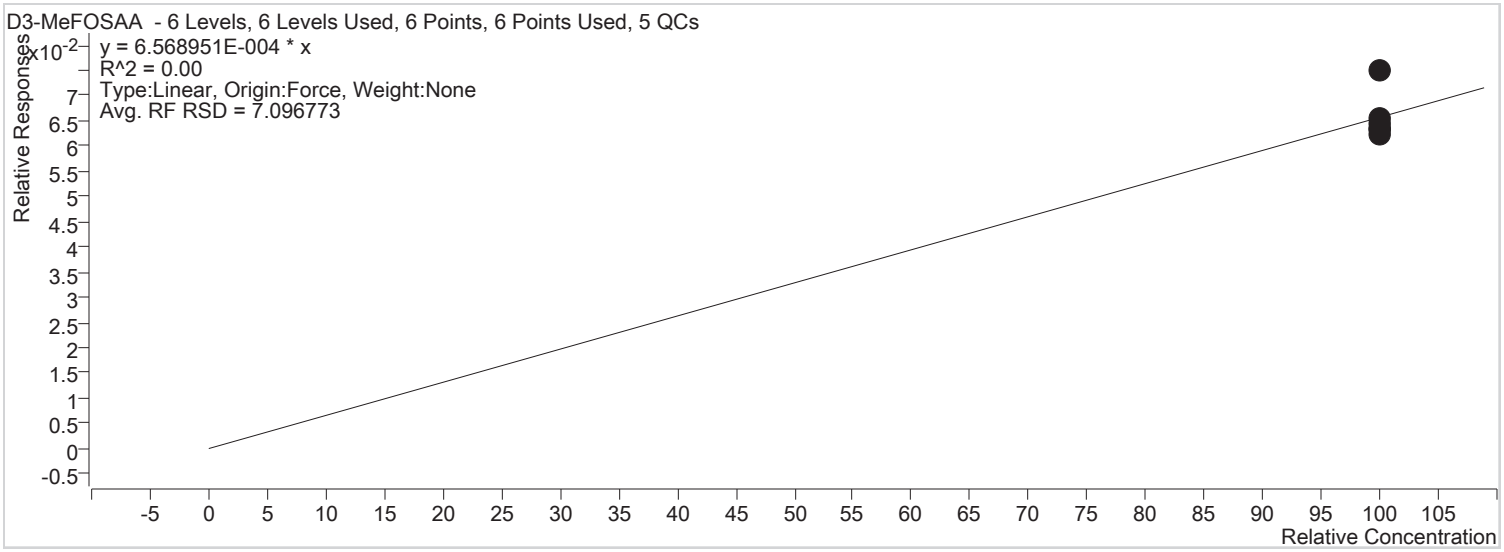
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/08 3:32:49 PM

Instrument: LCMS04

Analyte: D3-MeFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 12:28:01 PM	100.00	114.03	1974	0.0007	133	114.0
STD 2	STD 2	x	2018/02/06 12:30:26 PM	100.00	98.23	1862	0.0006	114	98.2
STD 3	STD 3	x	2018/02/06 12:32:51 PM	100.00	96.74	1845	0.0006	159	96.7
STD 4	STD 4	x	2018/02/06 12:35:16 PM	100.00	94.91	1774	0.0006	103	94.9
STD 5	STD 5	x	2018/02/06 12:37:42 PM	100.00	100.02	1881	0.0007	180	100.0
STD 6	STD 6	x	2018/02/06 12:40:07 PM	100.00	96.07	1774	0.0006	141	96.1

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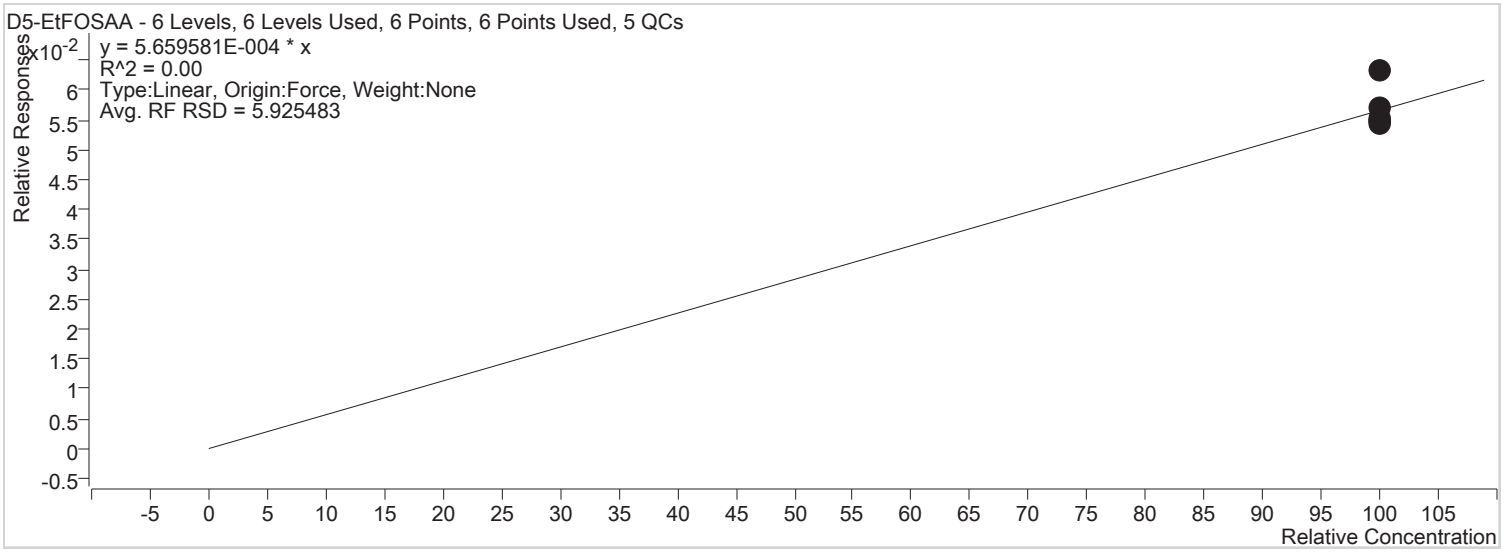
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/08 3:32:49 PM

Instrument: LCMS04

Analyte: D5-EtFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 12:28:01 PM	100.00	111.70	1666	0.0006	192	111.7
STD 2	STD 2	x	2018/02/06 12:30:26 PM	100.00	100.48	1641	0.0006	112	100.5
STD 3	STD 3	x	2018/02/06 12:32:51 PM	100.00	96.70	1589	0.0005	168	96.7
STD 4	STD 4	x	2018/02/06 12:35:16 PM	100.00	96.81	1559	0.0005	275	96.8
STD 5	STD 5	x	2018/02/06 12:37:42 PM	100.00	97.95	1587	0.0006	225	97.9
STD 6	STD 6	x	2018/02/06 12:40:07 PM	100.00	96.36	1533	0.0005	254	96.4

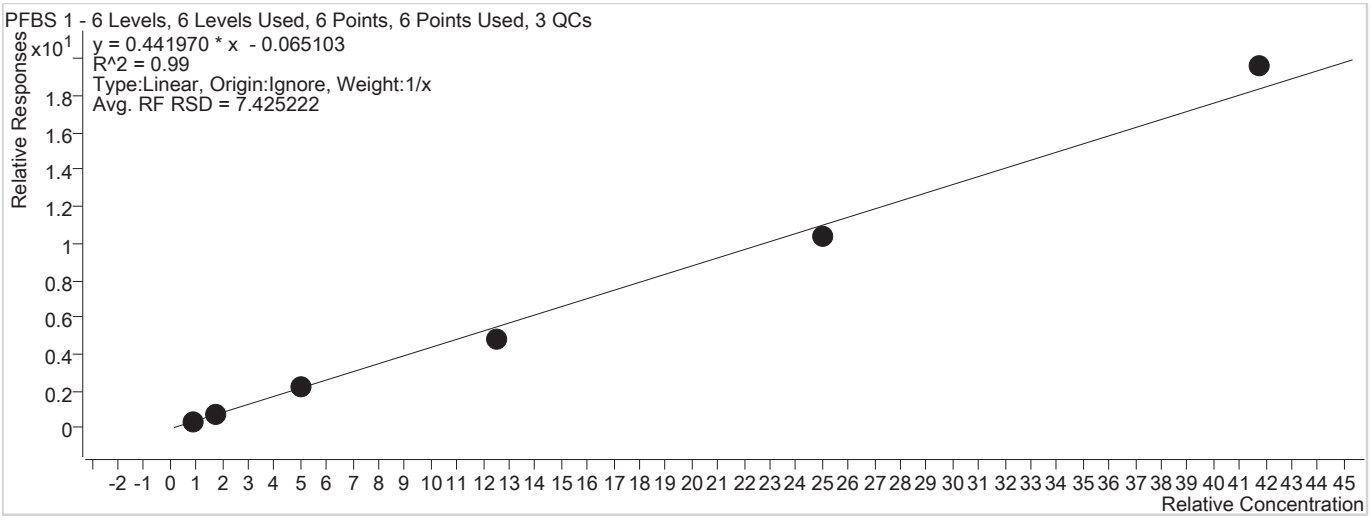
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFBS 1

Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.89	560	0.3948	57	107.1
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.77	1174	0.4229	207	104.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.00	3442	0.4289	103	100.0
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	10.92	7910	0.3810	165	87.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	23.59	18029	0.4145	120	94.4
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	44.55	30068	0.4707	187	106.8

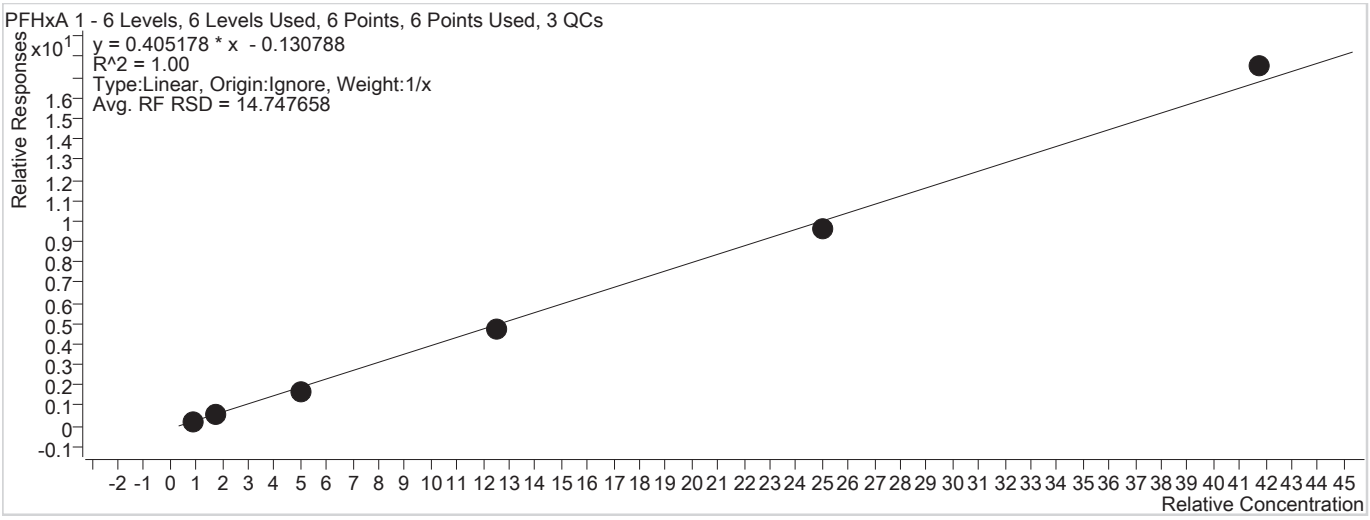
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFHxA 1

Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.86	1612	0.2639	65	104.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.86	4054	0.3665	319	109.5
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.56	11982	0.3431	1042	91.1
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.87	29220	0.3744	3543	95.0
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	23.94	67616	0.3827	2597	95.7
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.64	107039	0.4209	8065	104.6

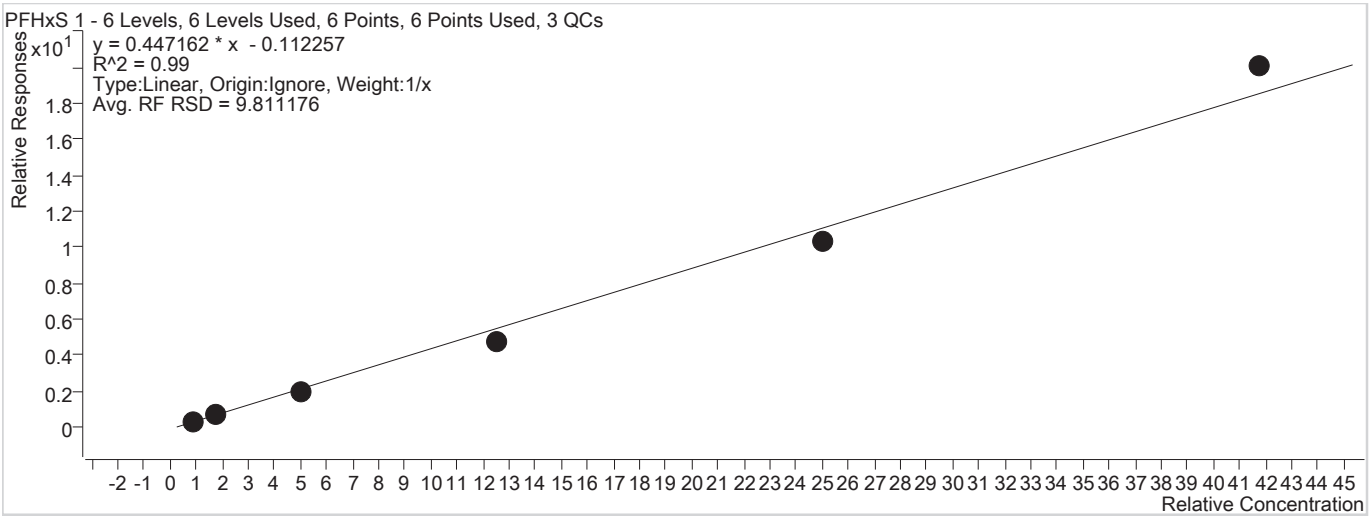
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFHxS 1

Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.94	524	0.3694	114	112.9
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.78	1115	0.4016	66	104.6
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.73	3214	0.4005	429	94.6
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	10.80	7832	0.3772	361	86.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	23.32	17949	0.4126	1264	93.3
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	45.17	30772	0.4817	2986	108.3

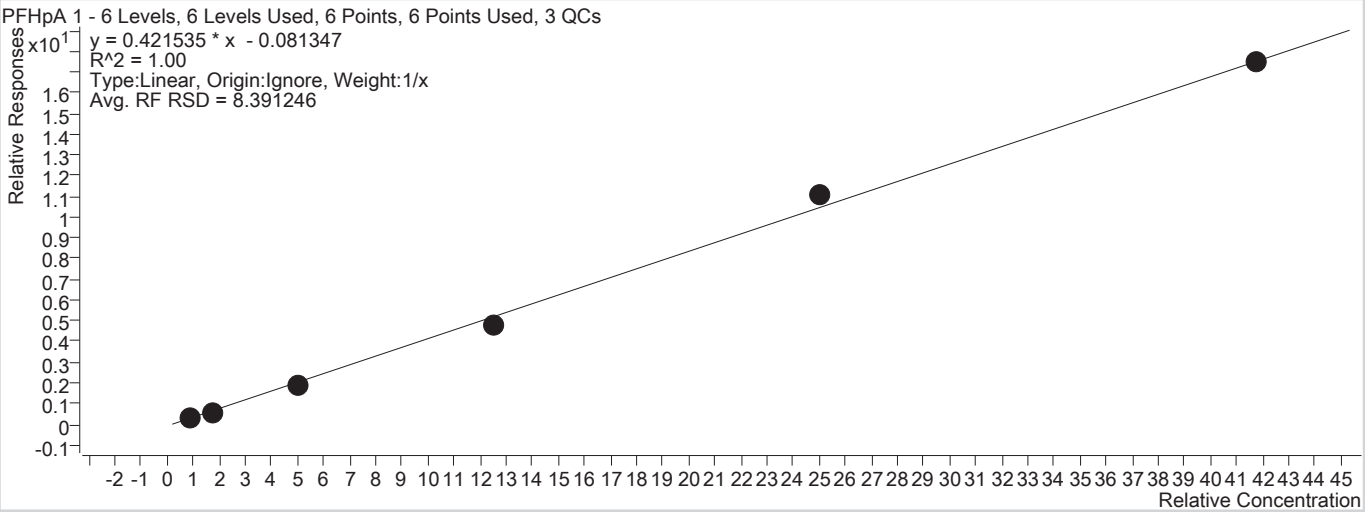
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFHpA 1

Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.96	2769	0.3900	28	115.8
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.63	5056	0.3562	60	95.9
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.55	15761	0.3676	190	91.1
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.43	38005	0.3789	352	91.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	26.49	87578	0.4433	1189	105.9
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	41.67	144581	0.4193	1765	99.9

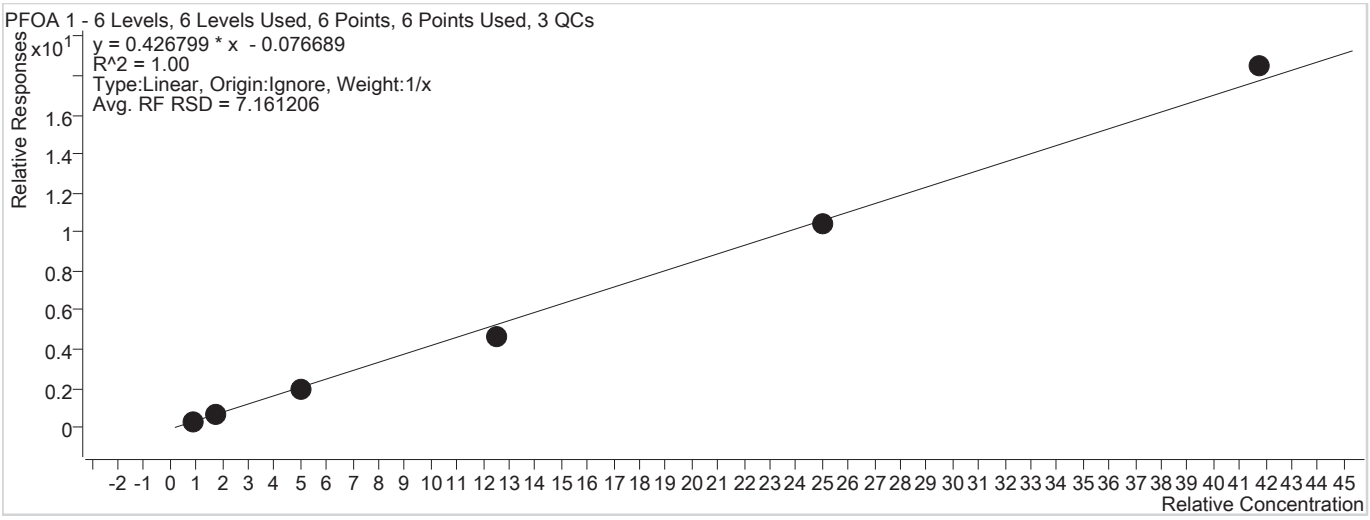
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFOA 1

Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.89	2835	0.3675	27	107.8
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.77	5942	0.4001	55	104.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.82	17315	0.3960	251	96.4
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.06	42523	0.3716	363	88.5
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	24.69	94546	0.4184	1057	98.7
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.49	154971	0.4433	1698	104.3

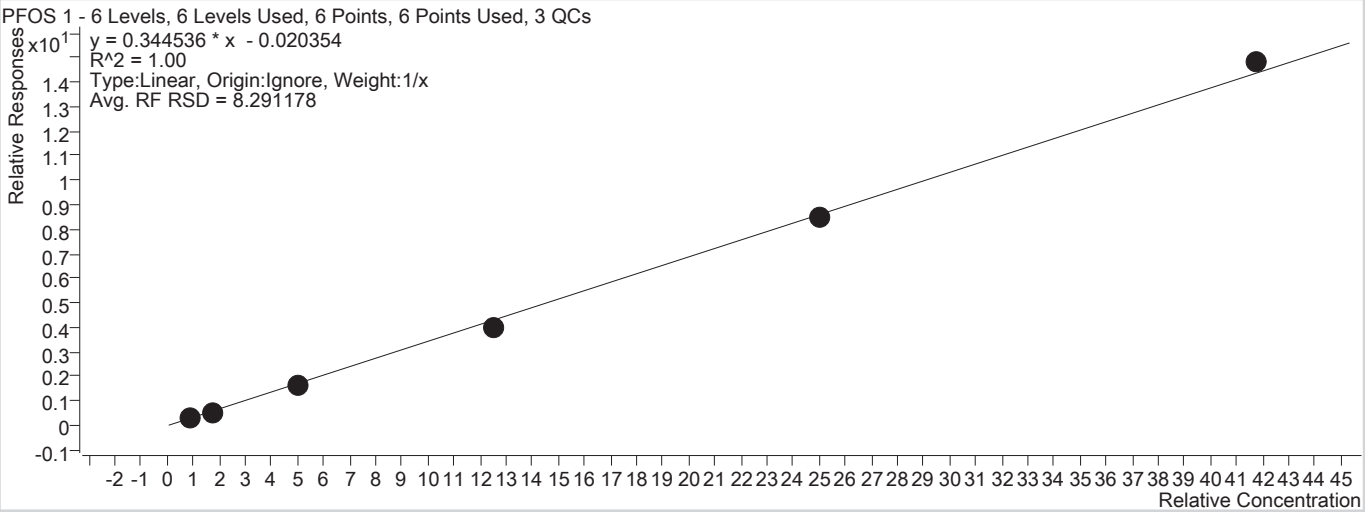
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFOS 1

Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.97	592	0.3794	90	117.2
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.54	961	0.2993	162	90.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.87	3310	0.3318	213	97.5
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.63	7727	0.3190	147	93.1
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	24.66	17307	0.3390	292	98.6
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.06	29880	0.3553	242	103.3

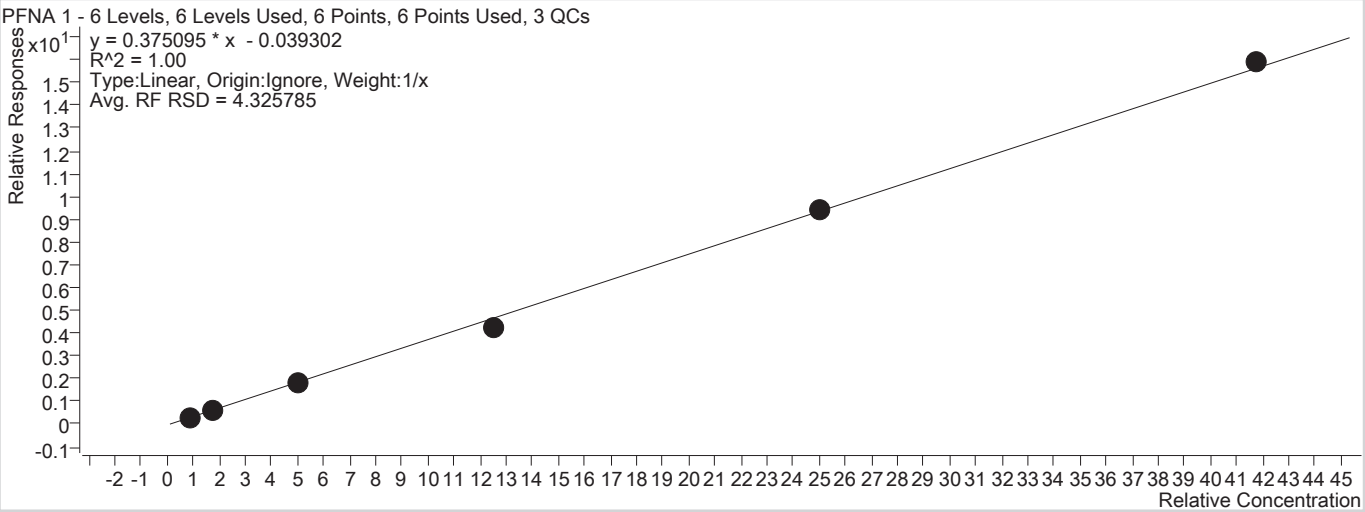
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFNA 1

Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.88	2562	0.3499	48	105.9
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.71	5291	0.3533	151	100.4
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.95	16213	0.3636	293	99.0
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.49	37466	0.3417	727	91.9
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.23	84183	0.3770	1433	100.9
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	42.47	137494	0.3811	1911	101.9

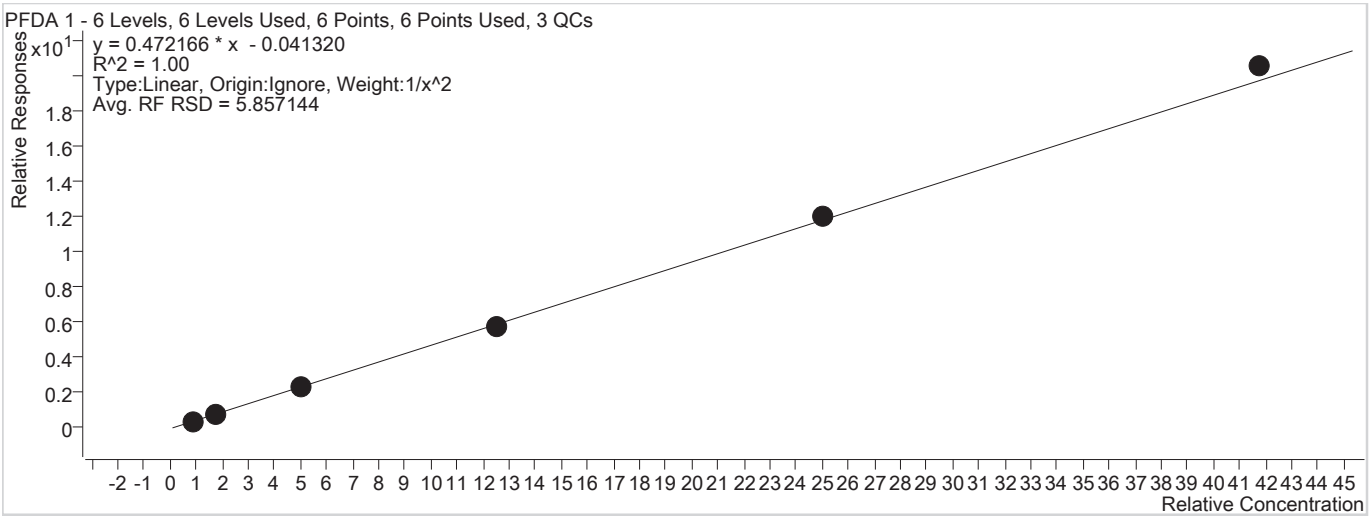
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFDA 1

Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.86	2686	0.4377	29	103.3
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.60	5351	0.4187	62	93.8
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.92	16796	0.4562	188	98.4
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	12.26	39281	0.4599	409	98.1
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.54	87430	0.4806	700	102.1
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.49	147759	0.4915	1476	104.3

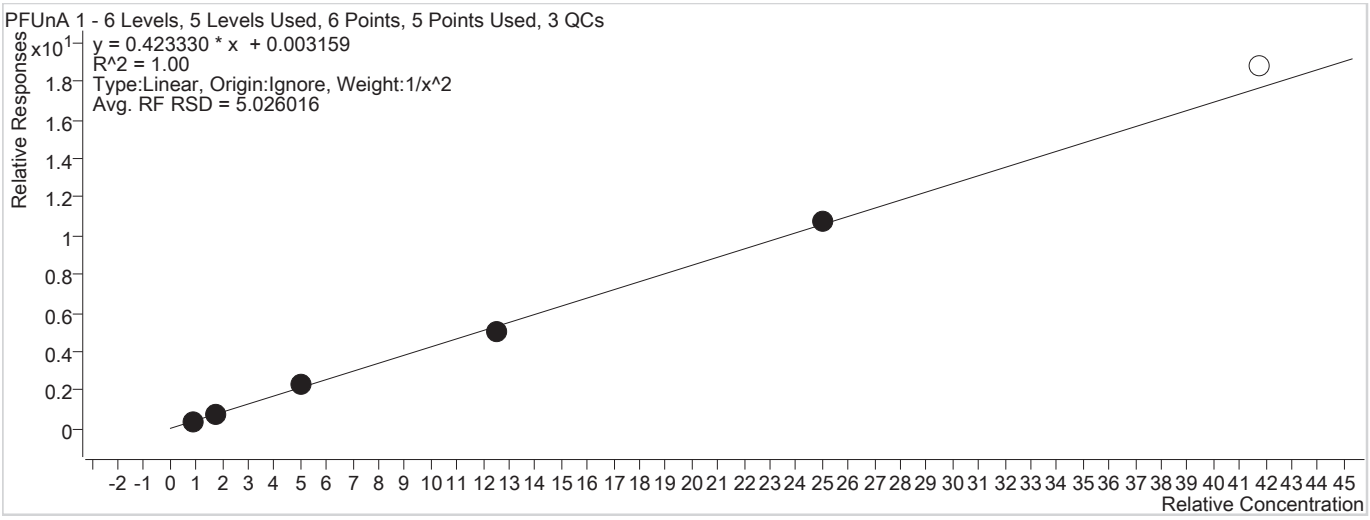
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFUnA 1

Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.85	3117	0.4360	20	102.1
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.60	5994	0.3998	71	94.0
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.32	19129	0.4508	113	106.3
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.98	42745	0.4059	217	95.8
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.43	96084	0.4308	236	101.7
STD 6	STD 6		2018/02/06 6:36:29 PM	41.70	44.42	162248	0.4511	303	106.5

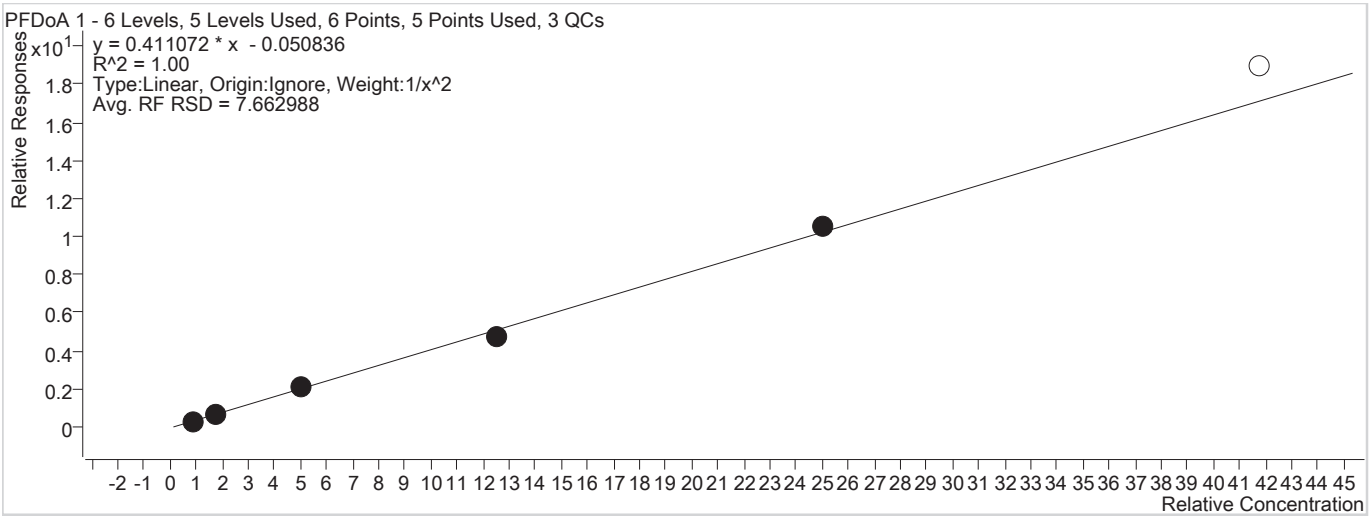
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFDoA 1

Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.82	3531	0.3457	89	99.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.73	7517	0.3894	128	102.0
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.11	23281	0.4097	657	102.1
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.67	54842	0.3799	1503	93.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.87	122186	0.4233	2081	103.5
STD 6	STD 6		2018/02/06 6:36:29 PM	41.70	46.23	206576	0.4545	3325	110.9

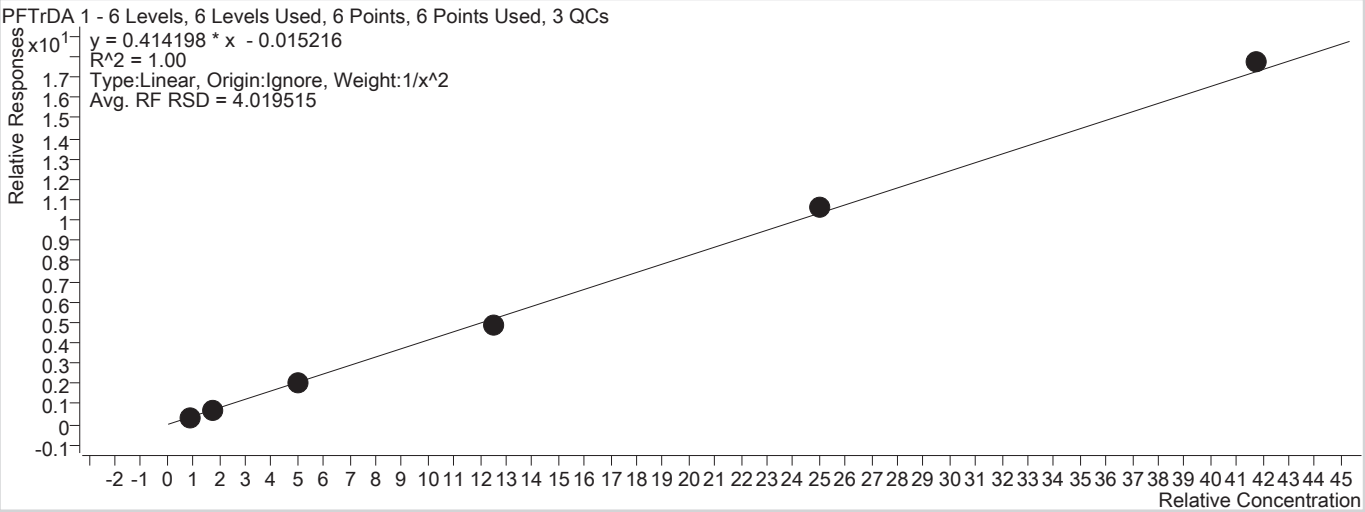
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFTrDA 1

Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.84	4399	0.4002	42	101.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.67	8288	0.3973	53	98.1
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.05	27306	0.4149	174	100.9
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.72	61125	0.3871	125	93.8
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.85	138442	0.4277	142	103.4
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	42.87	231782	0.4255	161	102.8

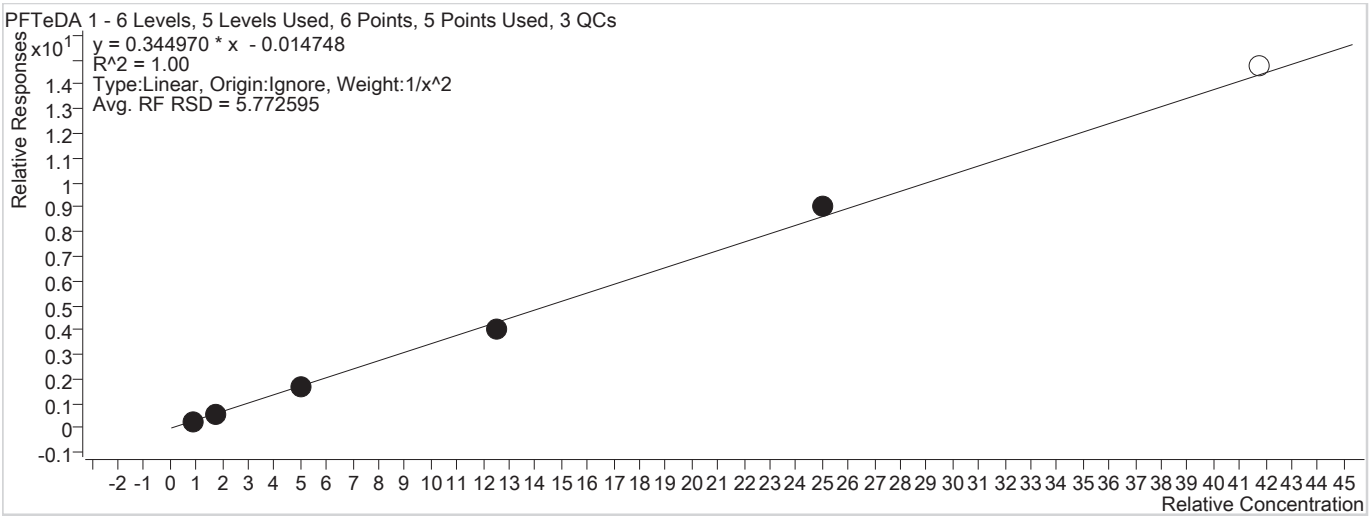
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFTeDA 1

Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.81	3520	0.3202	18	98.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.79	7406	0.3550	45	105.4
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.89	22027	0.3347	86	97.9
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.67	50660	0.3209	113	93.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	26.34	117482	0.3629	124	105.4
STD 6	STD 6		2018/02/06 6:36:29 PM	41.70	42.78	192586	0.3535	126	102.6

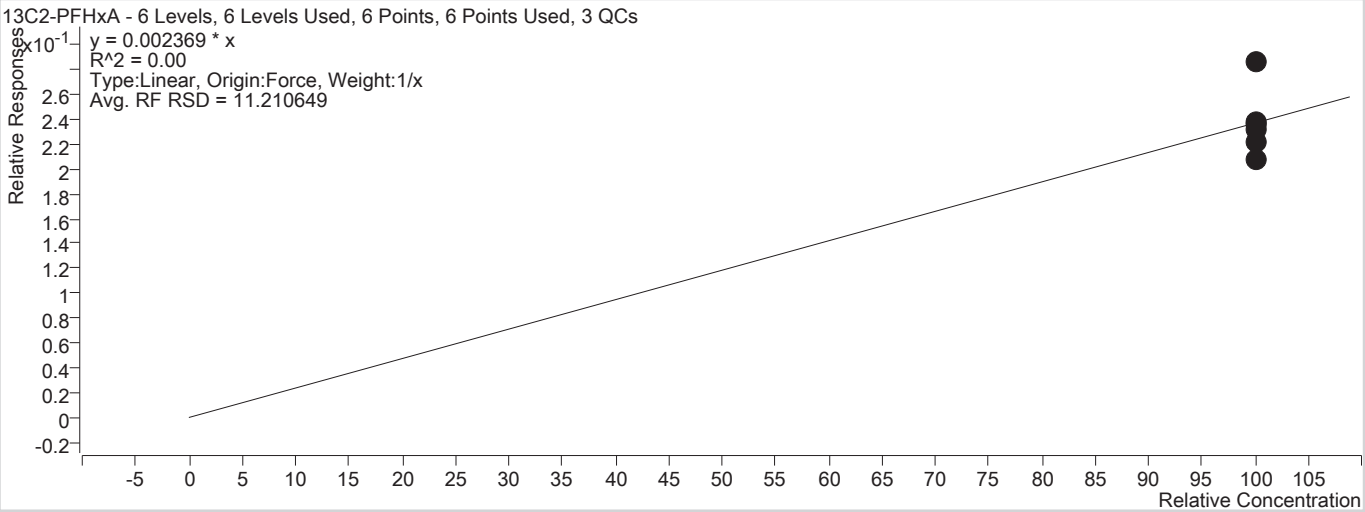
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: 13C2-PFHxA

Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	120.68	7360	0.0029	243	120.7
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	98.14	6506	0.0023	235	98.1
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	100.18	6984	0.0024	241	100.2
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	93.61	6243	0.0022	181	93.6
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	99.89	7067	0.0024	332	99.9
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	87.49	6099	0.0021	578	87.5

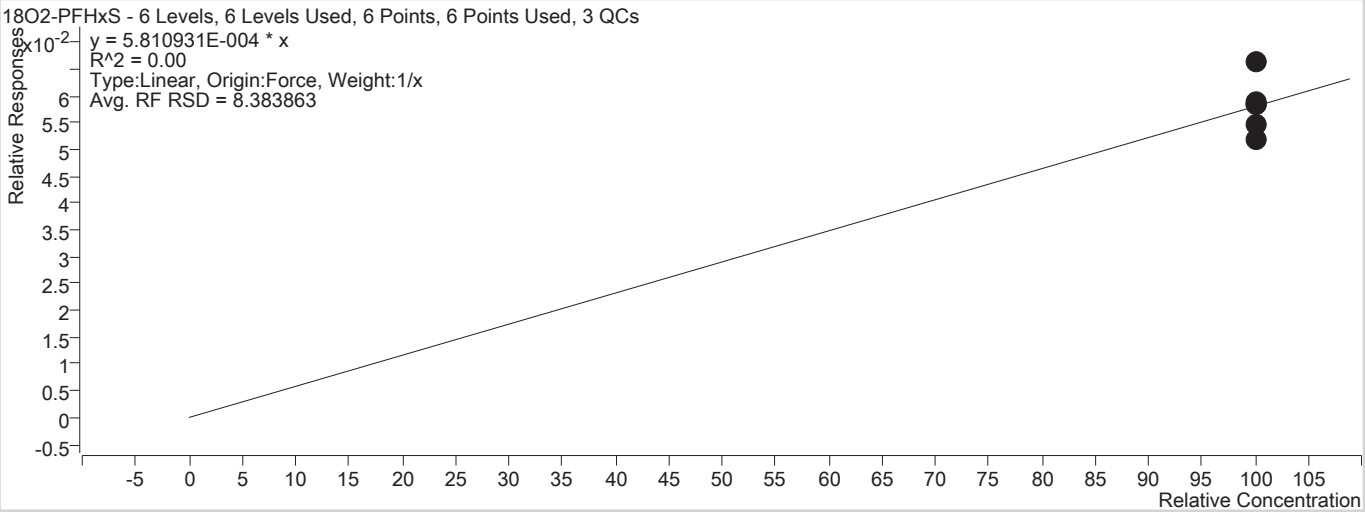
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: 18O2-PFHxS

Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	114.25	1709	0.0007	183	114.3
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	100.43	1633	0.0006	267	100.4
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	93.87	1605	0.0005	292	93.9
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	101.55	1661	0.0006	211	101.6
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	100.28	1740	0.0006	239	100.3
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	89.61	1532	0.0005	317	89.6

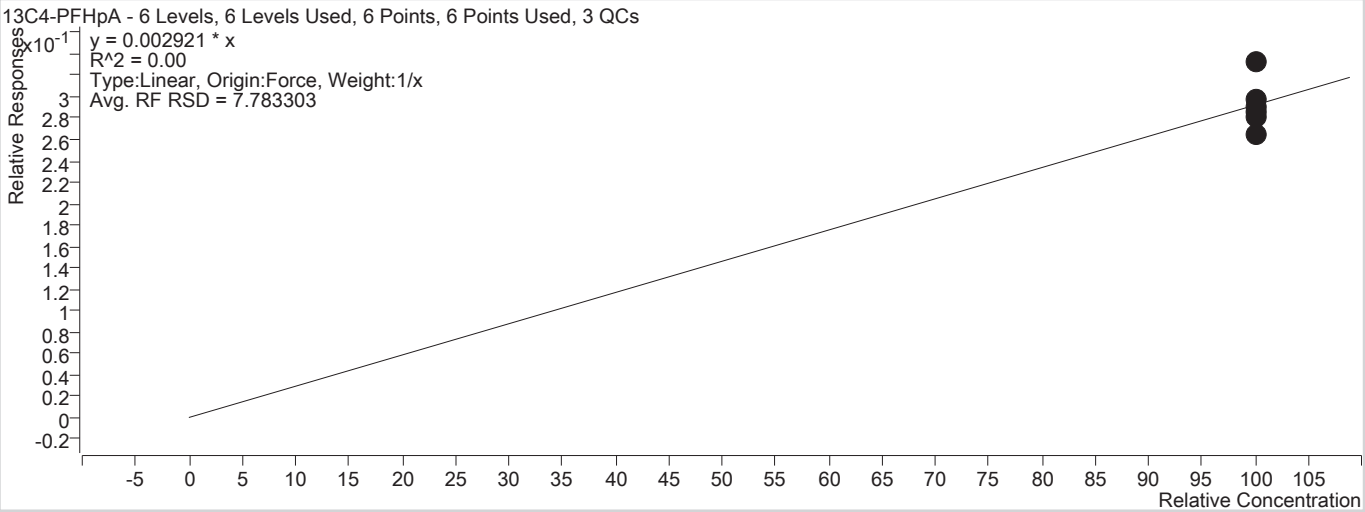
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: 13C4-PFHpA

Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	113.76	8555	0.0033	103	113.8
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	102.13	8349	0.0030	204	102.1
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	99.74	8574	0.0029	469	99.7
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	97.58	8024	0.0029	316	97.6
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	90.59	7902	0.0026	366	90.6
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	96.20	8269	0.0028	667	96.2

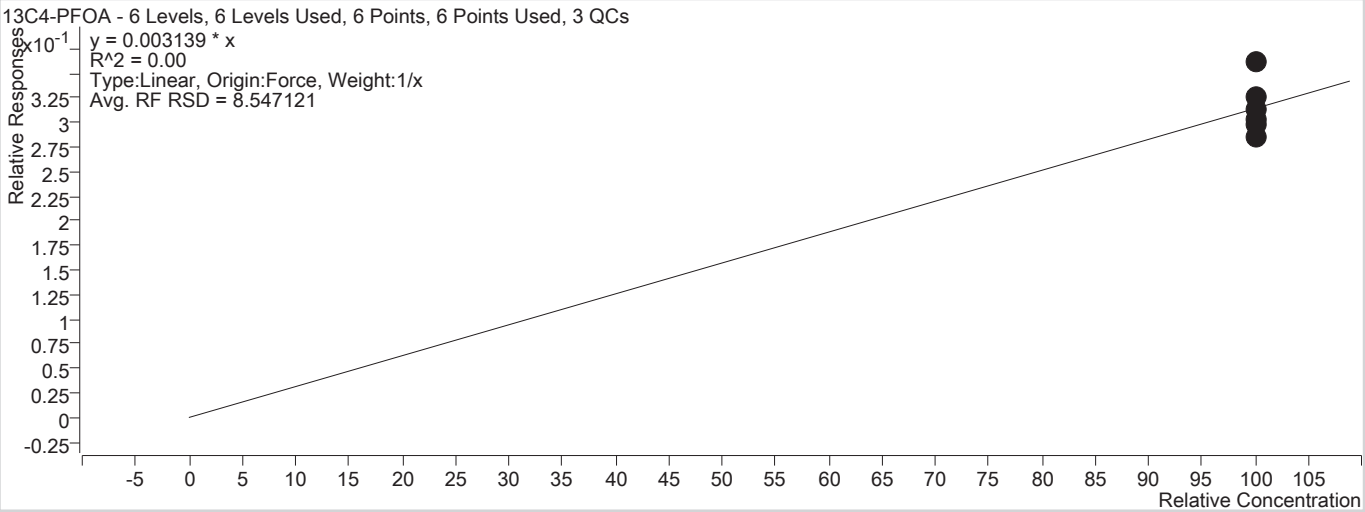
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: 13C4-PFOA

Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	115.02	9294	0.0036	363	115.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	99.46	8736	0.0031	219	99.5
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	94.68	8745	0.0030	189	94.7
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	103.62	9155	0.0033	280	103.6
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	96.44	9039	0.0030	230	96.4
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	90.77	8383	0.0028	186	90.8

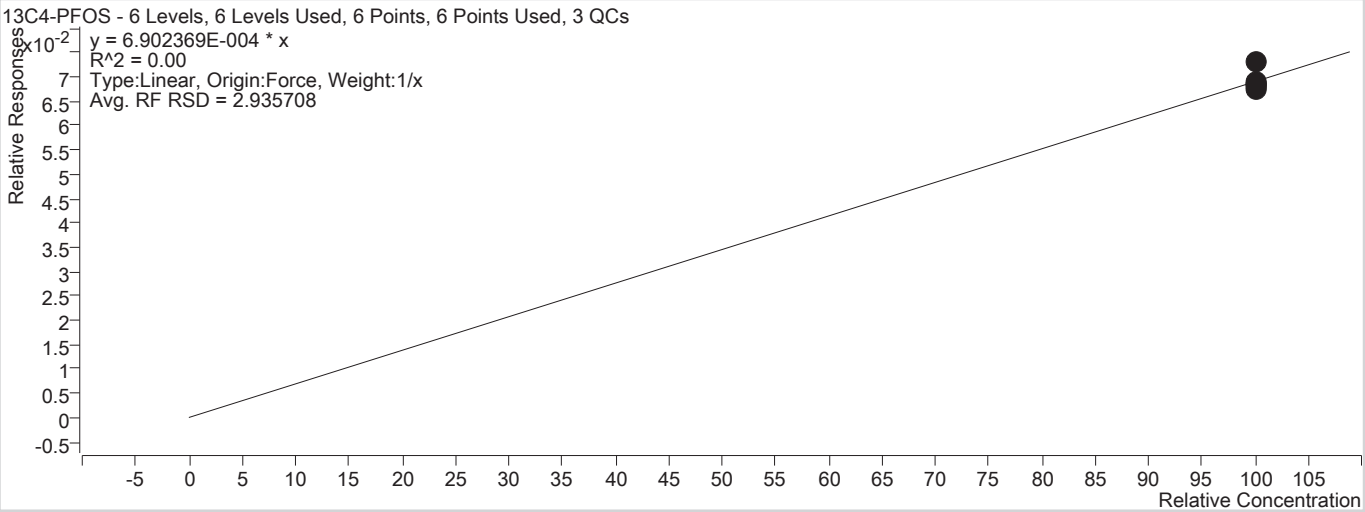
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: 13C4-PFOS

Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	105.81	1880	0.0007	201	105.8
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	97.81	1889	0.0007	284	97.8
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	98.23	1995	0.0007	153	98.2
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	99.75	1938	0.0007	321	99.8
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	99.08	2042	0.0007	139	99.1
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	99.32	2017	0.0007	398	99.3

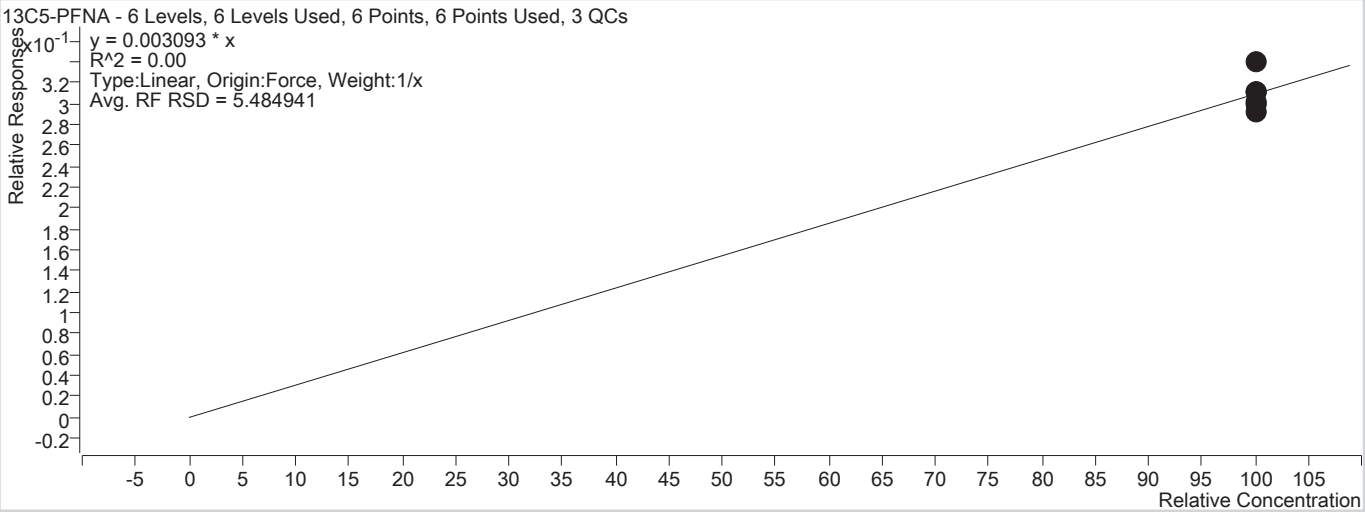
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: 13C5-PFNA

Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	109.89	8749	0.0034	149	109.9
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	101.06	8746	0.0031	224	101.1
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	97.30	8855	0.0030	136	97.3
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	100.75	8771	0.0031	551	100.8
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	96.73	8933	0.0030	340	96.7
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	94.26	8578	0.0029	162	94.3

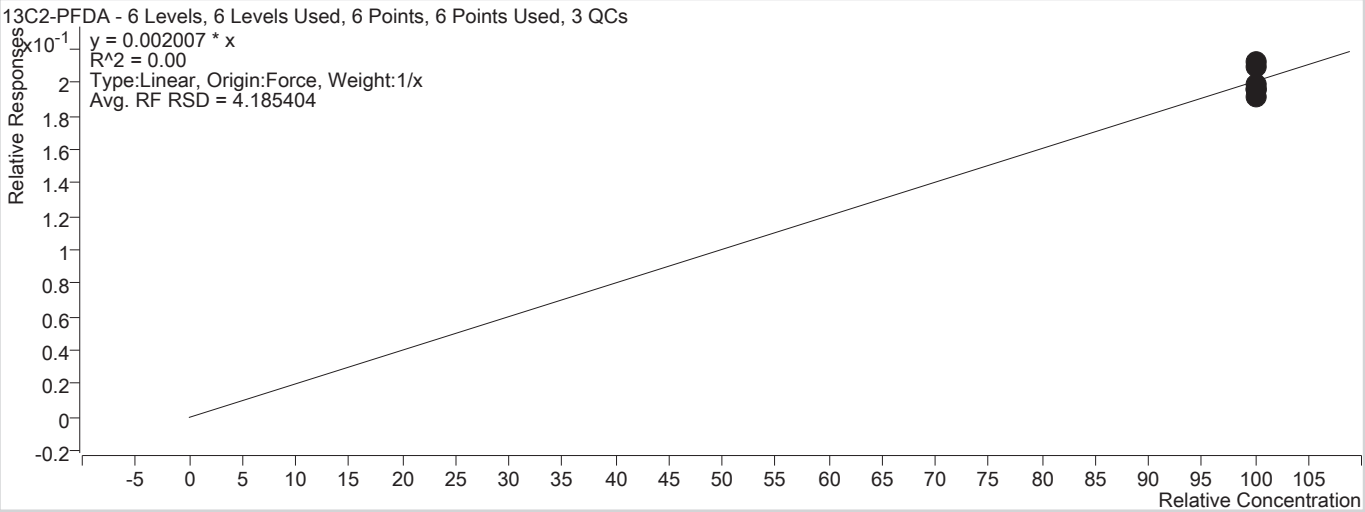
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: 13C2-PFDA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	105.73	7298	0.0021	271	105.7
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	104.50	7451	0.0021	298	104.5
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	97.75	7249	0.0020	269	97.8
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	95.15	6743	0.0019	250	95.2
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	97.70	7229	0.0020	358	97.7
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	99.16	7078	0.0020	223	99.2

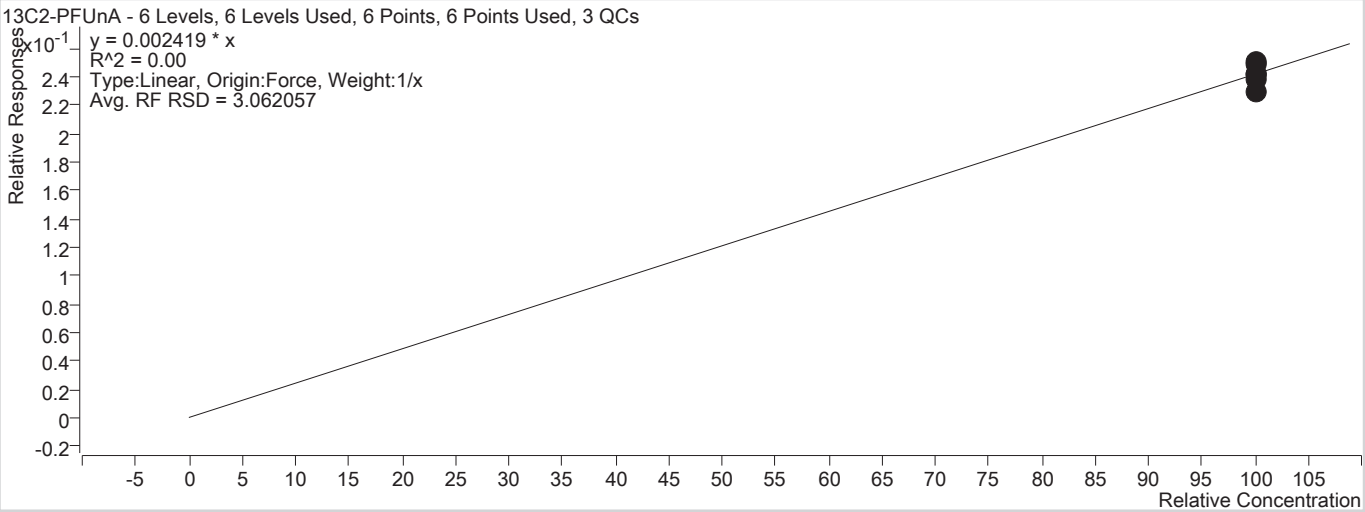
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: 13C2-PFUnA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	103.52	8613	0.0025	213	103.5
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	102.63	8820	0.0025	181	102.6
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	94.94	8486	0.0023	159	94.9
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	98.62	8424	0.0024	194	98.6
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	100.04	8922	0.0024	328	100.0
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	100.26	8626	0.0024	297	100.3

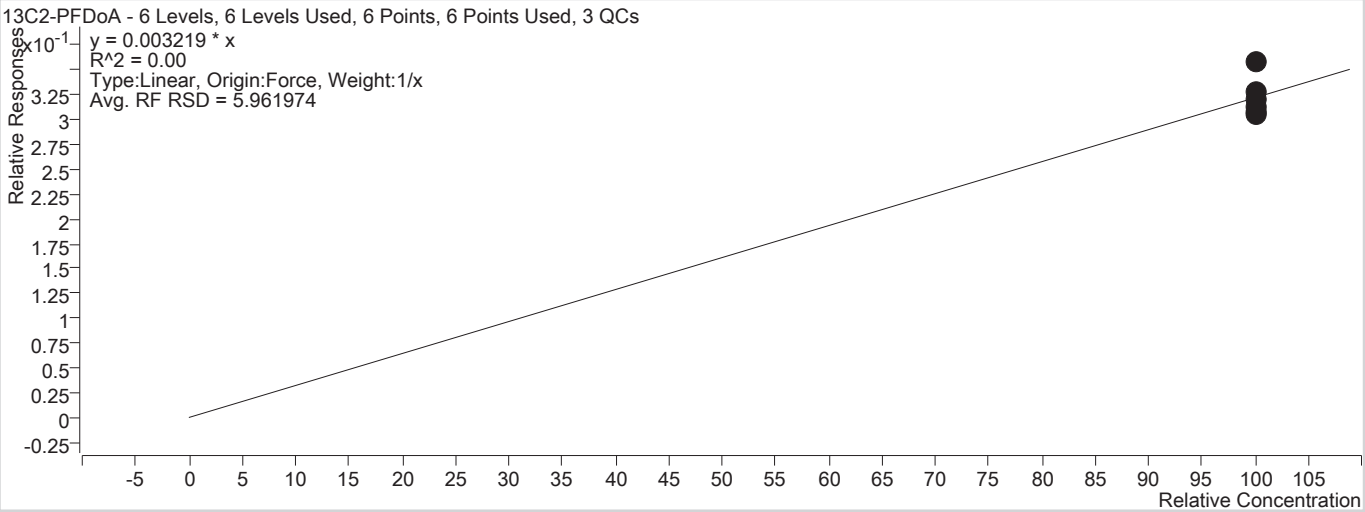
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: 13C2-PFDoA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	111.14	12307	0.0036	222	111.1
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	99.27	11355	0.0032	304	99.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	95.54	11366	0.0031	199	95.5
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	101.60	11550	0.0033	223	101.6
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	97.26	11545	0.0031	165	97.3
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	95.18	10899	0.0031	205	95.2

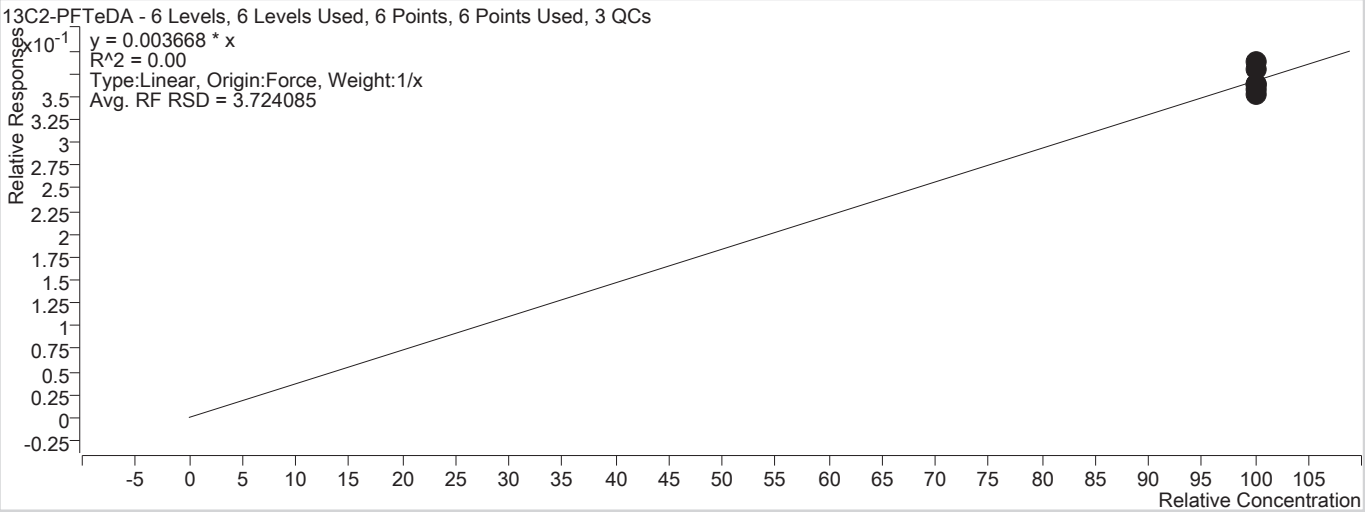
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: 13C2-PFTeDA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	100.00	105.61	13325	0.0039	217	105.6
STD 2	STD 2	x	2018/02/06 6:16:44 PM	100.00	95.72	12474	0.0035	477	95.7
STD 3	STD 3	x	2018/02/06 6:21:40 PM	100.00	98.84	13397	0.0036	310	98.8
STD 4	STD 4	x	2018/02/06 6:26:36 PM	100.00	99.38	12873	0.0036	320	99.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	100.00	97.25	13153	0.0036	455	97.3
STD 6	STD 6	x	2018/02/06 6:36:29 PM	100.00	103.20	13464	0.0038	477	103.2

By Compound Report

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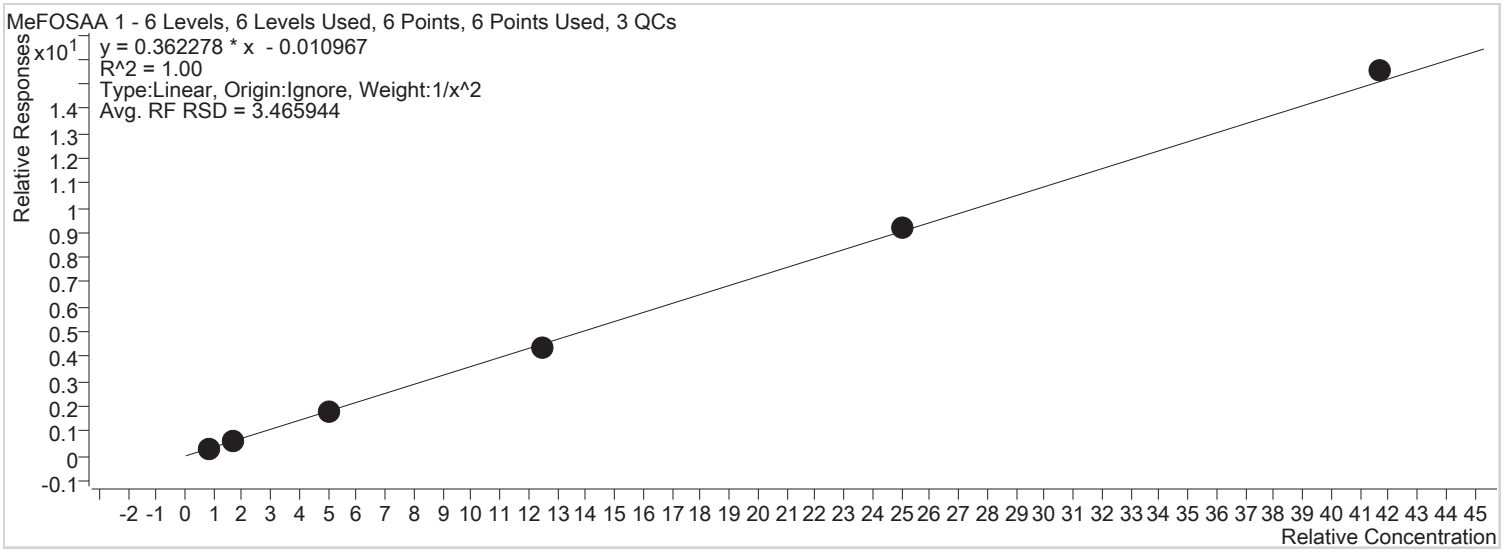
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics.batch.bin

Last Calib Update 2018/02/09 1:42:07 PM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 12:28:01 PM	0.83	0.84	581	0.3546	187	101.5
STD 2	STD 2	x	2018/02/06 12:30:26 PM	1.70	1.64	1088	0.3437	497	96.7
STD 3	STD 3	x	2018/02/06 12:32:51 PM	5.00	5.09	3380	0.3664	578	101.7
STD 4	STD 4	x	2018/02/06 12:35:16 PM	12.50	11.93	7647	0.3448	1165	95.4
STD 5	STD 5	x	2018/02/06 12:37:42 PM	25.00	25.44	17314	0.3682	913	101.8
STD 6	STD 6	x	2018/02/06 12:40:07 PM	41.70	42.90	27554	0.3725	1045	102.9

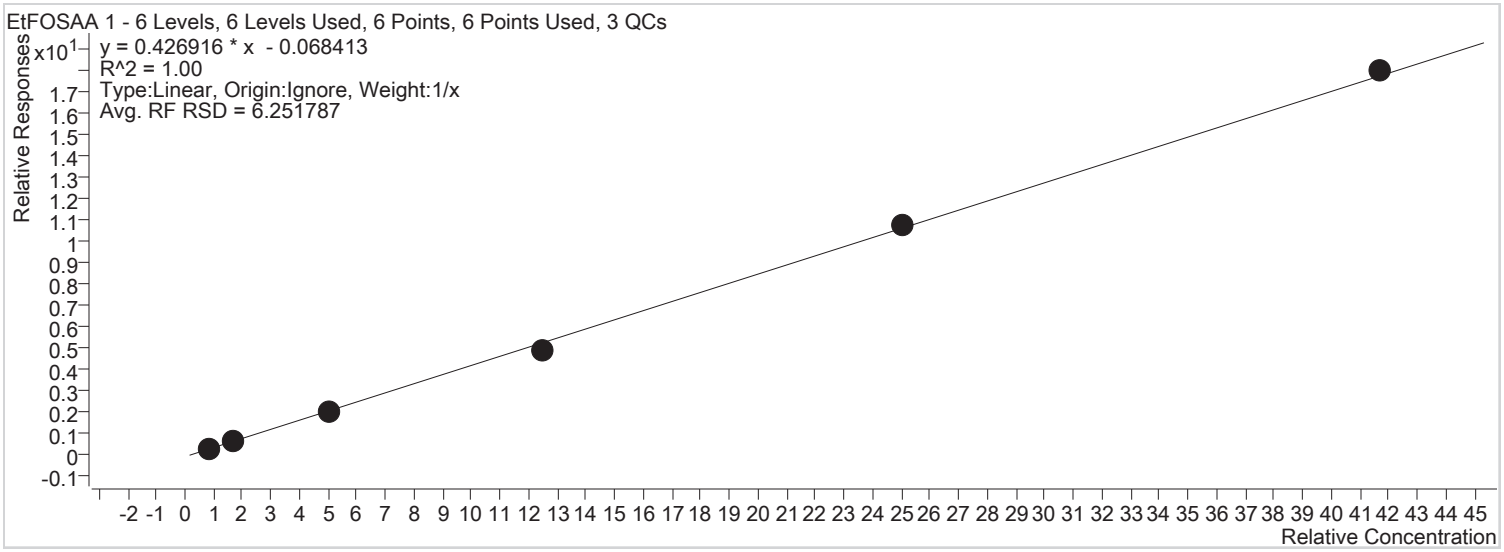
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics.batch.bin

Last Calib Update 2018/02/09 1:42:07 PM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 12:28:01 PM	0.83	0.89	520	0.3761	76	107.4
STD 2	STD 2	x	2018/02/06 12:30:26 PM	1.70	1.66	1054	0.3778	119	97.9
STD 3	STD 3	x	2018/02/06 12:32:51 PM	5.00	4.97	3261	0.4104	283	99.3
STD 4	STD 4	x	2018/02/06 12:35:16 PM	12.50	11.55	7583	0.3891	591	92.4
STD 5	STD 5	x	2018/02/06 12:37:42 PM	25.00	25.39	17091	0.4308	1008	101.5
STD 6	STD 6	x	2018/02/06 12:40:07 PM	41.70	42.27	27557	0.4311	1223	101.4

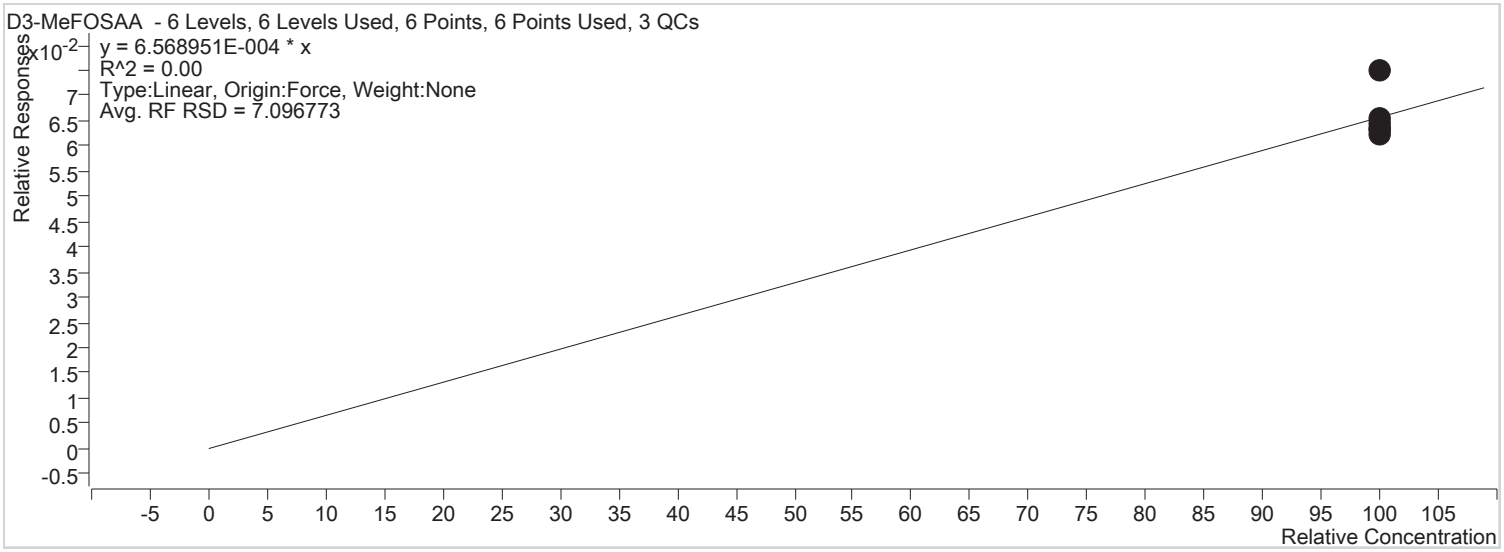
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics.batch.bin

Last Calib Update 2018/02/09 1:42:07 PM

Instrument: LCMS04

Analyte: D3-MeFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 12:28:01 PM	100.00	114.03	1974	0.0007	133	114.0
STD 2	STD 2	x	2018/02/06 12:30:26 PM	100.00	98.23	1862	0.0006	114	98.2
STD 3	STD 3	x	2018/02/06 12:32:51 PM	100.00	96.74	1845	0.0006	159	96.7
STD 4	STD 4	x	2018/02/06 12:35:16 PM	100.00	94.91	1774	0.0006	103	94.9
STD 5	STD 5	x	2018/02/06 12:37:42 PM	100.00	100.02	1881	0.0007	180	100.0
STD 6	STD 6	x	2018/02/06 12:40:07 PM	100.00	96.07	1774	0.0006	141	96.1

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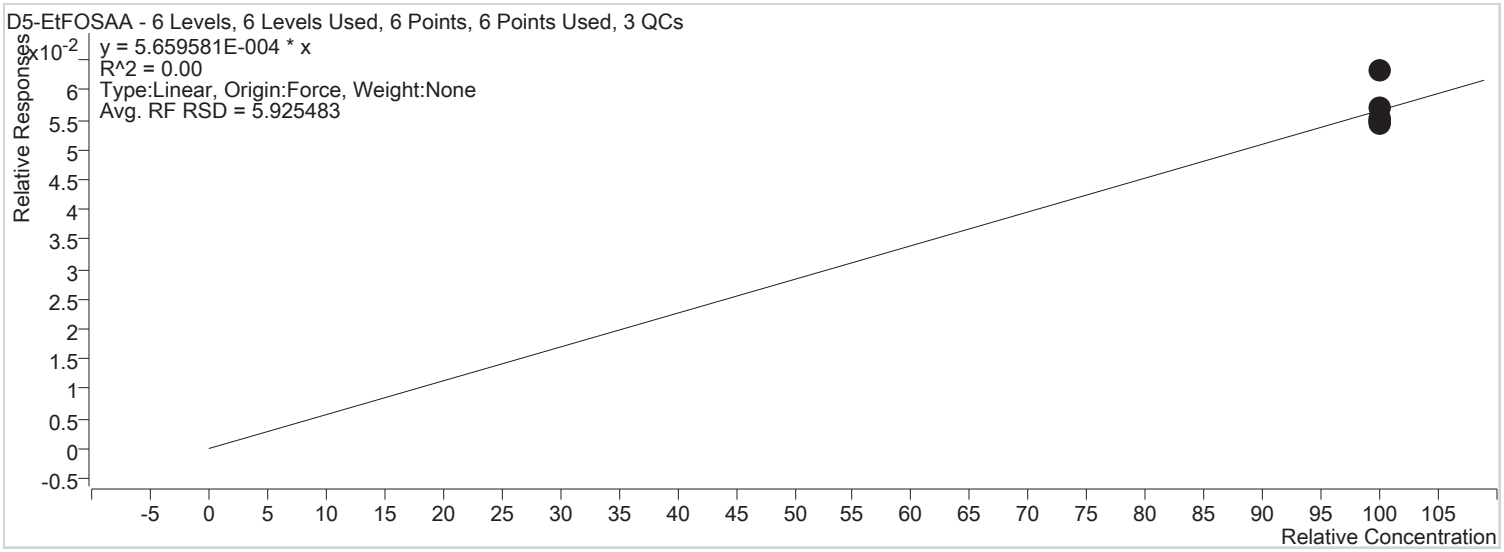
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics.batch.bin

Last Calib Update 2018/02/09 1:42:07 PM

Instrument: LCMS04

Analyte: D5-EtFOSAA

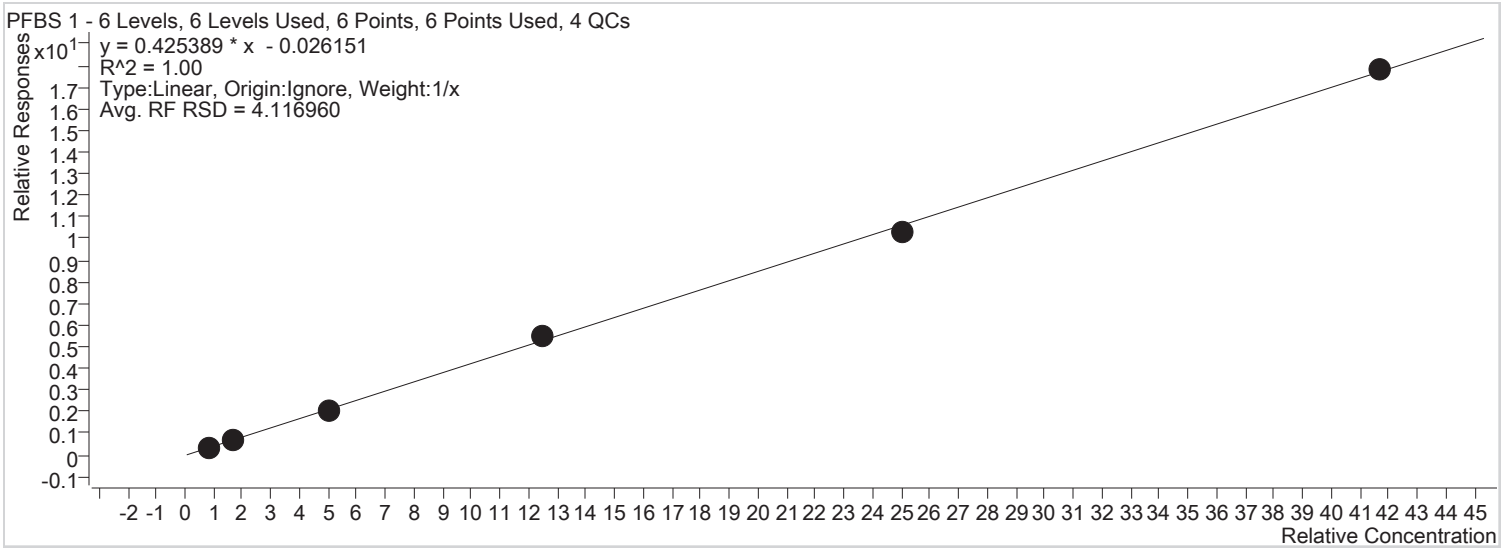
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 12:28:01 PM	100.00	111.70	1666	0.0006	192	111.7
STD 2	STD 2	x	2018/02/06 12:30:26 PM	100.00	100.48	1641	0.0006	112	100.5
STD 3	STD 3	x	2018/02/06 12:32:51 PM	100.00	96.70	1589	0.0005	168	96.7
STD 4	STD 4	x	2018/02/06 12:35:16 PM	100.00	96.81	1559	0.0005	275	96.8
STD 5	STD 5	x	2018/02/06 12:37:42 PM	100.00	97.95	1587	0.0006	225	97.9
STD 6	STD 6	x	2018/02/06 12:40:07 PM	100.00	96.36	1533	0.0005	254	96.4

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

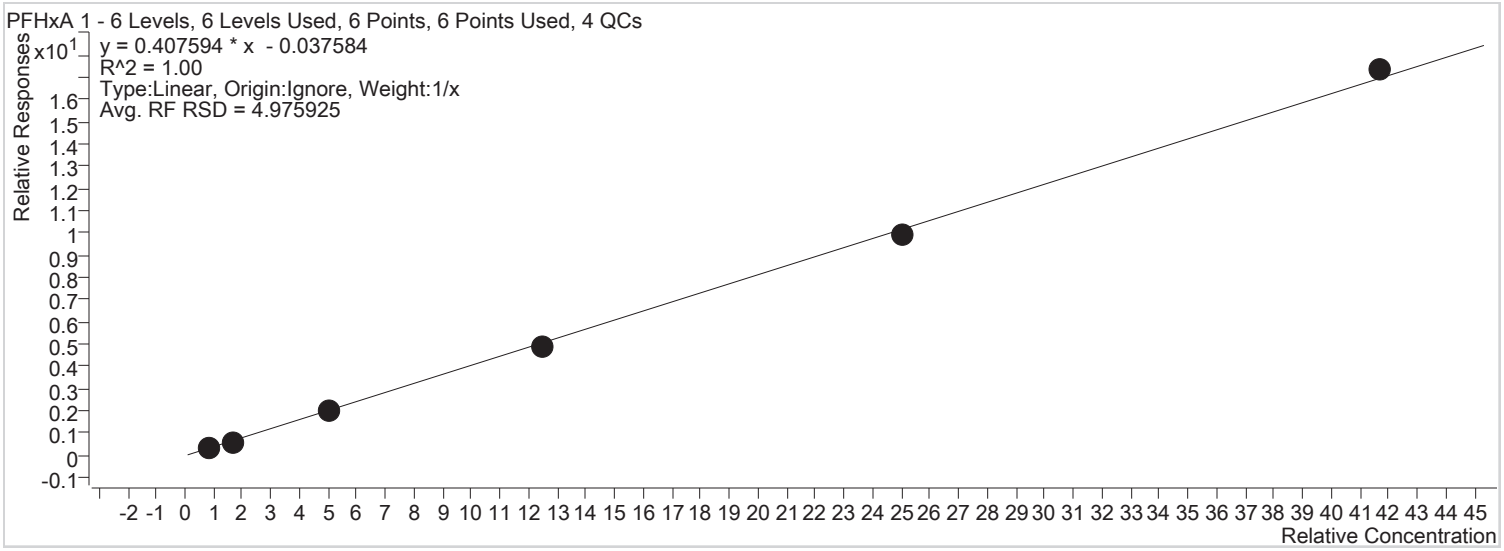
Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.85	497	0.4065	97	103.0
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.63	1093	0.3928	150	95.9
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	4.94	3474	0.4148	439	98.7
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	13.07	8497	0.4426	1039	104.5
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.32	16101	0.4128	837	97.3
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	41.92	28114	0.4270	125	100.5

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.90	2077	0.3981	145	108.8
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.59	3838	0.3591	502	93.5
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	5.07	13004	0.4060	1085	101.5
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	11.97	29662	0.3874	1794	95.8
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.55	59203	0.3987	2807	98.2
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.64	103000	0.4159	5713	102.3

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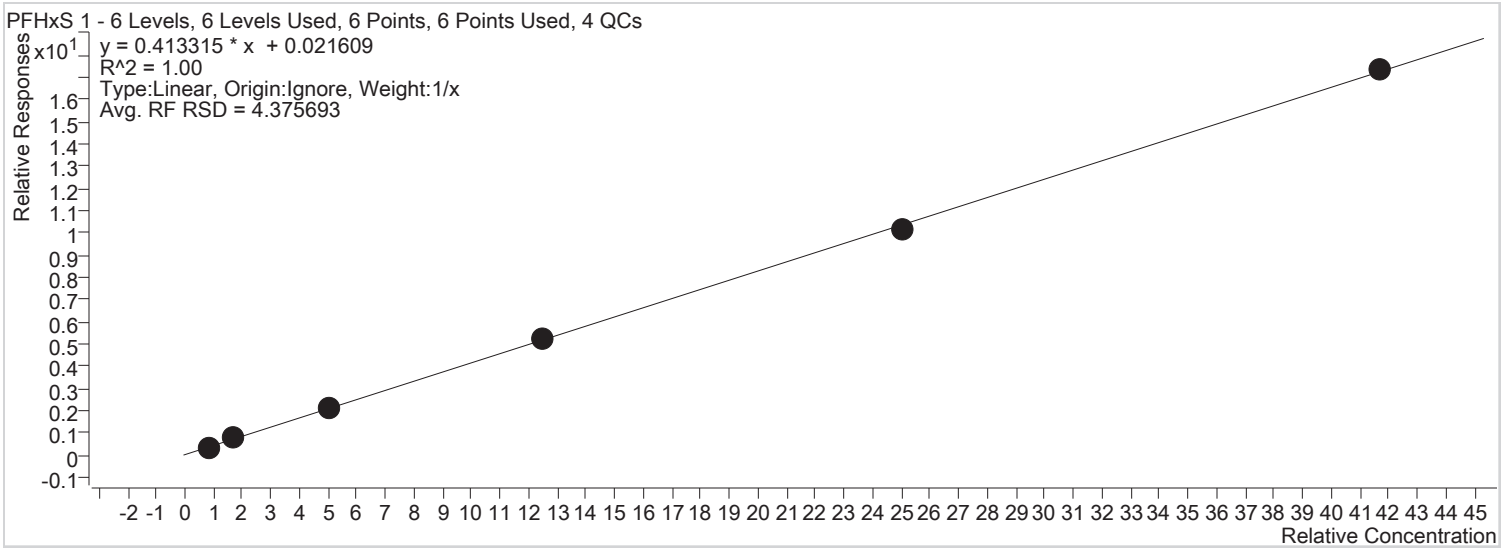
Instrument: LCMS04

Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.77	500	0.4090	121	92.6
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.83	1272	0.4571	183	107.5
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	4.98	3485	0.4161	326	99.6
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	12.68	8086	0.4211	269	101.5
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.55	15866	0.4068	634	98.2
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	41.91	27387	0.4159	785	100.5

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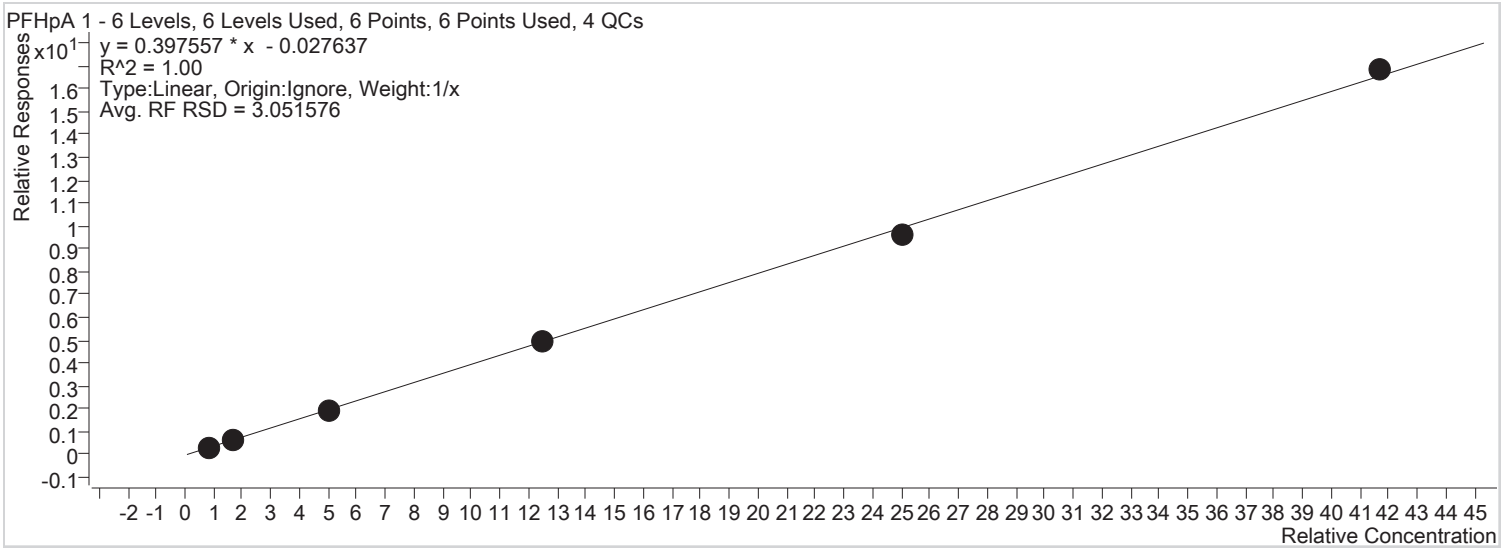
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.84	2450	0.3681	25	101.0
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.71	5287	0.3832	38	100.5
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	5.01	16931	0.3926	167	100.2
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	12.40	39741	0.3922	257	99.2
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.38	75218	0.3866	310	97.5
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.39	131039	0.4035	312	101.7

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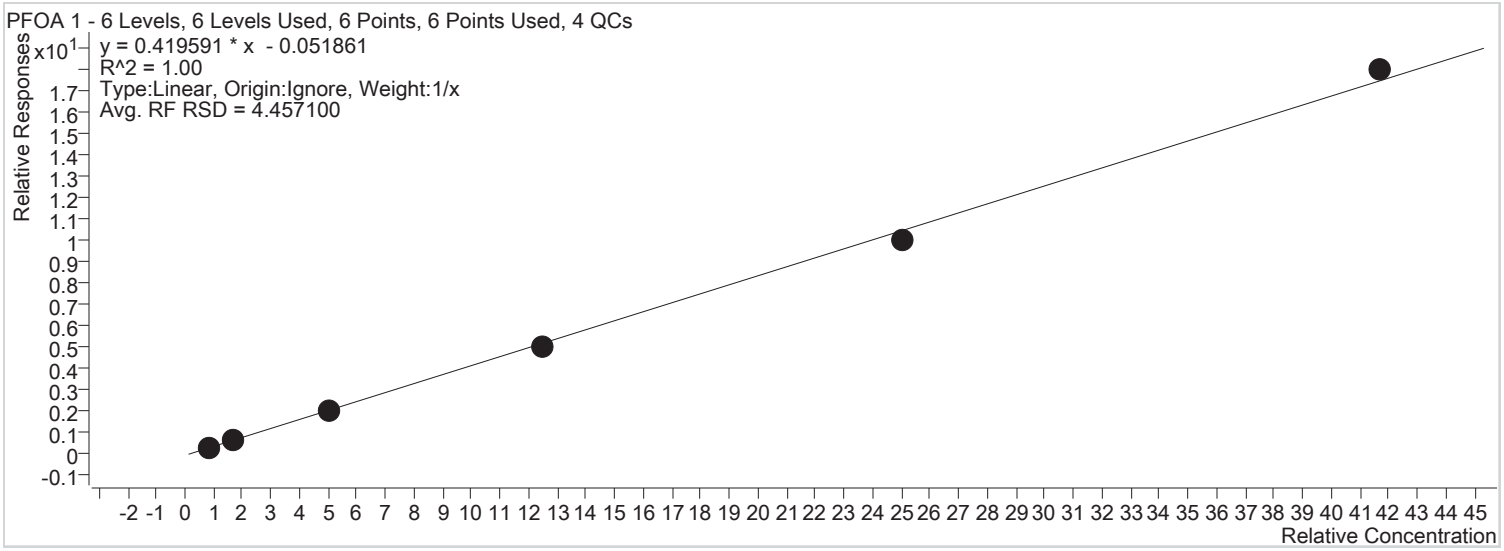
Instrument: LCMS04

Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.87	2739	0.3781	28	105.0
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.70	5595	0.3882	57	99.8
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	4.91	17877	0.4013	168	98.1
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	12.21	42181	0.4057	343	97.7
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.12	85357	0.4027	922	96.5
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.93	146836	0.4307	850	103.0

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
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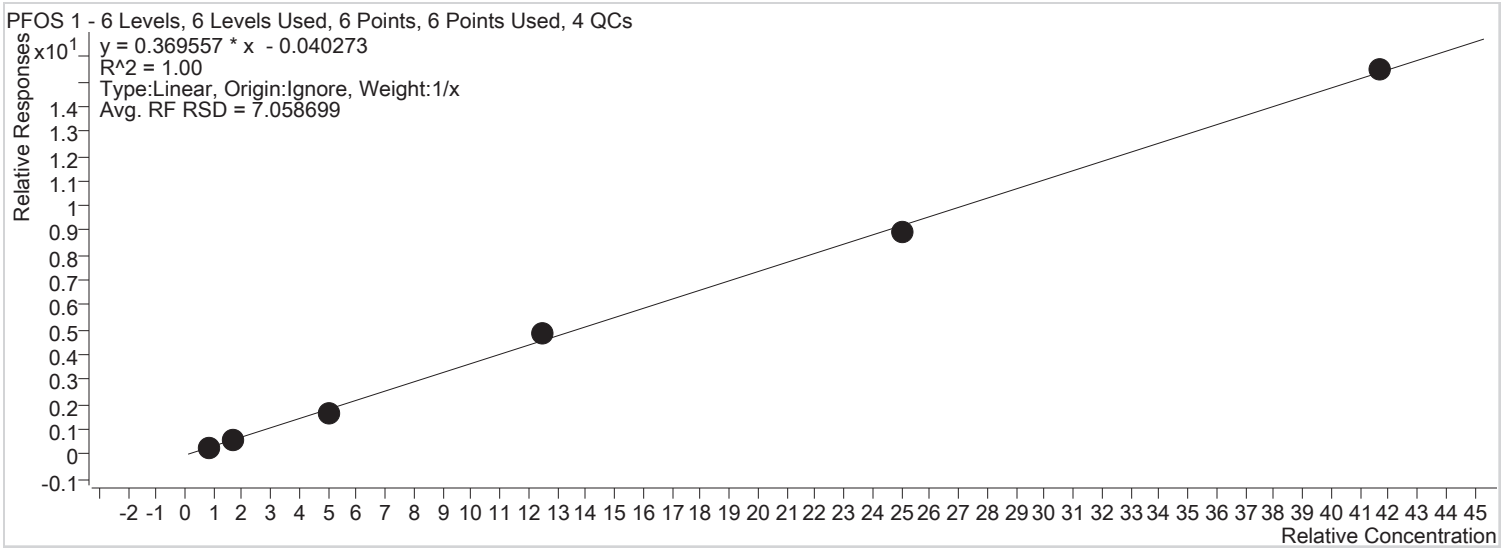
Instrument: LCMS04

Analyte: PFOS 1
Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.83	497	0.3219	43	100.2
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.76	1227	0.3600	164	103.8
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	4.59	3588	0.3315	201	91.9
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	13.29	8472	0.3897	245	106.3
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.26	16897	0.3570	166	97.0
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	41.99	28723	0.3711	249	100.7

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
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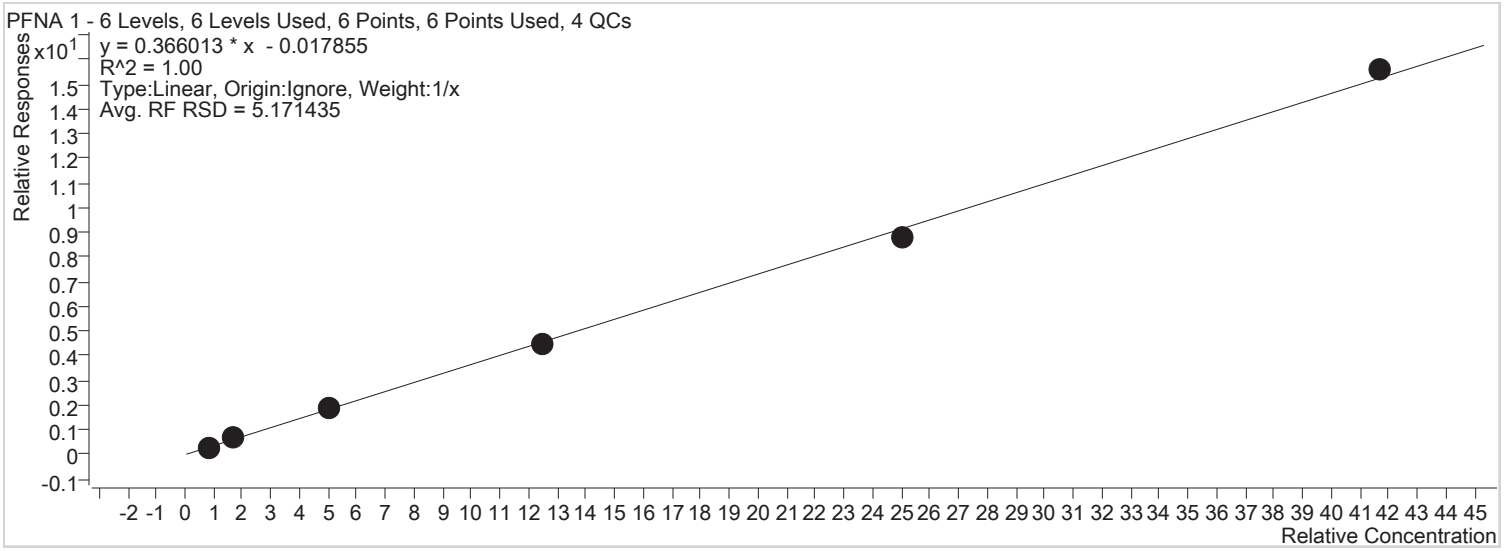
Instrument: LCMS04

Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.79	2263	0.3264	24	95.1
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.79	5567	0.3747	69	105.2
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	5.12	16539	0.3712	383	102.4
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	12.36	37275	0.3606	450	98.9
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.05	74127	0.3514	1100	96.2
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.62	128982	0.3737	3317	102.2

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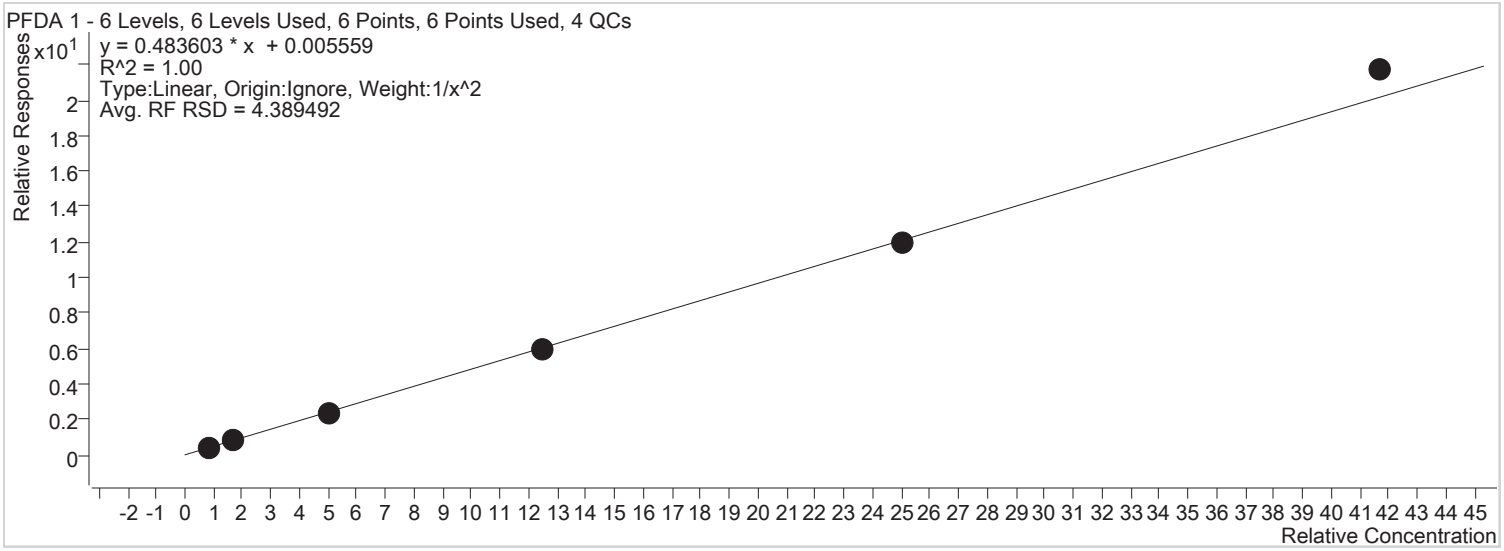
Instrument: LCMS04

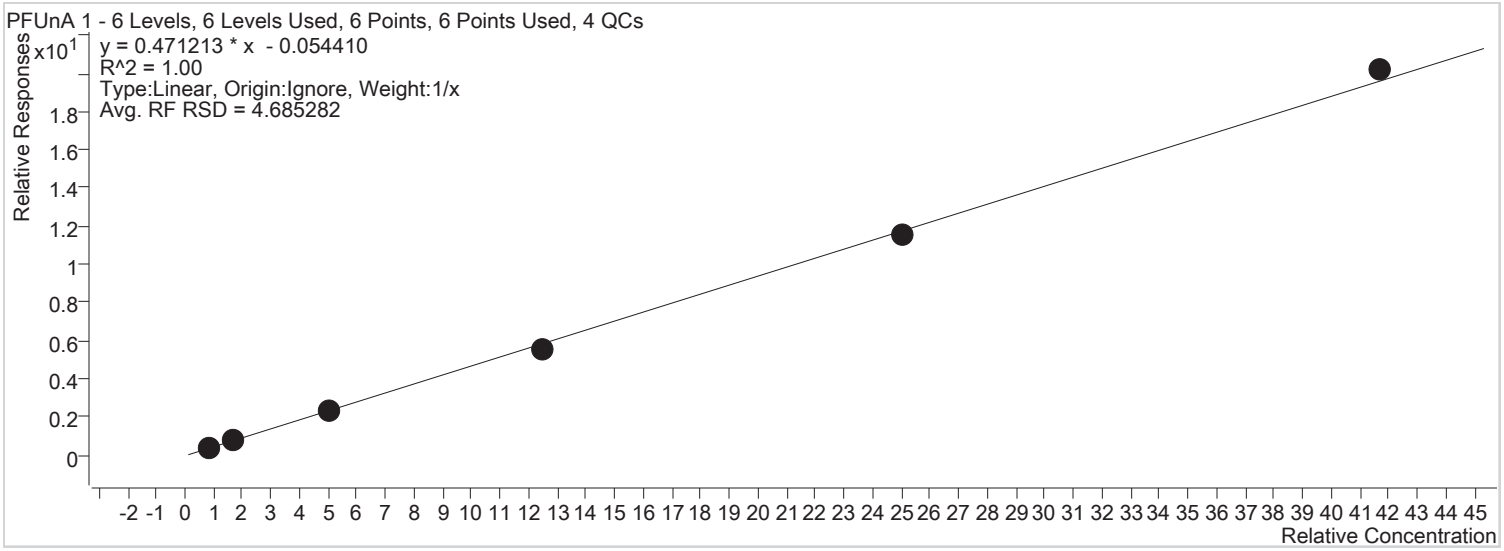
Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.85	2942	0.5016	38	102.3
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.64	5859	0.4699	49	96.5
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	4.80	17246	0.4654	191	96.0
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	12.35	42674	0.4781	616	98.8
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.68	82723	0.4775	830	98.7
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	44.90	138781	0.5208	1271	107.7

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.92	3263	0.4545	30	110.4
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.64	6188	0.4214	43	96.2
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	4.91	19018	0.4518	111	98.2
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	11.74	44484	0.4384	149	94.0
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.56	87330	0.4608	157	98.2
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.96	155746	0.4842	175	103.0

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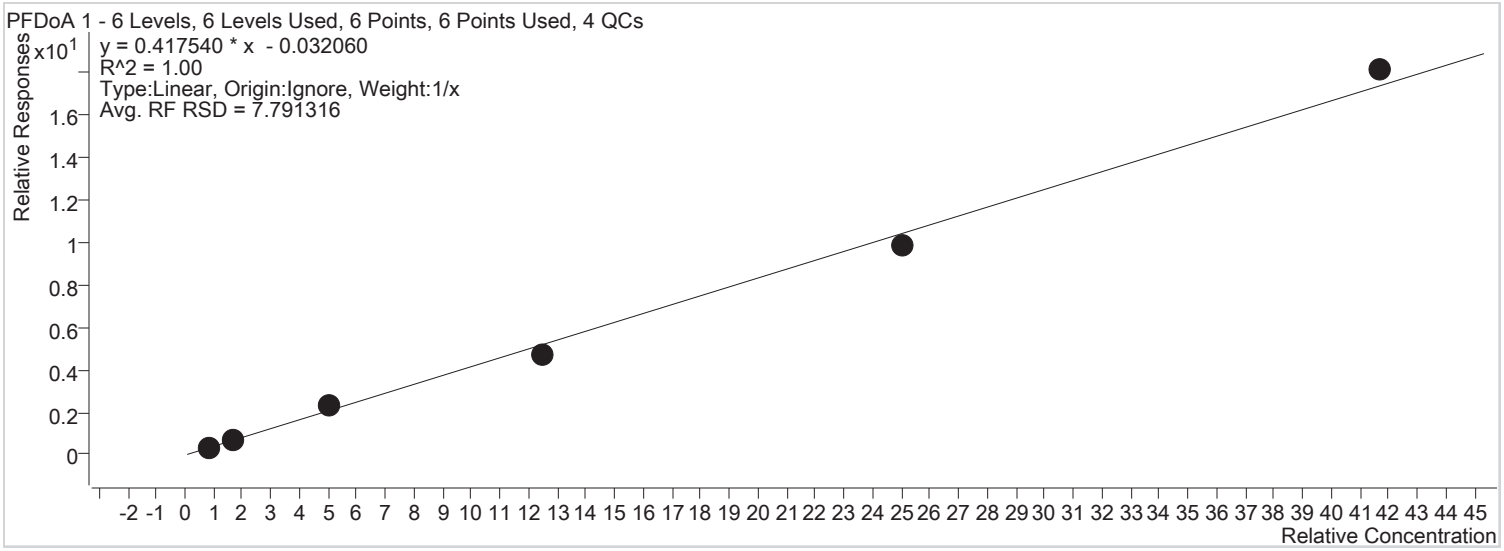
Instrument: LCMS04

Analyte: PFDoA 1
Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.86	3755	0.3923	89	103.2
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.62	7818	0.3779	330	95.0
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	5.53	25147	0.4555	596	110.6
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	11.48	57101	0.3810	1427	91.9
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	23.73	108804	0.3951	2236	94.9
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	43.51	189906	0.4349	3216	104.3

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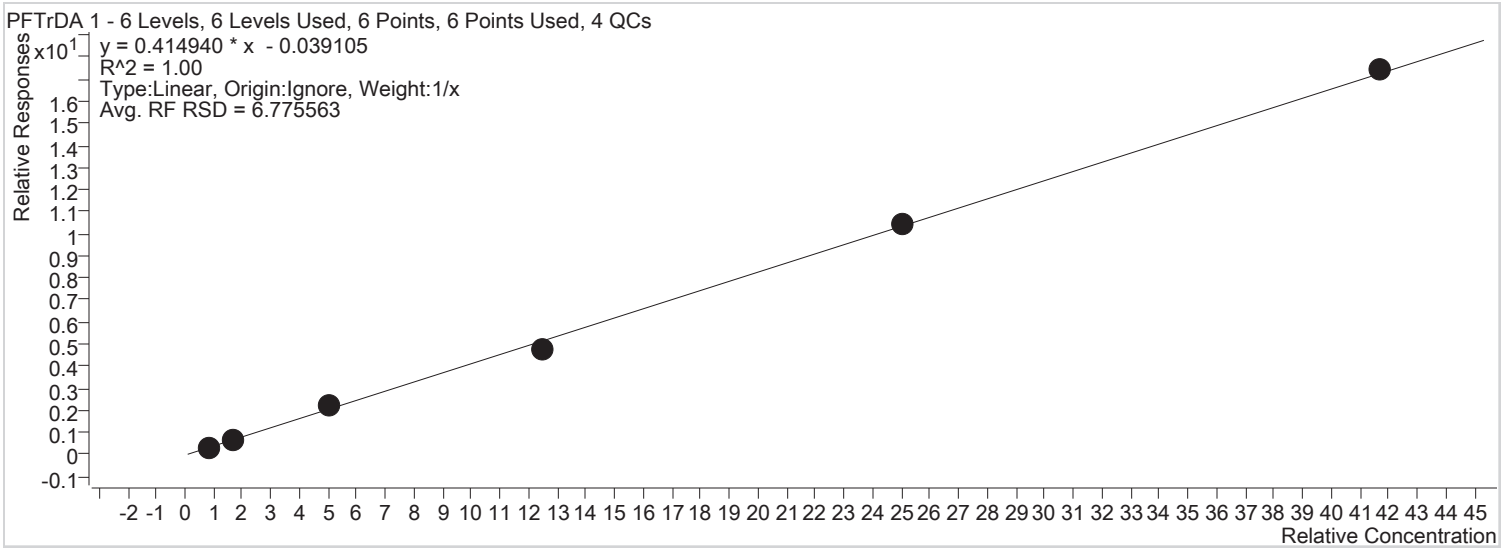
Instrument: LCMS04

Analyte: PFTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.83	3880	0.3675	35	99.9
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.68	8552	0.3863	73	98.6
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	5.37	28657	0.4377	178	107.4
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	11.53	62931	0.3795	200	92.2
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	25.22	124952	0.4170	220	100.9
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.11	216546	0.4181	253	101.0

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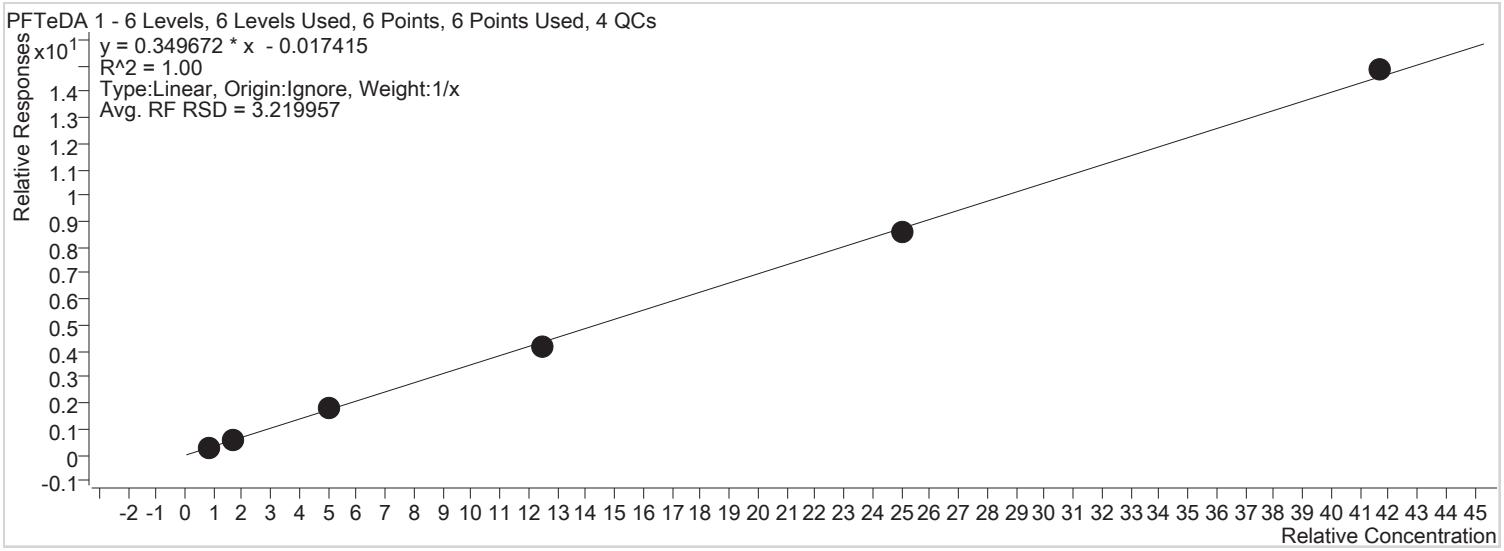
Instrument: LCMS04

Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.86	3584	0.3395	18	103.1
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.65	7309	0.3301	57	97.3
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	5.16	23410	0.3575	121	103.2
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	12.04	55599	0.3353	223	96.3
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.54	102650	0.3425	190	98.2
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.48	184279	0.3558	237	101.9

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
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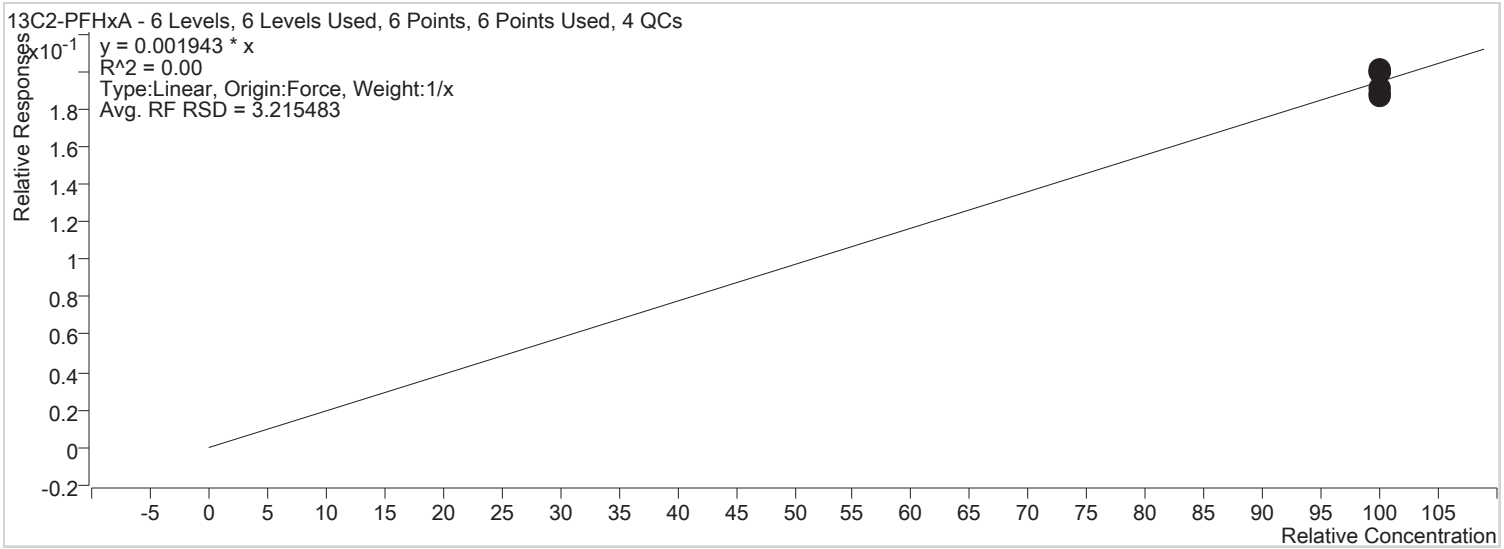
Instrument: LCMS04

Analyte: 13C2-PFHxA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	100.00	102.54	6286	0.0020	273	102.5
STD 2	STD 2	x	2018/02/08 3:16:45 AM	100.00	102.76	6287	0.0020	412	102.8
STD 3	STD 3	x	2018/02/08 3:21:40 AM	100.00	103.25	6406	0.0020	126	103.3
STD 4	STD 4	x	2018/02/08 3:26:36 AM	100.00	96.08	6125	0.0019	362	96.1
STD 5	STD 5	x	2018/02/08 3:31:32 AM	100.00	97.01	5939	0.0019	245	97.0
STD 6	STD 6	x	2018/02/08 3:36:28 AM	100.00	98.36	5939	0.0019	991	98.4

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
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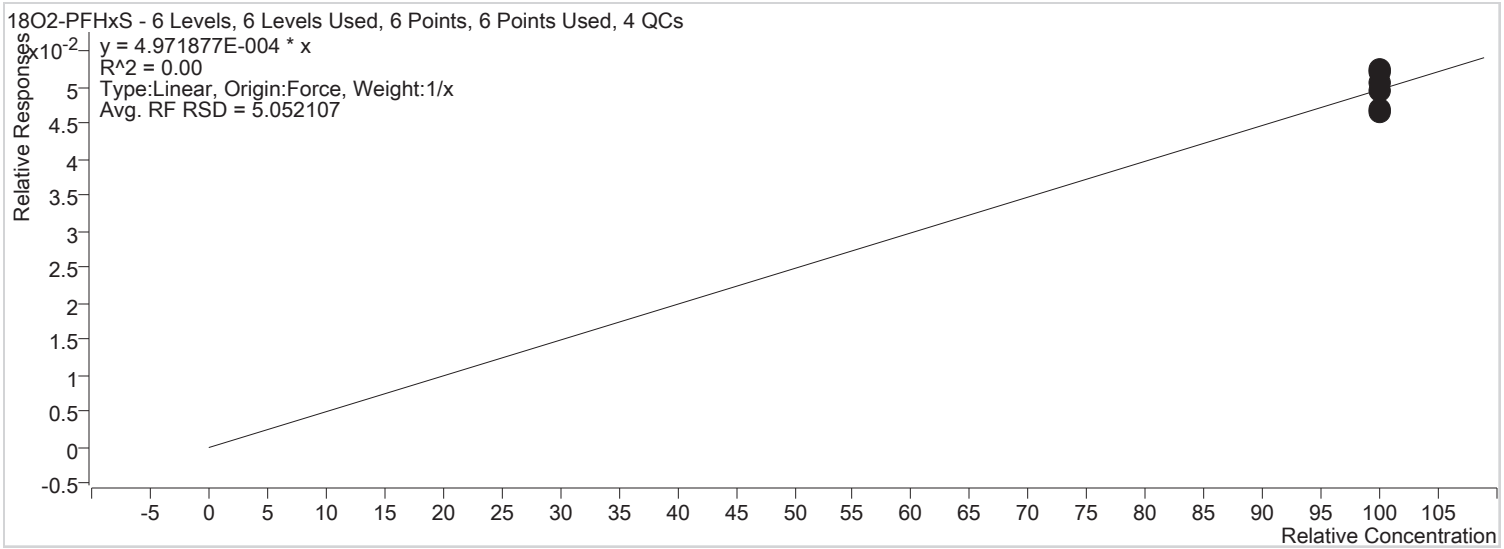
Instrument: LCMS04

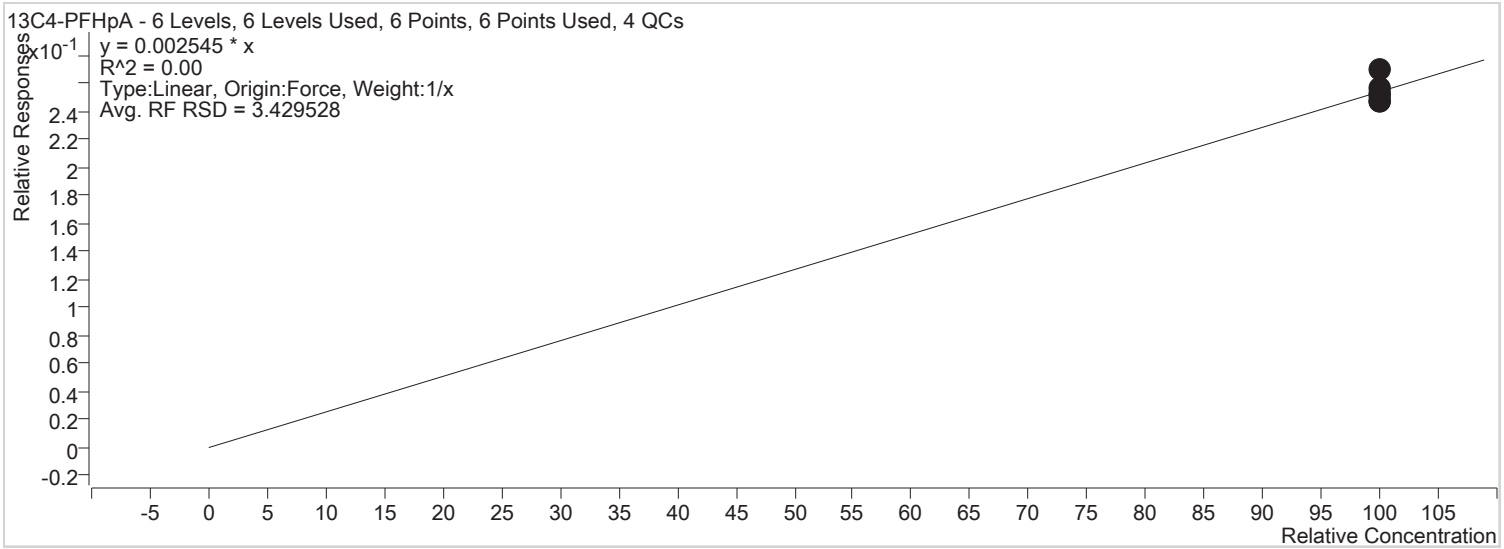
Analyte: 18O2-PFHxS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	100.00	93.91	1473	0.0005	294	93.9
STD 2	STD 2	x	2018/02/08 3:16:45 AM	100.00	104.58	1637	0.0005	252	104.6
STD 3	STD 3	x	2018/02/08 3:21:40 AM	100.00	105.52	1675	0.0005	260	105.5
STD 4	STD 4	x	2018/02/08 3:26:36 AM	100.00	94.17	1536	0.0005	200	94.2
STD 5	STD 5	x	2018/02/08 3:31:32 AM	100.00	99.60	1560	0.0005	170	99.6
STD 6	STD 6	x	2018/02/08 3:36:28 AM	100.00	102.21	1579	0.0005	143	102.2

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

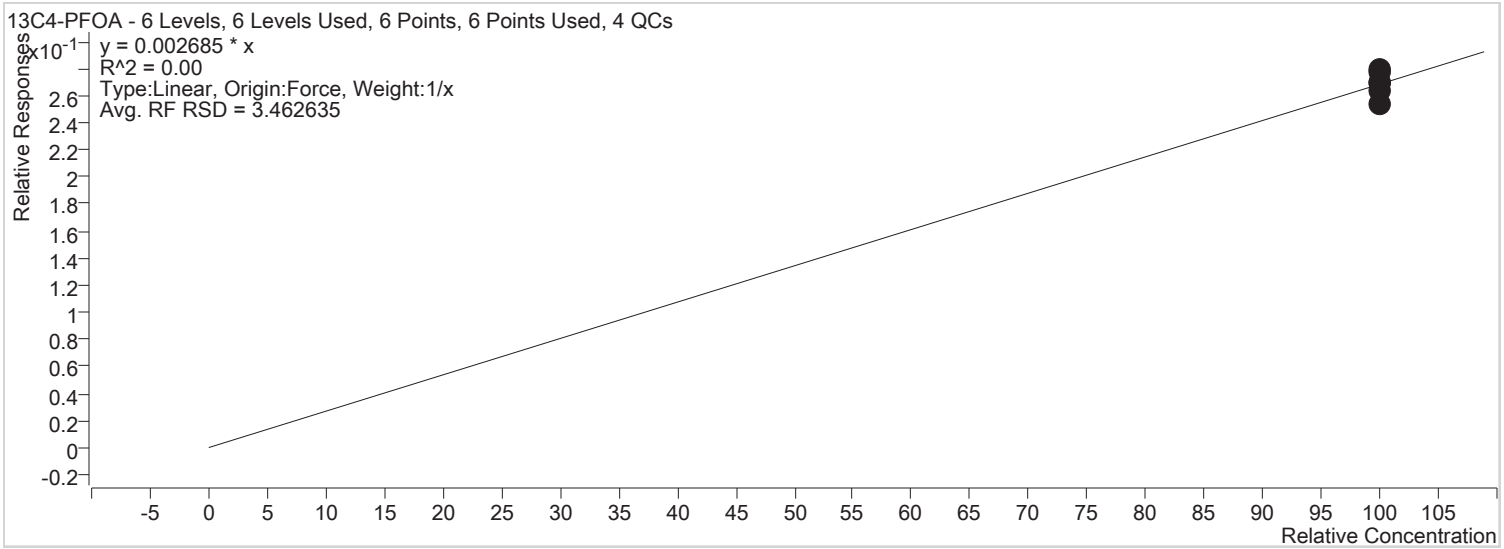
Analyte: 13C4-PFHpA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	100.00	99.89	8019	0.0025	324	99.9
STD 2	STD 2	x	2018/02/08 3:16:45 AM	100.00	101.30	8116	0.0026	273	101.3
STD 3	STD 3	x	2018/02/08 3:21:40 AM	100.00	106.15	8624	0.0027	158	106.1
STD 4	STD 4	x	2018/02/08 3:26:36 AM	100.00	97.10	8106	0.0025	291	97.1
STD 5	STD 5	x	2018/02/08 3:31:32 AM	100.00	97.07	7782	0.0025	295	97.1
STD 6	STD 6	x	2018/02/08 3:36:28 AM	100.00	98.50	7788	0.0025	415	98.5

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

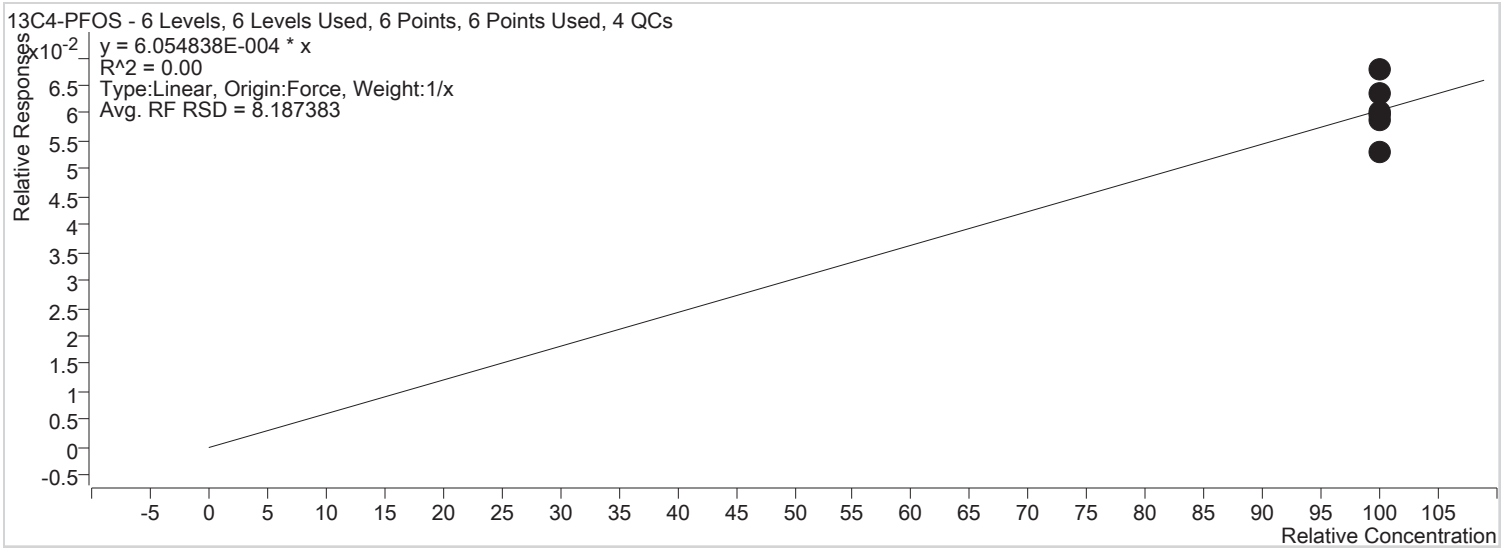
Analyte: 13C4-PFOA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	100.00	103.07	8729	0.0028	219	103.1
STD 2	STD 2	x	2018/02/08 3:16:45 AM	100.00	100.30	8477	0.0027	209	100.3
STD 3	STD 3	x	2018/02/08 3:21:40 AM	100.00	103.94	8909	0.0028	161	103.9
STD 4	STD 4	x	2018/02/08 3:26:36 AM	100.00	94.44	8318	0.0025	154	94.4
STD 5	STD 5	x	2018/02/08 3:31:32 AM	100.00	100.25	8479	0.0027	116	100.3
STD 6	STD 6	x	2018/02/08 3:36:28 AM	100.00	98.00	8175	0.0026	321	98.0

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

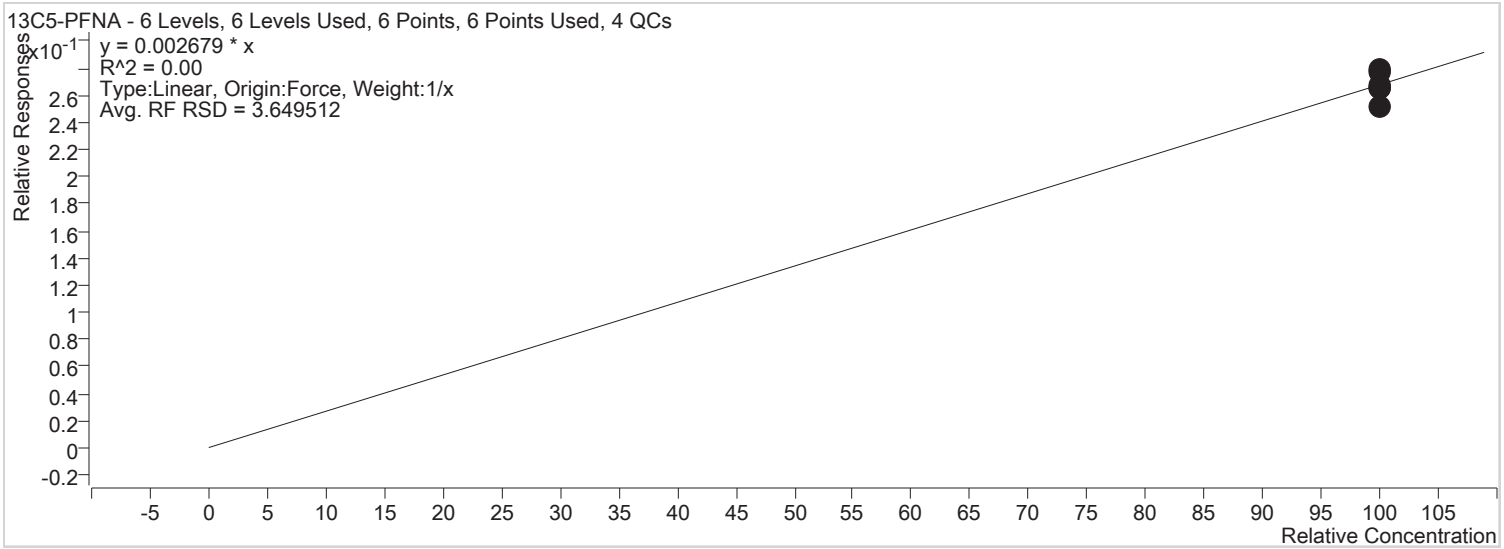
Analyte: 13C4-PFOS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	100.00	97.38	1860	0.0006	351	97.4
STD 2	STD 2	x	2018/02/08 3:16:45 AM	100.00	105.18	2005	0.0006	326	105.2
STD 3	STD 3	x	2018/02/08 3:21:40 AM	100.00	112.00	2165	0.0007	185	112.0
STD 4	STD 4	x	2018/02/08 3:26:36 AM	100.00	87.55	1739	0.0005	124	87.5
STD 5	STD 5	x	2018/02/08 3:31:32 AM	100.00	99.24	1893	0.0006	327	99.2
STD 6	STD 6	x	2018/02/08 3:36:28 AM	100.00	98.66	1856	0.0006	87	98.7

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

Analyte: 13C5-PFNA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	100.00	98.83	8354	0.0026	258	98.8
STD 2	STD 2	x	2018/02/08 3:16:45 AM	100.00	103.60	8739	0.0028	297	103.6
STD 3	STD 3	x	2018/02/08 3:21:40 AM	100.00	104.10	8905	0.0028	270	104.1
STD 4	STD 4	x	2018/02/08 3:26:36 AM	100.00	94.07	8269	0.0025	446	94.1
STD 5	STD 5	x	2018/02/08 3:31:32 AM	100.00	99.97	8439	0.0027	466	100.0
STD 6	STD 6	x	2018/02/08 3:36:28 AM	100.00	99.43	8278	0.0027	343	99.4

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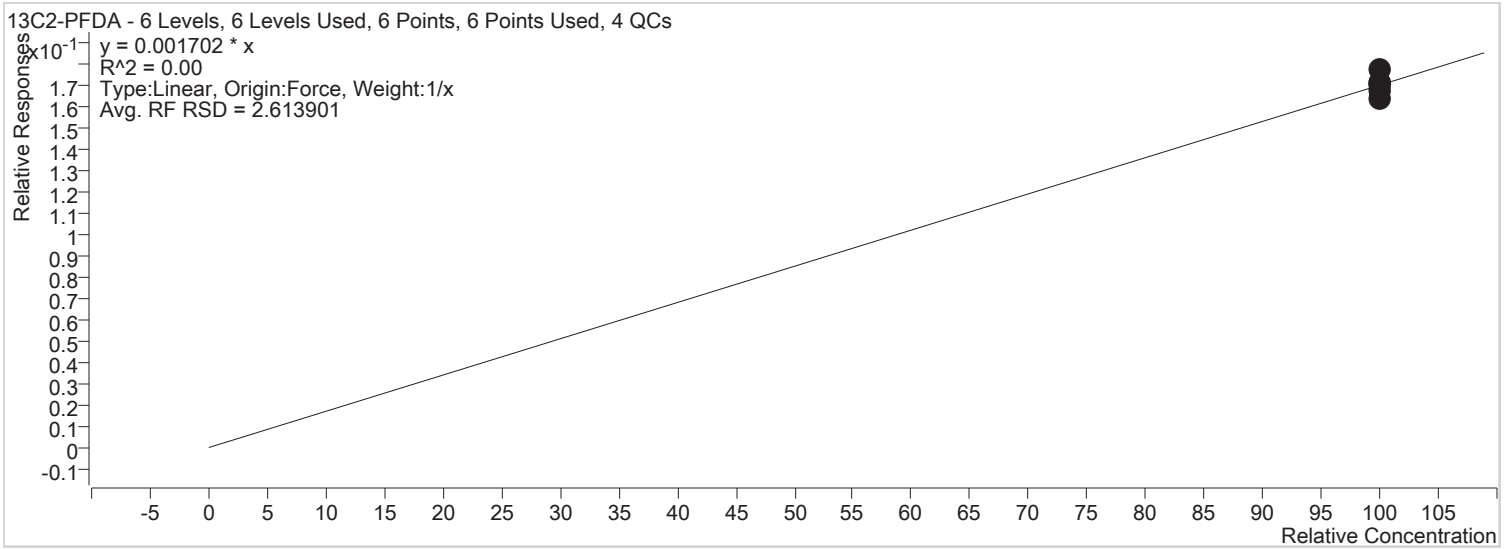
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

Analyte: 13C2-PFDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	100.00	100.68	6953	0.0017	200	100.7
STD 2	STD 2	x	2018/02/08 3:16:45 AM	100.00	99.66	7177	0.0017	146	99.7
STD 3	STD 3	x	2018/02/08 3:21:40 AM	100.00	104.22	7232	0.0018	165	104.2
STD 4	STD 4	x	2018/02/08 3:26:36 AM	100.00	98.30	7017	0.0017	216	98.3
STD 5	STD 5	x	2018/02/08 3:31:32 AM	100.00	100.66	6749	0.0017	132	100.7
STD 6	STD 6	x	2018/02/08 3:36:28 AM	100.00	96.47	6297	0.0016	175	96.5

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
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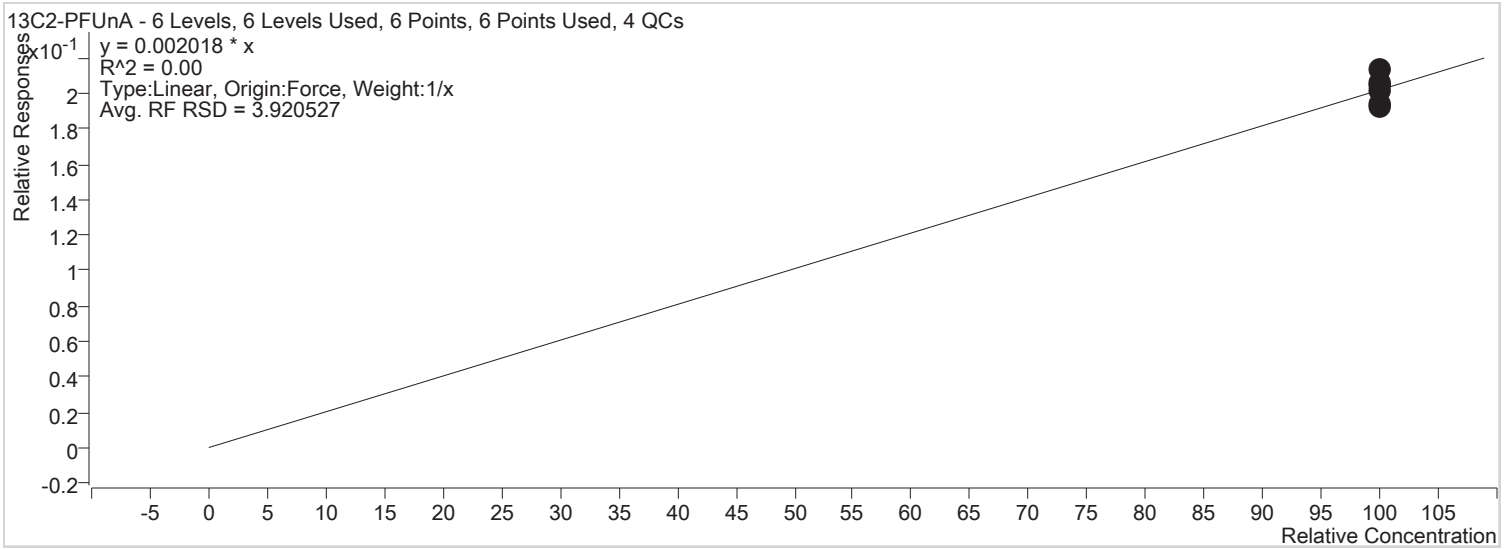
Instrument: LCMS04

Analyte: 13C2-PFUnA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	100.00	105.62	8650	0.0021	143	105.6
STD 2	STD 2	x	2018/02/08 3:16:45 AM	100.00	101.15	8638	0.0020	161	101.2
STD 3	STD 3	x	2018/02/08 3:21:40 AM	100.00	102.32	8419	0.0021	206	102.3
STD 4	STD 4	x	2018/02/08 3:26:36 AM	100.00	95.90	8118	0.0019	225	95.9
STD 5	STD 5	x	2018/02/08 3:31:32 AM	100.00	95.35	7581	0.0019	147	95.3
STD 6	STD 6	x	2018/02/08 3:36:28 AM	100.00	99.66	7714	0.0020	164	99.7

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
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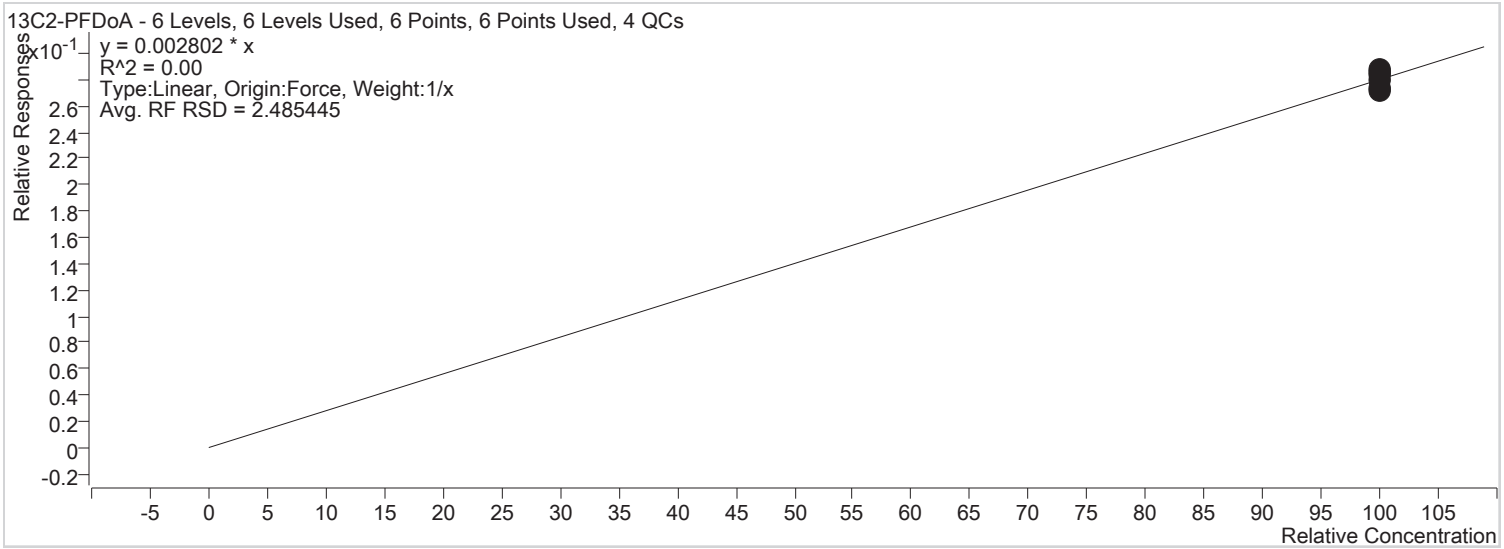
Instrument: LCMS04

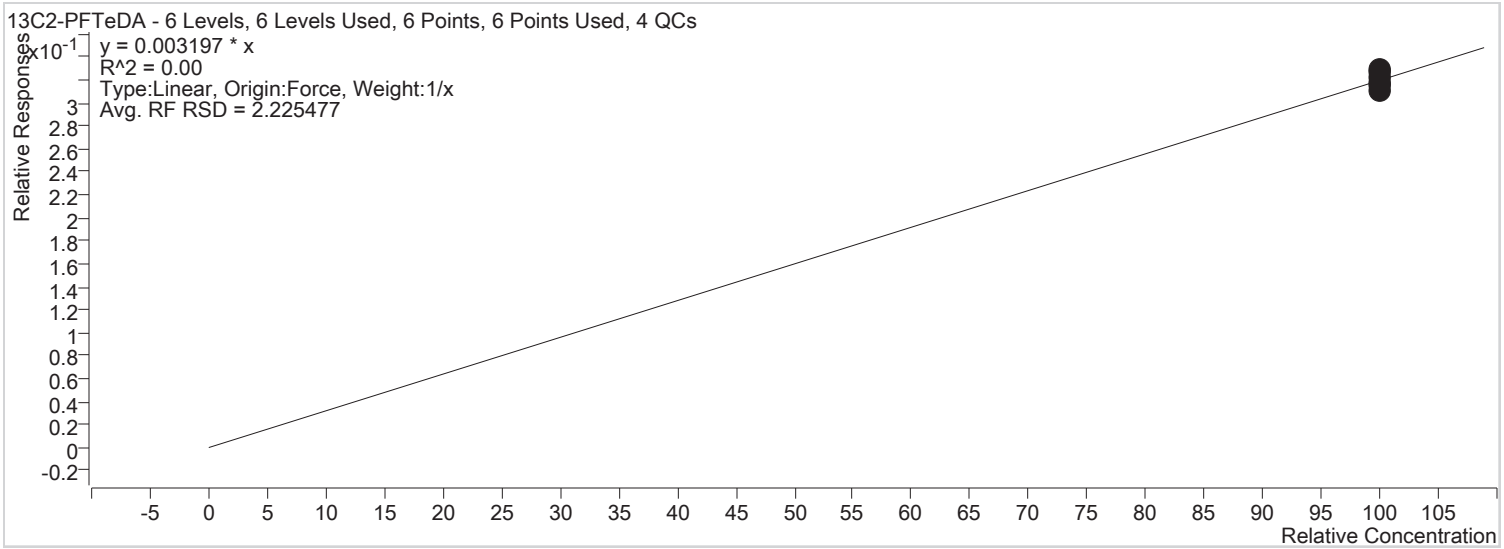
Analyte: 13C2-PFDoA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	100.00	101.44	11533	0.0028	337	101.4
STD 2	STD 2	x	2018/02/08 3:16:45 AM	100.00	102.65	12169	0.0029	378	102.6
STD 3	STD 3	x	2018/02/08 3:21:40 AM	100.00	96.65	11041	0.0027	196	96.7
STD 4	STD 4	x	2018/02/08 3:26:36 AM	100.00	102.02	11989	0.0029	172	102.0
STD 5	STD 5	x	2018/02/08 3:31:32 AM	100.00	99.79	11015	0.0028	291	99.8
STD 6	STD 6	x	2018/02/08 3:36:28 AM	100.00	97.45	10472	0.0027	199	97.5

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

Analyte: 13C2-PFTeDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	100.00	99.31	12880	0.0032	531	99.3
STD 2	STD 2	x	2018/02/08 3:16:45 AM	100.00	98.30	13294	0.0031	608	98.3
STD 3	STD 3	x	2018/02/08 3:21:40 AM	100.00	101.91	13280	0.0033	327	101.9
STD 4	STD 4	x	2018/02/08 3:26:36 AM	100.00	100.63	13490	0.0032	421	100.6
STD 5	STD 5	x	2018/02/08 3:31:32 AM	100.00	96.98	12212	0.0031	455	97.0
STD 6	STD 6	x	2018/02/08 3:36:28 AM	100.00	102.87	12610	0.0033	324	102.9

By Compound Report

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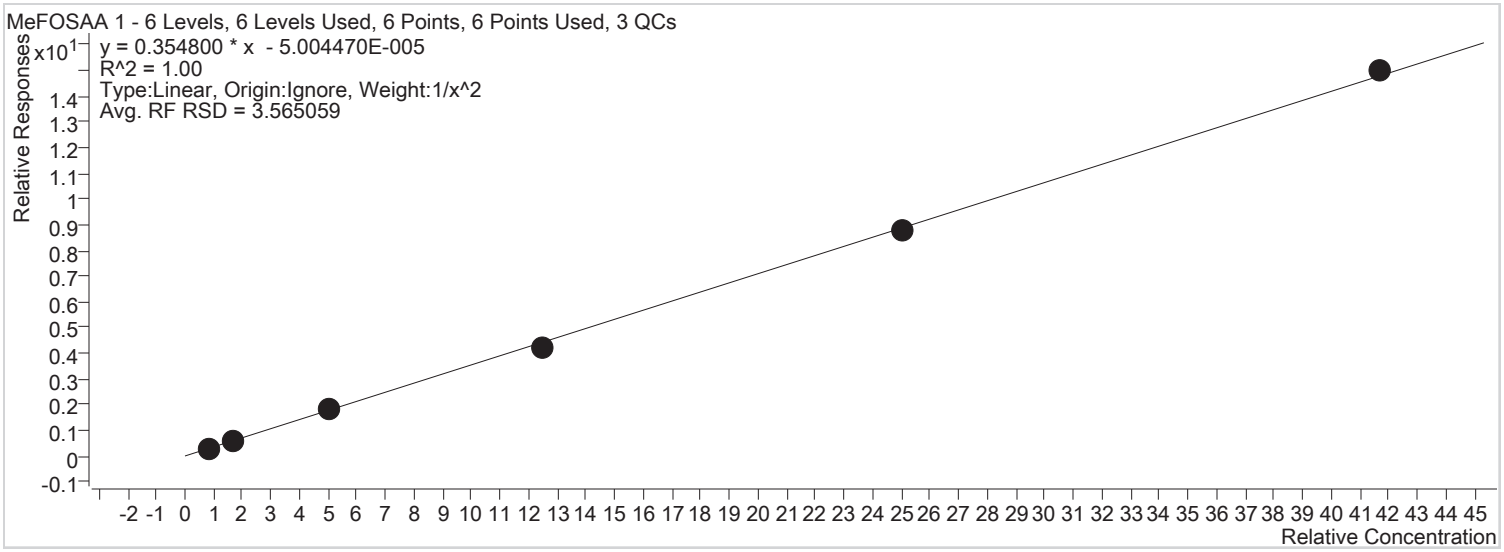
Batch Path T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 11:12:38 AM

Instrument: LCMS04

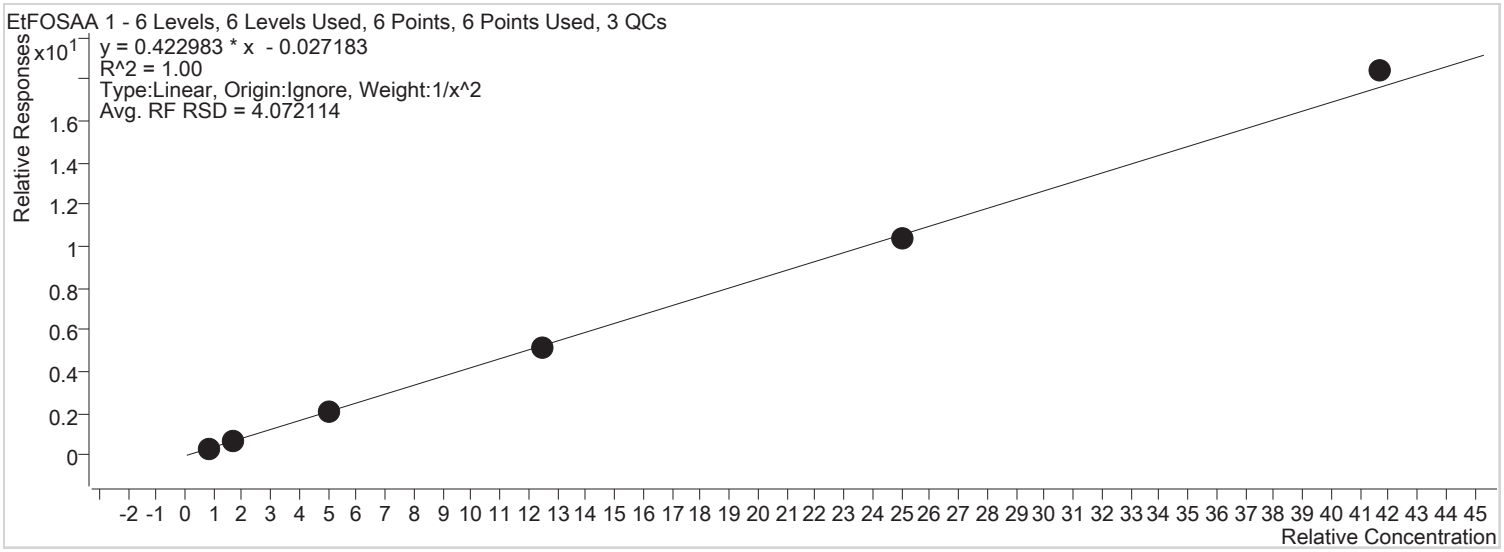
Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 9:36:26 AM	0.83	0.82	533	0.3484	100	98.2
STD 2	STD 2	x	2018/02/08 9:38:51 AM	1.70	1.75	1154	0.3654	146	103.0
STD 3	STD 3	x	2018/02/08 9:41:15 AM	5.00	5.21	3426	0.3698	138	104.2
STD 4	STD 4	x	2018/02/08 9:43:38 AM	12.50	11.81	7653	0.3353	130	94.5
STD 5	STD 5	x	2018/02/08 9:46:01 AM	25.00	24.68	14992	0.3503	346	98.7
STD 6	STD 6	x	2018/02/08 9:48:24 AM	41.70	42.26	25594	0.3596	140	101.3

Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_EToxics.batch.bin
Last Calib Update	2018/02/21 11:12:38 AM
Instrument:	LCMS04
Analyte:	EtFOSAA 1
Internal Standard:	D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 9:36:26 AM	0.83	0.83	524	0.3895	79	99.8
STD 2	STD 2	x	2018/02/08 9:38:51 AM	1.70	1.71	1119	0.4101	137	100.7
STD 3	STD 3	x	2018/02/08 9:41:15 AM	5.00	5.00	3469	0.4177	380	100.0
STD 4	STD 4	x	2018/02/08 9:43:38 AM	12.50	12.10	7698	0.4073	1011	96.8
STD 5	STD 5	x	2018/02/08 9:46:01 AM	25.00	24.53	15337	0.4140	614	98.1
STD 6	STD 6	x	2018/02/08 9:48:24 AM	41.70	43.57	26939	0.4413	1621	104.5

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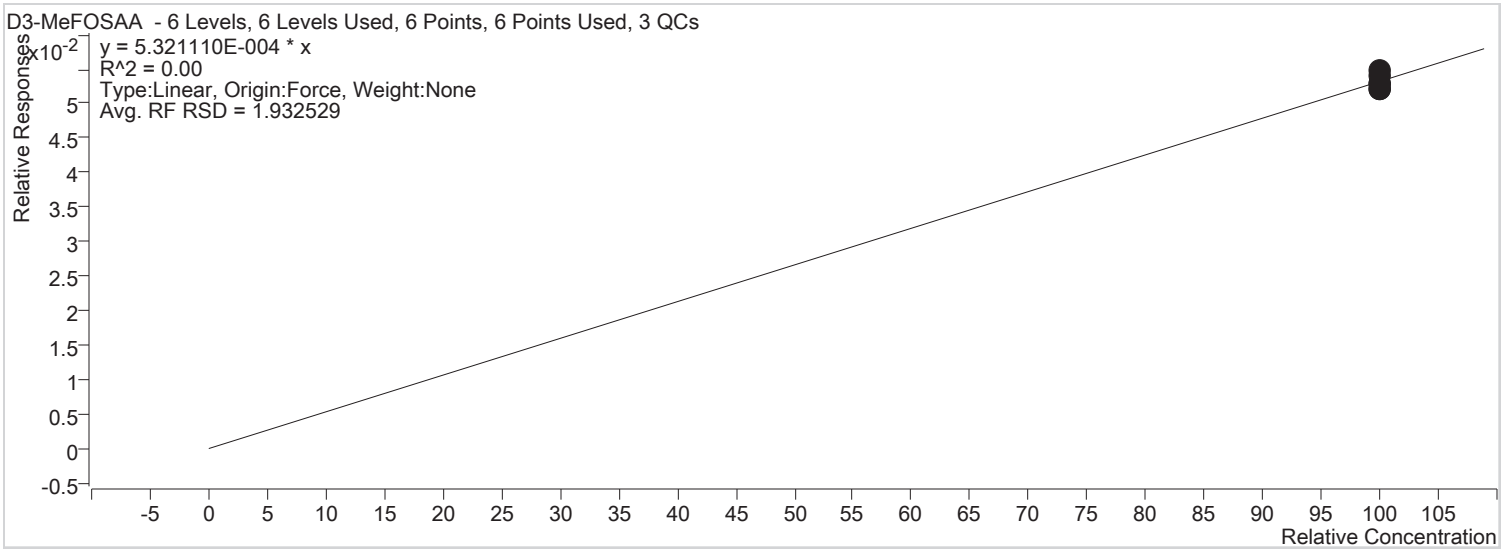
Batch Path T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 11:12:38 AM

Instrument: LCMS04

Analyte: D3-MeFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 9:36:26 AM	100.00	101.70	1860	0.0005	135	101.7
STD 2	STD 2	x	2018/02/08 9:38:51 AM	100.00	99.43	1854	0.0005	111	99.4
STD 3	STD 3	x	2018/02/08 9:41:15 AM	100.00	102.89	1876	0.0005	122	102.9
STD 4	STD 4	x	2018/02/08 9:43:38 AM	100.00	98.07	1843	0.0005	148	98.1
STD 5	STD 5	x	2018/02/08 9:46:01 AM	100.00	99.73	1720	0.0005	129	99.7
STD 6	STD 6	x	2018/02/08 9:48:24 AM	100.00	98.18	1709	0.0005	79	98.2

Agilent Technologies

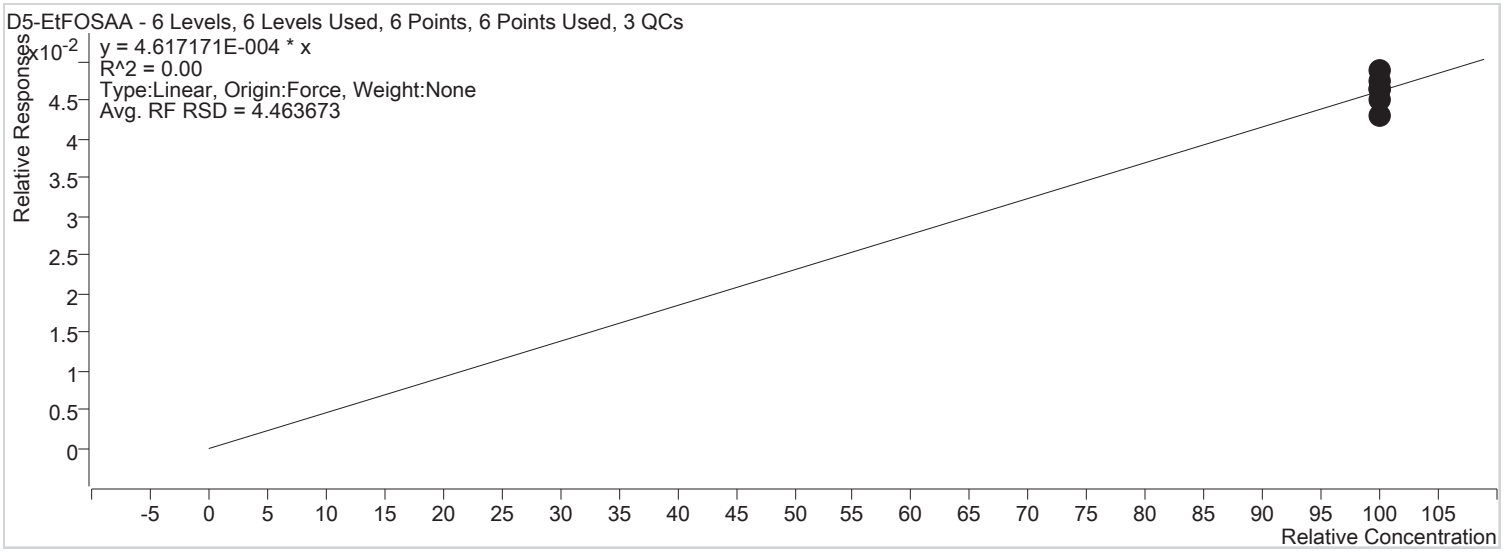
Batch Path T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 11:12:38 AM

Instrument: LCMS04

Analyte: D5-EtFOSAA

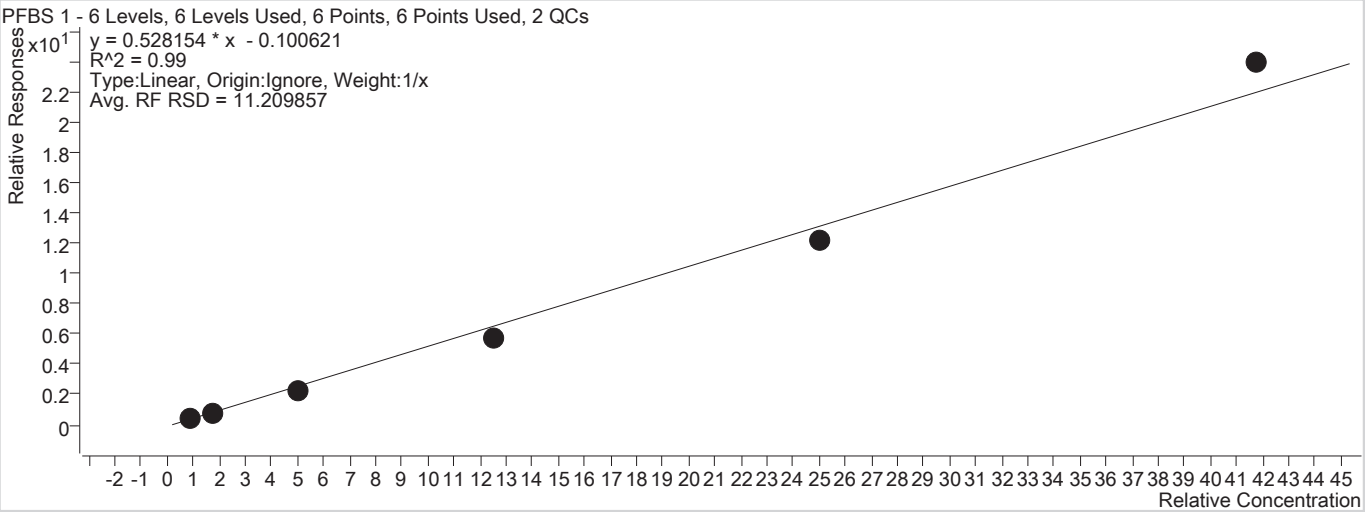
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 9:36:26 AM	100.00	103.15	1637	0.0005	270	103.1
STD 2	STD 2	x	2018/02/08 9:38:51 AM	100.00	100.44	1625	0.0005	196	100.4
STD 3	STD 3	x	2018/02/08 9:41:15 AM	100.00	105.68	1672	0.0005	120	105.7
STD 4	STD 4	x	2018/02/08 9:43:38 AM	100.00	92.97	1516	0.0004	118	93.0
STD 5	STD 5	x	2018/02/08 9:46:01 AM	100.00	100.50	1504	0.0005	177	100.5
STD 6	STD 6	x	2018/02/08 9:48:24 AM	100.00	97.26	1469	0.0004	120	97.3

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
Last Calib Update 2018/02/15 12:13:08 PM
Instrument: LCMS04

Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	1.04	630	0.5437	97	125.9
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.68	1025	0.4613	158	98.6
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.30	3326	0.4345	233	86.1
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	10.87	7848	0.4514	140	87.0
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	23.36	16055	0.4895	624	93.4
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	45.47	27647	0.5735	897	109.0

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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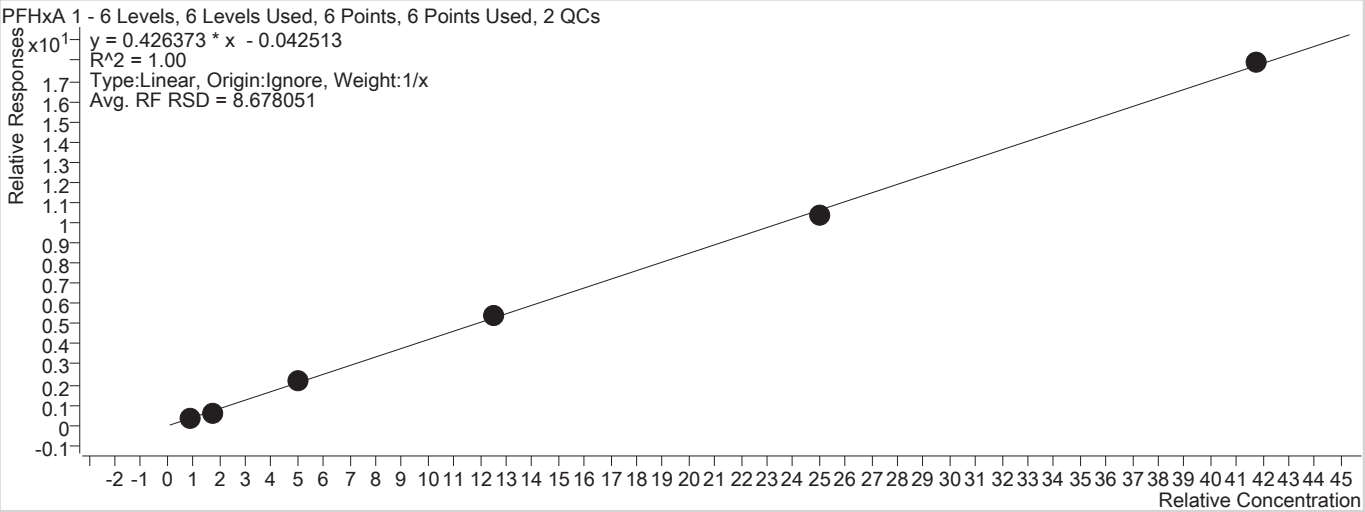
Instrument: LCMS04

Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.93	1615	0.4268	65	112.1
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.45	2979	0.3393	82	85.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	5.10	10403	0.4267	351	102.1
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	12.71	26901	0.4302	715	101.7
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	24.43	53000	0.4149	965	97.7
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	42.10	90803	0.4295	4832	101.0

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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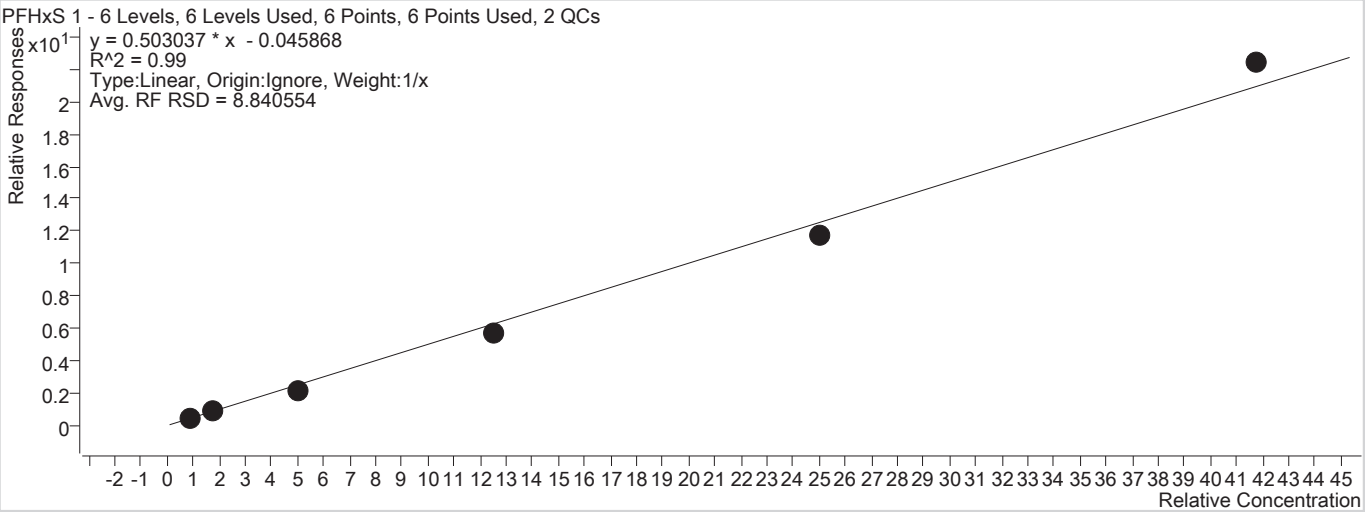
Instrument: LCMS04

Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.93	592	0.5109	89	112.6
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.84	1152	0.5185	139	108.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.30	3244	0.4238	345	86.1
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	11.49	7975	0.4587	405	91.9
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	23.46	15424	0.4702	779	93.8
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	44.70	25940	0.5381	556	107.2

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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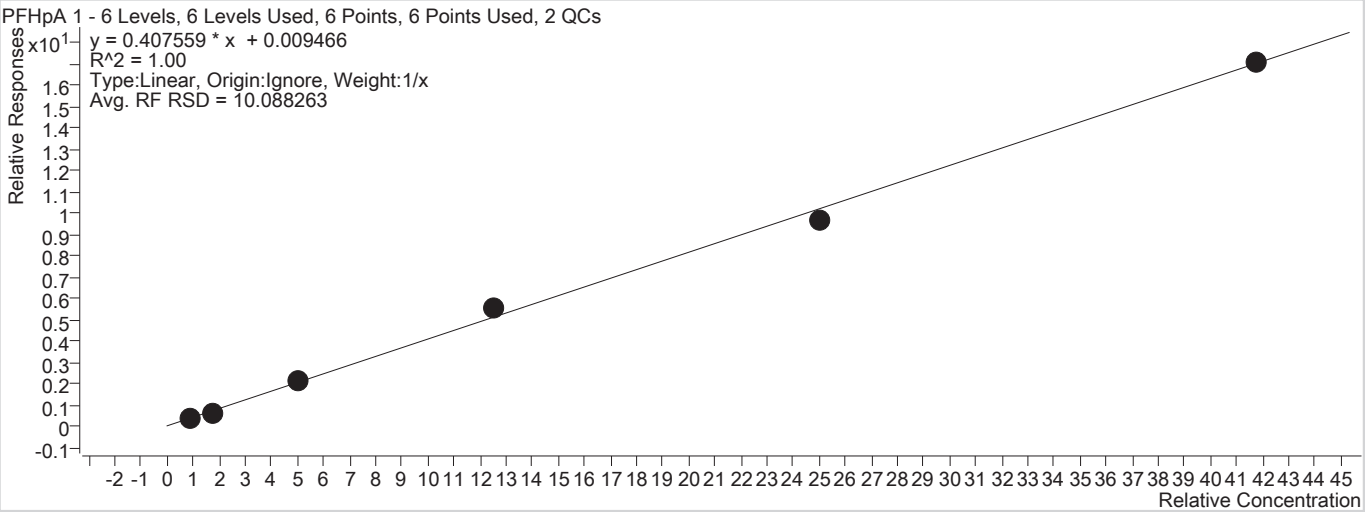
Instrument: LCMS04

Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.91	2416	0.4567	19	109.3
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.41	3810	0.3435	31	82.9
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	5.16	12860	0.4222	105	103.1
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	13.67	34432	0.4465	183	109.4
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	23.74	65942	0.3874	268	95.0
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	41.85	111191	0.4092	243	100.4

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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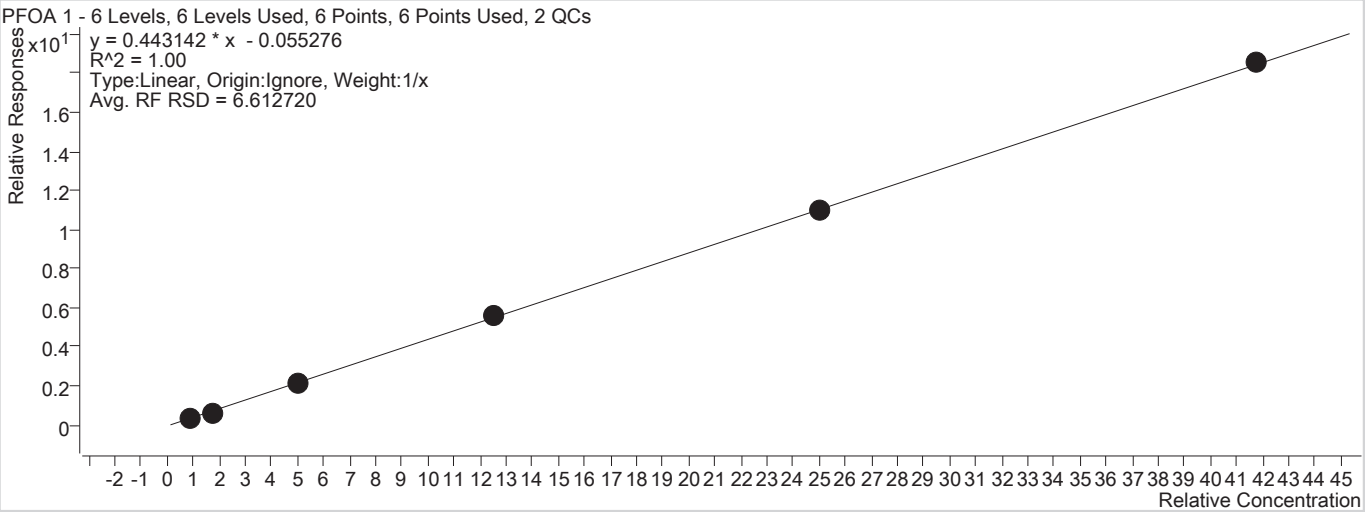
Instrument: LCMS04

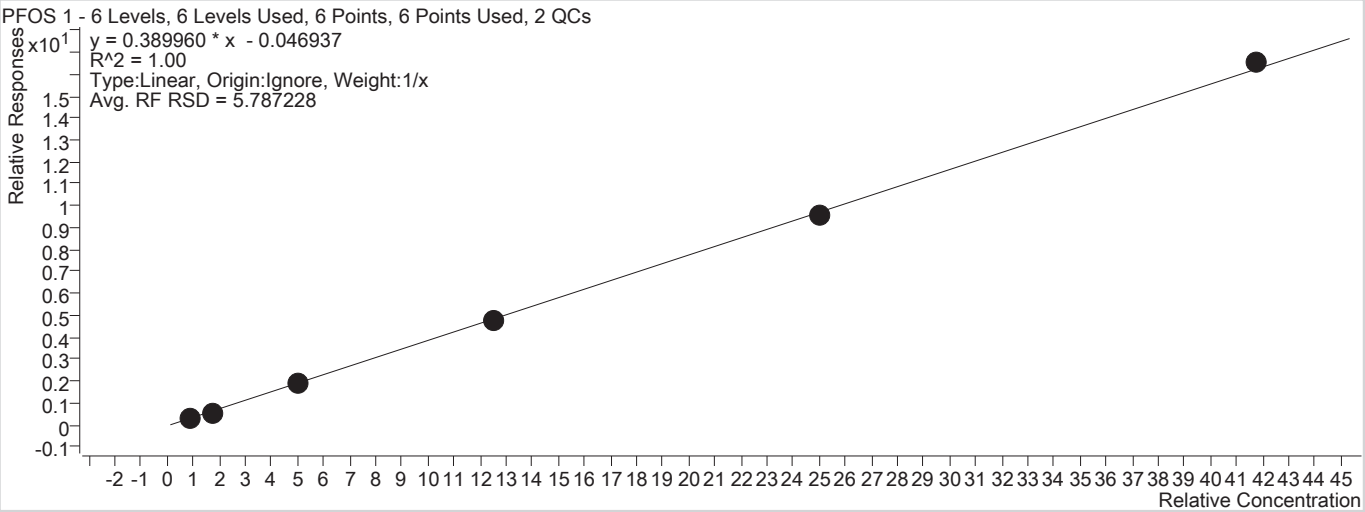
Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.93	2435	0.4279	27	111.6
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.55	4296	0.3709	50	91.0
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.81	14324	0.4155	200	96.3
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	12.65	38695	0.4440	257	101.2
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	24.80	75645	0.4374	249	99.2
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	41.99	128958	0.4449	275	100.7

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
Last Calib Update 2018/02/15 12:13:08 PM
Instrument: LCMS04

Analyte: PFOS 1
Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.93	533	0.3789	75	111.7
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.57	969	0.3327	92	92.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.86	3069	0.3700	184	97.3
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	12.32	7951	0.3807	209	98.6
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	24.53	15086	0.3807	195	98.1
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	42.52	27280	0.3965	243	102.0

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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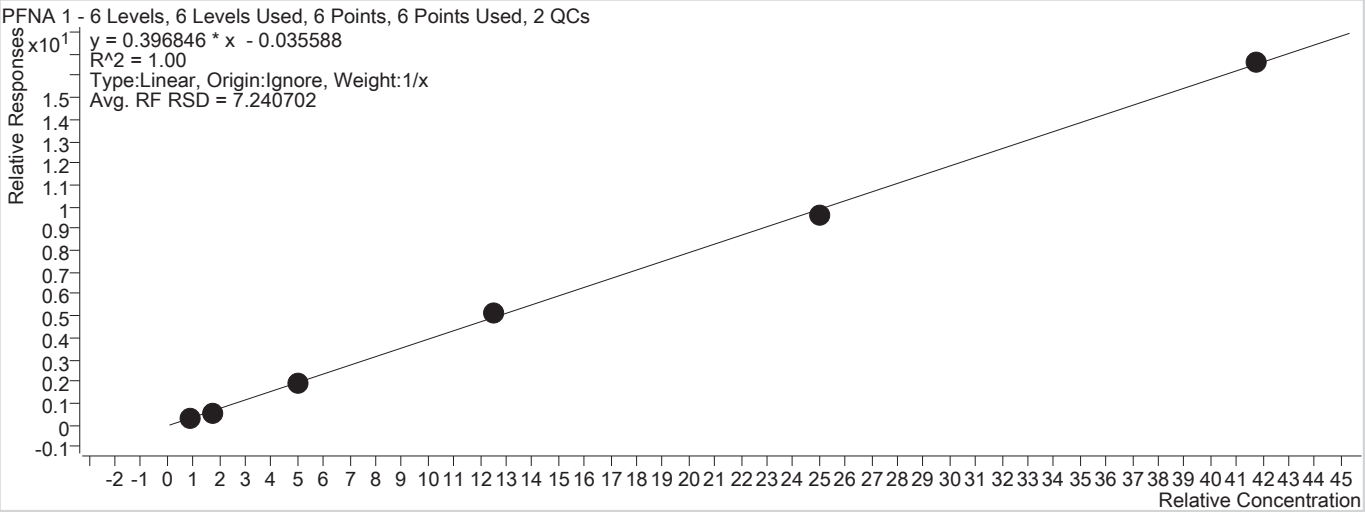
Instrument: LCMS04

Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.92	2333	0.3950	41	110.3
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.51	3975	0.3308	122	88.6
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.93	13268	0.3844	247	98.6
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	13.02	35389	0.4105	780	104.2
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	24.41	69362	0.3860	1219	97.6
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	41.95	118639	0.3984	1755	100.6

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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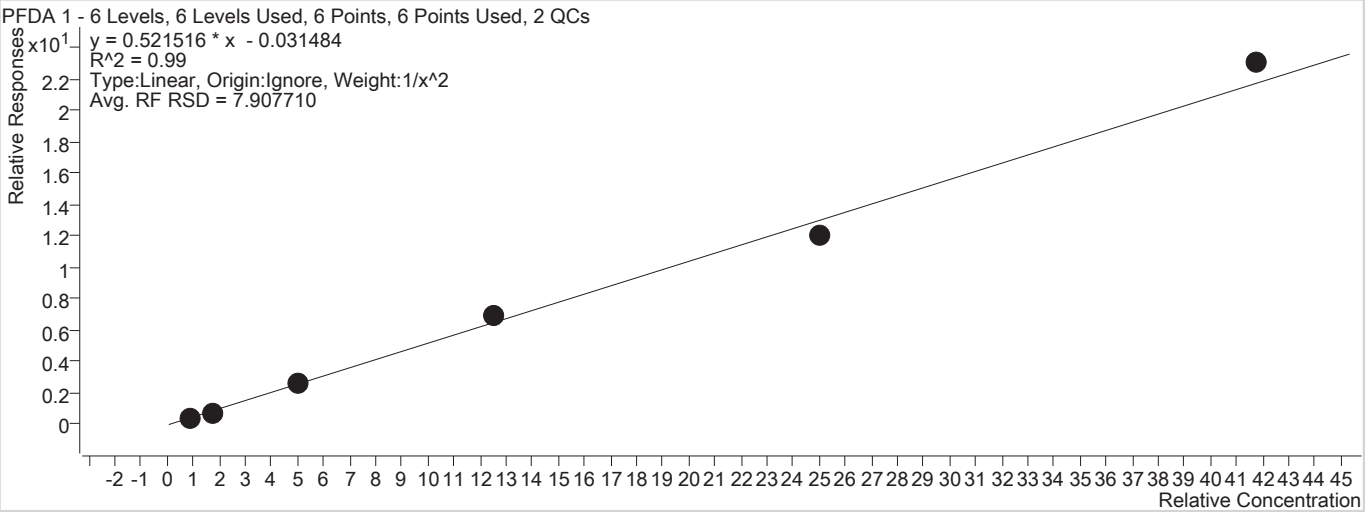
Instrument: LCMS04

Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.87	2525	0.5087	27	104.8
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.52	4490	0.4491	45	89.7
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.96	14891	0.5113	187	99.2
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	13.35	39015	0.5543	425	106.8
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	23.32	76350	0.4853	837	93.3
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	44.29	128311	0.5531	1025	106.2

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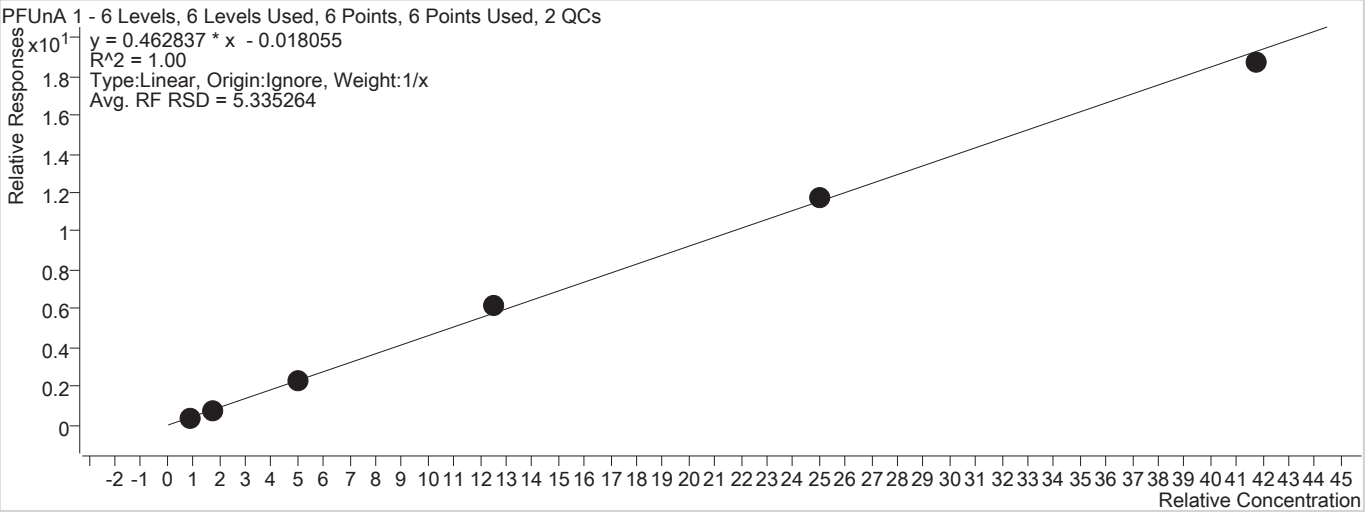
Instrument: LCMS04

Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.83	2601	0.4388	23	99.5
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.60	5095	0.4247	55	94.1
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	5.04	16380	0.4628	119	100.8
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	13.37	44426	0.4936	168	107.0
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	25.39	84983	0.4694	159	101.6
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	40.50	140199	0.4491	160	97.1

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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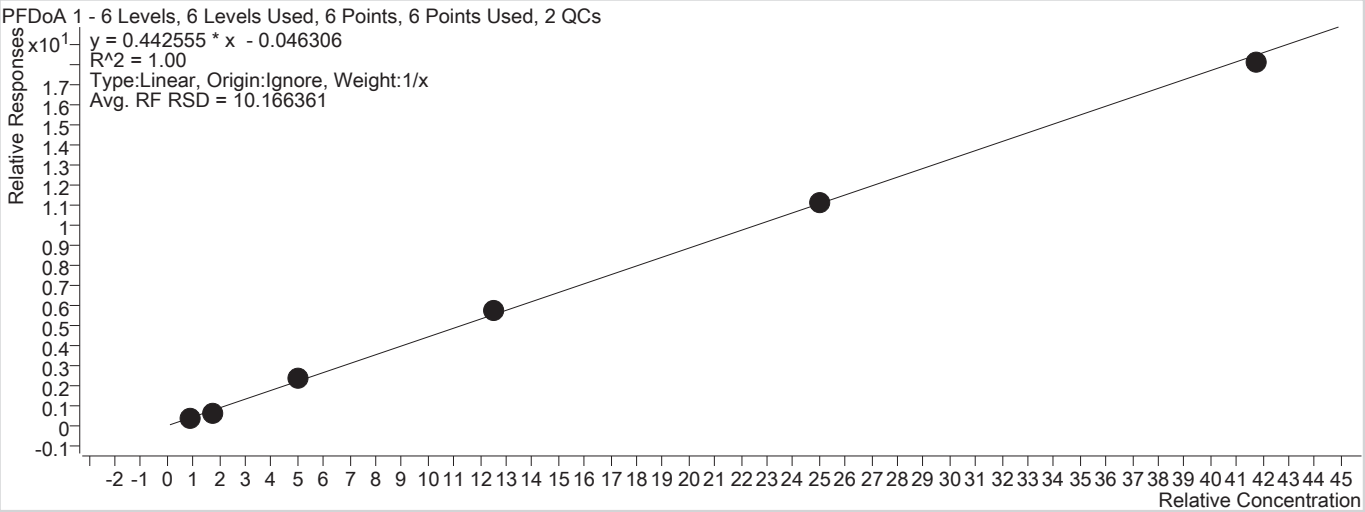
Instrument: LCMS04

Analyte: PFDoA 1
Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.88	3371	0.4116	47	105.6
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.44	5925	0.3465	119	84.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	5.38	21231	0.4671	359	107.6
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	12.92	56739	0.4537	930	103.4
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	25.21	108150	0.4445	2256	100.9
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	40.90	179777	0.4330	5209	98.1

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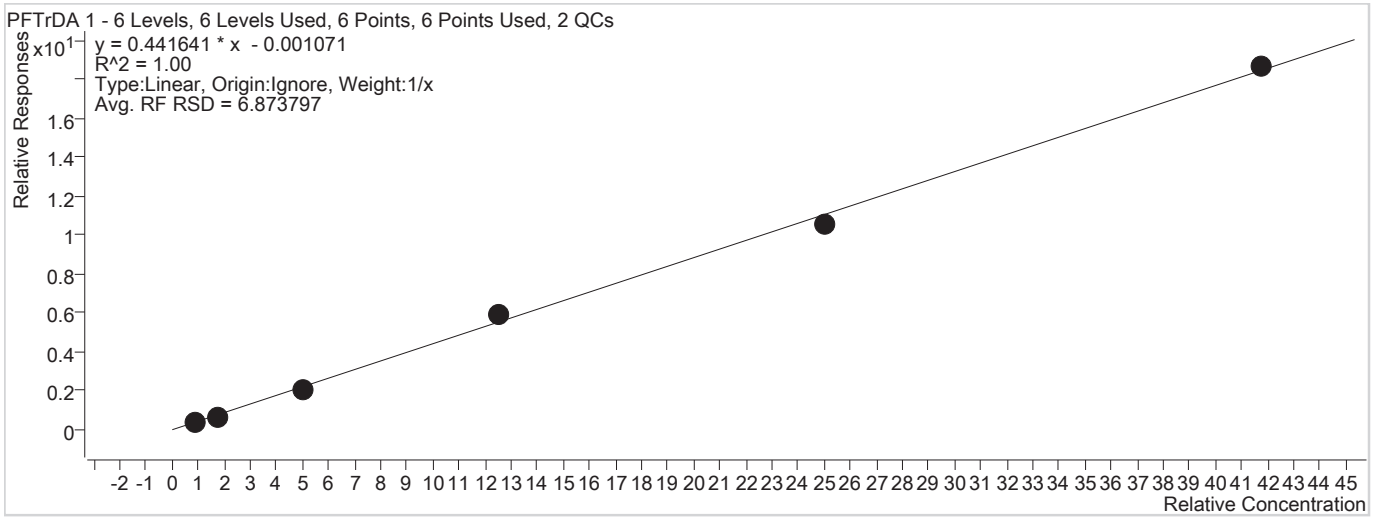
Instrument: LCMS04

Analyte: PFTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.91	4438	0.4815	32	109.3
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.55	7973	0.4031	56	91.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.79	24953	0.4225	126	95.7
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	13.30	64586	0.4700	189	106.4
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	23.98	121362	0.4236	242	95.9
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	42.20	207931	0.4469	246	101.2

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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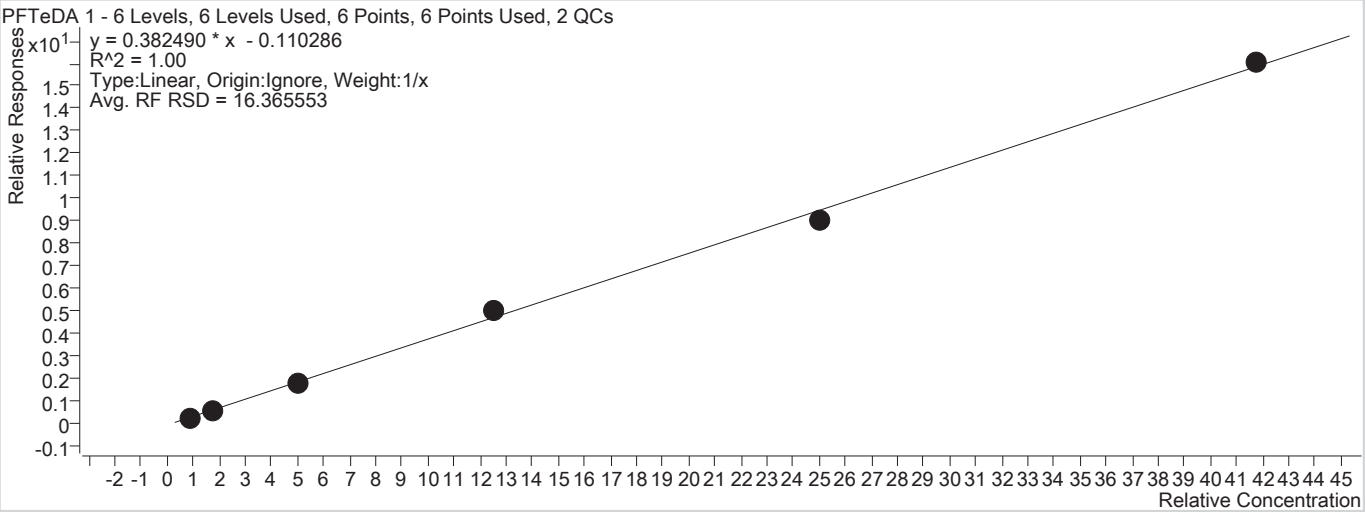
Instrument: LCMS04

Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.81	2231	0.2421	11	98.0
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.72	6388	0.3230	49	101.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.88	20767	0.3516	134	97.7
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	13.32	54810	0.3988	436	106.6
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	23.76	102897	0.3592	563	95.1
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	42.22	178968	0.3846	1039	101.3

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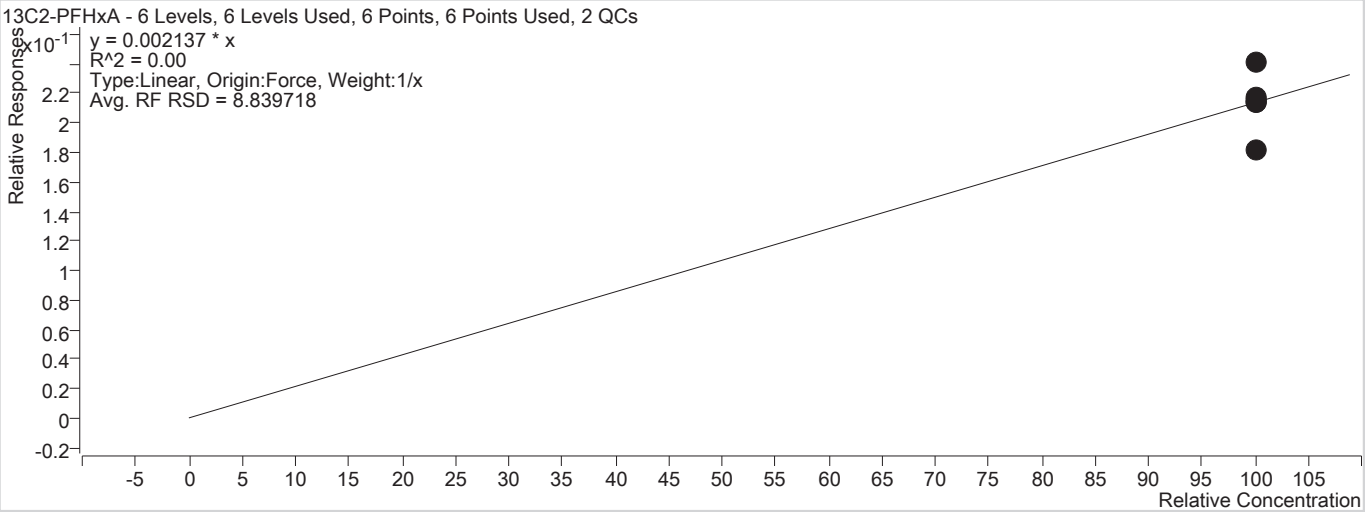
Instrument: LCMS04

Analyte: 13C2-PFHxA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	100.00	84.96	4559	0.0018	102	85.0
STD 2	STD 2	x	2018/02/08 12:38:53 AM	100.00	112.73	5165	0.0024	138	112.7
STD 3	STD 3	x	2018/02/08 12:43:49 AM	100.00	100.58	4876	0.0021	159	100.6
STD 4	STD 4	x	2018/02/08 12:48:45 AM	100.00	100.30	5002	0.0021	145	100.3
STD 5	STD 5	x	2018/02/08 12:53:41 AM	100.00	100.10	5110	0.0021	163	100.1
STD 6	STD 6	x	2018/02/08 12:58:37 AM	100.00	101.33	5070	0.0022	114	101.3

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_ETOxics.batch.bin
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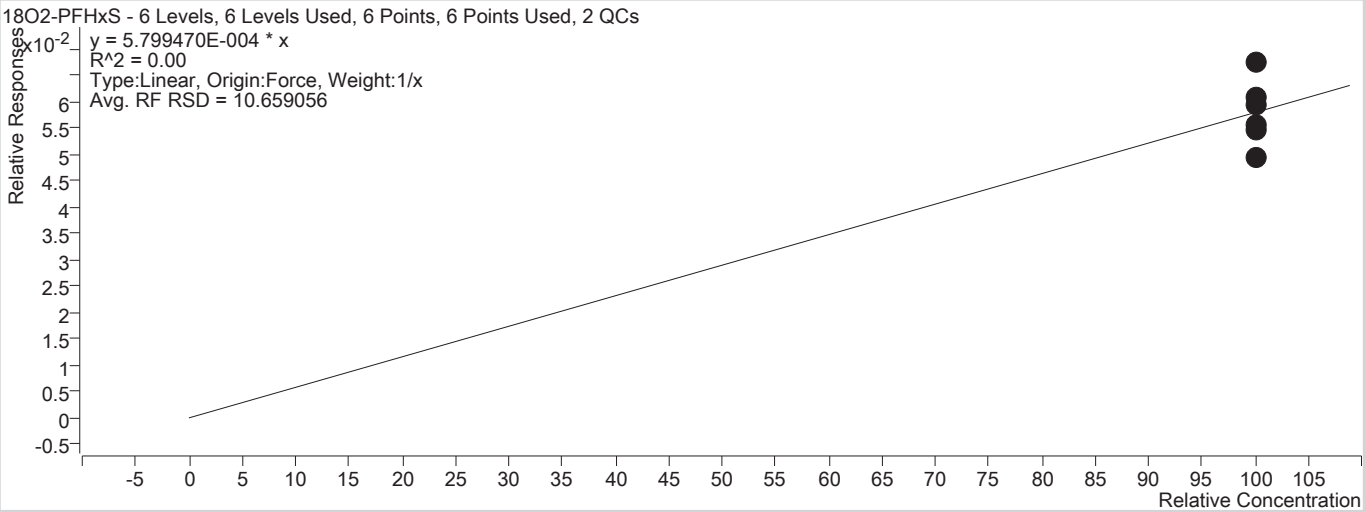
Instrument: LCMS04

Analyte: 18O2-PFHxS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	100.00	95.86	1396	0.0006	528	95.9
STD 2	STD 2	x	2018/02/08 12:38:53 AM	100.00	105.12	1307	0.0006	89	105.1
STD 3	STD 3	x	2018/02/08 12:43:49 AM	100.00	116.38	1531	0.0007	295	116.4
STD 4	STD 4	x	2018/02/08 12:48:45 AM	100.00	102.79	1391	0.0006	223	102.8
STD 5	STD 5	x	2018/02/08 12:53:41 AM	100.00	94.71	1312	0.0005	105	94.7
STD 6	STD 6	x	2018/02/08 12:58:37 AM	100.00	85.14	1156	0.0005	156	85.1

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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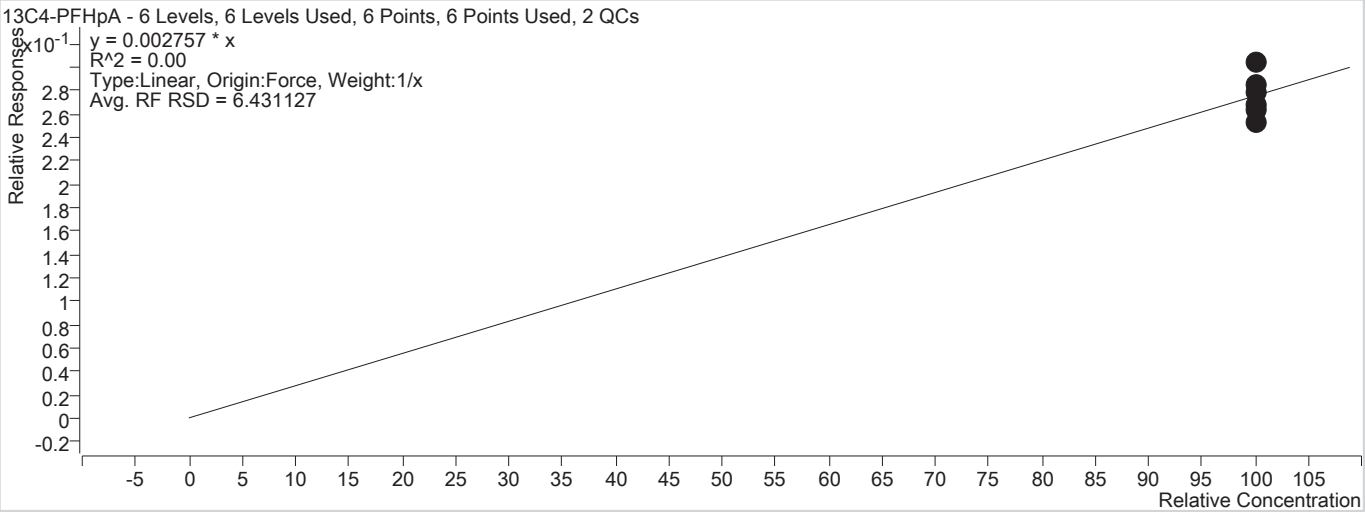
Instrument: LCMS04

Analyte: 13C4-PFHpA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	100.00	92.04	6373	0.0025	252	92.0
STD 2	STD 2	x	2018/02/08 12:38:53 AM	100.00	110.37	6524	0.0030	165	110.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	100.00	97.40	6092	0.0027	235	97.4
STD 4	STD 4	x	2018/02/08 12:48:45 AM	100.00	95.88	6169	0.0026	429	95.9
STD 5	STD 5	x	2018/02/08 12:53:41 AM	100.00	103.38	6809	0.0029	291	103.4
STD 6	STD 6	x	2018/02/08 12:58:37 AM	100.00	100.94	6516	0.0028	213	100.9

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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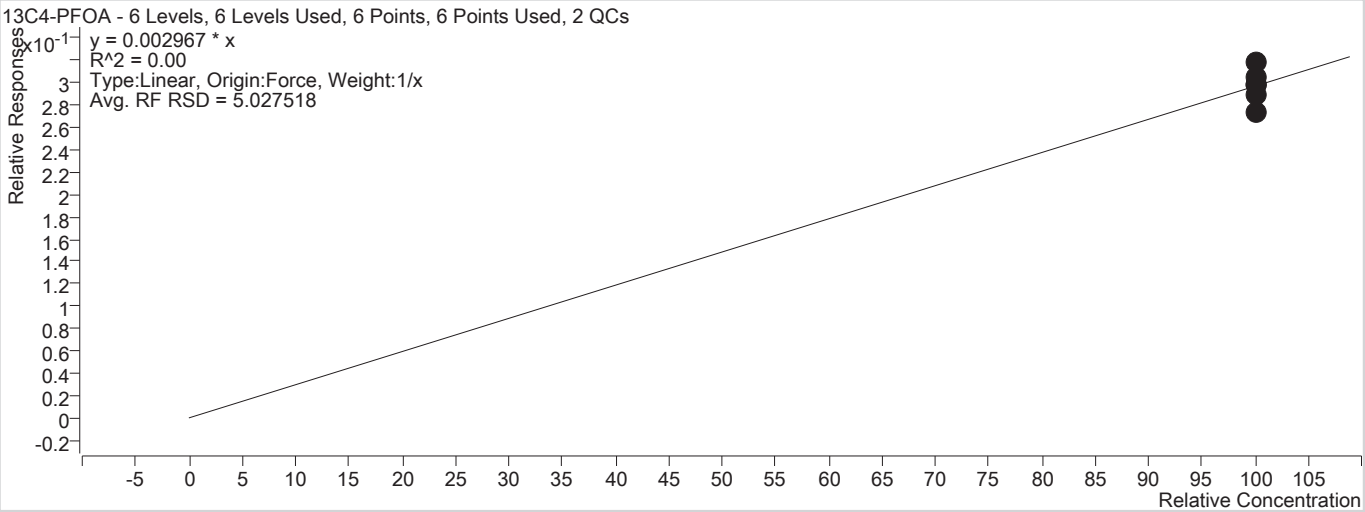
Instrument: LCMS04

Analyte: 13C4-PFOA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	100.00	92.03	6856	0.0027	73	92.0
STD 2	STD 2	x	2018/02/08 12:38:53 AM	100.00	107.12	6813	0.0032	91	107.1
STD 3	STD 3	x	2018/02/08 12:43:49 AM	100.00	102.44	6894	0.0030	98	102.4
STD 4	STD 4	x	2018/02/08 12:48:45 AM	100.00	100.71	6972	0.0030	101	100.7
STD 5	STD 5	x	2018/02/08 12:53:41 AM	100.00	97.61	6917	0.0029	80	97.6
STD 6	STD 6	x	2018/02/08 12:58:37 AM	100.00	100.08	6951	0.0030	112	100.1

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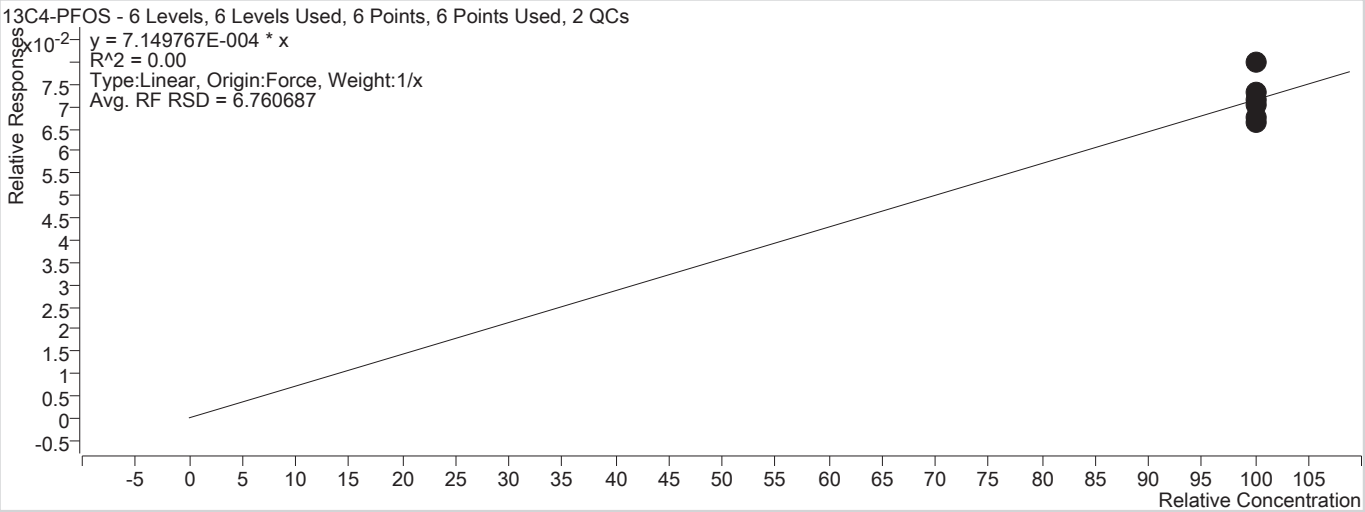
Instrument: LCMS04

Analyte: 13C4-PFOS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	100.00	94.41	1695	0.0007	264	94.4
STD 2	STD 2	x	2018/02/08 12:38:53 AM	100.00	111.76	1713	0.0008	149	111.8
STD 3	STD 3	x	2018/02/08 12:43:49 AM	100.00	102.29	1659	0.0007	201	102.3
STD 4	STD 4	x	2018/02/08 12:48:45 AM	100.00	100.16	1671	0.0007	241	100.2
STD 5	STD 5	x	2018/02/08 12:53:41 AM	100.00	92.81	1585	0.0007	306	92.8
STD 6	STD 6	x	2018/02/08 12:58:37 AM	100.00	98.58	1650	0.0007	274	98.6

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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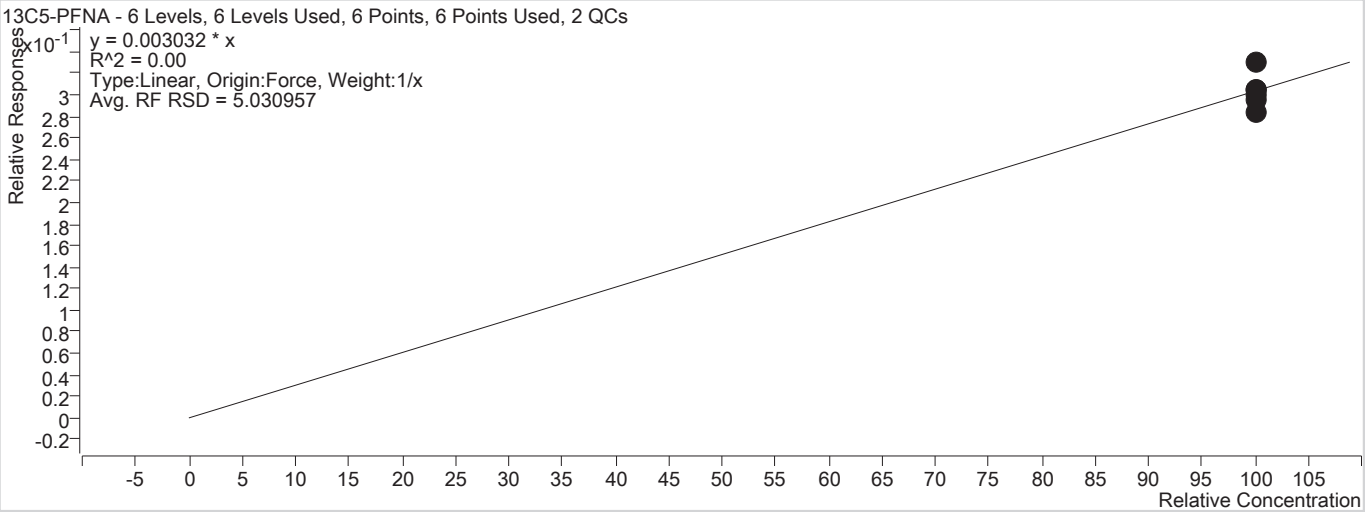
Instrument: LCMS04

Analyte: 13C5-PFNA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	100.00	93.49	7117	0.0028	259	93.5
STD 2	STD 2	x	2018/02/08 12:38:53 AM	100.00	108.76	7069	0.0033	167	108.8
STD 3	STD 3	x	2018/02/08 12:43:49 AM	100.00	100.37	6903	0.0030	231	100.4
STD 4	STD 4	x	2018/02/08 12:48:45 AM	100.00	97.49	6897	0.0030	168	97.5
STD 5	STD 5	x	2018/02/08 12:53:41 AM	100.00	99.27	7189	0.0030	276	99.3
STD 6	STD 6	x	2018/02/08 12:58:37 AM	100.00	100.62	7142	0.0031	177	100.6

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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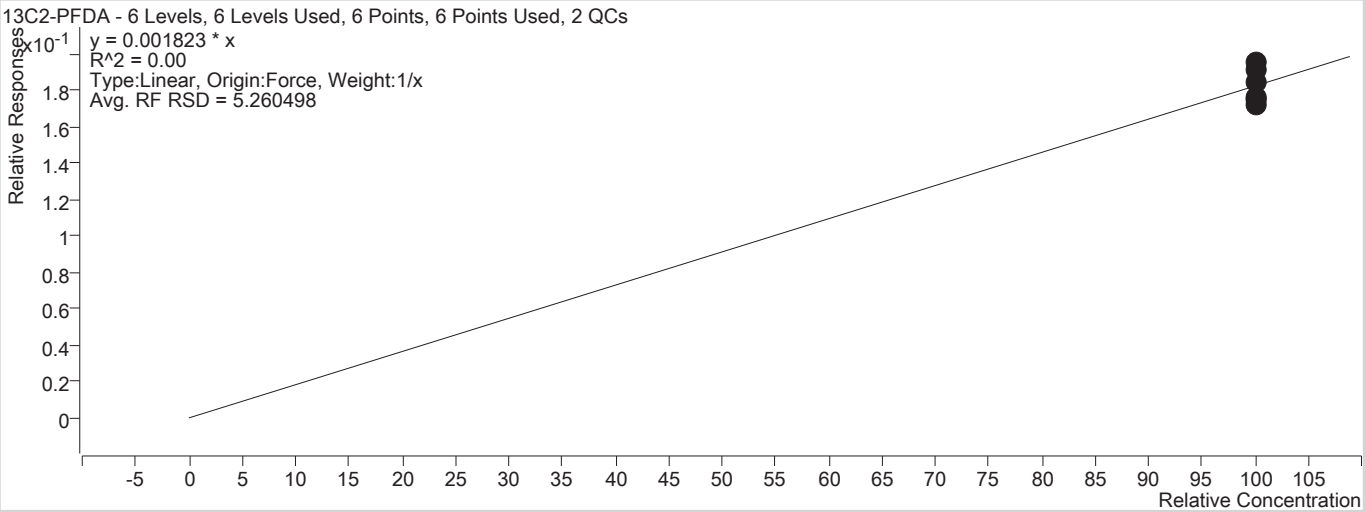
Instrument: LCMS04

Analyte: 13C2-PFDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	100.00	96.71	5792	0.0018	102	96.7
STD 2	STD 2	x	2018/02/08 12:38:53 AM	100.00	101.23	5671	0.0018	77	101.2
STD 3	STD 3	x	2018/02/08 12:43:49 AM	100.00	104.99	5727	0.0019	156	105.0
STD 4	STD 4	x	2018/02/08 12:48:45 AM	100.00	94.24	5603	0.0017	161	94.2
STD 5	STD 5	x	2018/02/08 12:53:41 AM	100.00	107.06	6133	0.0020	144	107.1
STD 6	STD 6	x	2018/02/08 12:58:37 AM	100.00	95.76	5508	0.0017	217	95.8

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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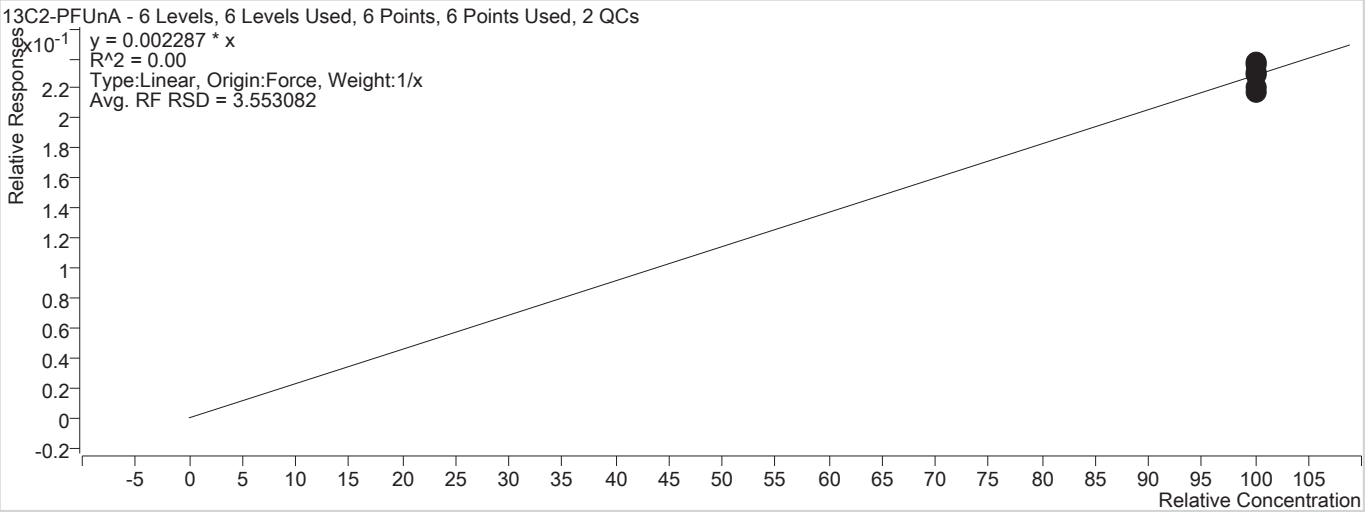
Instrument: LCMS04

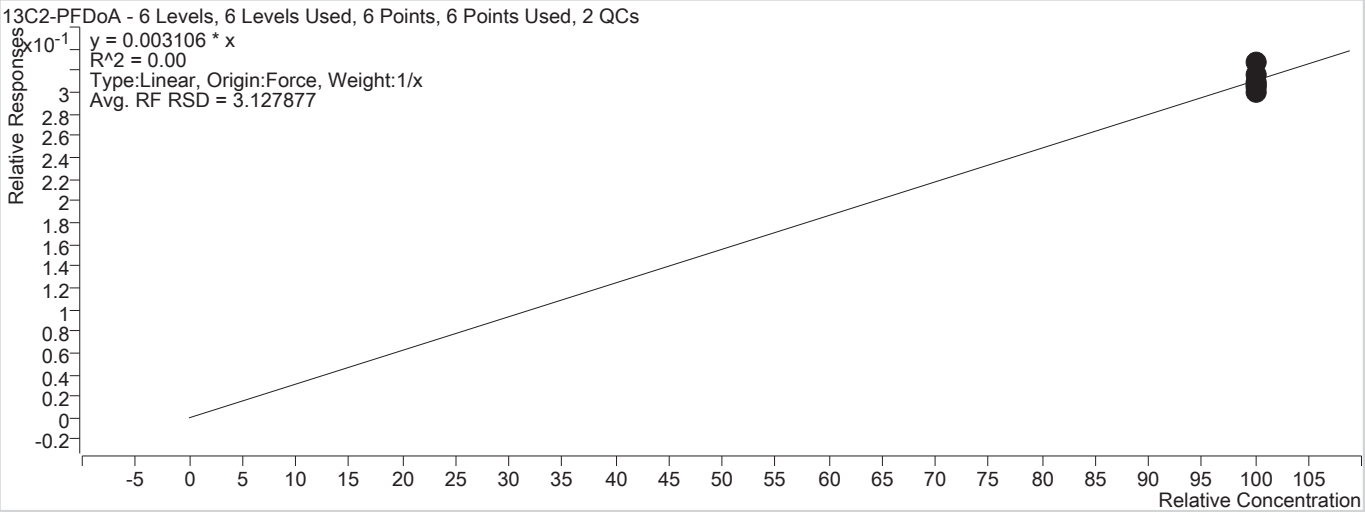
Analyte: 13C2-PFUnA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	100.00	95.06	7142	0.0022	147	95.1
STD 2	STD 2	x	2018/02/08 12:38:53 AM	100.00	100.42	7057	0.0023	192	100.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	100.00	103.44	7078	0.0024	216	103.4
STD 4	STD 4	x	2018/02/08 12:48:45 AM	100.00	96.53	7200	0.0022	227	96.5
STD 5	STD 5	x	2018/02/08 12:53:41 AM	100.00	100.78	7242	0.0023	212	100.8
STD 6	STD 6	x	2018/02/08 12:58:37 AM	100.00	103.75	7486	0.0024	227	103.8

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
Last Calib Update 2018/02/15 12:13:08 PM
Instrument: LCMS04

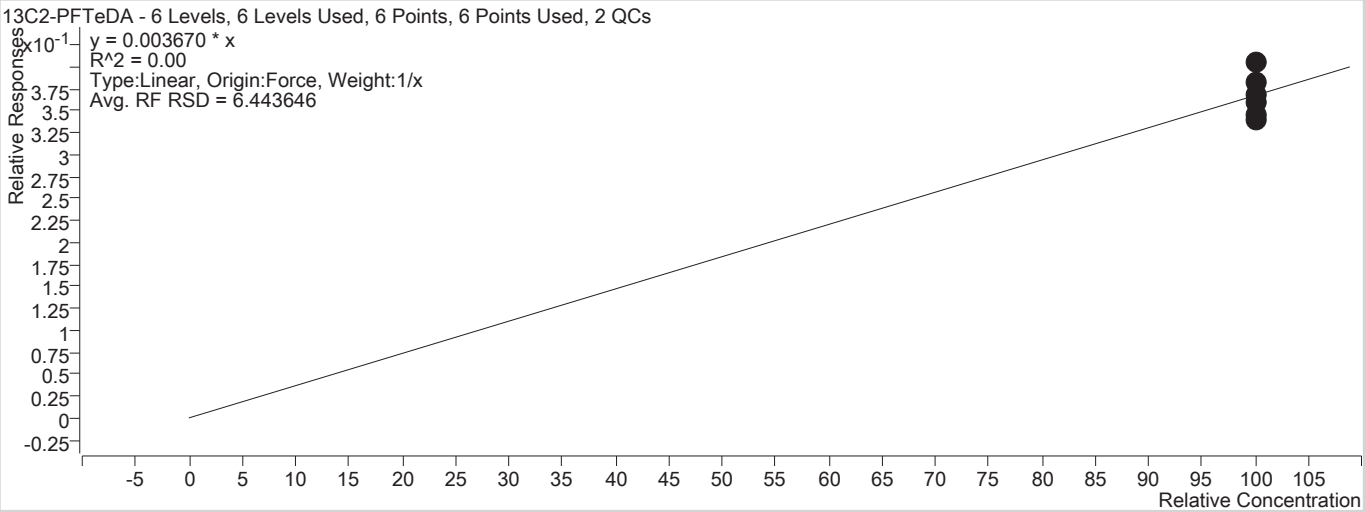
Analyte: 13C2-PFDoA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	100.00	96.71	9868	0.0030	240	96.7
STD 2	STD 2	x	2018/02/08 12:38:53 AM	100.00	105.39	10059	0.0033	229	105.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	100.00	97.81	9090	0.0030	201	97.8
STD 4	STD 4	x	2018/02/08 12:48:45 AM	100.00	98.76	10004	0.0031	354	98.8
STD 5	STD 5	x	2018/02/08 12:53:41 AM	100.00	99.73	9733	0.0031	195	99.7
STD 6	STD 6	x	2018/02/08 12:58:37 AM	100.00	101.61	9957	0.0032	221	101.6

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_ETOxics.batch.bin
Last Calib Update 2018/02/15 12:13:08 PM
Instrument: LCMS04

Analyte: 13C2-PFTeDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	100.00	94.35	11376	0.0035	636	94.4
STD 2	STD 2	x	2018/02/08 12:38:53 AM	100.00	104.03	11732	0.0038	453	104.0
STD 3	STD 3	x	2018/02/08 12:43:49 AM	100.00	110.23	12104	0.0040	571	110.2
STD 4	STD 4	x	2018/02/08 12:48:45 AM	100.00	92.81	11109	0.0034	274	92.8
STD 5	STD 5	x	2018/02/08 12:53:41 AM	100.00	100.31	11568	0.0037	494	100.3
STD 6	STD 6	x	2018/02/08 12:58:37 AM	100.00	98.26	11377	0.0036	462	98.3

By Compound Report

Agilent Technologies

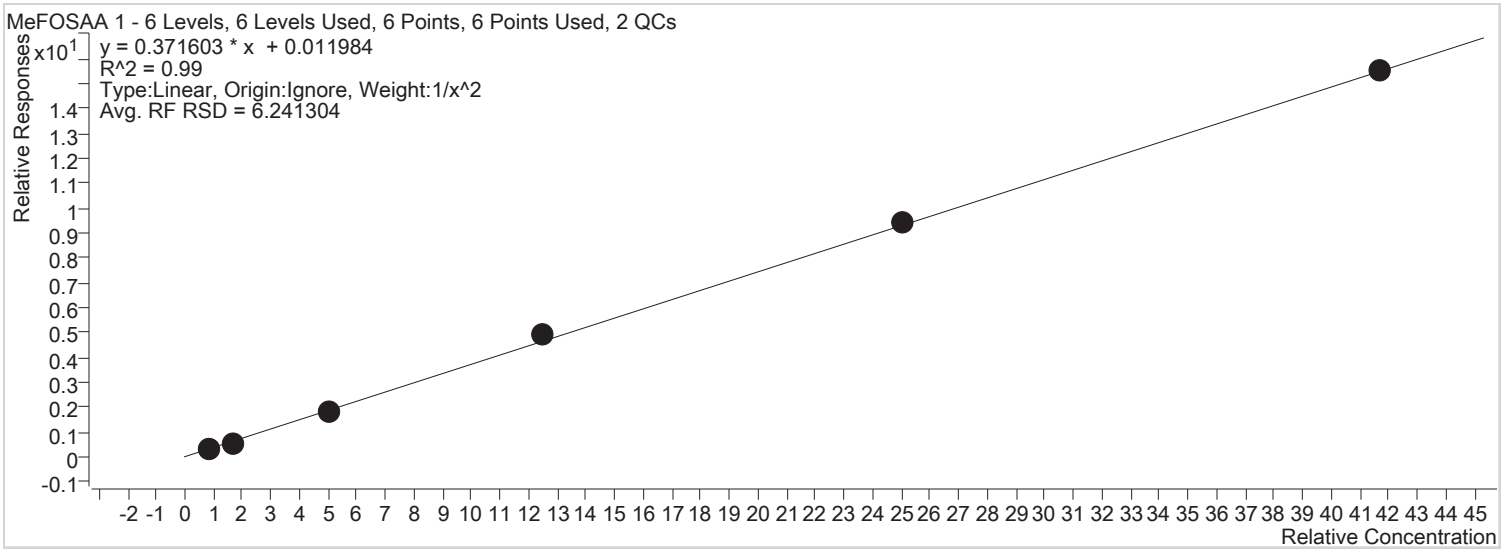
Batch Path T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 8:40:17 AM

Instrument: LCMS04

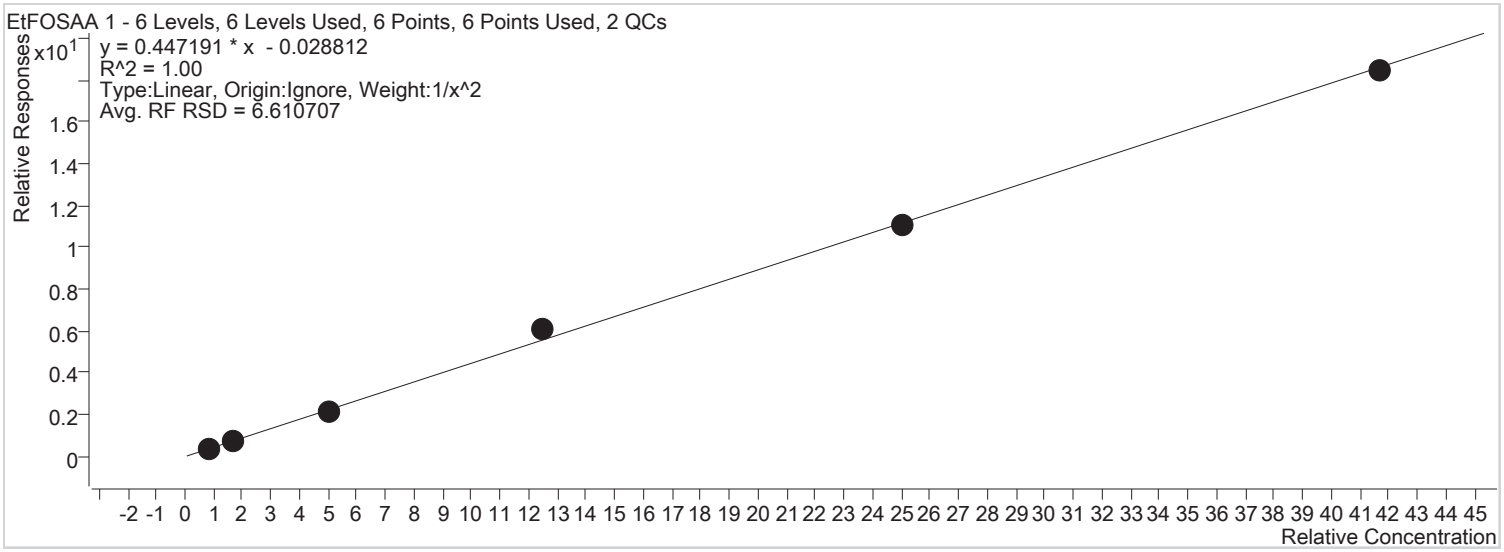
Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 8:19:12 AM	0.83	0.87	600	0.4054	139	105.2
STD 2	STD 2	x	2018/02/08 8:21:37 AM	1.70	1.51	989	0.3375	211	88.9
STD 3	STD 3	x	2018/02/08 8:24:02 AM	5.00	4.93	3091	0.3686	365	98.6
STD 4	STD 4	x	2018/02/08 8:26:27 AM	12.50	13.23	7953	0.3942	338	105.8
STD 5	STD 5	x	2018/02/08 8:28:51 AM	25.00	25.33	15271	0.3771	309	101.3
STD 6	STD 6	x	2018/02/08 8:31:15 AM	41.70	41.76	25300	0.3724	345	100.1

Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_EToxics.batch.bin
Last Calib Update	2018/02/12 8:40:17 AM
Instrument:	LCMS04
Analyte:	EtFOSAA 1
Internal Standard:	D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 8:19:12 AM	0.83	0.86	546	0.4297	61	103.8
STD 2	STD 2	x	2018/02/08 8:21:37 AM	1.70	1.57	993	0.3952	130	92.2
STD 3	STD 3	x	2018/02/08 8:24:02 AM	5.00	4.83	3026	0.4262	297	96.6
STD 4	STD 4	x	2018/02/08 8:26:27 AM	12.50	13.58	7991	0.4836	666	108.7
STD 5	STD 5	x	2018/02/08 8:28:51 AM	25.00	24.92	15525	0.4445	1431	99.7
STD 6	STD 6	x	2018/02/08 8:31:15 AM	41.70	41.32	26270	0.4424	2527	99.1

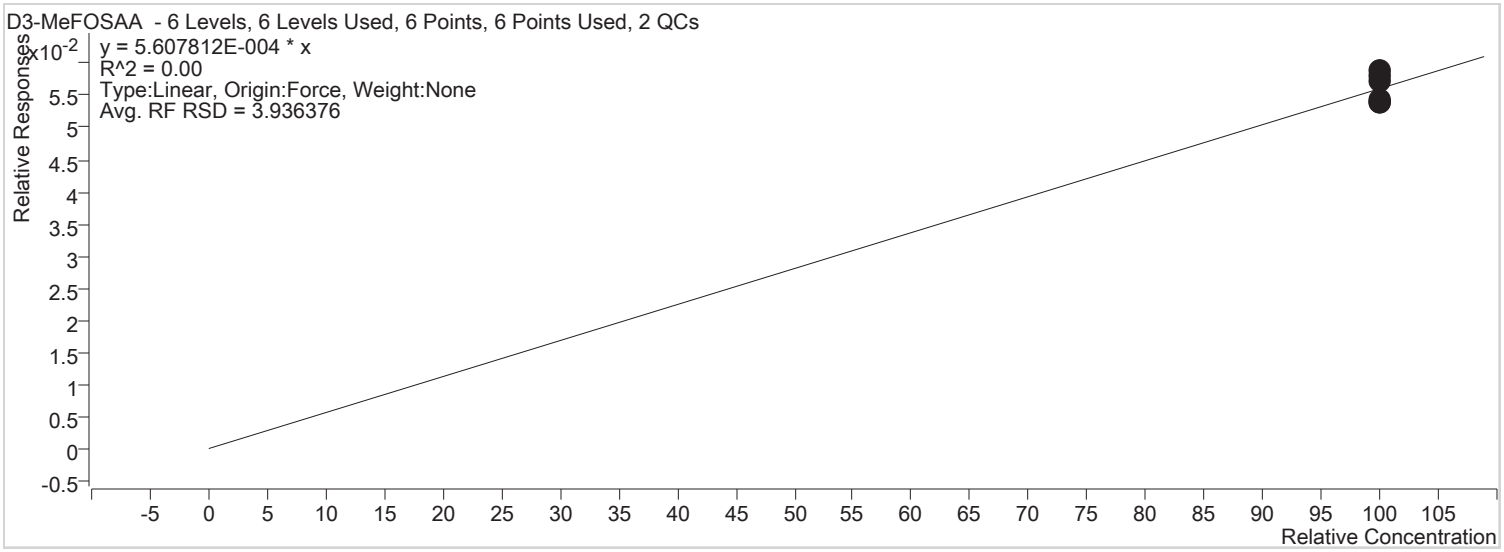
Batch Path T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 8:40:17 AM

Instrument: LCMS04

Analyte: D3-MeFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 8:19:12 AM	100.00	96.12	1795	0.0005	147	96.1
STD 2	STD 2	x	2018/02/08 8:21:37 AM	100.00	104.95	1732	0.0006	124	105.0
STD 3	STD 3	x	2018/02/08 8:24:02 AM	100.00	103.32	1677	0.0006	120	103.3
STD 4	STD 4	x	2018/02/08 8:26:27 AM	100.00	96.25	1624	0.0005	107	96.2
STD 5	STD 5	x	2018/02/08 8:28:51 AM	100.00	97.17	1621	0.0005	79	97.2
STD 6	STD 6	x	2018/02/08 8:31:15 AM	100.00	102.18	1634	0.0006	119	102.2

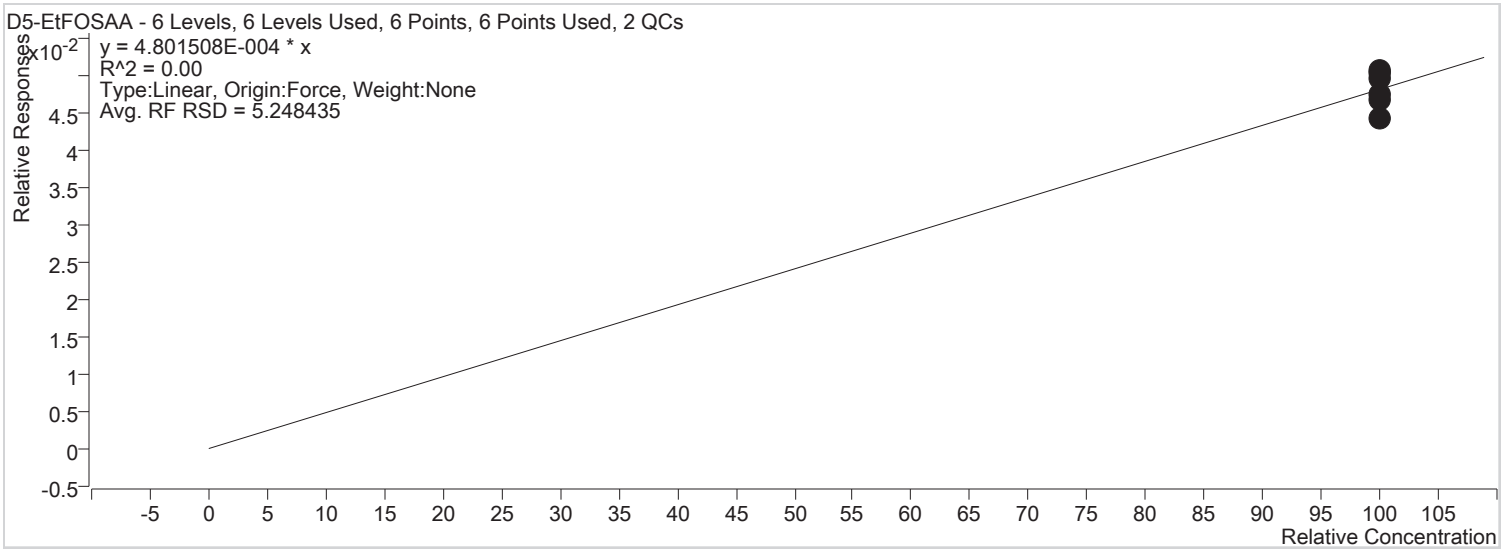
Batch Path T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 8:40:17 AM

Instrument: LCMS04

Analyte: D5-EtFOSAA

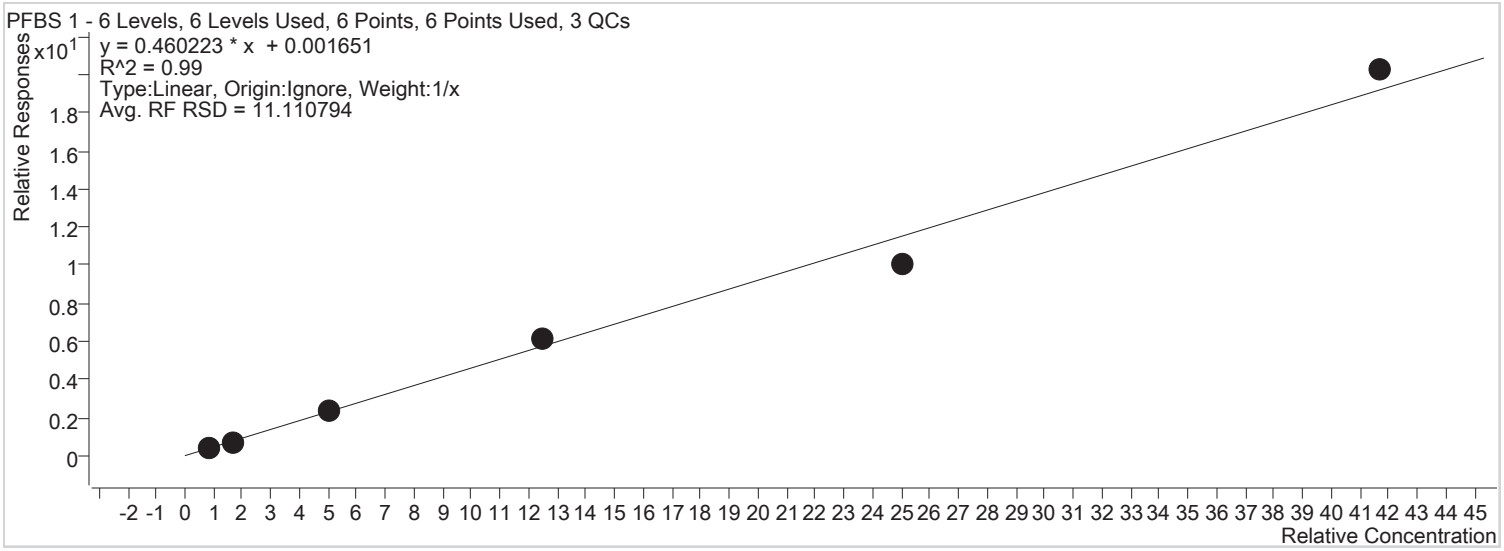
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 8:19:12 AM	100.00	97.19	1554	0.0005	247	97.2
STD 2	STD 2	x	2018/02/08 8:21:37 AM	100.00	105.17	1486	0.0005	215	105.2
STD 3	STD 3	x	2018/02/08 8:24:02 AM	100.00	103.26	1435	0.0005	204	103.3
STD 4	STD 4	x	2018/02/08 8:26:27 AM	100.00	91.58	1323	0.0004	107	91.6
STD 5	STD 5	x	2018/02/08 8:28:51 AM	100.00	98.44	1406	0.0005	196	98.4
STD 6	STD 6	x	2018/02/08 8:31:15 AM	100.00	104.37	1429	0.0005	132	104.4

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

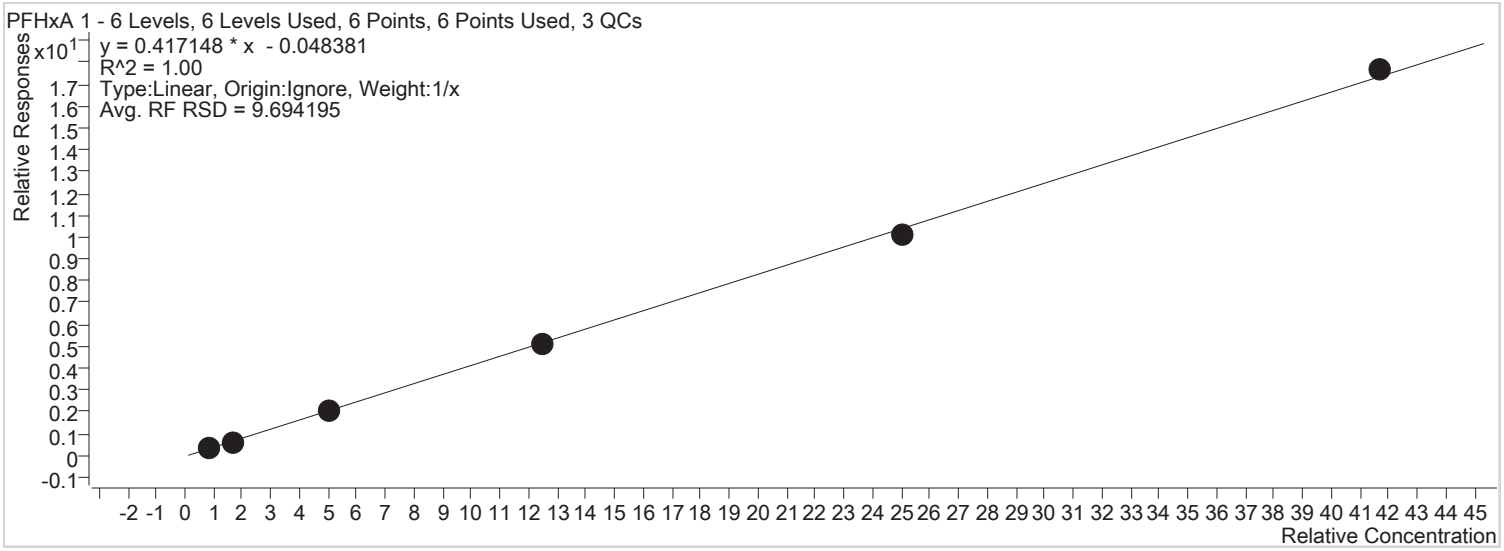
Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.92	671	0.5143	93	111.3
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.44	1069	0.3898	122	84.5
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	5.27	3685	0.4855	91	105.4
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	13.21	8679	0.4866	649	105.7
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	21.89	16004	0.4031	295	87.6
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	43.99	31202	0.4856	151	105.5

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

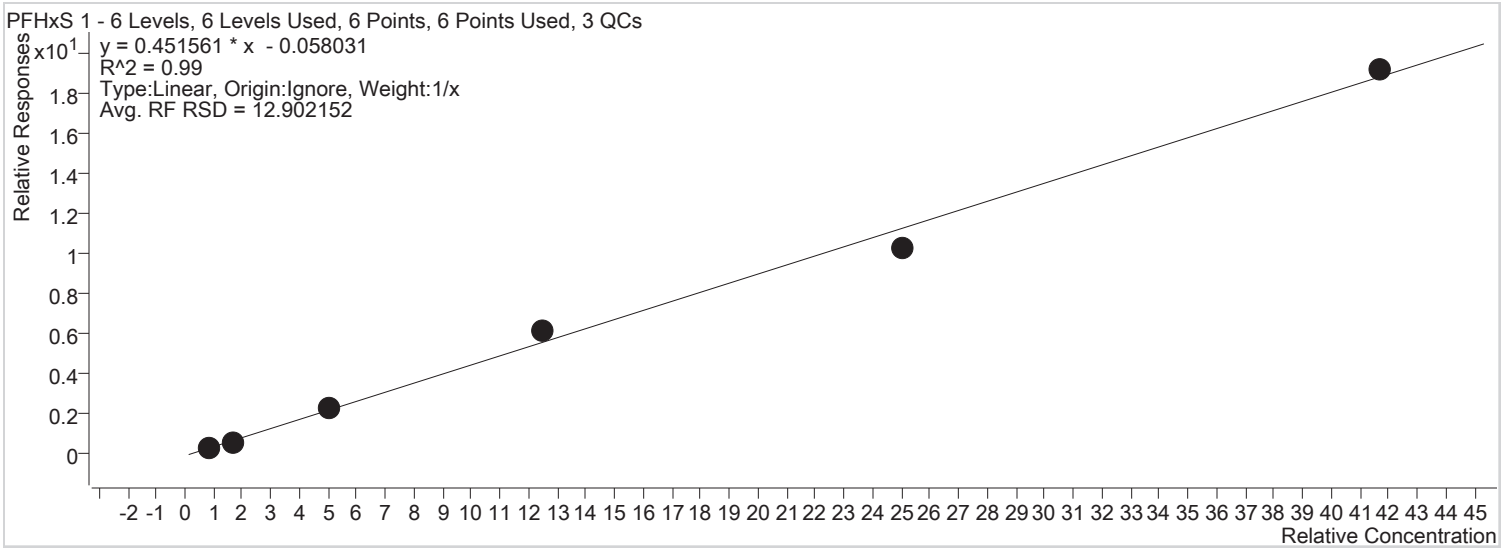
Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.97	2012	0.4291	132	116.8
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.43	3269	0.3231	280	84.3
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.99	12687	0.4064	1116	99.8
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.44	30119	0.4113	2486	99.5
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	24.45	60745	0.4060	4432	97.8
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	42.45	111030	0.4235	10263	101.8

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

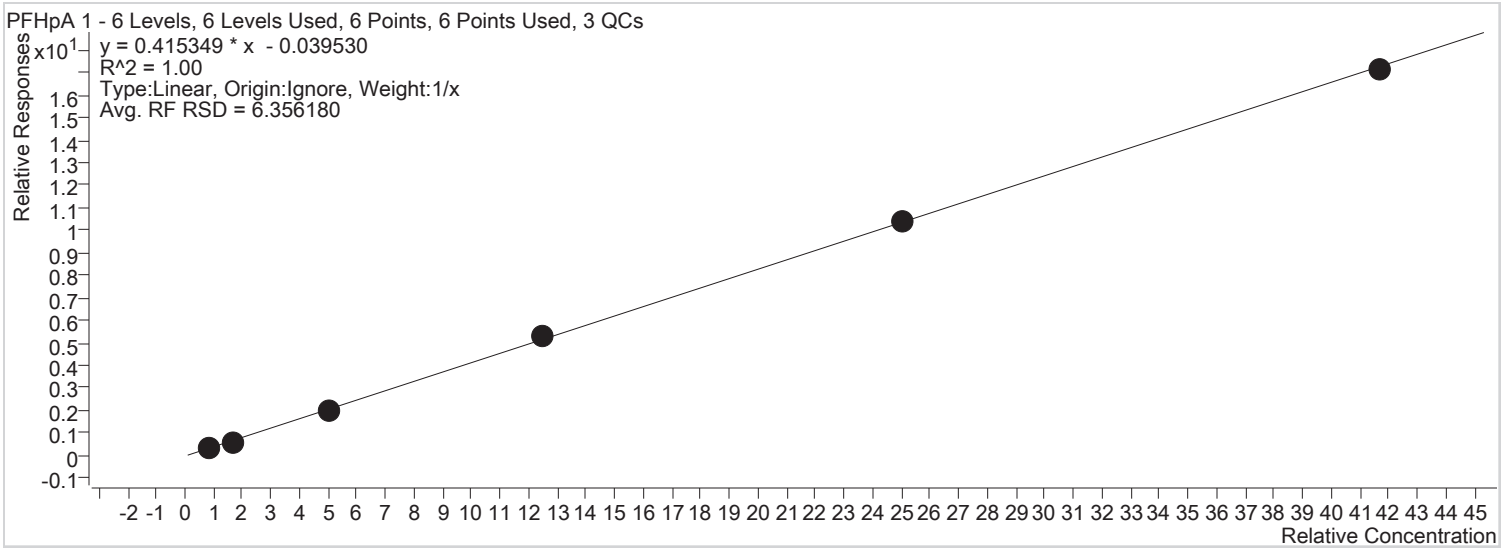
Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.90	549	0.4208	78	108.7
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.39	918	0.3348	106	81.7
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	5.32	3558	0.4688	312	106.4
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	13.71	8749	0.4905	532	109.6
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	22.93	16354	0.4119	1056	91.7
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	42.48	29470	0.4586	2241	101.9

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.91	2767	0.4081	25	109.7
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.56	4633	0.3577	38	91.7
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.74	16651	0.3857	135	94.8
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.98	41071	0.4283	259	103.9
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	25.19	80239	0.4170	255	100.8
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	41.34	138947	0.4109	299	99.1

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
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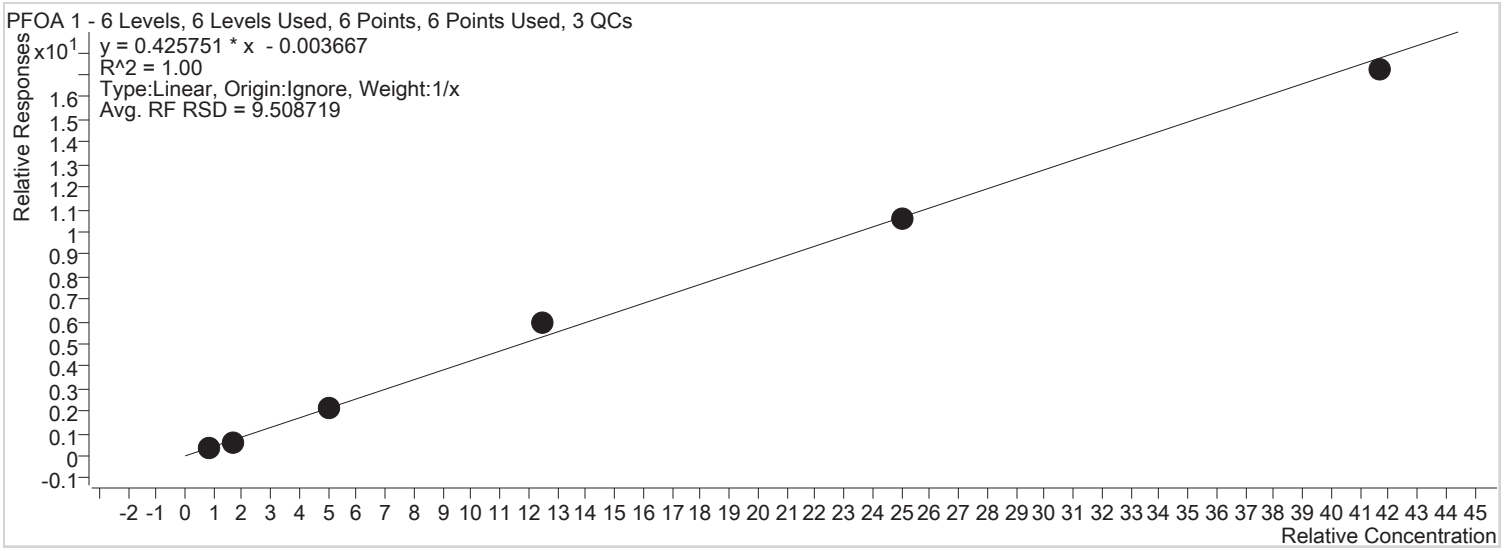
Instrument: LCMS04

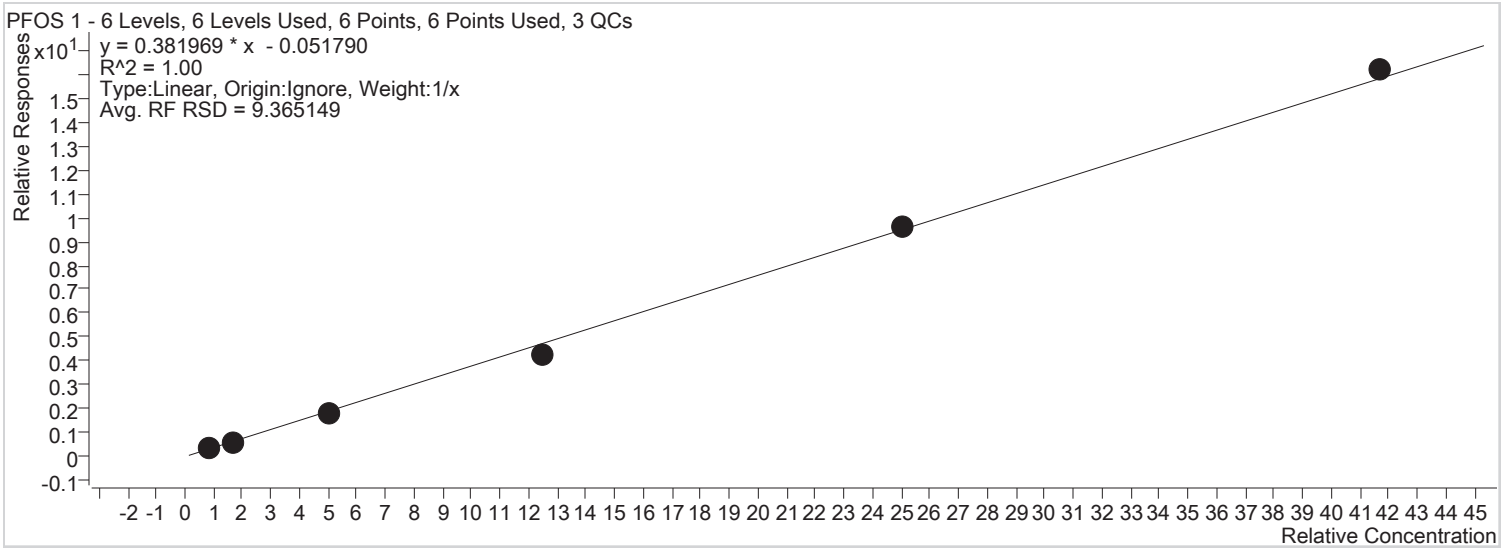
Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.88	3259	0.4479	39	106.2
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.42	5039	0.3532	67	83.5
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	5.12	19009	0.4353	231	102.4
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	13.87	46159	0.4720	514	110.9
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	24.97	88474	0.4251	1281	99.9
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	40.47	158054	0.4131	1590	97.1

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

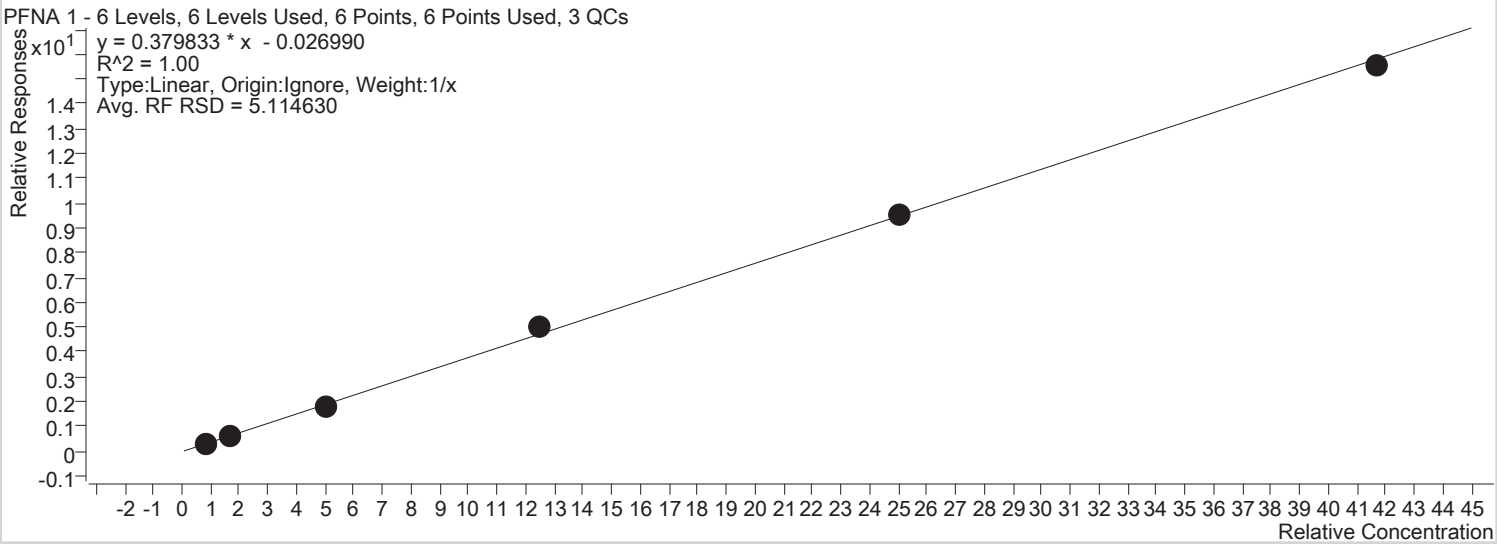
Analyte: PFOS 1
Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	1.00	595	0.3974	77	120.4
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.51	1026	0.3090	123	88.9
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.80	3653	0.3566	162	96.1
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	11.34	8207	0.3425	141	90.8
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	25.40	16958	0.3861	195	101.6
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	42.67	30641	0.3896	263	102.3

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

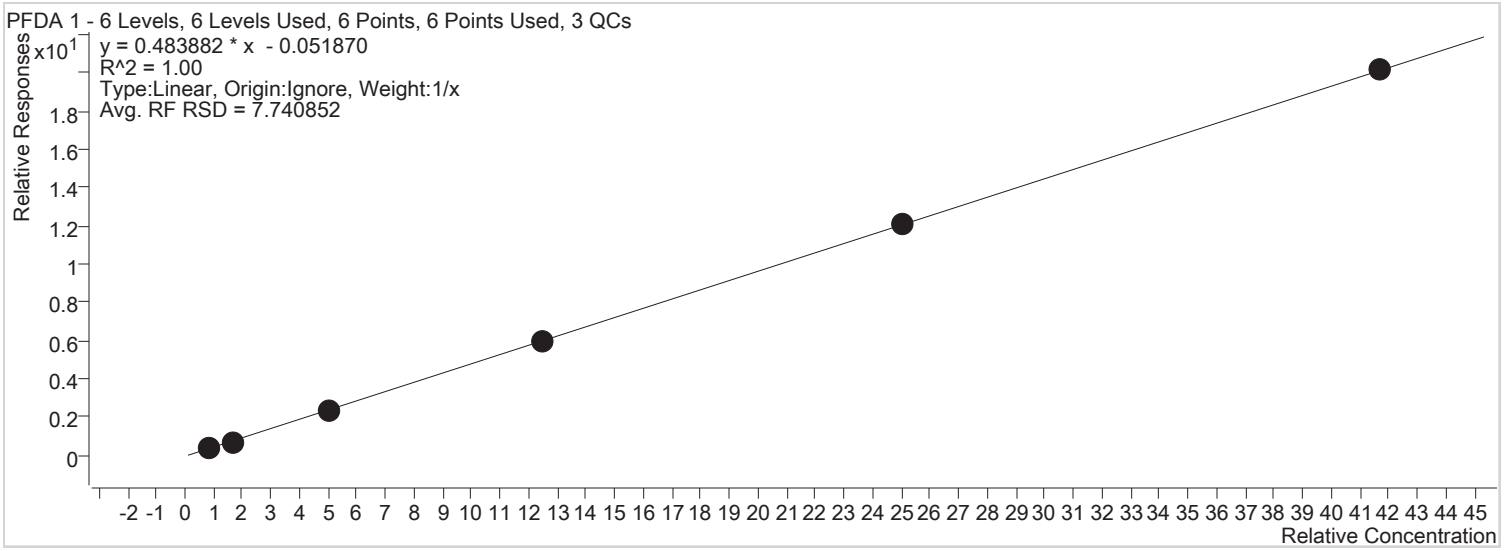
Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.86	2670	0.3590	33	103.1
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.61	5021	0.3438	73	94.7
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.88	16269	0.3654	314	97.6
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	13.18	40186	0.3985	584	105.5
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	25.21	79008	0.3820	1193	100.9
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	40.99	137642	0.3727	1979	98.3

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

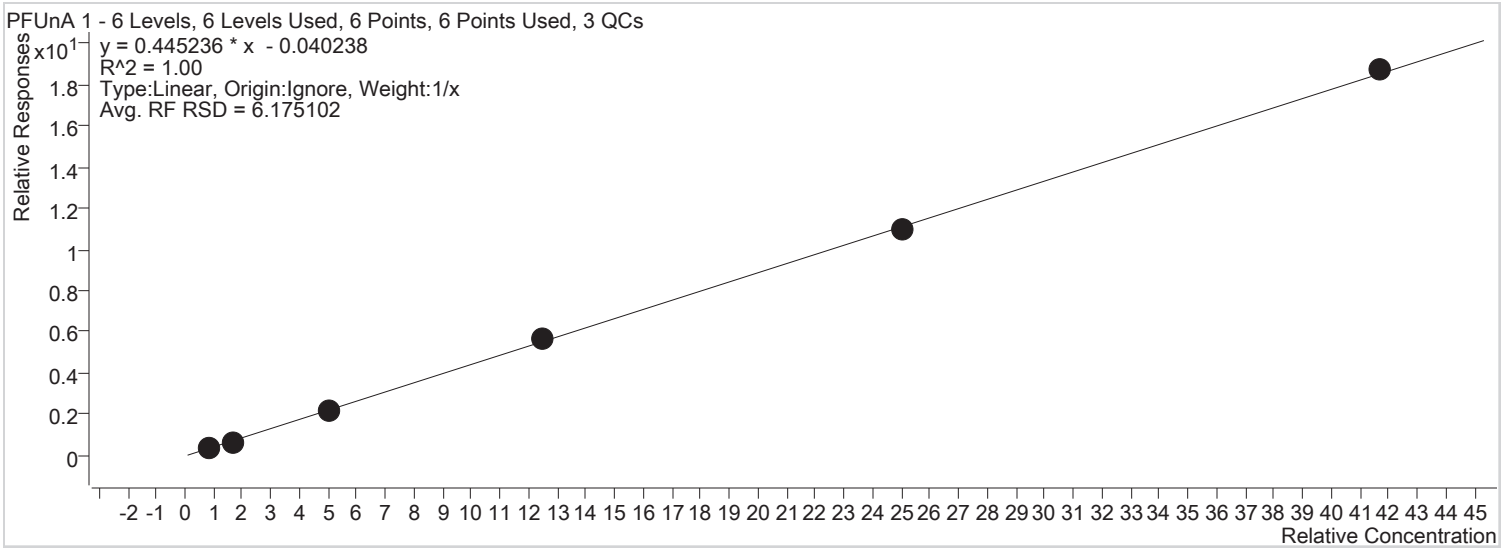
Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.94	2811	0.4849	37	113.1
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.49	4944	0.3928	54	87.5
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.96	17521	0.4697	232	99.2
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.43	43587	0.4771	534	99.5
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	25.13	83684	0.4844	1022	100.5
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	41.78	153798	0.4836	946	100.2

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

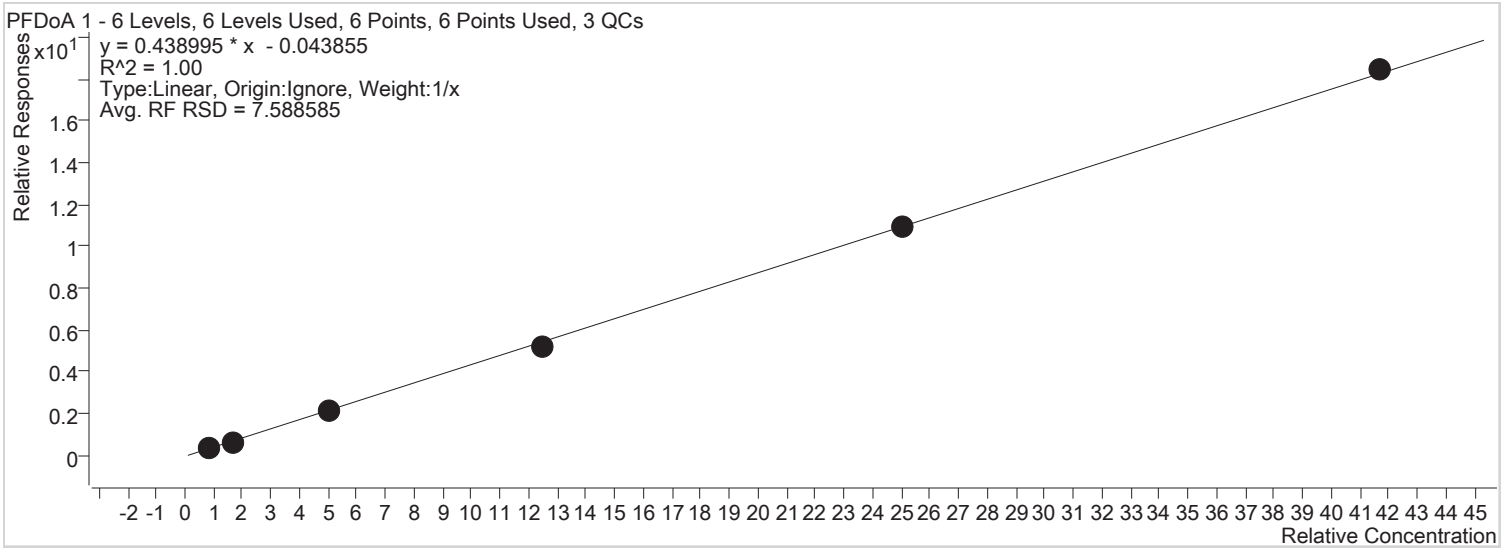
Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.93	3172	0.4478	29	111.5
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.54	5409	0.3809	55	90.9
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.84	18843	0.4225	133	96.7
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.69	47185	0.4489	266	101.5
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	24.59	89716	0.4363	296	98.4
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	42.14	167796	0.4490	299	101.1

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

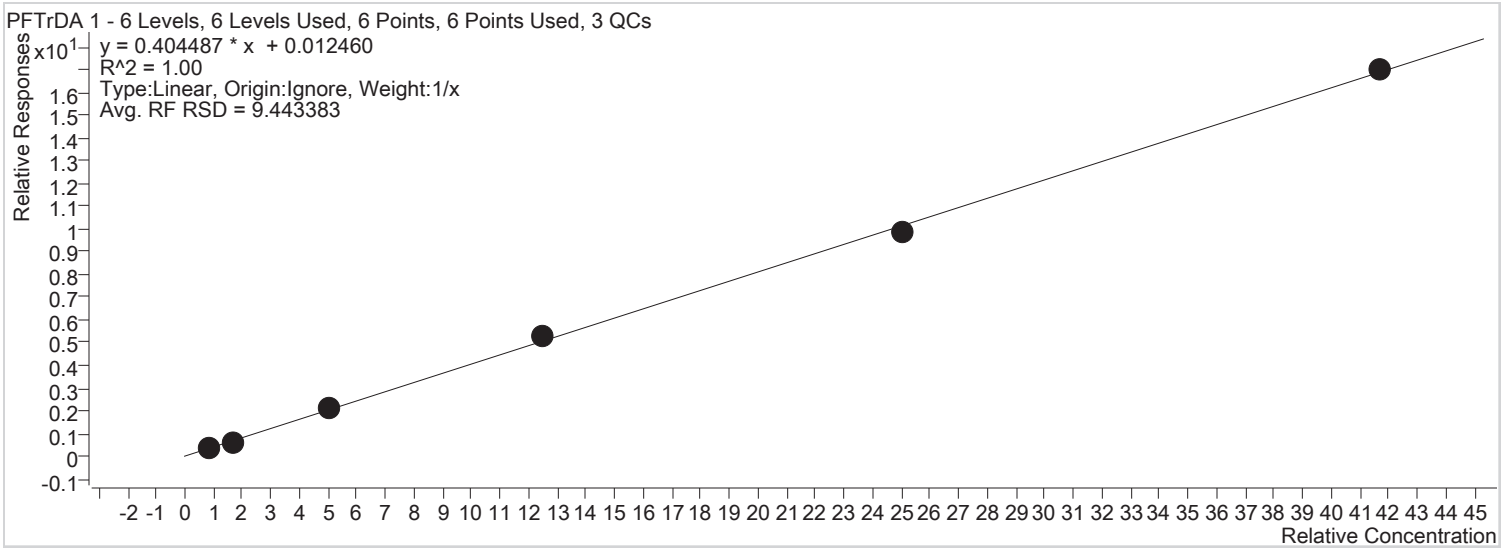
Analyte: PFDoA 1
Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.95	4275	0.4501	205	114.6
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.50	6898	0.3618	197	88.3
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.96	24541	0.4264	652	99.1
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.05	60873	0.4195	2479	96.4
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	25.16	115272	0.4401	2957	100.7
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	42.11	213116	0.4423	4821	101.0

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

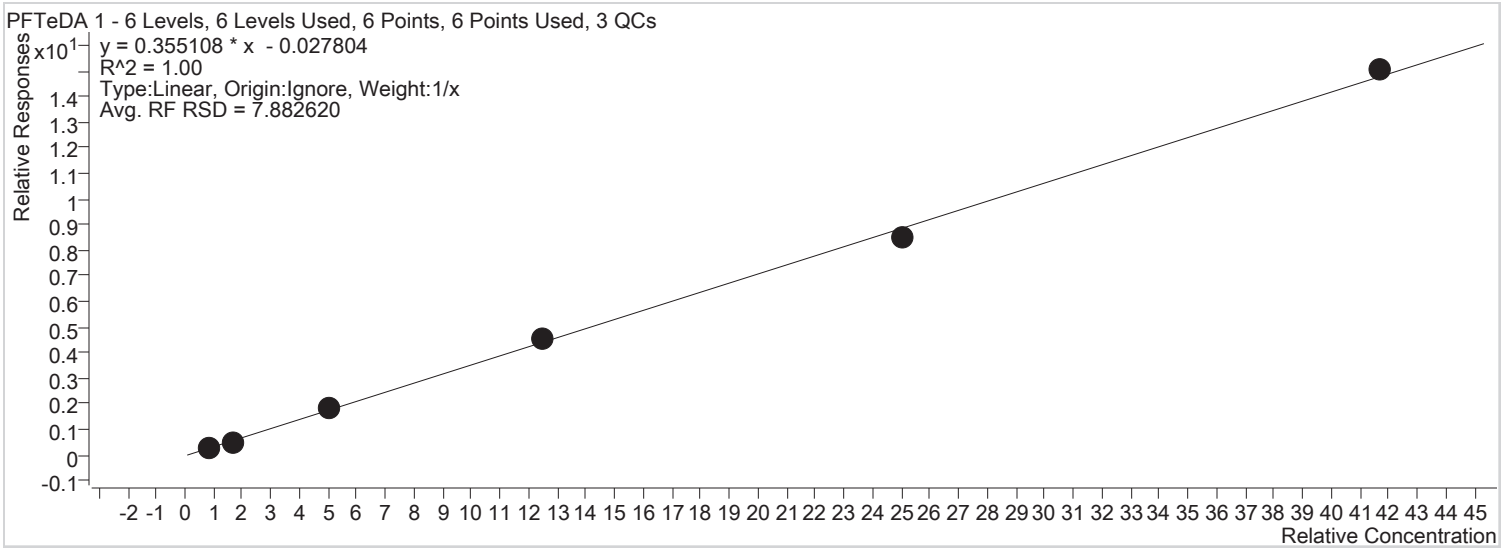
Analyte: PFTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.93	5032	0.4661	40	111.5
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.43	7954	0.3478	56	84.2
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	5.13	27534	0.4178	100	102.7
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.98	66039	0.4209	127	103.8
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	24.30	126598	0.3937	162	97.2
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	41.96	234625	0.4073	143	100.6

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

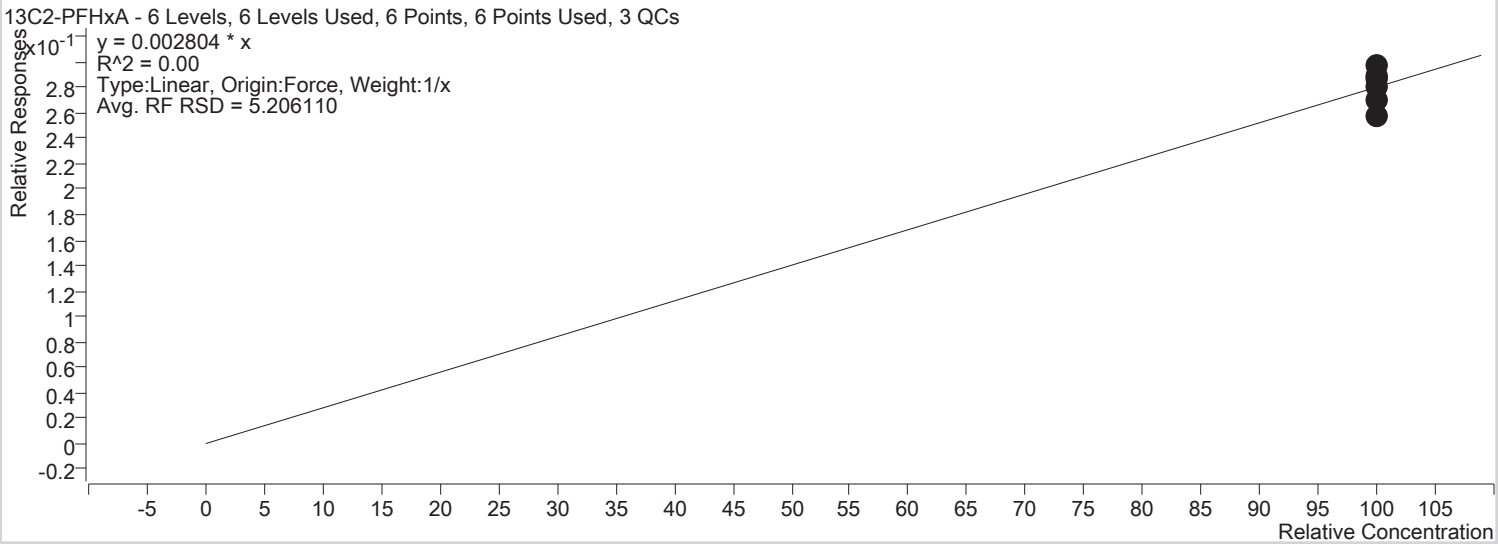
Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.91	3842	0.3559	15	109.6
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.48	6692	0.2926	27	87.0
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	5.18	23878	0.3623	86	103.6
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.78	56621	0.3609	129	102.2
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	23.92	108923	0.3387	121	95.7
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	42.46	207867	0.3609	144	101.8

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

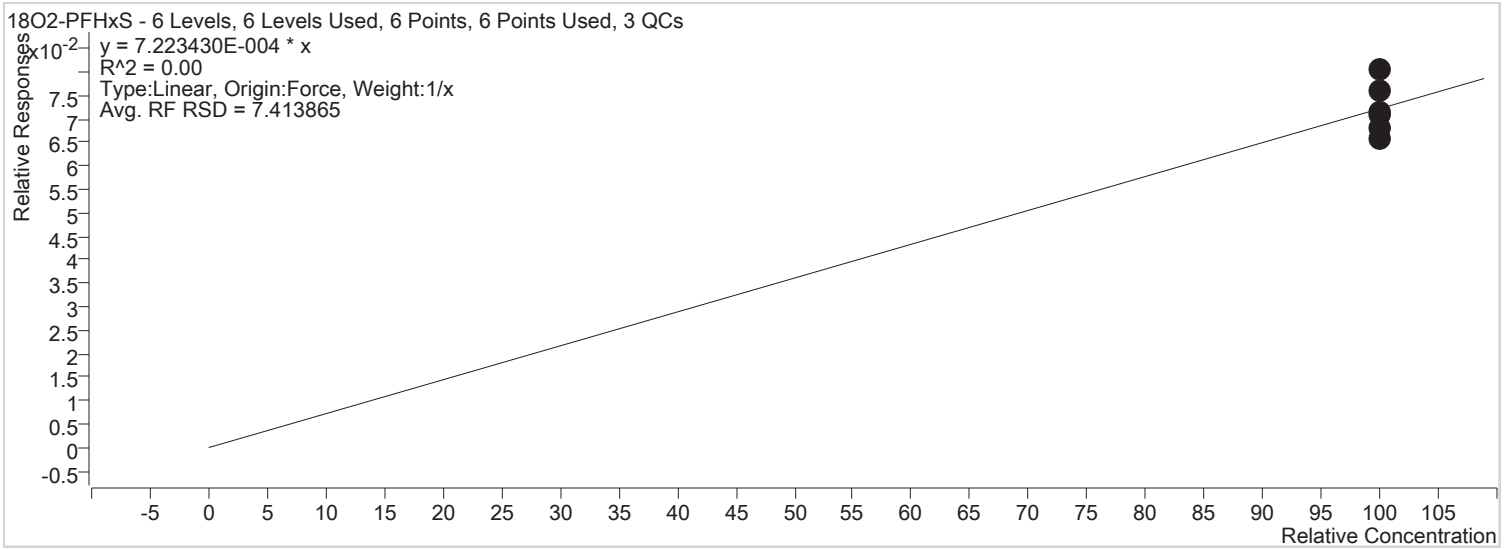
Analyte: 13C2-PFHxA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	100.00	91.64	5649	0.0026	182	91.6
STD 2	STD 2	x	2018/02/09 12:07:17 AM	100.00	105.96	5951	0.0030	206	106.0
STD 3	STD 3	x	2018/02/09 12:12:13 AM	100.00	99.96	6243	0.0028	177	100.0
STD 4	STD 4	x	2018/02/09 12:17:10 AM	100.00	96.51	5858	0.0027	477	96.5
STD 5	STD 5	x	2018/02/09 12:22:06 AM	100.00	102.51	5985	0.0029	253	102.5
STD 6	STD 6	x	2018/02/09 12:27:02 AM	100.00	103.42	6287	0.0029	103	103.4

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

Analyte: 18O2-PFHxS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	100.00	98.98	1572	0.0007	184	99.0
STD 2	STD 2	x	2018/02/09 12:07:17 AM	100.00	111.47	1613	0.0008	159	111.5
STD 3	STD 3	x	2018/02/09 12:12:13 AM	100.00	94.33	1518	0.0007	205	94.3
STD 4	STD 4	x	2018/02/09 12:17:10 AM	100.00	91.25	1427	0.0007	532	91.3
STD 5	STD 5	x	2018/02/09 12:22:06 AM	100.00	105.57	1588	0.0008	164	105.6
STD 6	STD 6	x	2018/02/09 12:27:02 AM	100.00	98.39	1541	0.0007	277	98.4

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
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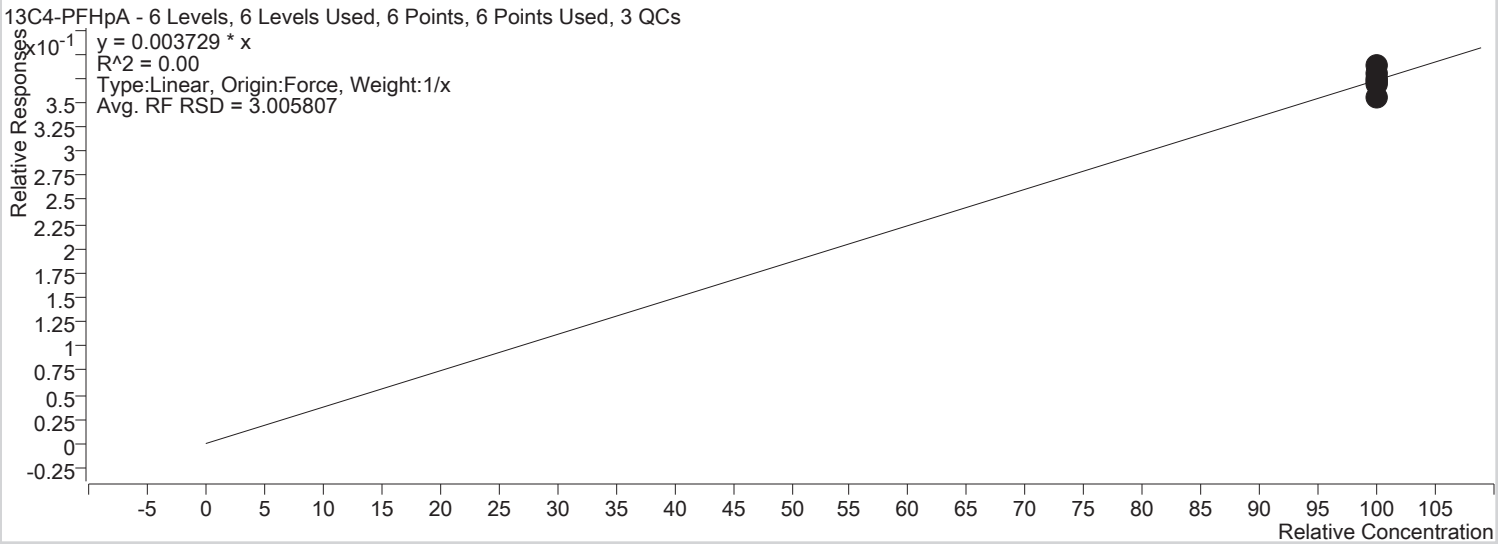
Instrument: LCMS04

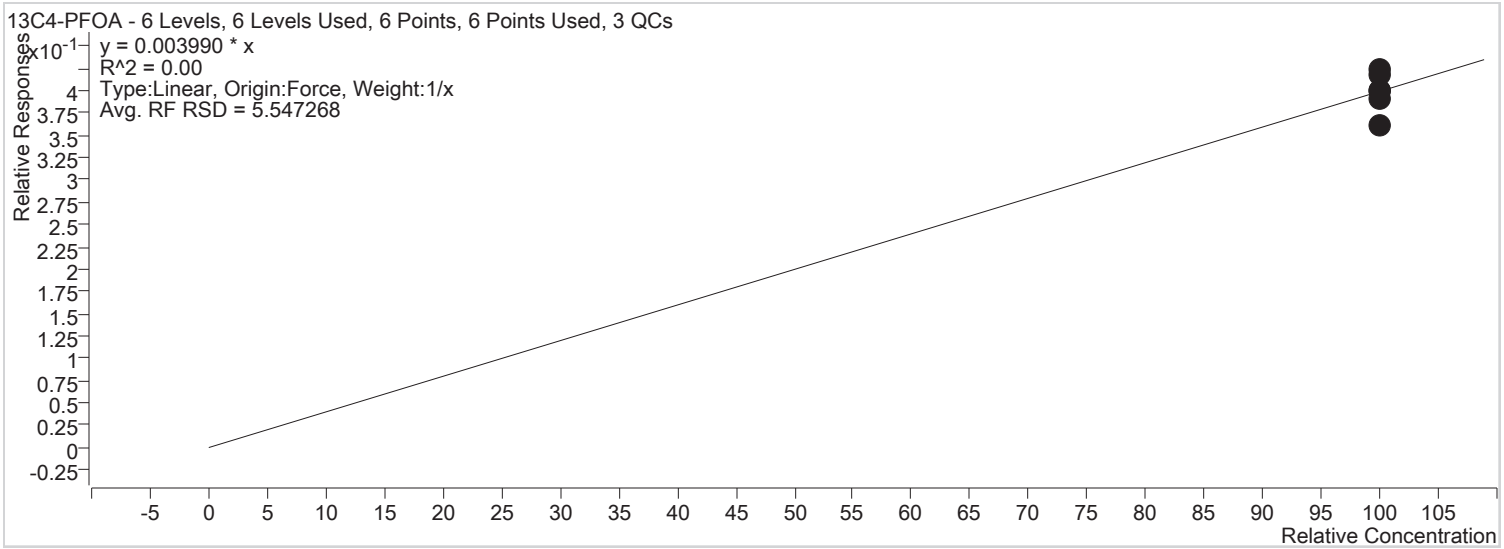
Analyte: 13C4-PFHpA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	100.00	99.64	8169	0.0037	255	99.6
STD 2	STD 2	x	2018/02/09 12:07:17 AM	100.00	101.98	7618	0.0038	232	102.0
STD 3	STD 3	x	2018/02/09 12:12:13 AM	100.00	103.94	8635	0.0039	355	103.9
STD 4	STD 4	x	2018/02/09 12:17:10 AM	100.00	95.03	7672	0.0035	186	95.0
STD 5	STD 5	x	2018/02/09 12:22:06 AM	100.00	99.11	7697	0.0037	242	99.1
STD 6	STD 6	x	2018/02/09 12:27:02 AM	100.00	100.30	8110	0.0037	215	100.3

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

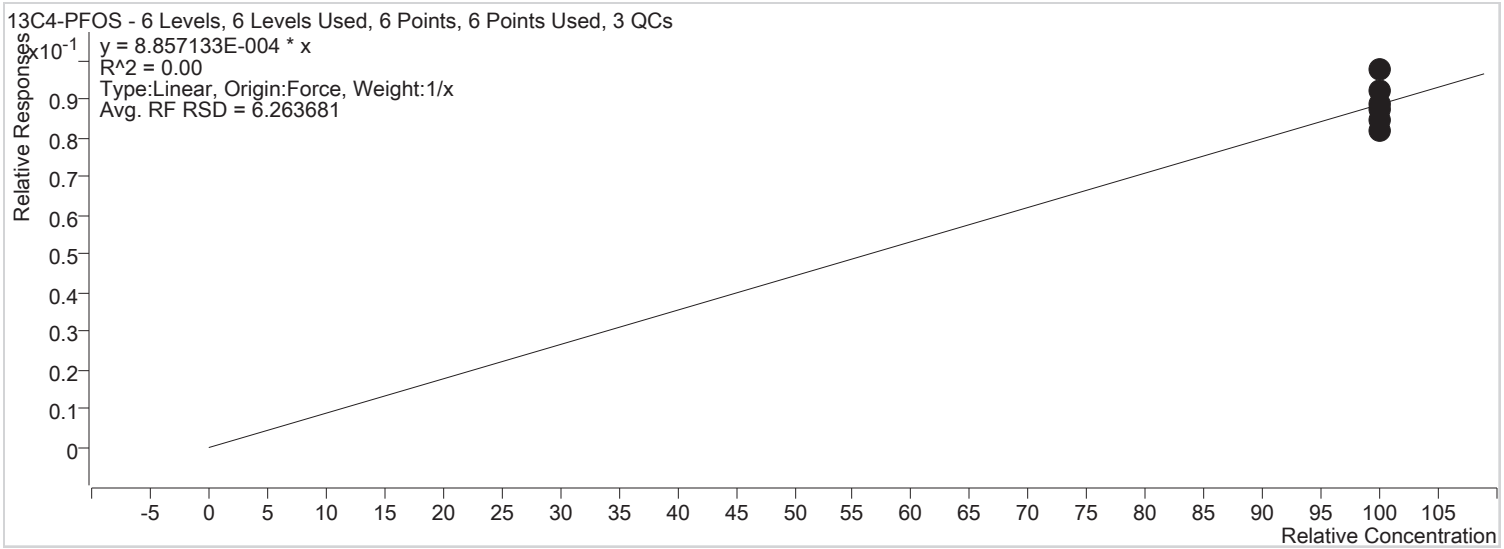
Analyte: 13C4-PFOA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	100.00	99.93	8766	0.0040	156	99.9
STD 2	STD 2	x	2018/02/09 12:07:17 AM	100.00	105.01	8393	0.0042	183	105.0
STD 3	STD 3	x	2018/02/09 12:12:13 AM	100.00	98.25	8733	0.0039	155	98.3
STD 4	STD 4	x	2018/02/09 12:17:10 AM	100.00	90.57	7823	0.0036	105	90.6
STD 5	STD 5	x	2018/02/09 12:22:06 AM	100.00	100.19	8325	0.0040	137	100.2
STD 6	STD 6	x	2018/02/09 12:27:02 AM	100.00	106.06	9175	0.0042	159	106.1

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

Analyte: 13C4-PFOS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	100.00	92.64	1804	0.0008	121	92.6
STD 2	STD 2	x	2018/02/09 12:07:17 AM	100.00	110.07	1953	0.0010	381	110.1
STD 3	STD 3	x	2018/02/09 12:12:13 AM	100.00	103.85	2049	0.0009	279	103.8
STD 4	STD 4	x	2018/02/09 12:17:10 AM	100.00	99.97	1917	0.0009	171	100.0
STD 5	STD 5	x	2018/02/09 12:22:06 AM	100.00	95.26	1757	0.0008	159	95.3
STD 6	STD 6	x	2018/02/09 12:27:02 AM	100.00	98.21	1886	0.0009	121	98.2

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
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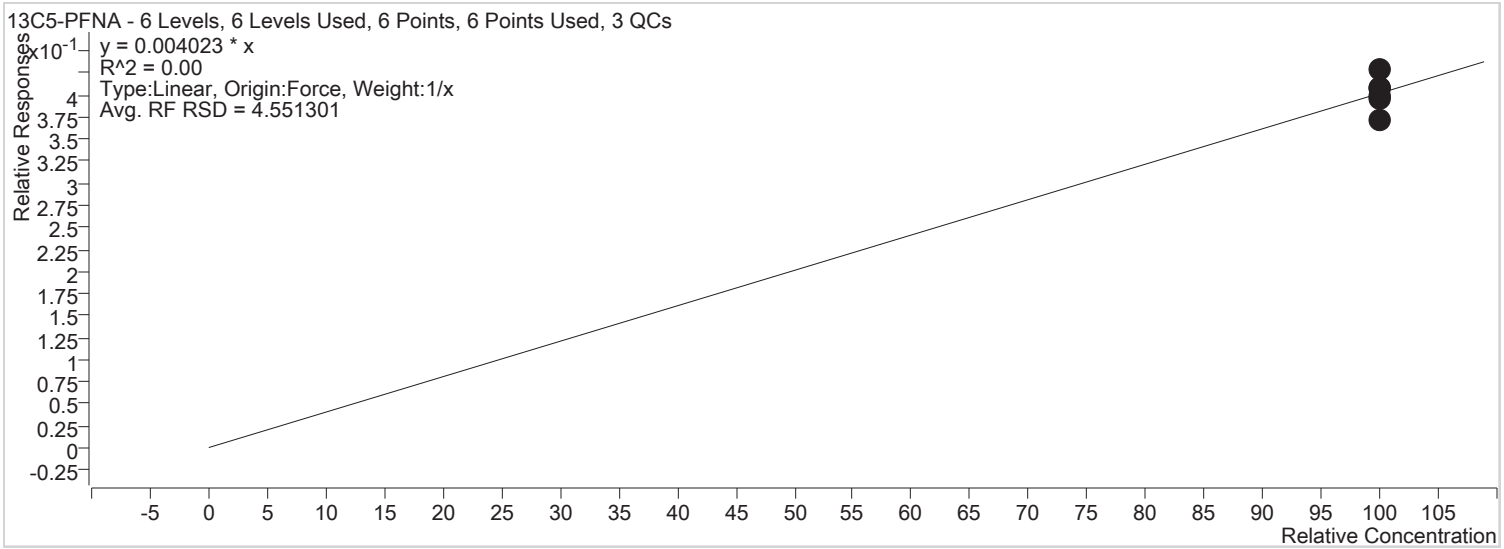
Instrument: LCMS04

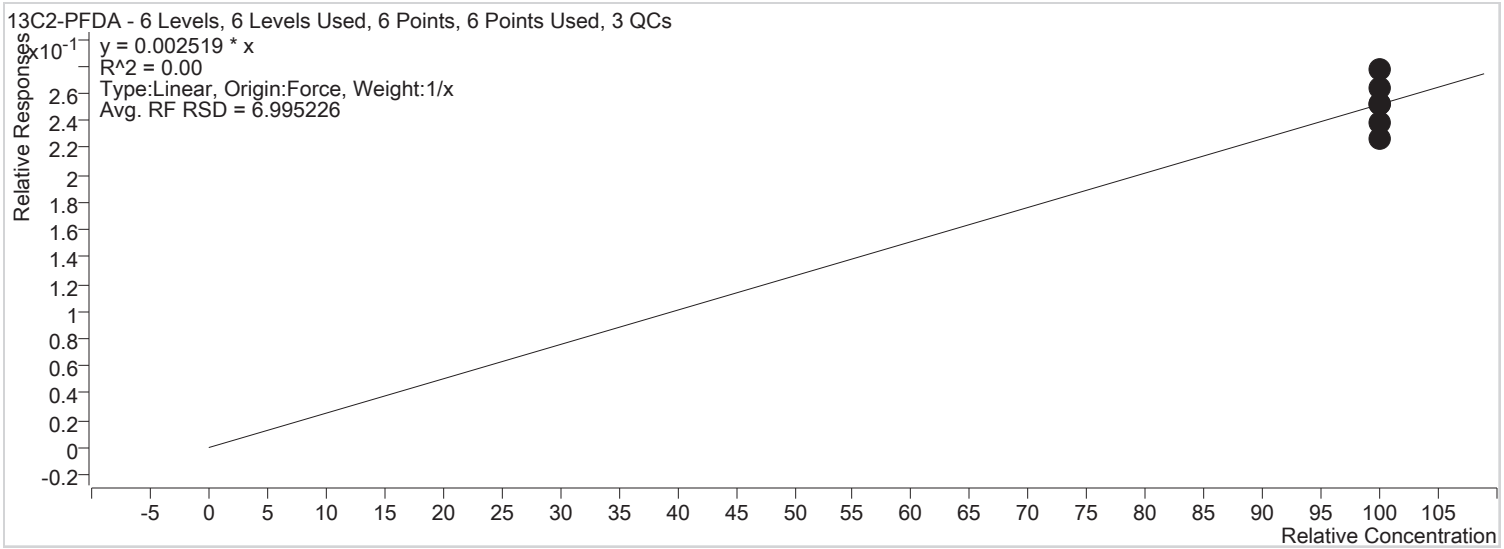
Analyte: 13C5-PFNA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	100.00	101.32	8961	0.0041	313	101.3
STD 2	STD 2	x	2018/02/09 12:07:17 AM	100.00	106.63	8592	0.0043	182	106.6
STD 3	STD 3	x	2018/02/09 12:12:13 AM	100.00	99.35	8903	0.0040	235	99.4
STD 4	STD 4	x	2018/02/09 12:17:10 AM	100.00	92.64	8067	0.0037	290	92.6
STD 5	STD 5	x	2018/02/09 12:22:06 AM	100.00	98.76	8273	0.0040	209	98.8
STD 6	STD 6	x	2018/02/09 12:27:02 AM	100.00	101.30	8835	0.0041	268	101.3

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

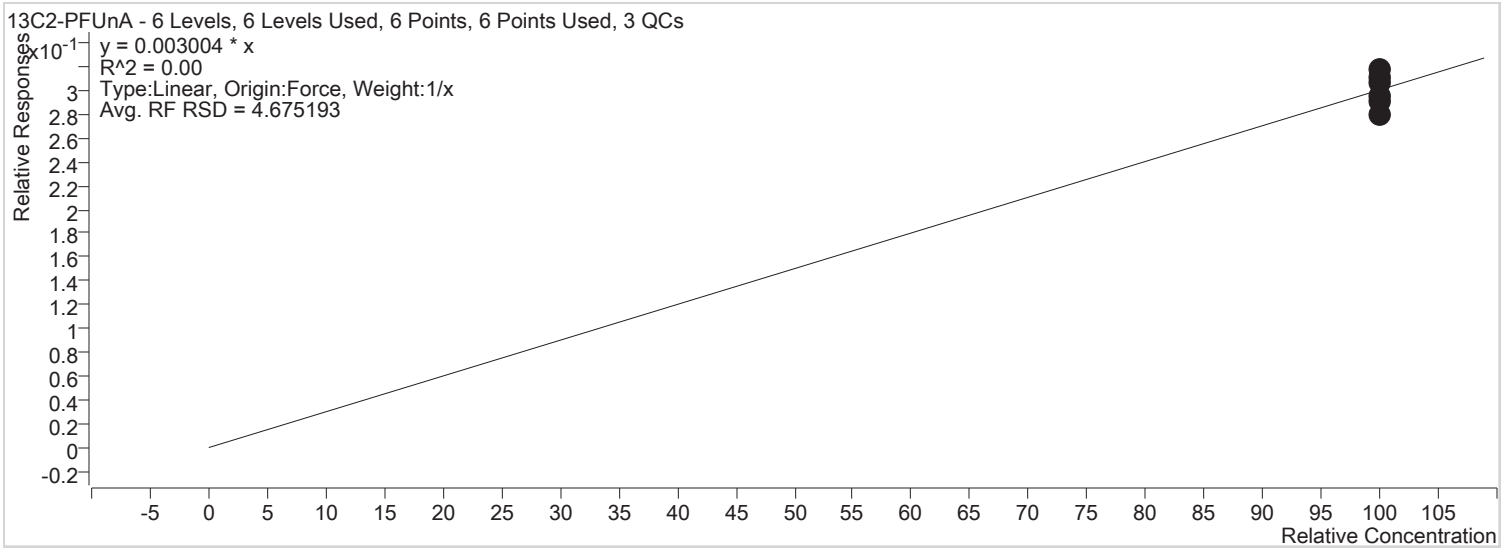
Analyte: 13C2-PFDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	100.00	90.29	6916	0.0023	346	90.3
STD 2	STD 2	x	2018/02/09 12:07:17 AM	100.00	110.06	7300	0.0028	260	110.1
STD 3	STD 3	x	2018/02/09 12:12:13 AM	100.00	94.57	7332	0.0024	226	94.6
STD 4	STD 4	x	2018/02/09 12:17:10 AM	100.00	100.20	7177	0.0025	284	100.2
STD 5	STD 5	x	2018/02/09 12:22:06 AM	100.00	100.47	6772	0.0025	241	100.5
STD 6	STD 6	x	2018/02/09 12:27:02 AM	100.00	104.41	7561	0.0026	281	104.4

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

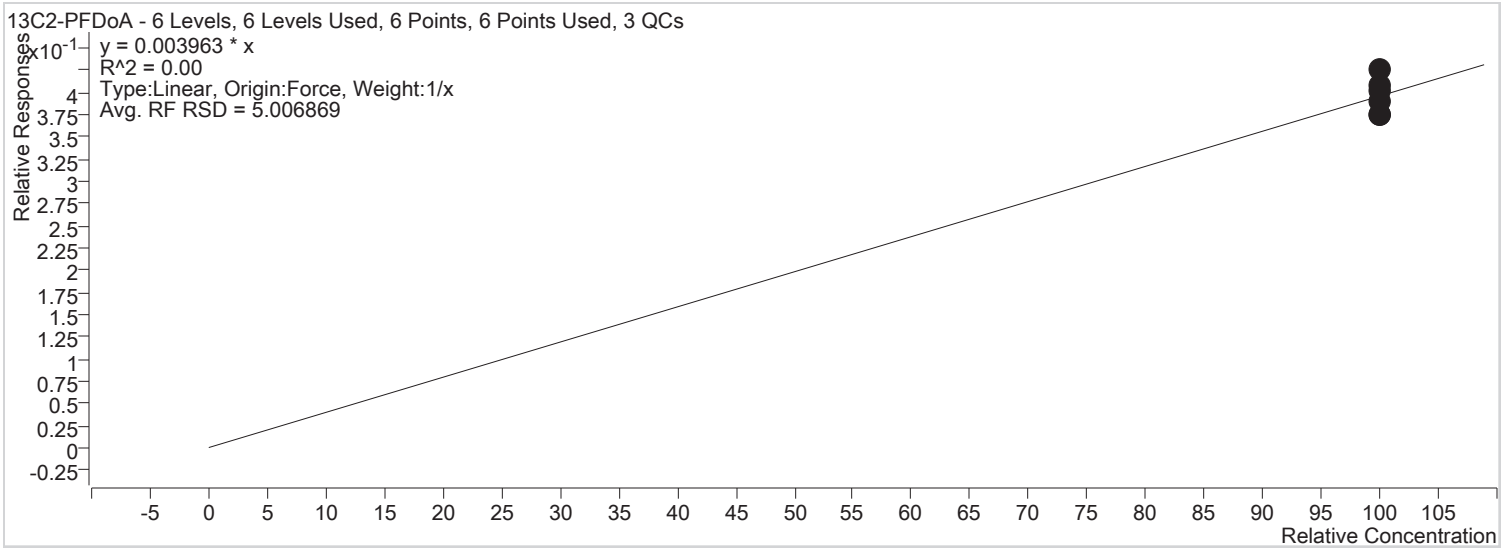
Analyte: 13C2-PFUnA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	100.00	93.42	8534	0.0028	276	93.4
STD 2	STD 2	x	2018/02/09 12:07:17 AM	100.00	105.61	8354	0.0032	288	105.6
STD 3	STD 3	x	2018/02/09 12:12:13 AM	100.00	96.46	8919	0.0029	237	96.5
STD 4	STD 4	x	2018/02/09 12:17:10 AM	100.00	98.44	8409	0.0030	174	98.4
STD 5	STD 5	x	2018/02/09 12:22:06 AM	100.00	102.32	8225	0.0031	243	102.3
STD 6	STD 6	x	2018/02/09 12:27:02 AM	100.00	103.76	8962	0.0031	319	103.8

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

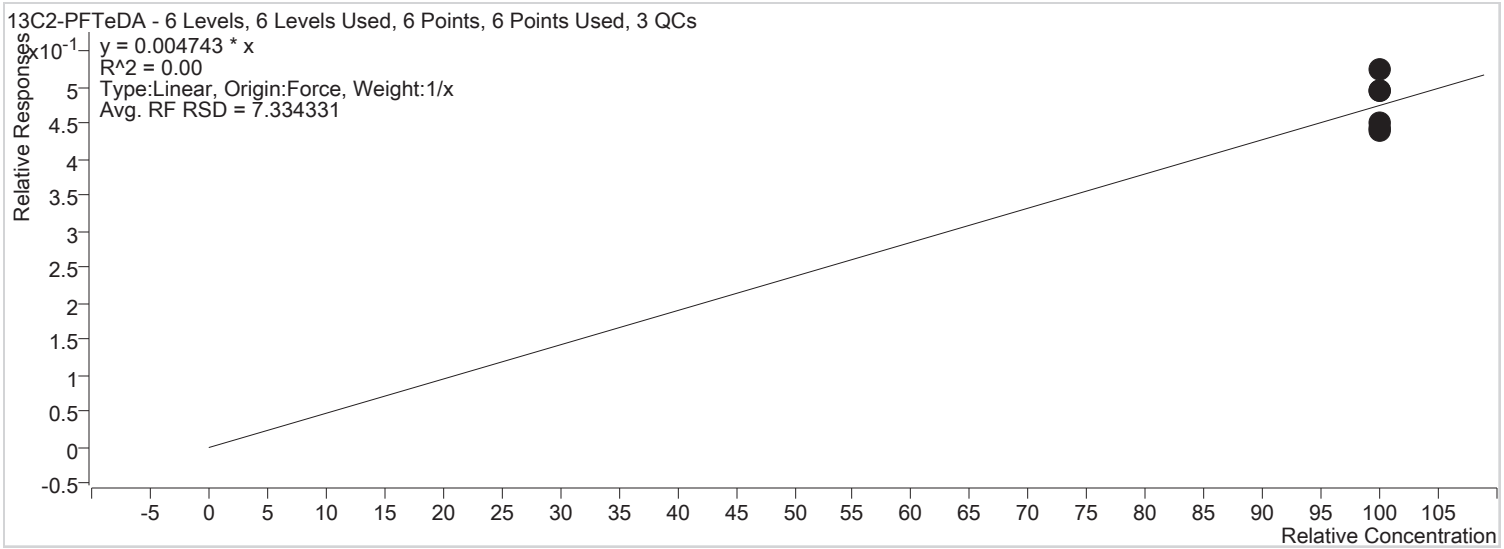
Analyte: 13C2-PFDoA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	100.00	94.96	11444	0.0038	255	95.0
STD 2	STD 2	x	2018/02/09 12:07:17 AM	100.00	107.46	11214	0.0043	171	107.5
STD 3	STD 3	x	2018/02/09 12:12:13 AM	100.00	94.36	11510	0.0037	255	94.4
STD 4	STD 4	x	2018/02/09 12:17:10 AM	100.00	103.00	11608	0.0041	290	103.0
STD 5	STD 5	x	2018/02/09 12:22:06 AM	100.00	98.79	10477	0.0039	342	98.8
STD 6	STD 6	x	2018/02/09 12:27:02 AM	100.00	101.41	11555	0.0040	169	101.4

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

Analyte: 13C2-PFTeDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	100.00	93.11	13430	0.0044	516	93.1
STD 2	STD 2	x	2018/02/09 12:07:17 AM	100.00	110.41	13789	0.0052	514	110.4
STD 3	STD 3	x	2018/02/09 12:12:13 AM	100.00	92.71	13535	0.0044	402	92.7
STD 4	STD 4	x	2018/02/09 12:17:10 AM	100.00	95.18	12838	0.0045	458	95.2
STD 5	STD 5	x	2018/02/09 12:22:06 AM	100.00	104.51	13265	0.0050	628	104.5
STD 6	STD 6	x	2018/02/09 12:27:02 AM	100.00	104.07	14192	0.0049	605	104.1

By Compound Report

Agilent Technologies

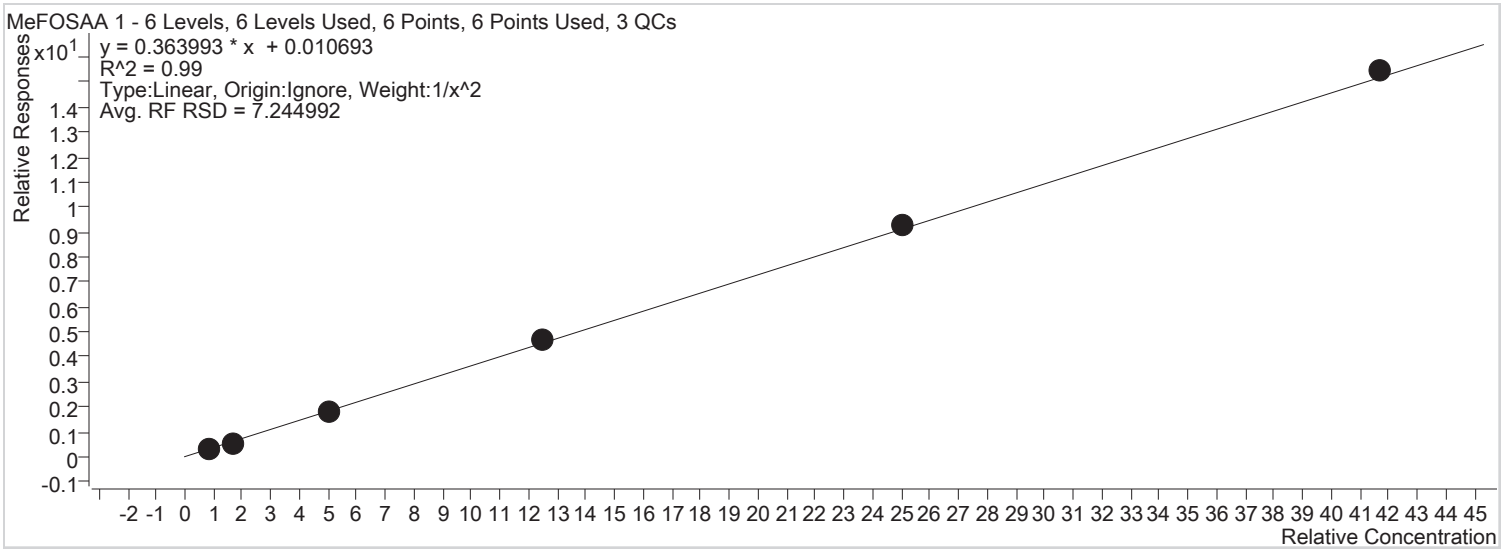
Batch Path T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 1:00:12 PM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 6:03:55 PM	0.83	0.88	646	0.4002	186	106.4
STD 2	STD 2	x	2018/02/08 6:06:20 PM	1.70	1.46	1054	0.3186	194	85.8
STD 3	STD 3	x	2018/02/08 6:08:45 PM	5.00	5.08	3499	0.3718	235	101.6
STD 4	STD 4	x	2018/02/08 6:11:11 PM	12.50	12.84	8486	0.3749	241	102.8
STD 5	STD 5	x	2018/02/08 6:13:35 PM	25.00	25.43	16326	0.3706	222	101.7
STD 6	STD 6	x	2018/02/08 6:16:01 PM	41.70	42.44	27826	0.3707	231	101.8

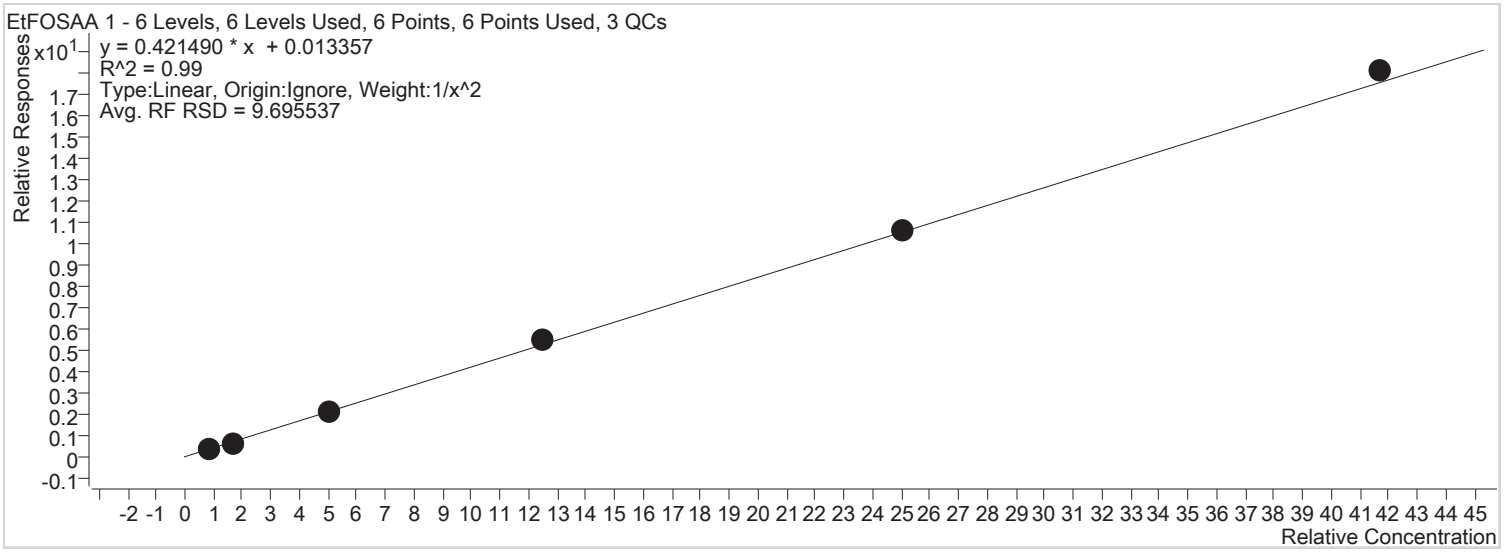
Batch Path T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 1:00:12 PM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 6:03:55 PM	0.83	0.90	675	0.4736	132	108.6
STD 2	STD 2	x	2018/02/08 6:06:20 PM	1.70	1.38	1039	0.3488	193	80.9
STD 3	STD 3	x	2018/02/08 6:08:45 PM	5.00	5.13	3674	0.4348	537	102.5
STD 4	STD 4	x	2018/02/08 6:11:11 PM	12.50	12.97	9022	0.4385	792	103.8
STD 5	STD 5	x	2018/02/08 6:13:35 PM	25.00	25.27	17565	0.4266	1076	101.1
STD 6	STD 6	x	2018/02/08 6:16:01 PM	41.70	43.02	30083	0.4351	2752	103.2

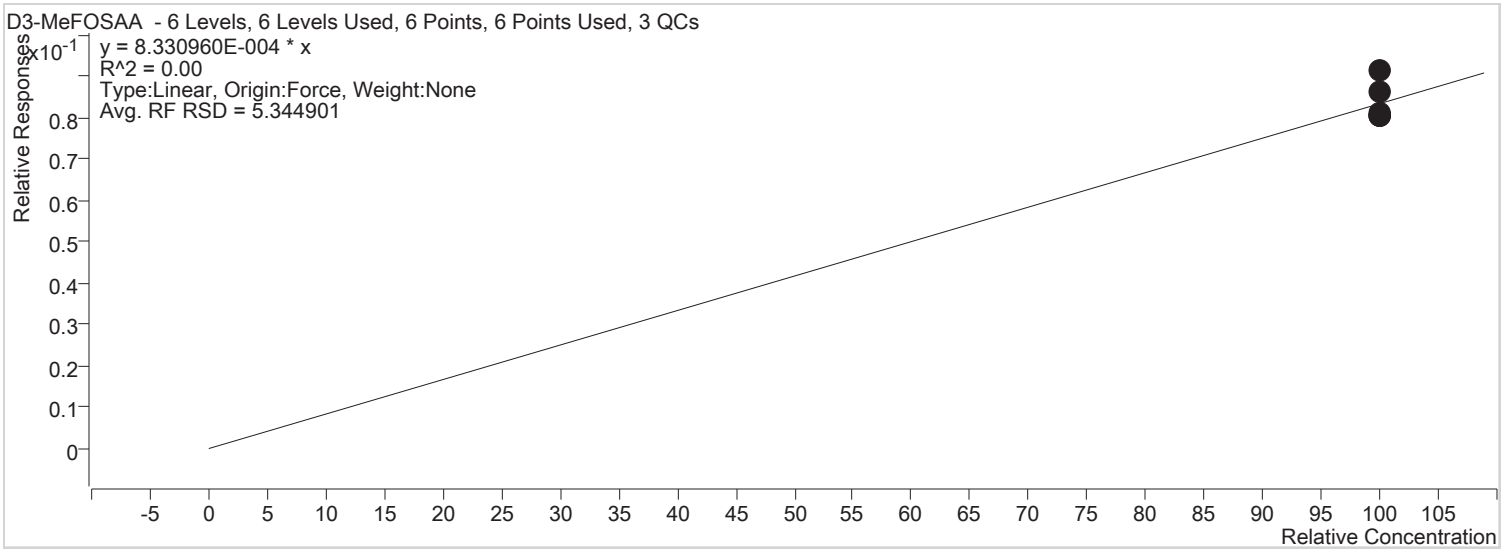
Batch Path T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 1:00:12 PM

Instrument: LCMS04

Analyte: D3-MeFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 6:03:55 PM	100.00	96.57	1957	0.0008	125	96.6
STD 2	STD 2	x	2018/02/08 6:06:20 PM	100.00	109.52	1964	0.0009	167	109.5
STD 3	STD 3	x	2018/02/08 6:08:45 PM	100.00	96.79	1900	0.0008	228	96.8
STD 4	STD 4	x	2018/02/08 6:11:11 PM	100.00	96.25	1815	0.0008	128	96.2
STD 5	STD 5	x	2018/02/08 6:13:35 PM	100.00	97.64	1772	0.0008	194	97.6
STD 6	STD 6	x	2018/02/08 6:16:01 PM	100.00	103.24	1800	0.0009	134	103.2

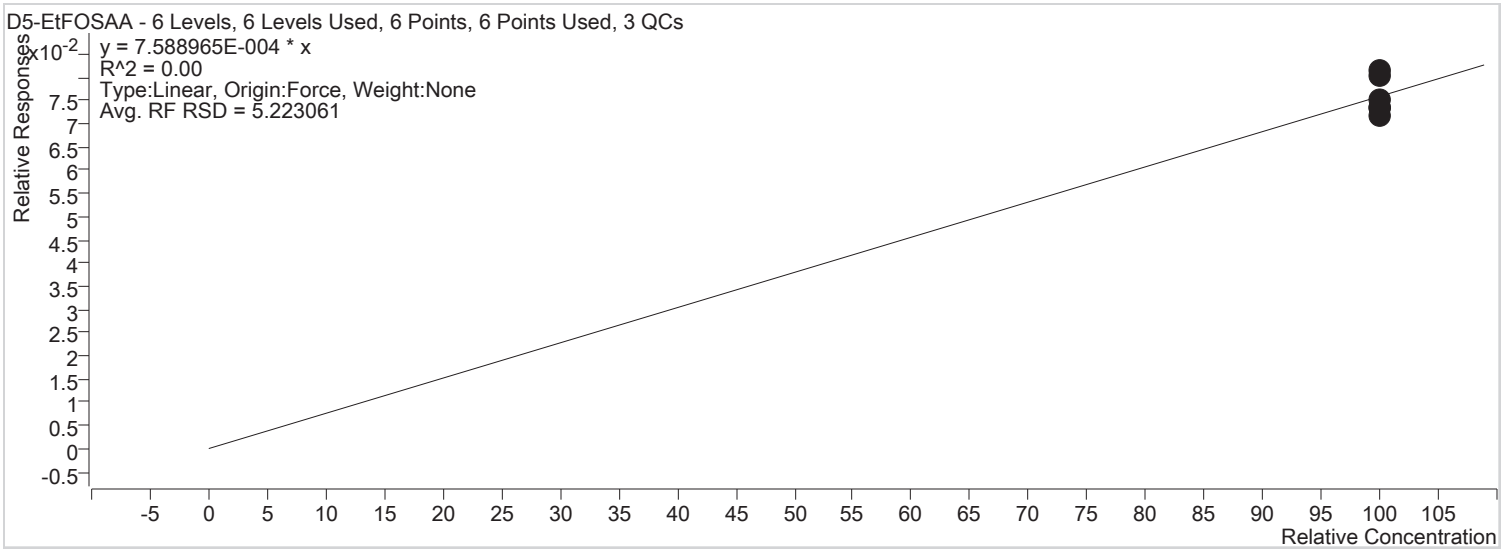
Batch Path T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 1:00:12 PM

Instrument: LCMS04

Analyte: D5-EtFOSAA

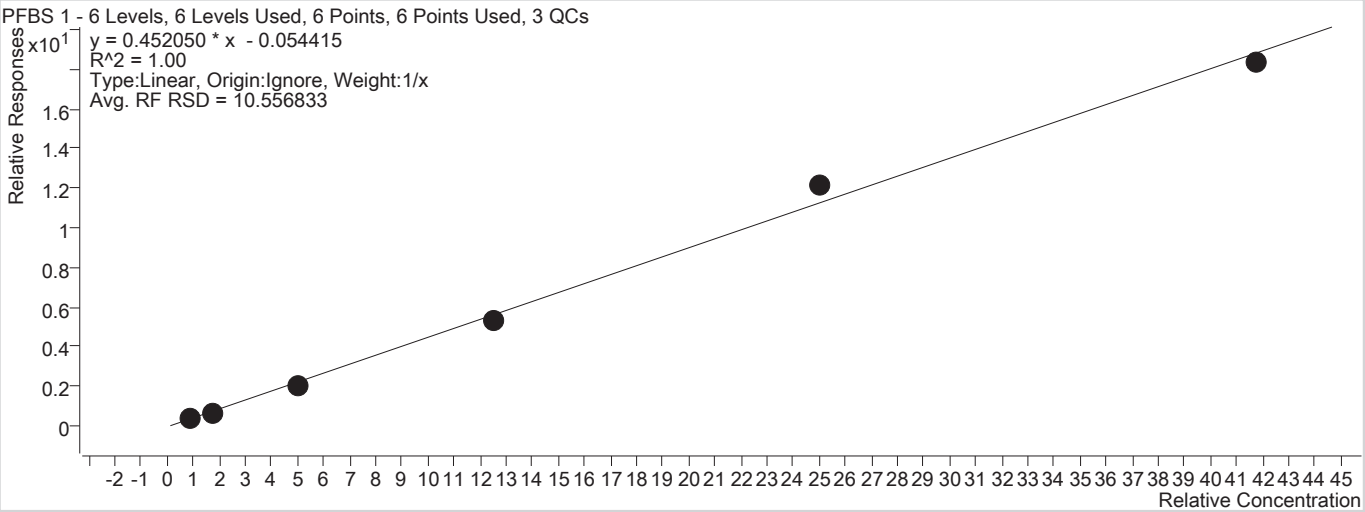
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 6:03:55 PM	100.00	94.58	1746	0.0007	291	94.6
STD 2	STD 2	x	2018/02/08 6:06:20 PM	100.00	107.25	1752	0.0008	121	107.2
STD 3	STD 3	x	2018/02/08 6:08:45 PM	100.00	96.80	1731	0.0007	203	96.8
STD 4	STD 4	x	2018/02/08 6:11:11 PM	100.00	96.46	1657	0.0007	167	96.5
STD 5	STD 5	x	2018/02/08 6:13:35 PM	100.00	99.32	1642	0.0008	296	99.3
STD 6	STD 6	x	2018/02/08 6:16:01 PM	100.00	105.59	1677	0.0008	270	105.6

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

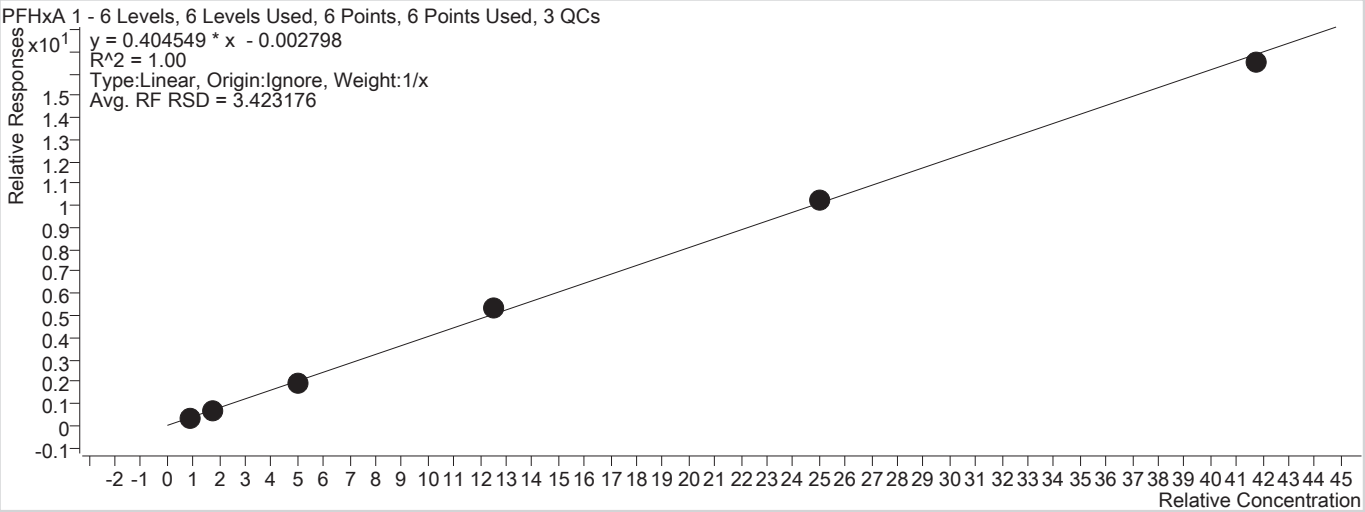
Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.99	541	0.4737	44	119.3
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.48	1012	0.3619	150	87.1
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.66	3027	0.4102	369	93.1
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	11.80	7920	0.4224	126	94.4
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	27.12	16645	0.4881	1529	108.5
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	40.69	26131	0.4397	119	97.6

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.85	1974	0.4086	125	101.8
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.65	3942	0.3909	743	97.0
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.82	11350	0.3893	612	96.4
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	13.12	30189	0.4243	2466	104.9
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	25.48	59511	0.4123	4146	101.9
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	40.82	99005	0.3959	13336	97.9

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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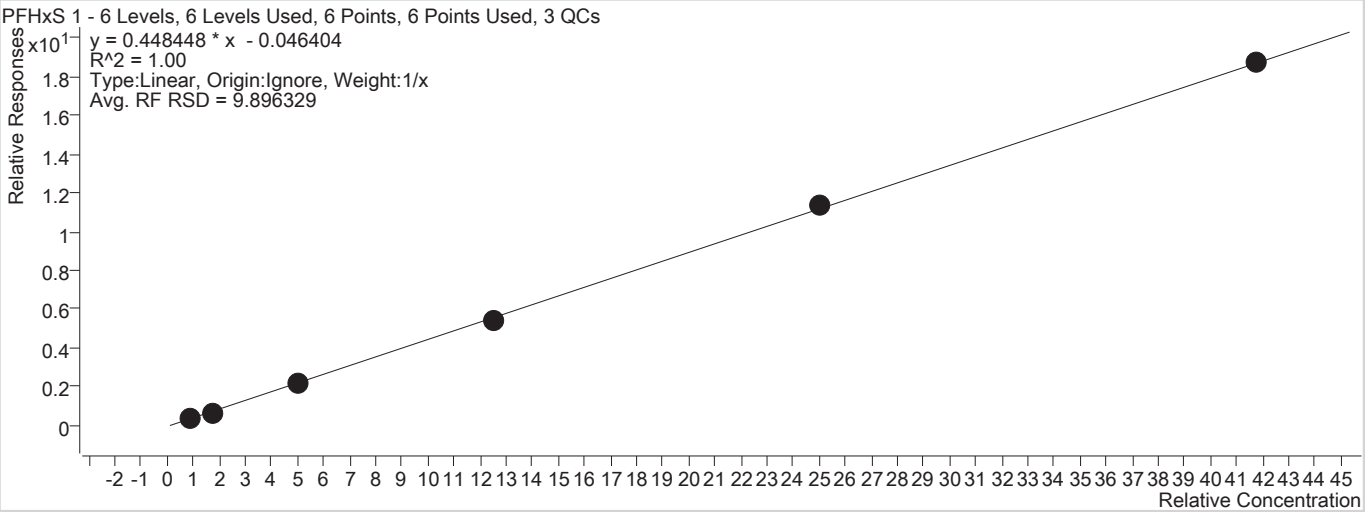
Instrument: LCMS04

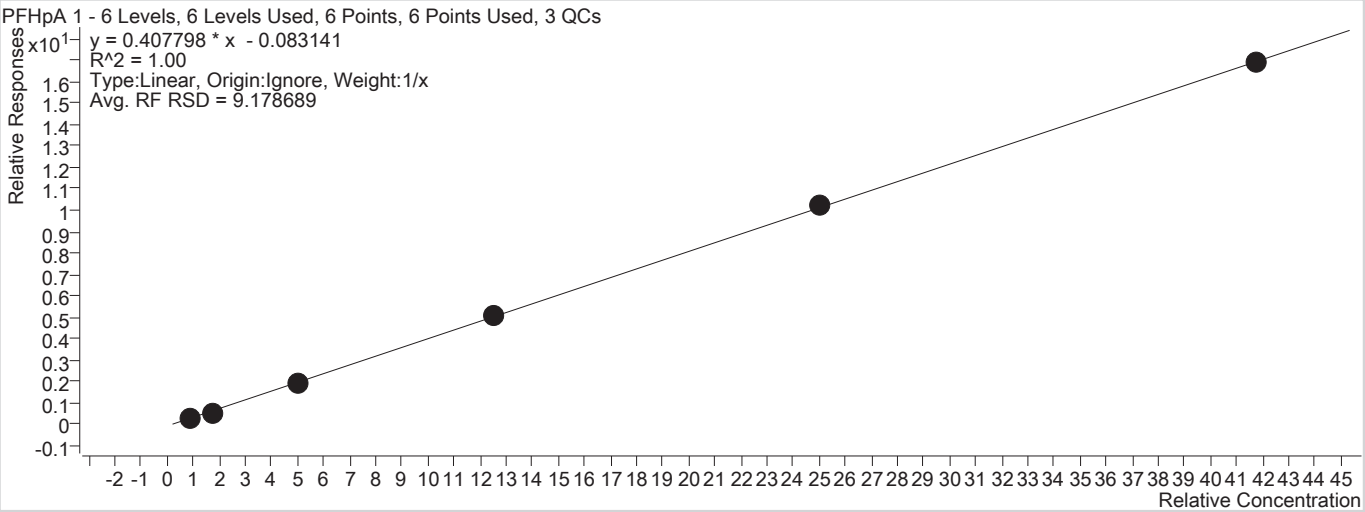
Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.98	539	0.4719	168	117.7
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.43	979	0.3501	123	84.2
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.97	3224	0.4369	441	99.5
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	12.07	8047	0.4292	376	96.5
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	25.46	15508	0.4548	1375	101.8
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.83	26662	0.4487	2102	100.3

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.92	2221	0.3516	29	110.8
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.55	4423	0.3225	64	91.1
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.85	14826	0.3792	199	97.1
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	12.53	38723	0.4023	213	100.3
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	25.23	76118	0.4083	283	100.9
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.64	119160	0.4052	232	99.9

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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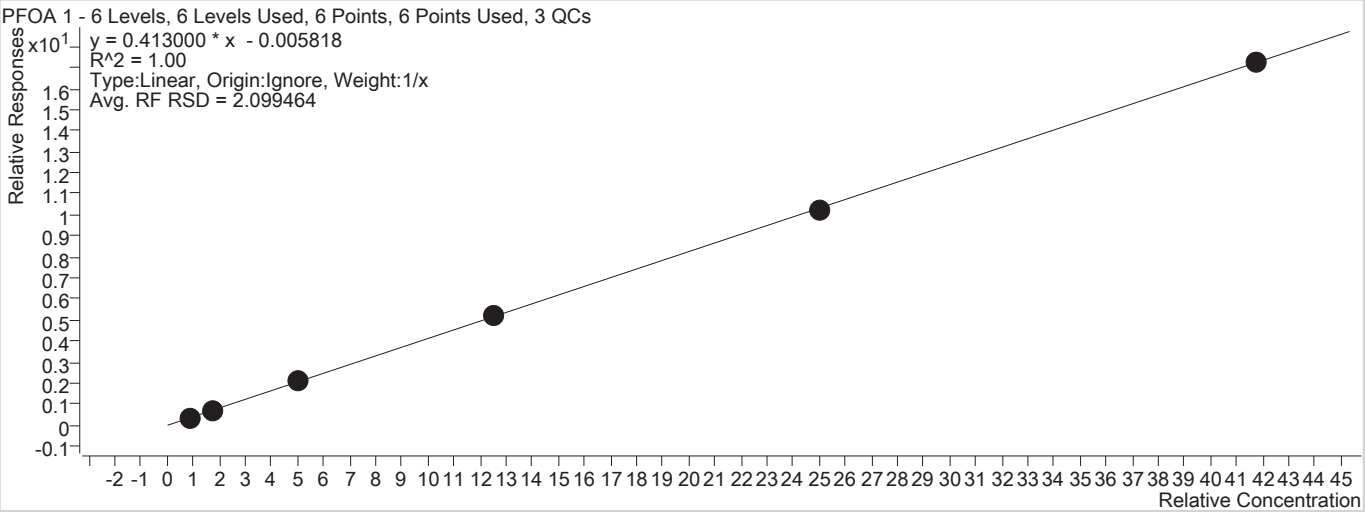
Instrument: LCMS04

Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.86	2822	0.4187	26	103.1
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.64	5249	0.3940	48	96.2
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	5.02	16529	0.4139	138	100.5
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	12.56	42521	0.4144	393	100.4
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	24.91	85172	0.4112	929	99.6
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.75	138298	0.4134	1754	100.1

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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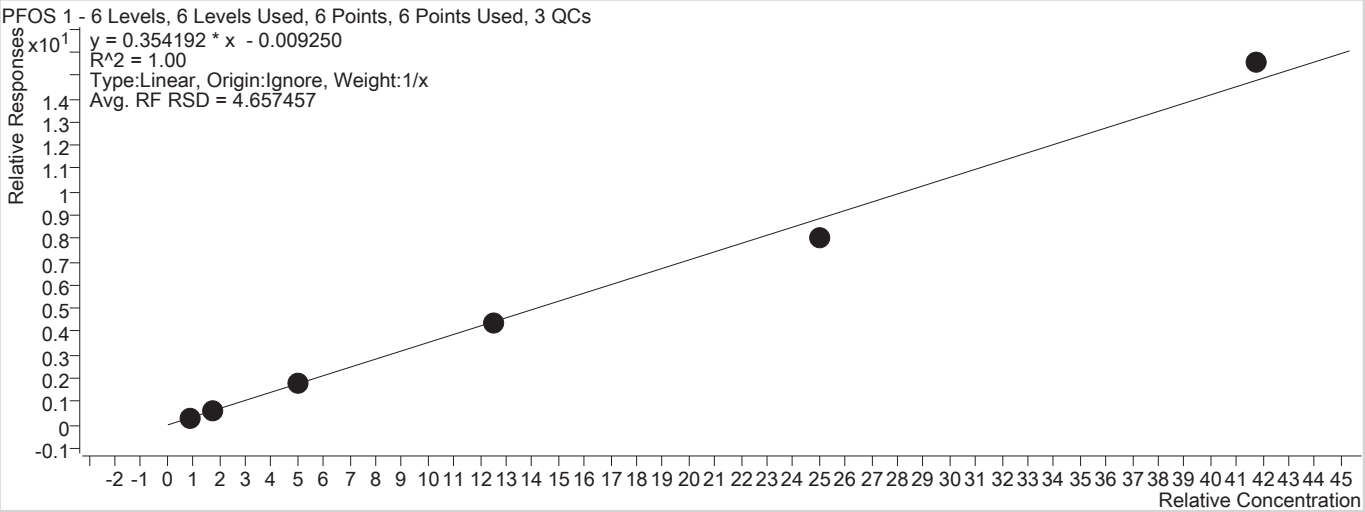
Instrument: LCMS04

Analyte: PFOS 1
Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.87	546	0.3595	109	104.6
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.69	1079	0.3470	208	99.5
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.99	3104	0.3513	167	99.7
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	12.44	8505	0.3516	191	99.5
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	22.84	15876	0.3232	331	91.3
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	43.91	26409	0.3728	236	105.3

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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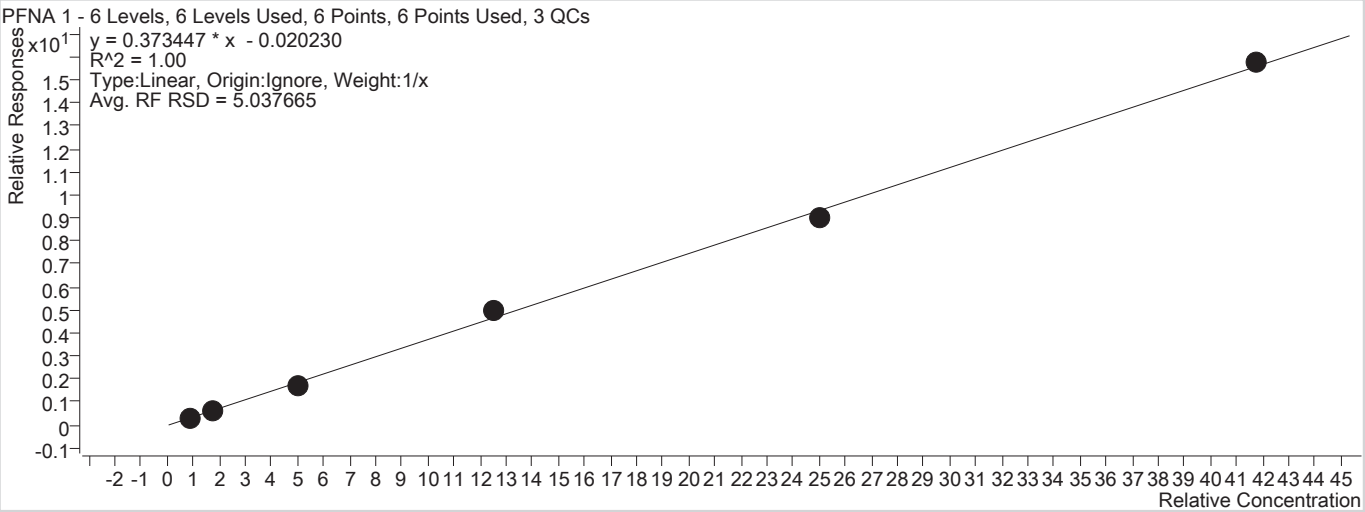
Instrument: LCMS04

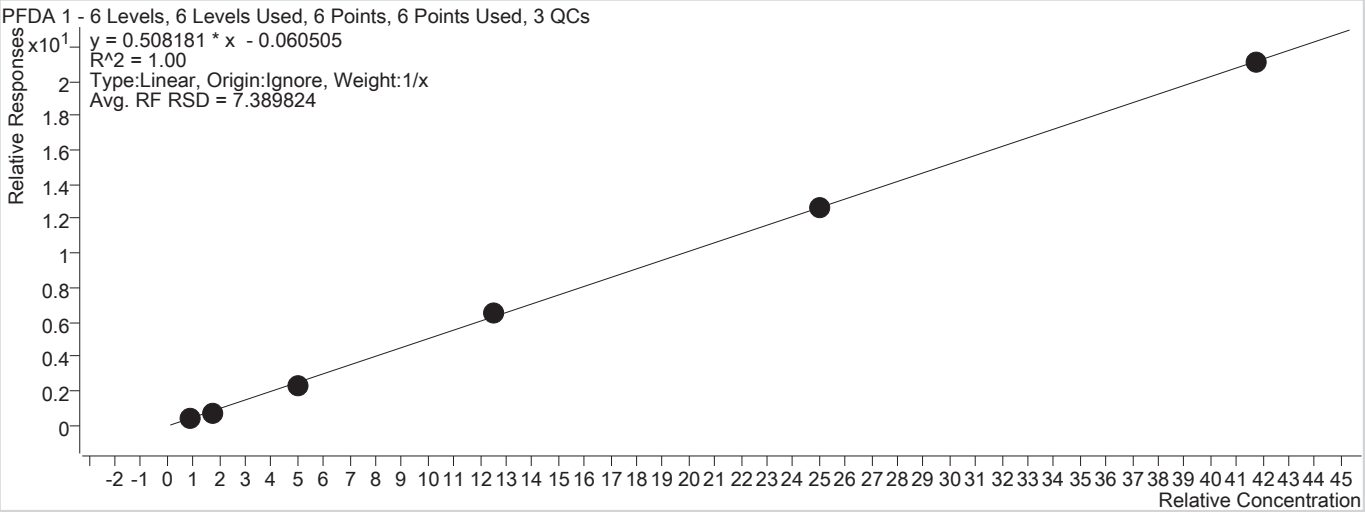
Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.88	2426	0.3708	49	105.8
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.66	5019	0.3533	70	97.8
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.64	13528	0.3426	238	92.8
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	13.25	38764	0.3941	331	106.0
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	24.09	73172	0.3590	1390	96.4
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	42.21	121875	0.3776	2584	101.2

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

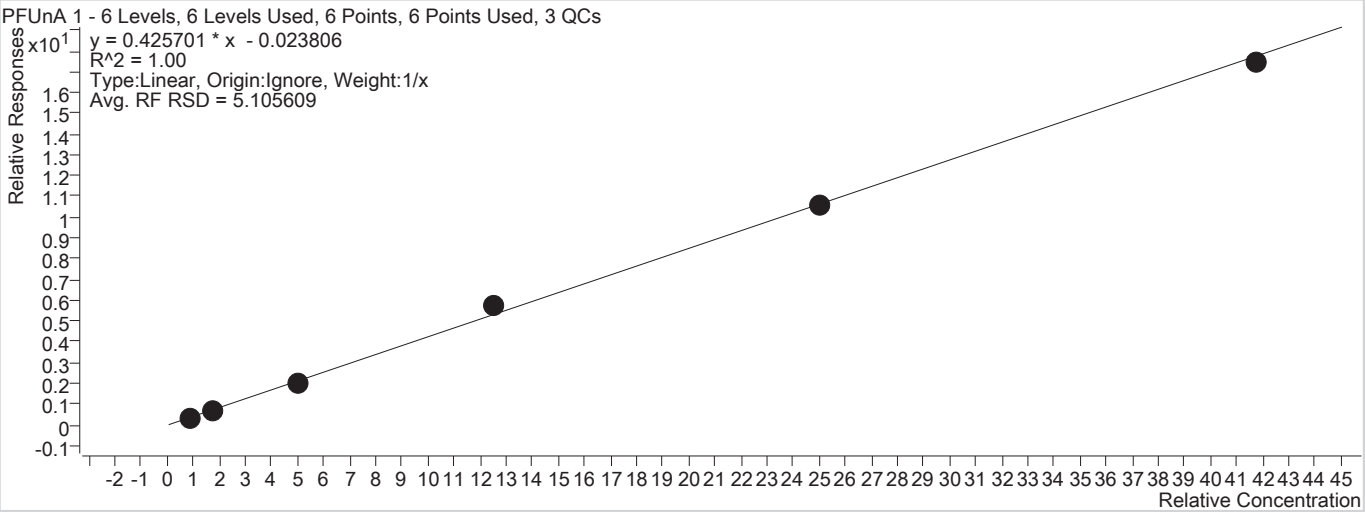
Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.93	2665	0.4994	31	112.6
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.58	4849	0.4367	65	92.9
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.51	15458	0.4465	136	90.2
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	13.01	41655	0.5240	355	104.1
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	25.09	81955	0.5075	1213	100.4
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.61	133055	0.5056	1146	99.8

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.82	2635	0.3922	22	98.9
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.67	5562	0.4050	60	98.4
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.87	17037	0.4095	153	97.3
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	13.40	45808	0.4545	142	107.2
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	24.95	85920	0.4239	310	99.8
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.02	143281	0.4182	256	98.4

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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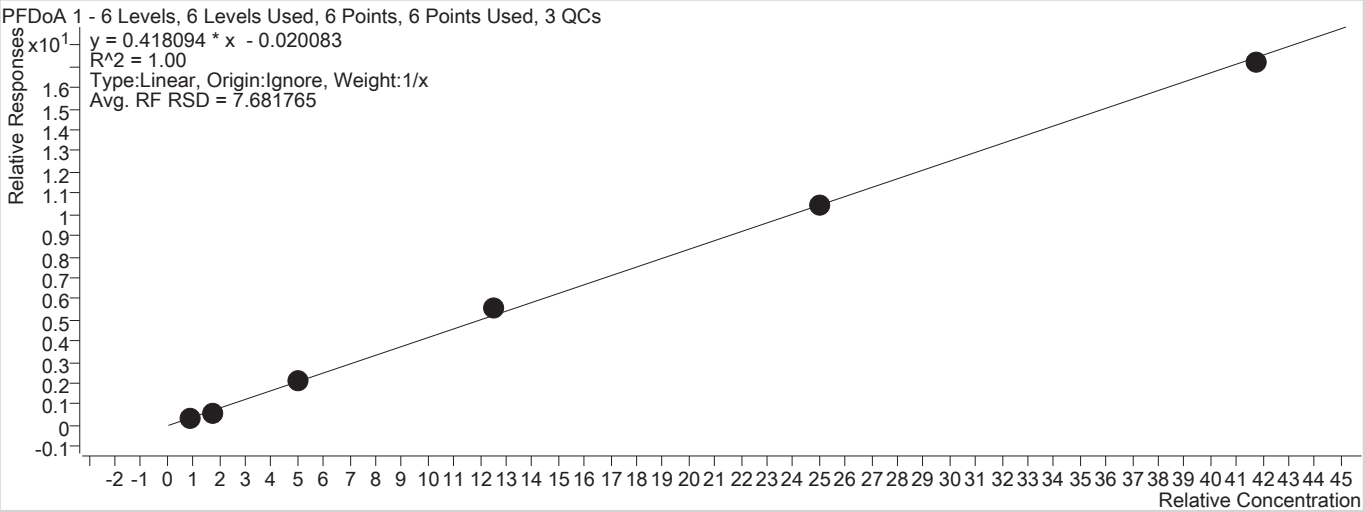
Instrument: LCMS04

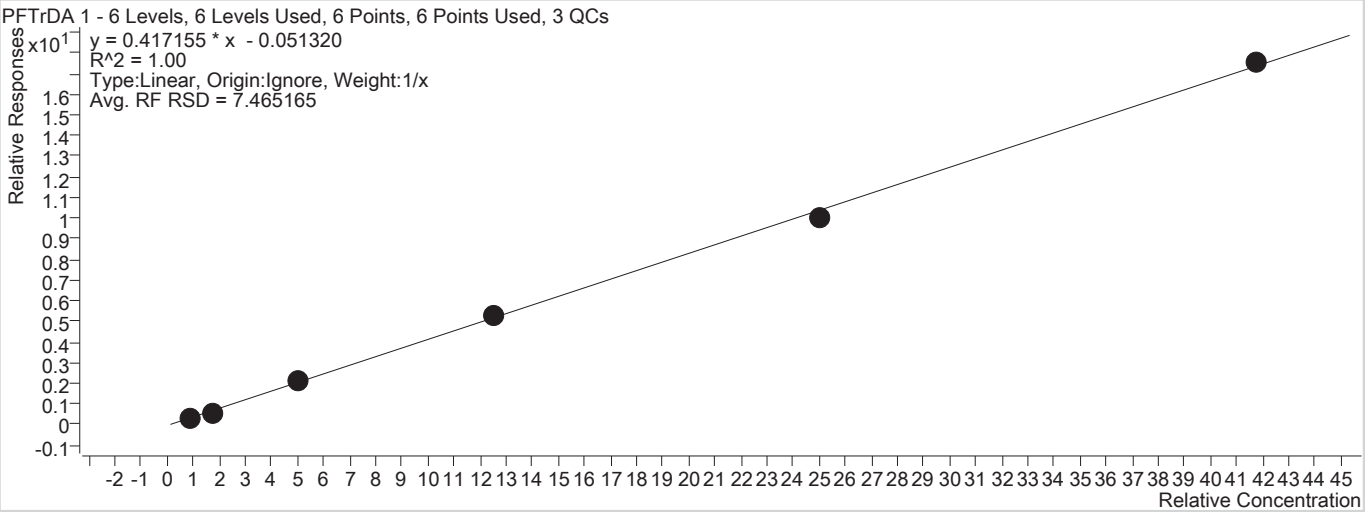
Analyte: PFDoA 1
Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.90	3757	0.4277	70	108.1
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.47	6436	0.3504	175	86.6
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	5.05	21697	0.4180	498	100.9
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	13.26	57043	0.4419	2640	106.1
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	24.89	110949	0.4154	4130	99.6
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.17	179920	0.4123	4038	98.7

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

Analyte: PFTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.88	3728	0.3787	28	105.6
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.54	6964	0.3487	36	90.8
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	5.19	24331	0.4226	121	103.8
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	12.72	64478	0.4204	121	101.8
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	24.24	123420	0.4024	136	97.0
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	42.17	208563	0.4206	140	101.1

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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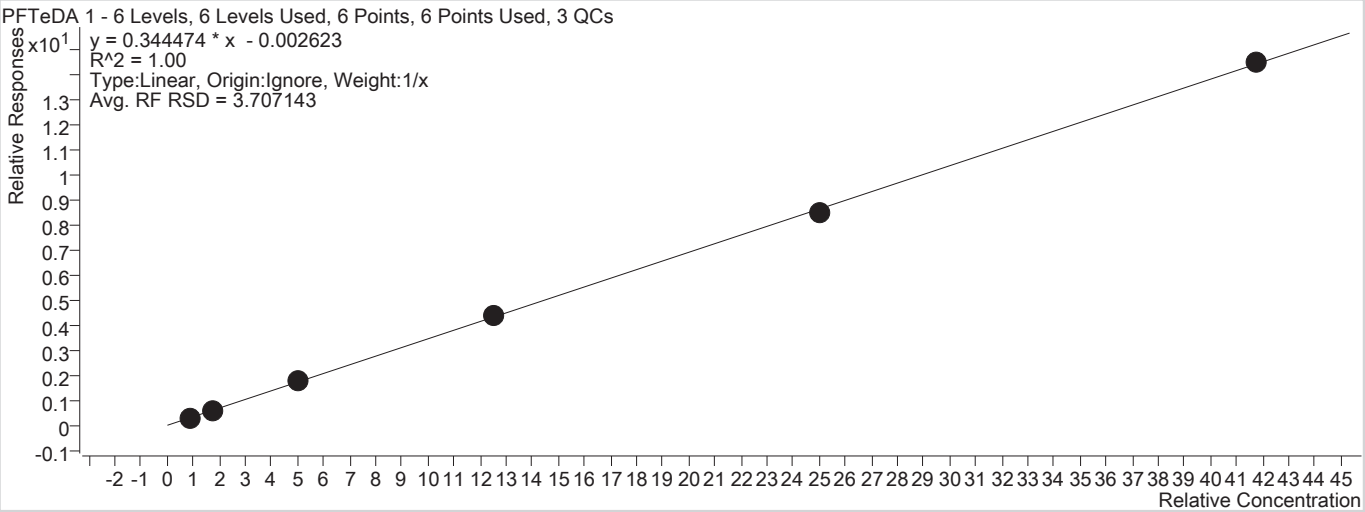
Instrument: LCMS04

Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.86	3469	0.3524	18	103.2
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.59	6403	0.3206	41	93.5
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	5.17	20492	0.3559	89	103.5
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	12.63	53350	0.3478	126	101.0
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	24.56	103773	0.3383	124	98.2
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.92	171694	0.3462	134	100.5

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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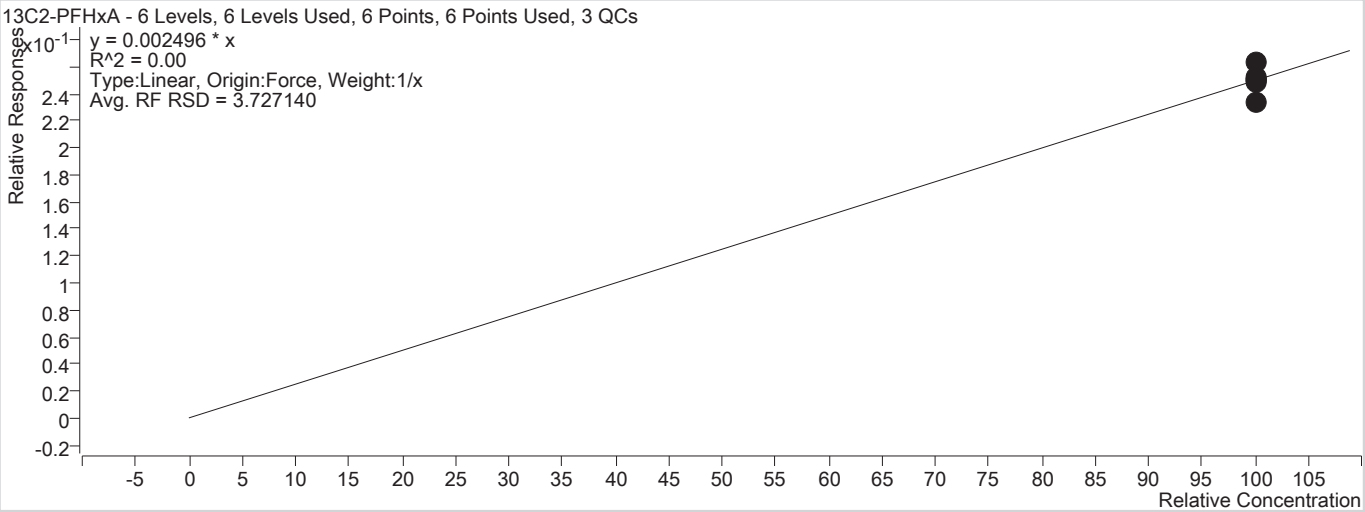
Instrument: LCMS04

Analyte: 13C2-PFHxA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	100.00	100.23	5820	0.0025	211	100.2
STD 2	STD 2	x	2018/02/09 4:44:06 PM	100.00	100.39	5932	0.0025	278	100.4
STD 3	STD 3	x	2018/02/09 4:49:02 PM	100.00	100.95	5831	0.0025	170	100.9
STD 4	STD 4	x	2018/02/09 4:53:58 PM	100.00	93.71	5692	0.0023	199	93.7
STD 5	STD 5	x	2018/02/09 4:58:54 PM	100.00	99.39	5774	0.0025	172	99.4
STD 6	STD 6	x	2018/02/09 5:03:50 PM	100.00	105.33	5997	0.0026	234	105.3

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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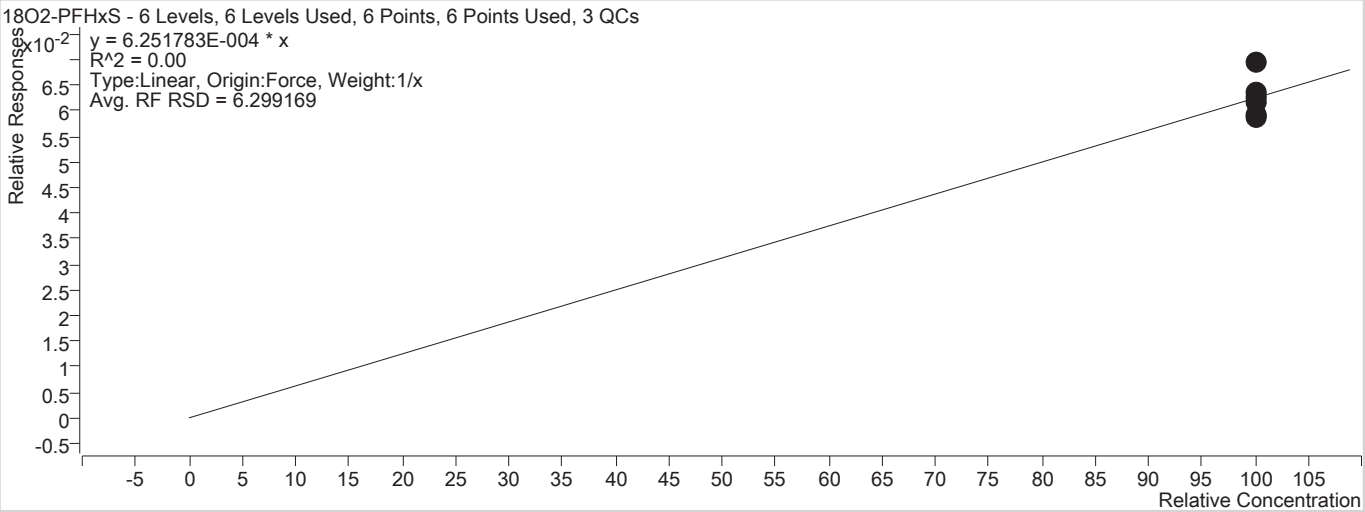
Instrument: LCMS04

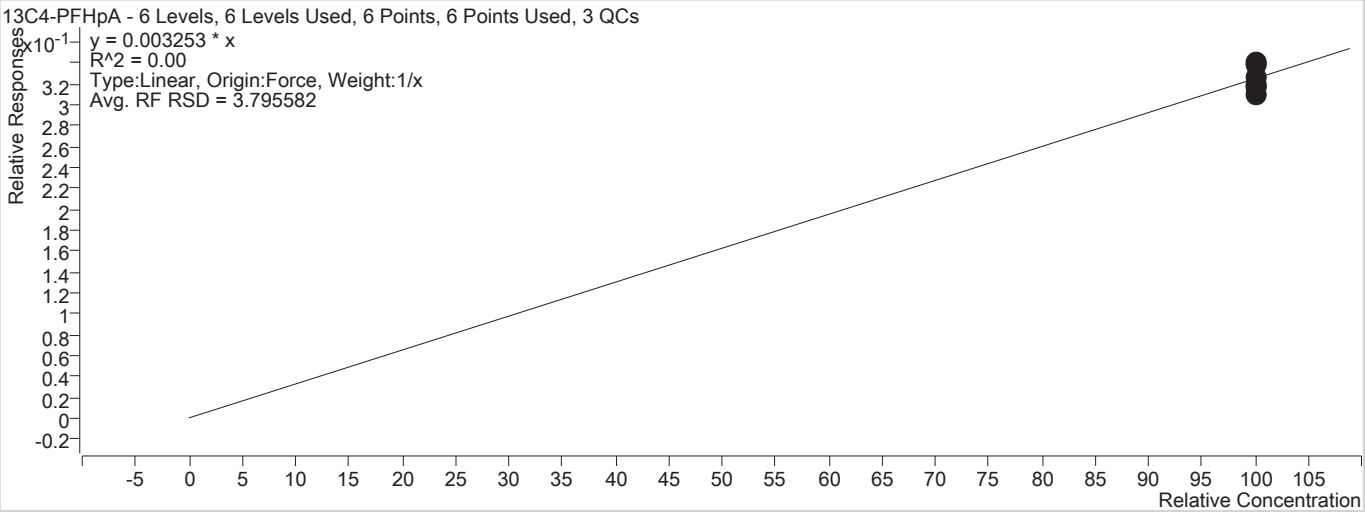
Analyte: 18O2-PFHxS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	100.00	94.60	1376	0.0006	188	94.6
STD 2	STD 2	x	2018/02/09 4:44:06 PM	100.00	111.14	1645	0.0007	192	111.1
STD 3	STD 3	x	2018/02/09 4:49:02 PM	100.00	102.01	1476	0.0006	137	102.0
STD 4	STD 4	x	2018/02/09 4:53:58 PM	100.00	98.59	1500	0.0006	113	98.6
STD 5	STD 5	x	2018/02/09 4:58:54 PM	100.00	93.74	1364	0.0006	170	93.7
STD 6	STD 6	x	2018/02/09 5:03:50 PM	100.00	99.92	1425	0.0006	222	99.9

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

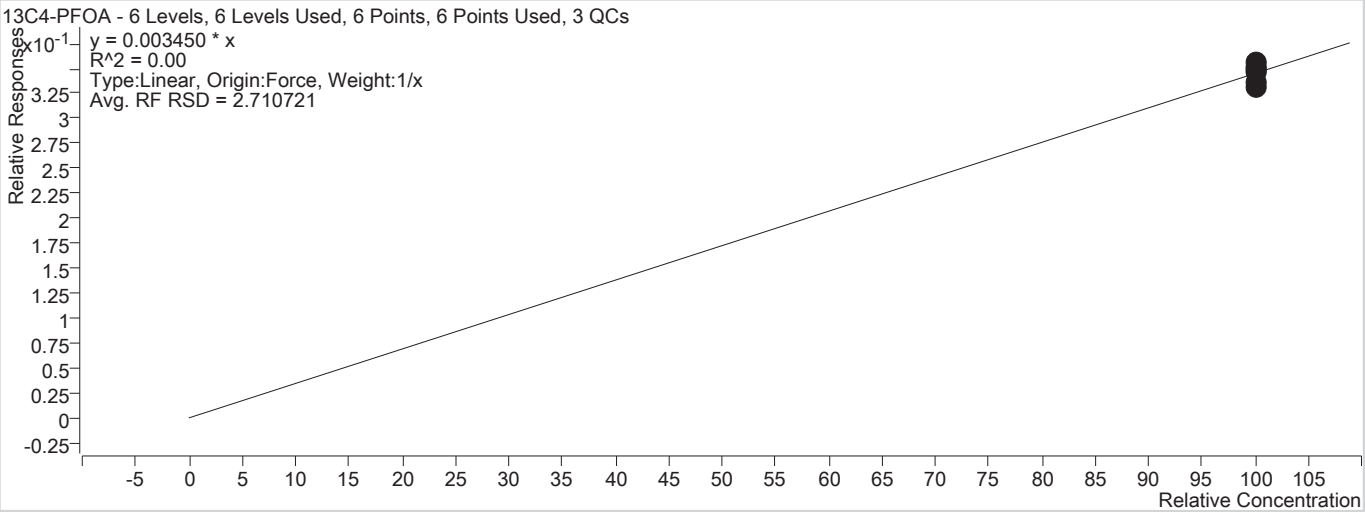
Analyte: 13C4-PFHpA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	100.00	100.57	7611	0.0033	173	100.6
STD 2	STD 2	x	2018/02/09 4:44:06 PM	100.00	104.75	8067	0.0034	583	104.7
STD 3	STD 3	x	2018/02/09 4:49:02 PM	100.00	103.86	7819	0.0034	312	103.9
STD 4	STD 4	x	2018/02/09 4:53:58 PM	100.00	97.28	7701	0.0032	376	97.3
STD 5	STD 5	x	2018/02/09 4:58:54 PM	100.00	98.49	7457	0.0032	339	98.5
STD 6	STD 6	x	2018/02/09 5:03:50 PM	100.00	95.04	7052	0.0031	212	95.0

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

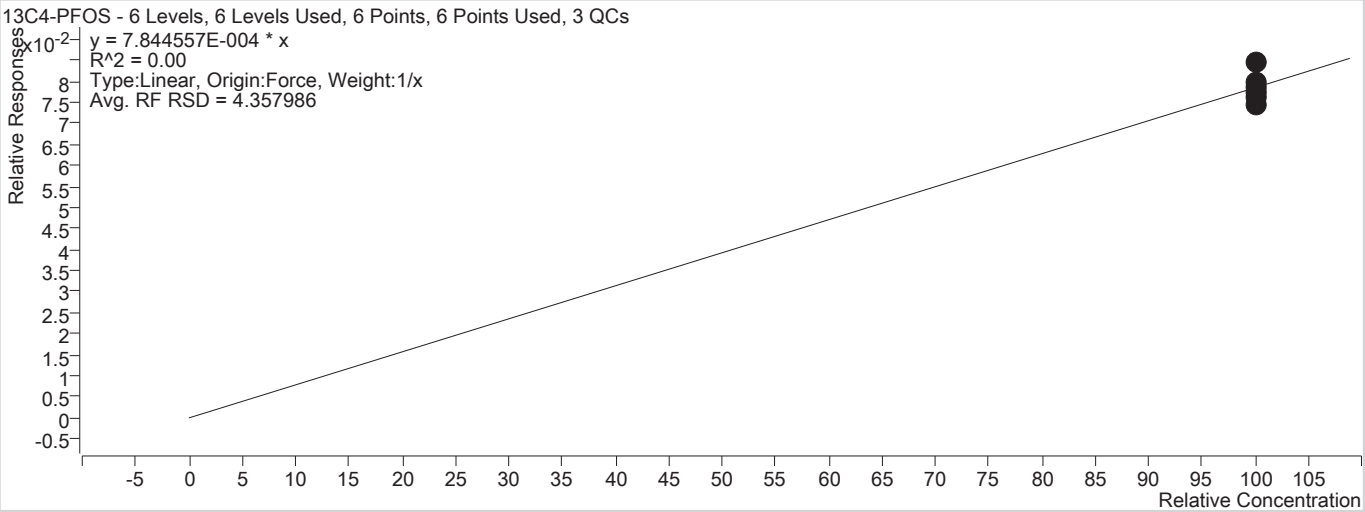
Analyte: 13C4-PFOA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	100.00	101.17	8121	0.0035	256	101.2
STD 2	STD 2	x	2018/02/09 4:44:06 PM	100.00	95.93	7836	0.0033	167	95.9
STD 3	STD 3	x	2018/02/09 4:49:02 PM	100.00	100.02	7987	0.0035	113	100.0
STD 4	STD 4	x	2018/02/09 4:53:58 PM	100.00	97.77	8209	0.0034	118	97.8
STD 5	STD 5	x	2018/02/09 4:58:54 PM	100.00	103.17	8285	0.0036	125	103.2
STD 6	STD 6	x	2018/02/09 5:03:50 PM	100.00	101.94	8023	0.0035	116	101.9

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

Analyte: 13C4-PFOS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	100.00	100.27	1830	0.0008	170	100.3
STD 2	STD 2	x	2018/02/09 4:44:06 PM	100.00	98.48	1829	0.0008	284	98.5
STD 3	STD 3	x	2018/02/09 4:49:02 PM	100.00	97.33	1767	0.0008	306	97.3
STD 4	STD 4	x	2018/02/09 4:53:58 PM	100.00	101.36	1935	0.0008	111	101.4
STD 5	STD 5	x	2018/02/09 4:58:54 PM	100.00	107.62	1965	0.0008	99	107.6
STD 6	STD 6	x	2018/02/09 5:03:50 PM	100.00	94.95	1699	0.0007	125	94.9

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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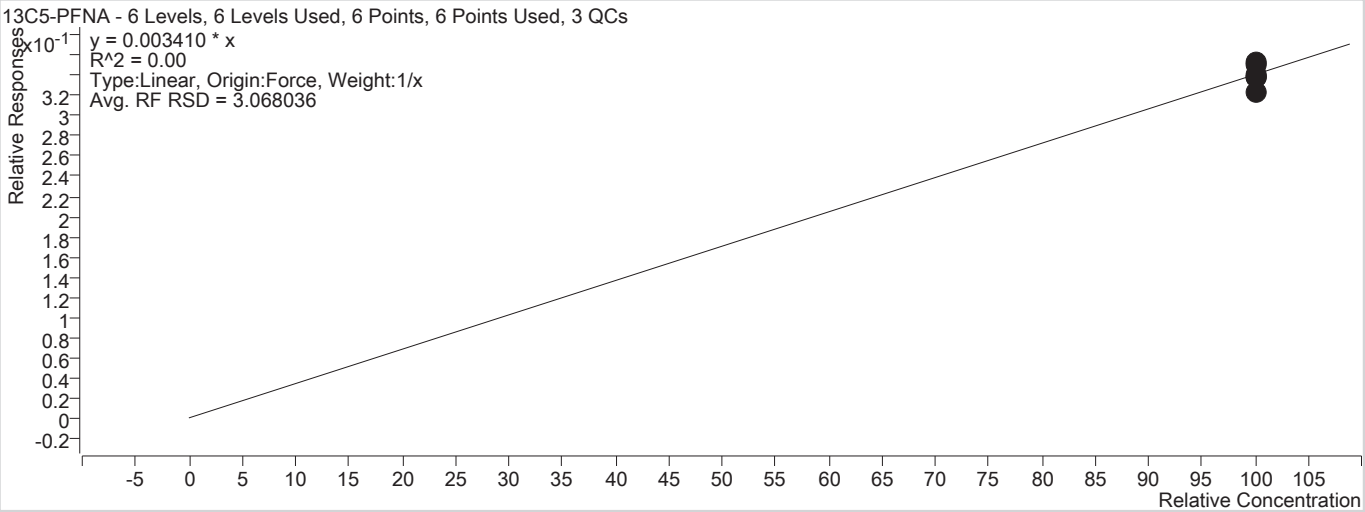
Instrument: LCMS04

Analyte: 13C5-PFNA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	100.00	99.37	7883	0.0034	223	99.4
STD 2	STD 2	x	2018/02/09 4:44:06 PM	100.00	103.50	8356	0.0035	553	103.5
STD 3	STD 3	x	2018/02/09 4:49:02 PM	100.00	100.06	7897	0.0034	193	100.1
STD 4	STD 4	x	2018/02/09 4:53:58 PM	100.00	94.82	7869	0.0032	295	94.8
STD 5	STD 5	x	2018/02/09 4:58:54 PM	100.00	102.72	8153	0.0035	170	102.7
STD 6	STD 6	x	2018/02/09 5:03:50 PM	100.00	99.53	7742	0.0034	308	99.5

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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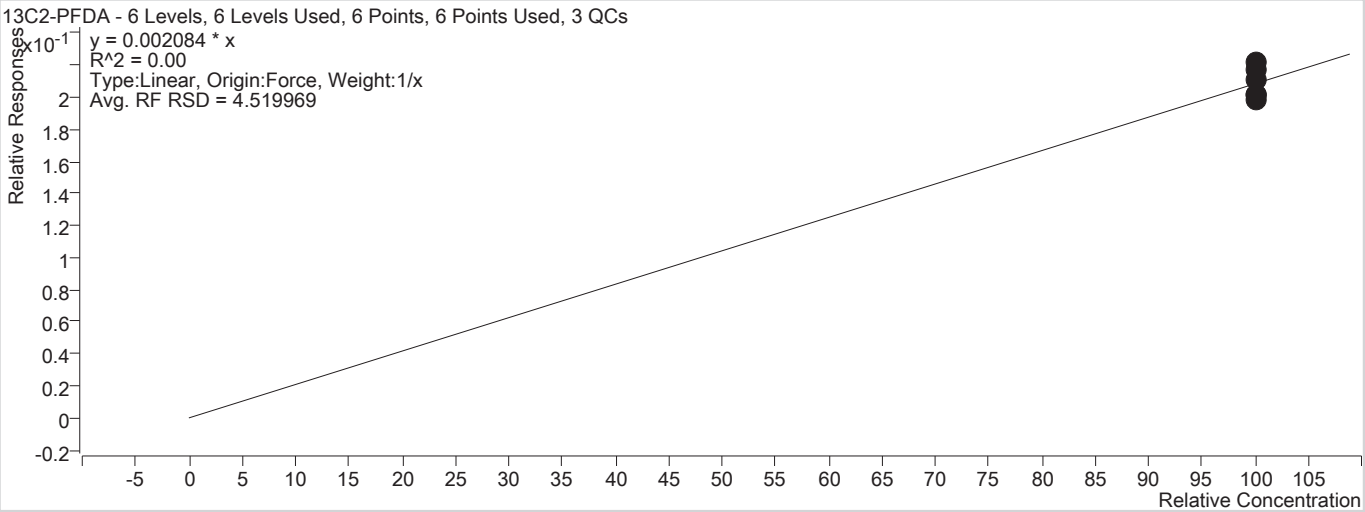
Instrument: LCMS04

Analyte: 13C2-PFDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	100.00	96.83	6335	0.0020	208	96.8
STD 2	STD 2	x	2018/02/09 4:44:06 PM	100.00	101.09	6514	0.0021	288	101.1
STD 3	STD 3	x	2018/02/09 4:49:02 PM	100.00	106.35	6856	0.0022	240	106.4
STD 4	STD 4	x	2018/02/09 4:53:58 PM	100.00	94.86	6258	0.0020	223	94.9
STD 5	STD 5	x	2018/02/09 4:58:54 PM	100.00	96.98	6413	0.0020	325	97.0
STD 6	STD 6	x	2018/02/09 5:03:50 PM	100.00	103.89	6286	0.0022	512	103.9

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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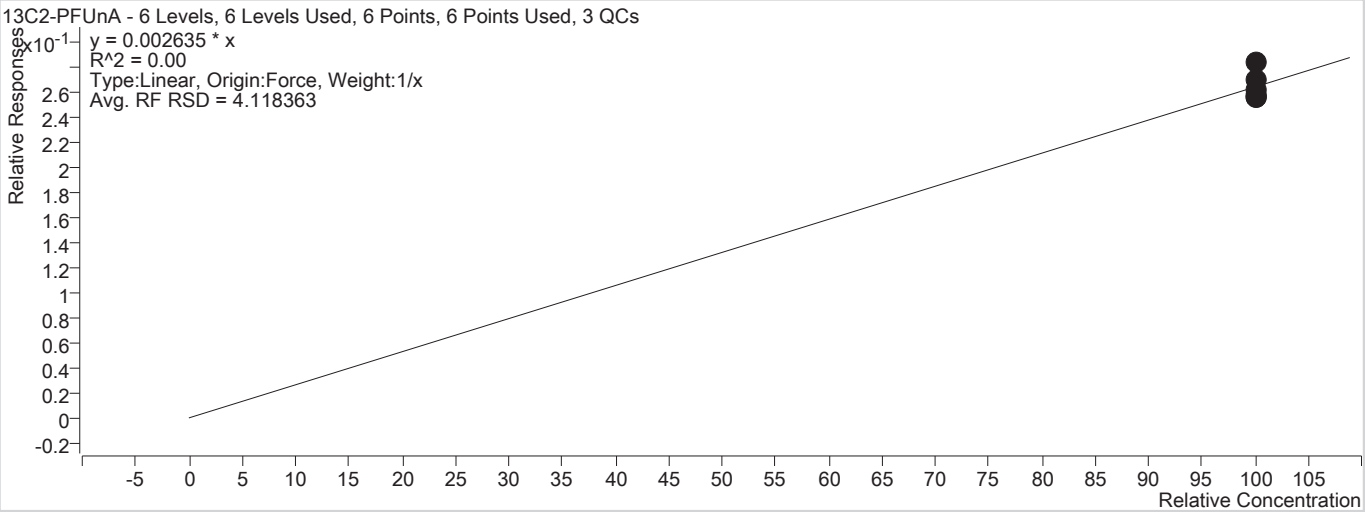
Instrument: LCMS04

Analyte: 13C2-PFUnA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	100.00	97.83	8094	0.0026	313	97.8
STD 2	STD 2	x	2018/02/09 4:44:06 PM	100.00	99.12	8078	0.0026	239	99.1
STD 3	STD 3	x	2018/02/09 4:49:02 PM	100.00	102.07	8321	0.0027	471	102.1
STD 4	STD 4	x	2018/02/09 4:53:58 PM	100.00	96.65	8063	0.0025	254	96.6
STD 5	STD 5	x	2018/02/09 4:58:54 PM	100.00	96.95	8107	0.0026	318	96.9
STD 6	STD 6	x	2018/02/09 5:03:50 PM	100.00	107.38	8217	0.0028	296	107.4

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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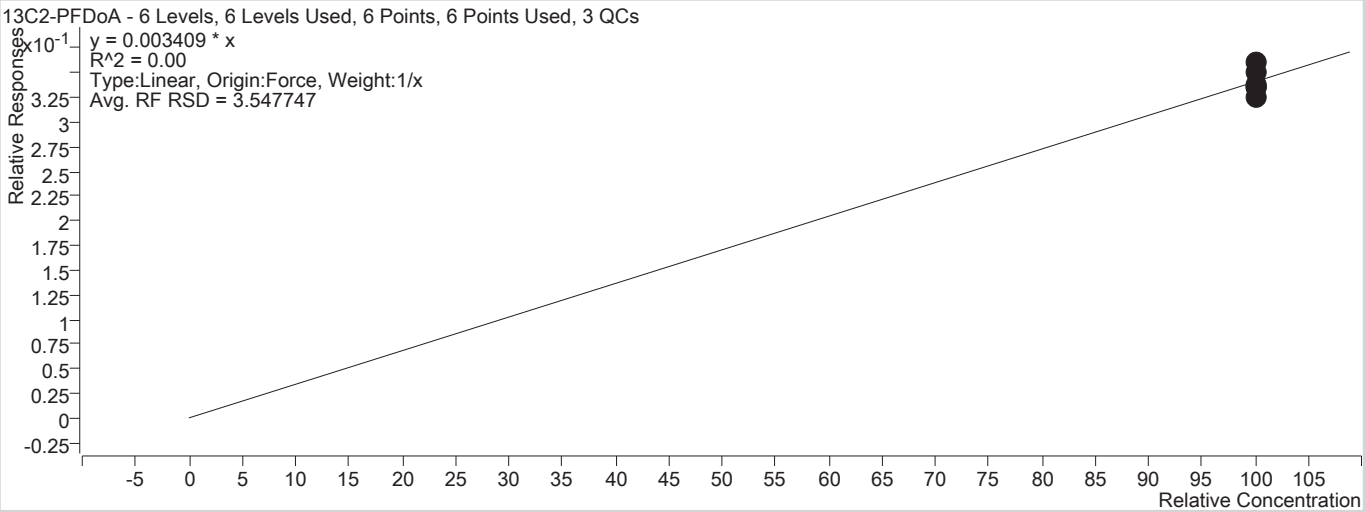
Instrument: LCMS04

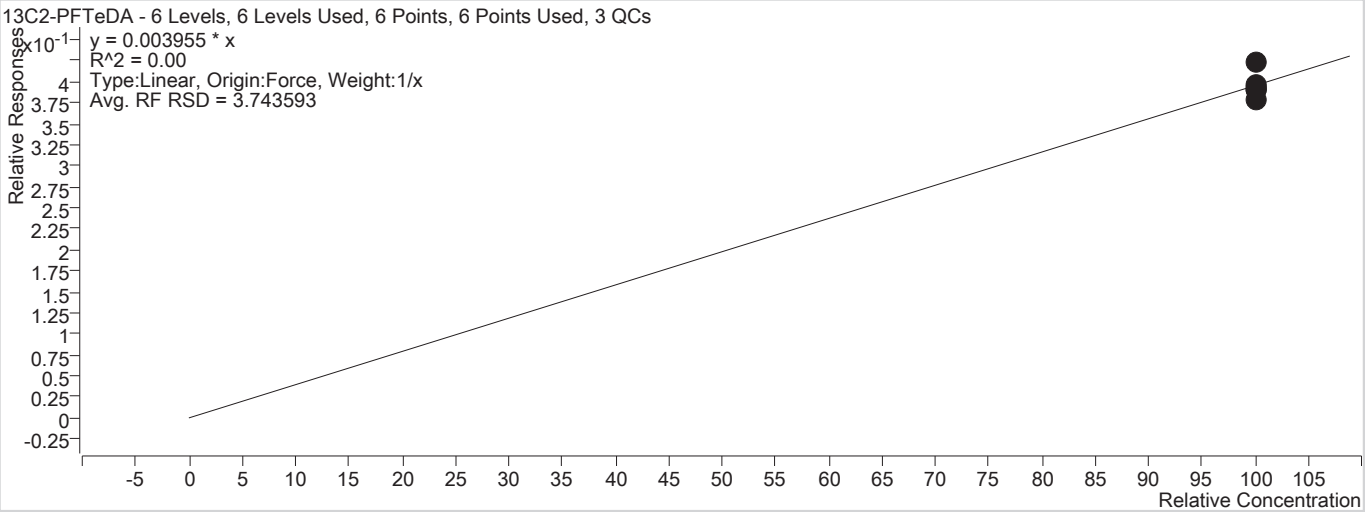
Analyte: 13C2-PFDoA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	100.00	98.88	10583	0.0034	166	98.9
STD 2	STD 2	x	2018/02/09 4:44:06 PM	100.00	102.50	10806	0.0035	155	102.5
STD 3	STD 3	x	2018/02/09 4:49:02 PM	100.00	98.43	10381	0.0034	144	98.4
STD 4	STD 4	x	2018/02/09 4:53:58 PM	100.00	95.69	10327	0.0033	128	95.7
STD 5	STD 5	x	2018/02/09 4:58:54 PM	100.00	98.76	10683	0.0034	273	98.8
STD 6	STD 6	x	2018/02/09 5:03:50 PM	100.00	105.73	10466	0.0036	368	105.7

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

Analyte: 13C2-PFTeDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	100.00	98.67	12252	0.0039	711	98.7
STD 2	STD 2	x	2018/02/09 4:44:06 PM	100.00	98.48	12045	0.0039	583	98.5
STD 3	STD 3	x	2018/02/09 4:49:02 PM	100.00	95.79	11720	0.0038	466	95.8
STD 4	STD 4	x	2018/02/09 4:53:58 PM	100.00	99.80	12496	0.0039	496	99.8
STD 5	STD 5	x	2018/02/09 4:58:54 PM	100.00	100.32	12591	0.0040	653	100.3
STD 6	STD 6	x	2018/02/09 5:03:50 PM	100.00	106.94	12281	0.0042	902	106.9

By Compound Report

Agilent Technologies

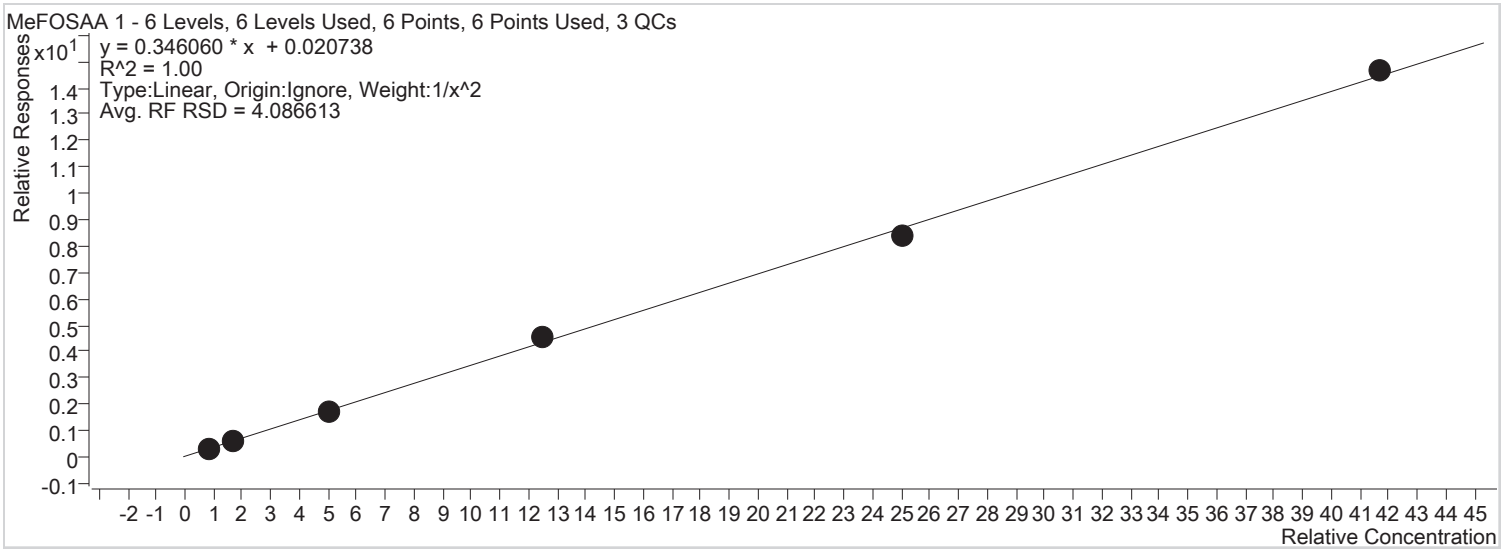
Batch Path T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 2:10:54 PM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/10 12:30:18 AM	0.83	0.84	553	0.3766	118	101.6
STD 2	STD 2	x	2018/02/10 12:32:43 AM	1.70	1.64	1050	0.3456	265	96.4
STD 3	STD 3	x	2018/02/10 12:35:07 AM	5.00	4.99	3076	0.3495	261	99.8
STD 4	STD 4	x	2018/02/10 12:37:32 AM	12.50	13.04	8045	0.3626	302	104.3
STD 5	STD 5	x	2018/02/10 12:39:57 AM	25.00	24.14	15384	0.3350	257	96.6
STD 6	STD 6	x	2018/02/10 12:42:22 AM	41.70	42.27	24332	0.3513	252	101.4

Agilent Technologies

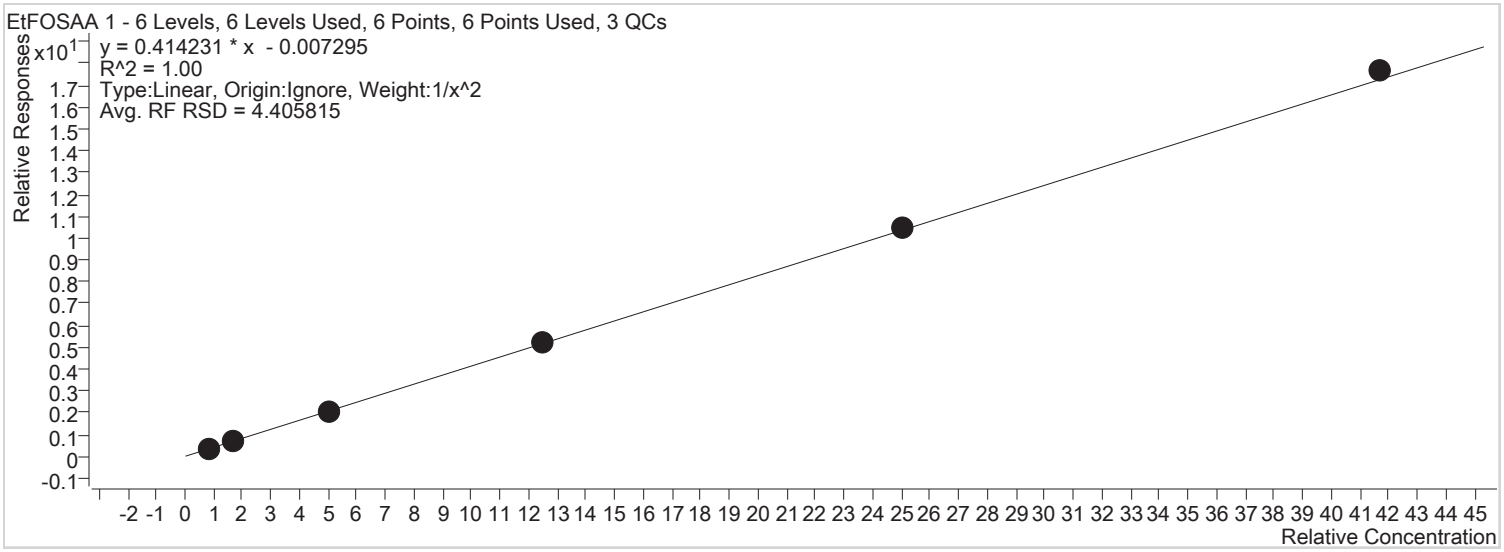
Batch Path T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 2:10:54 PM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/10 12:30:18 AM	0.83	0.86	536	0.4218	80	103.9
STD 2	STD 2	x	2018/02/10 12:32:43 AM	1.70	1.56	1058	0.3758	124	91.8
STD 3	STD 3	x	2018/02/10 12:35:07 AM	5.00	4.97	3185	0.4104	400	99.4
STD 4	STD 4	x	2018/02/10 12:37:32 AM	12.50	12.63	8482	0.4181	880	101.1
STD 5	STD 5	x	2018/02/10 12:39:57 AM	25.00	25.36	16586	0.4199	1369	101.4
STD 6	STD 6	x	2018/02/10 12:42:22 AM	41.70	42.68	26753	0.4238	2940	102.3

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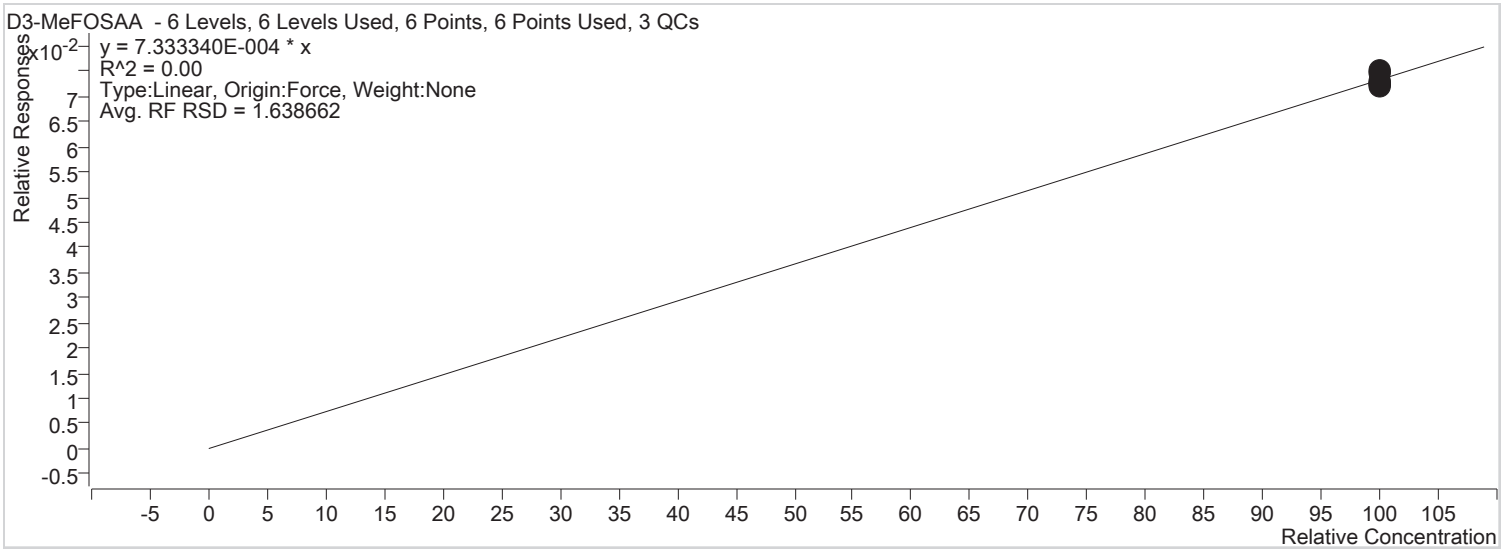
Batch Path T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 2:10:54 PM

Instrument: LCMS04

Analyte: D3-MeFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/10 12:30:18 AM	100.00	101.58	1805	0.0007	249	101.6
STD 2	STD 2	x	2018/02/10 12:32:43 AM	100.00	99.15	1804	0.0007	155	99.2
STD 3	STD 3	x	2018/02/10 12:35:07 AM	100.00	99.51	1804	0.0007	269	99.5
STD 4	STD 4	x	2018/02/10 12:37:32 AM	100.00	99.15	1829	0.0007	251	99.2
STD 5	STD 5	x	2018/02/10 12:39:57 AM	100.00	102.43	1859	0.0008	219	102.4
STD 6	STD 6	x	2018/02/10 12:42:22 AM	100.00	98.17	1677	0.0007	168	98.2

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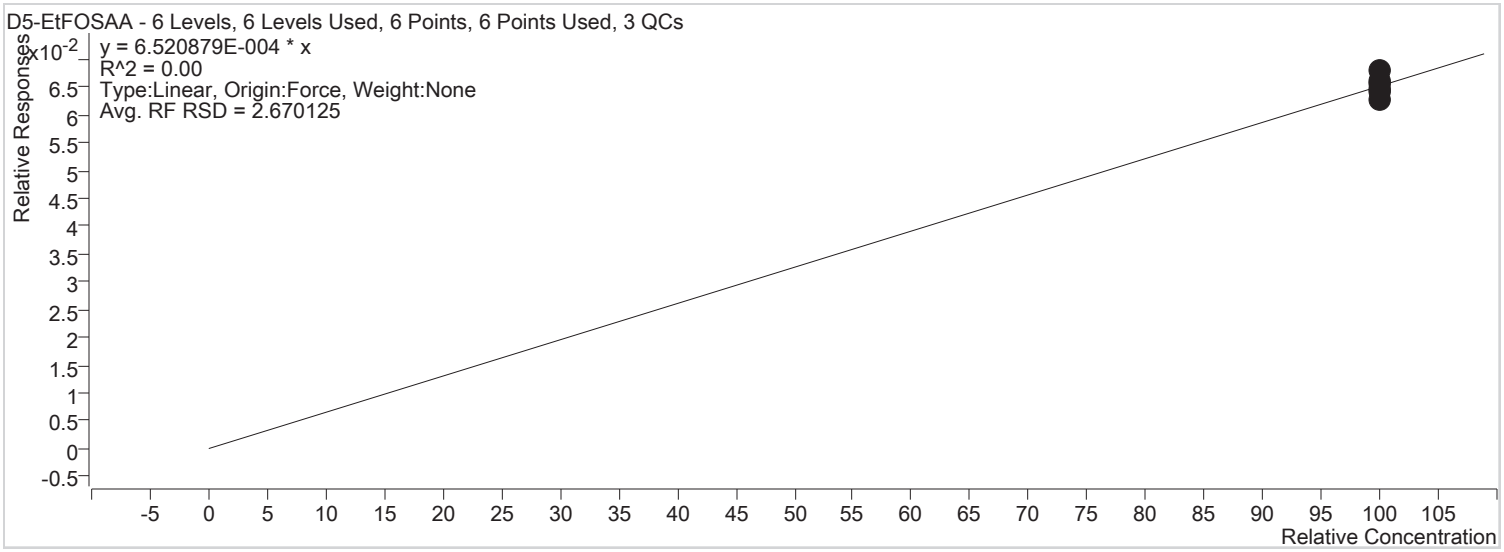
Batch Path T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 2:10:54 PM

Instrument: LCMS04

Analyte: D5-EtFOSAA

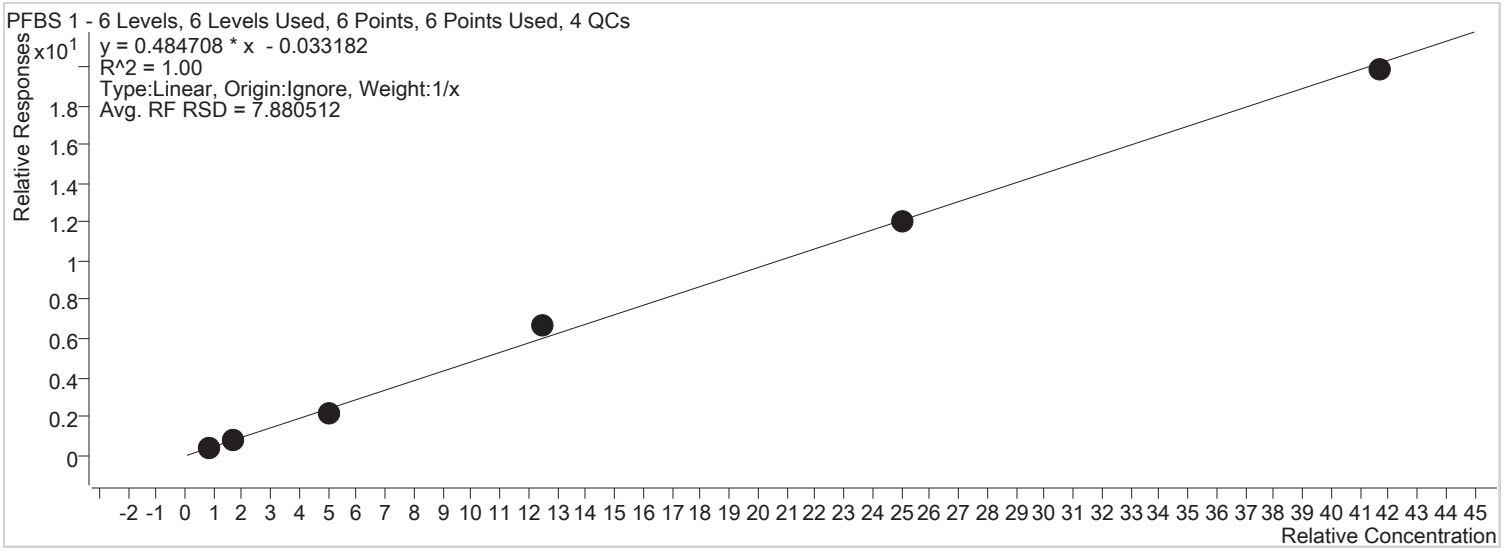
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/10 12:30:18 AM	100.00	98.29	1553	0.0006	193	98.3
STD 2	STD 2	x	2018/02/10 12:32:43 AM	100.00	104.21	1686	0.0007	276	104.2
STD 3	STD 3	x	2018/02/10 12:35:07 AM	100.00	96.52	1556	0.0006	109	96.5
STD 4	STD 4	x	2018/02/10 12:37:32 AM	100.00	100.90	1655	0.0007	299	100.9
STD 5	STD 5	x	2018/02/10 12:39:57 AM	100.00	99.02	1598	0.0006	171	99.0
STD 6	STD 6	x	2018/02/10 12:42:22 AM	100.00	101.06	1535	0.0007	239	101.1

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

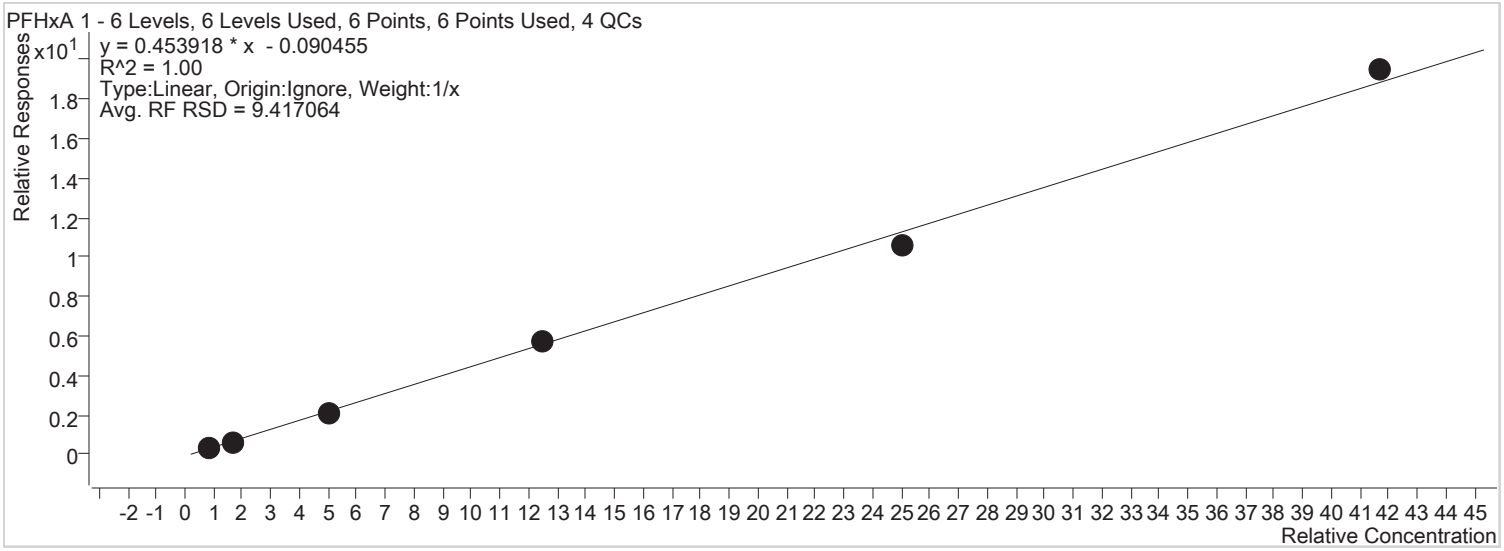
Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.89	583	0.4814	126	107.6
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.56	987	0.4241	31	91.5
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	4.64	3189	0.4432	94	92.8
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.80	8998	0.5324	378	110.4
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	24.85	15724	0.4805	99	99.4
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	40.99	28444	0.4757	630	98.3

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.95	1948	0.4117	136	114.7
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.54	3663	0.3590	256	90.8
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	4.69	11379	0.4073	992	93.7
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	12.91	30284	0.4615	2508	103.3
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	23.53	59210	0.4236	2142	94.1
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	43.11	104871	0.4671	9616	103.4

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
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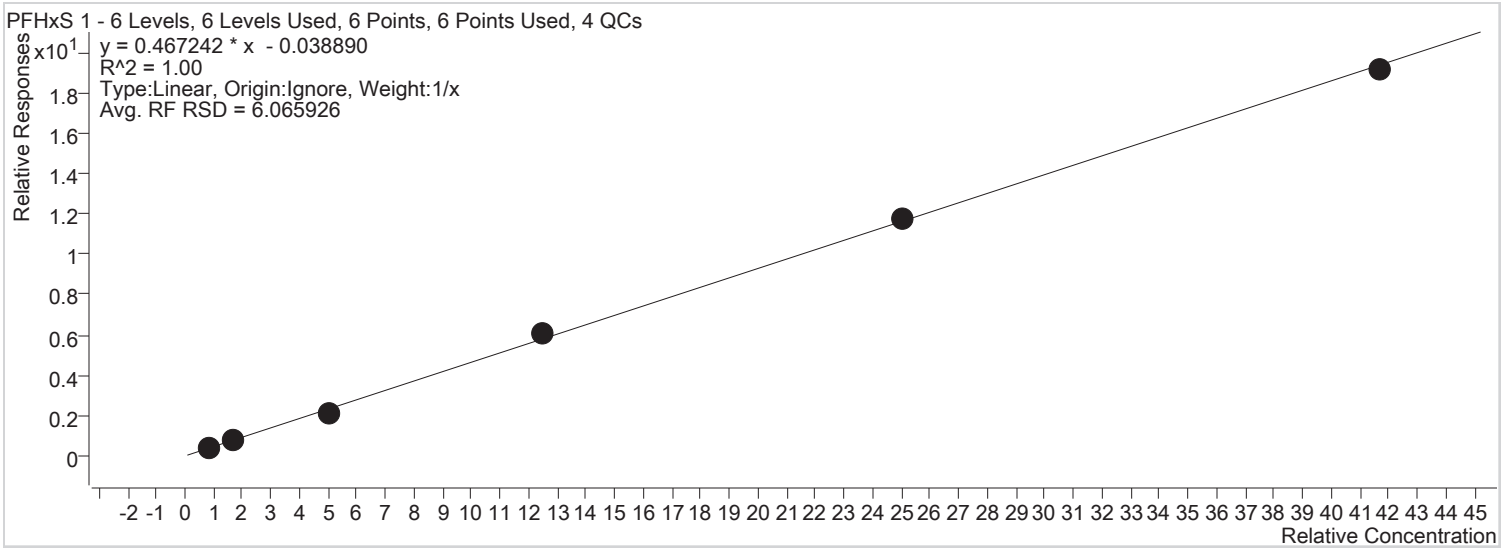
Instrument: LCMS04

Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.90	554	0.4575	93	107.9
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.60	972	0.4177	110	94.3
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	4.63	3056	0.4247	244	92.6
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.19	8282	0.4901	306	105.5
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	25.22	15376	0.4699	1287	100.9
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	41.19	27540	0.4606	1655	98.8

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
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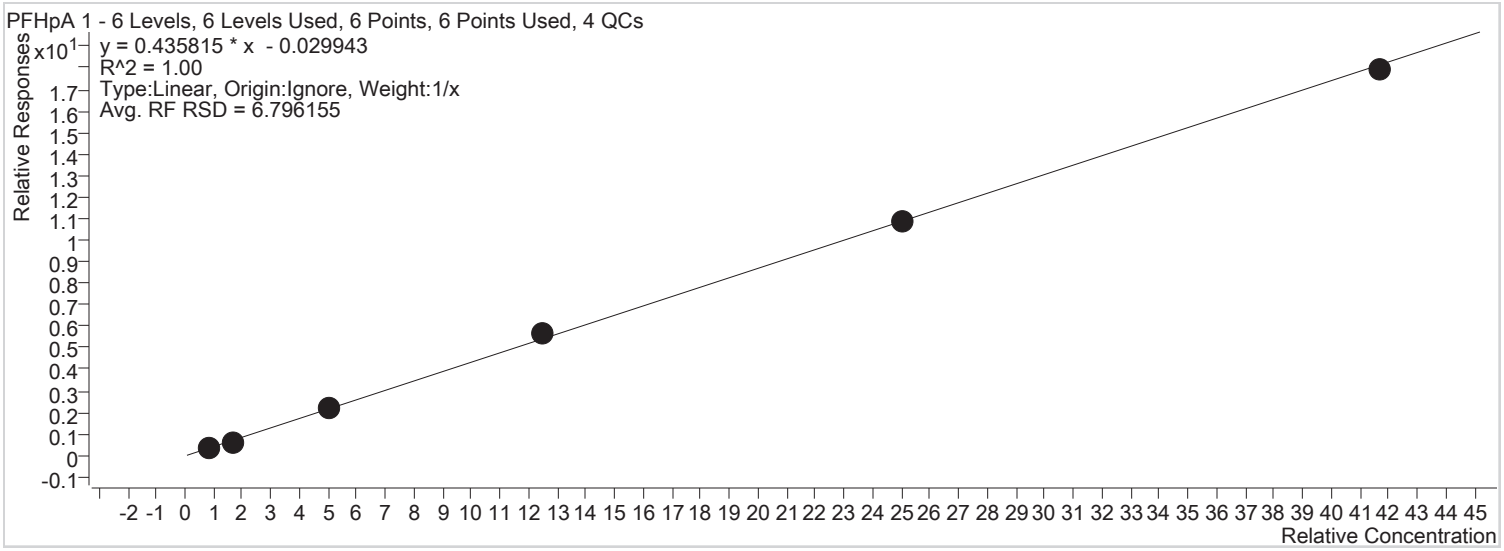
Instrument: LCMS04

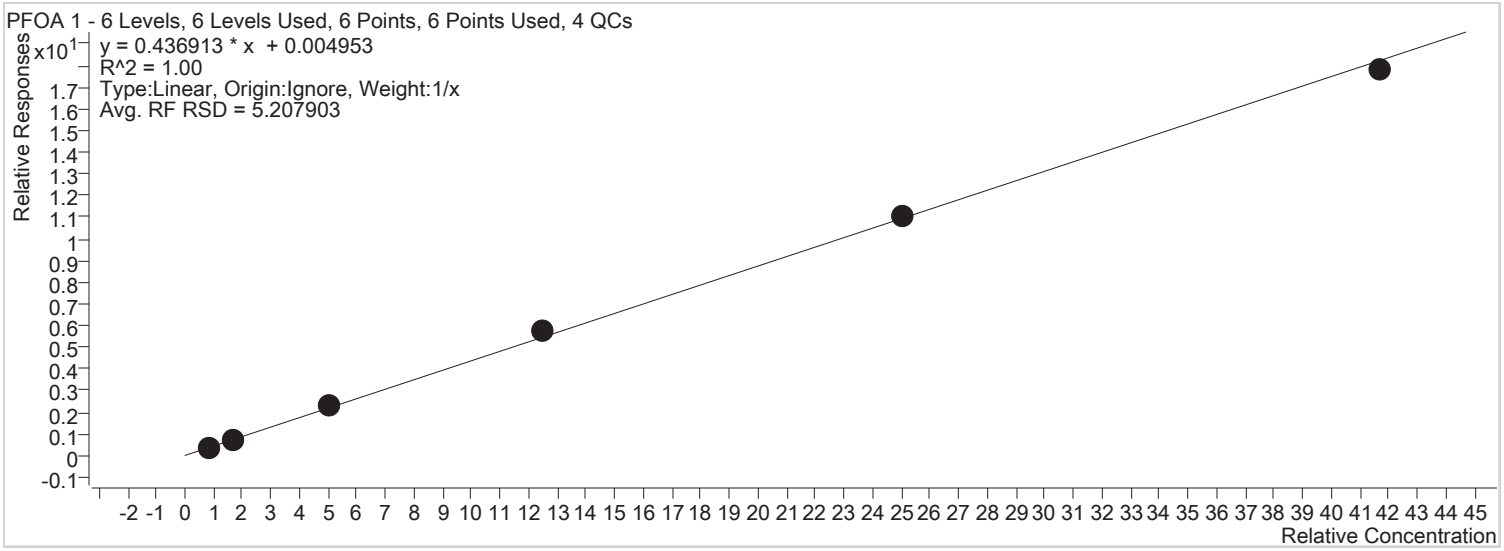
Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.90	2695	0.4339	31	107.8
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.51	4550	0.3687	58	88.6
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	5.00	15349	0.4297	186	100.0
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.04	39441	0.4523	241	104.3
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	25.12	73825	0.4368	250	100.5
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	41.16	128039	0.4295	257	98.7

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.83	2791	0.4447	31	100.4
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.54	5280	0.3998	34	90.8
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	5.24	16826	0.4589	100	104.8
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.18	43612	0.4611	140	105.5
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	25.21	79940	0.4408	152	100.8
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	40.72	134499	0.4268	157	97.6

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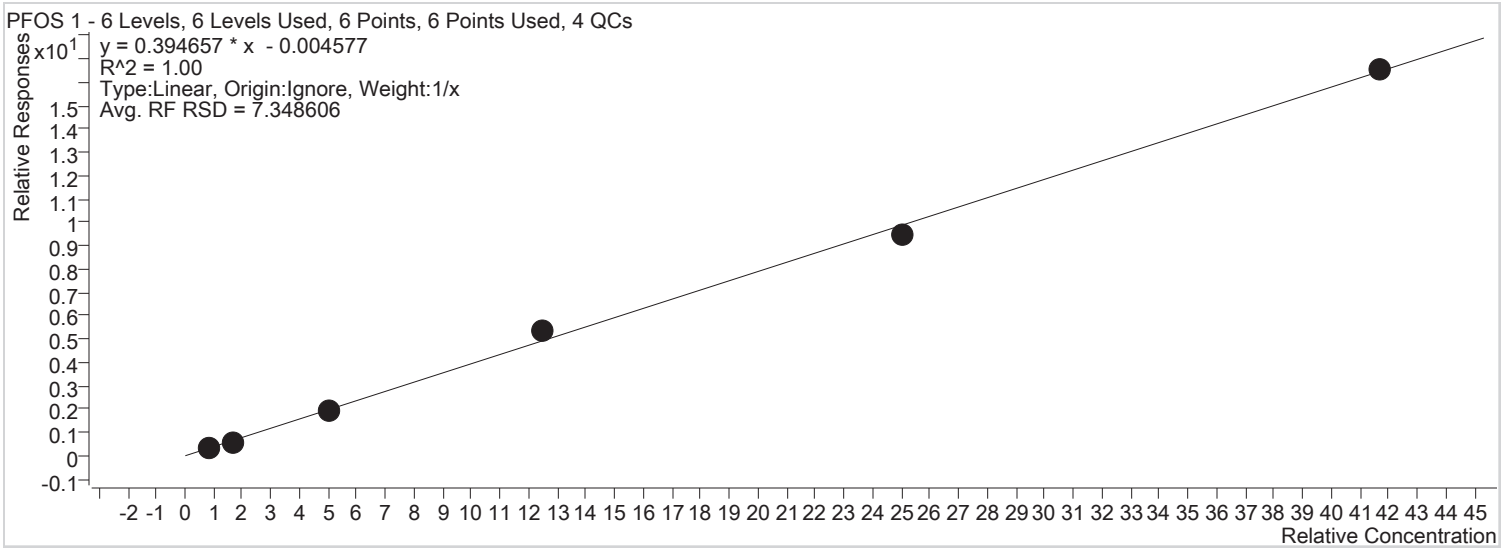
Instrument: LCMS04

Analyte: PFOS 1
Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.90	607	0.4218	102	108.3
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.51	984	0.3474	81	88.7
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	4.93	3211	0.3883	185	98.6
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.48	8644	0.4253	155	107.9
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	24.03	15962	0.3791	286	96.1
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	41.88	27447	0.3963	141	100.4

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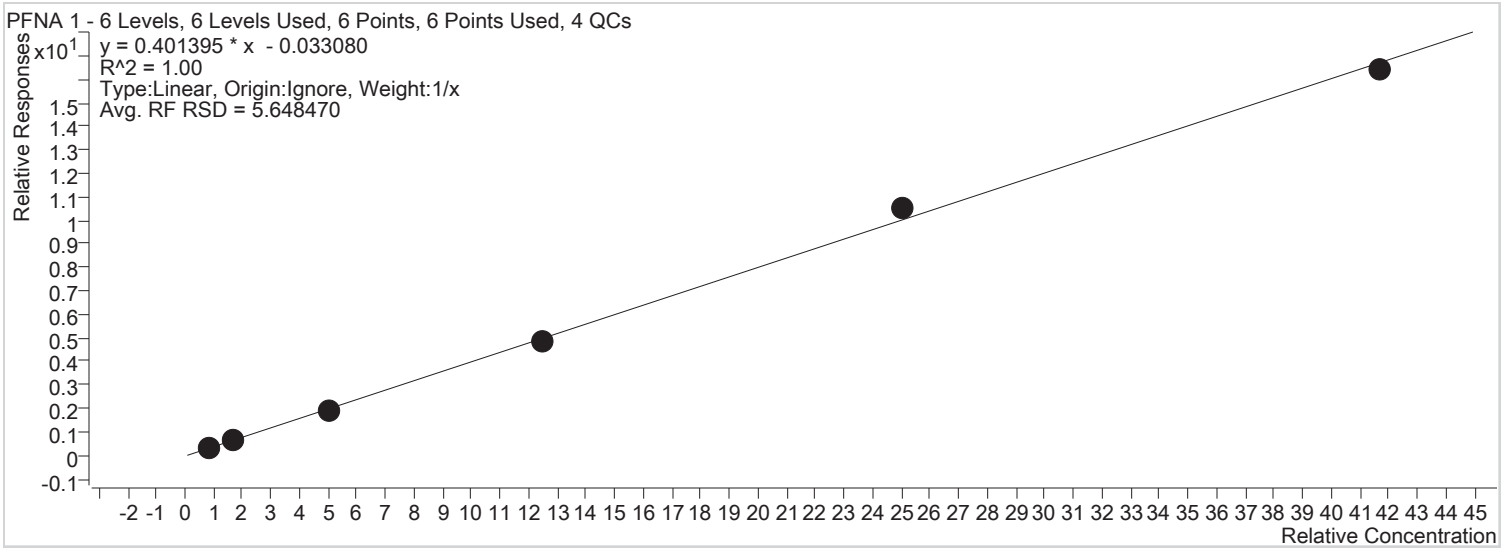
Instrument: LCMS04

Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.91	2616	0.3990	56	109.3
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.58	4483	0.3538	73	93.0
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	4.86	14491	0.3837	238	97.2
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	12.12	37940	0.3866	809	97.0
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	26.31	74461	0.4212	1283	105.3
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	40.94	125567	0.3933	2780	98.2

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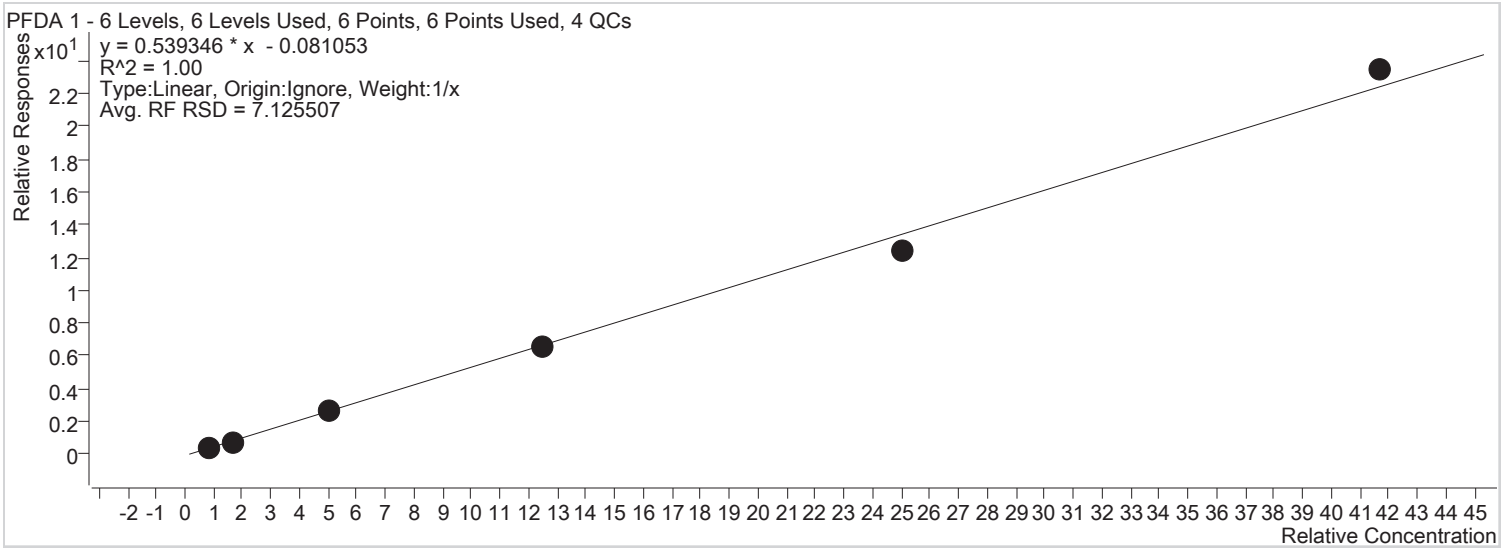
Instrument: LCMS04

Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.90	2685	0.4901	37	109.0
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.59	4898	0.4575	54	93.7
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	5.08	15385	0.5321	148	101.7
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	12.24	42262	0.5217	362	97.9
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	23.29	77584	0.4992	700	93.2
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	43.62	137651	0.5623	725	104.6

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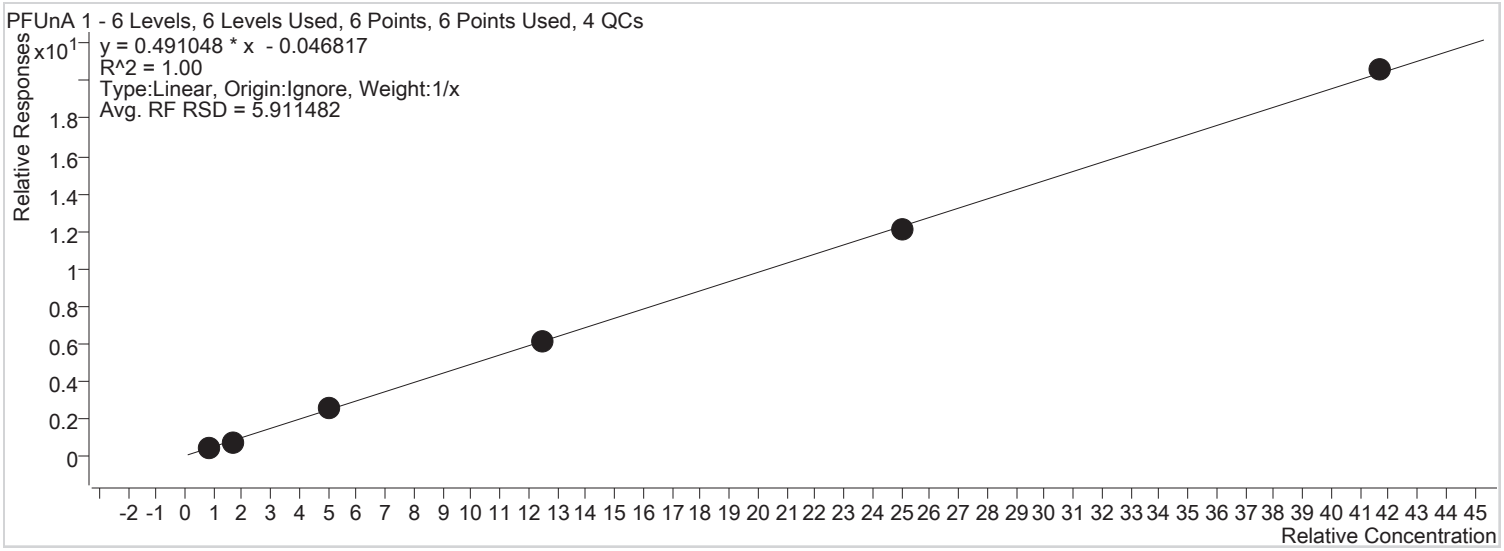
Instrument: LCMS04

Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.90	2984	0.4731	27	107.8
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.55	5500	0.4194	46	91.0
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	5.06	17165	0.4879	116	101.3
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	12.60	45414	0.4912	227	100.8
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	24.54	87054	0.4802	255	98.2
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	42.08	144521	0.4944	300	100.9

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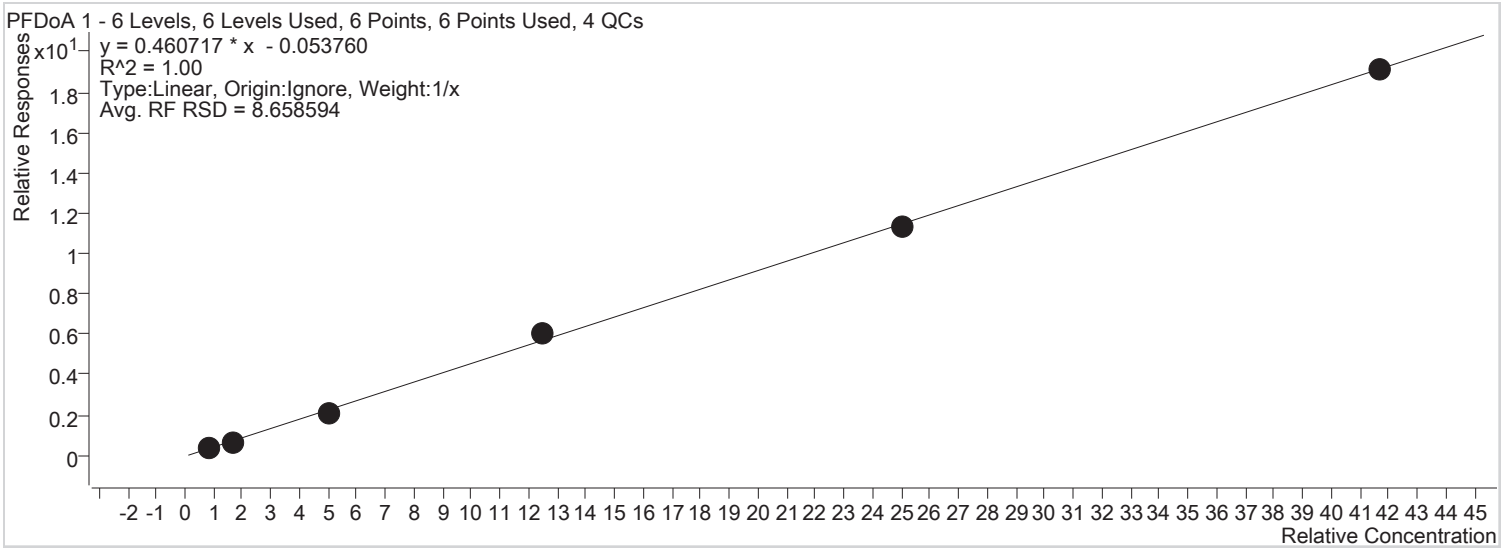
Instrument: LCMS04

Analyte: PFDoA 1
Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.94	3995	0.4580	107	113.5
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.48	6547	0.3708	153	87.3
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	4.76	21538	0.4282	556	95.3
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.10	59538	0.4786	910	104.8
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	24.83	108183	0.4554	3781	99.3
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	41.61	187974	0.4584	3588	99.8

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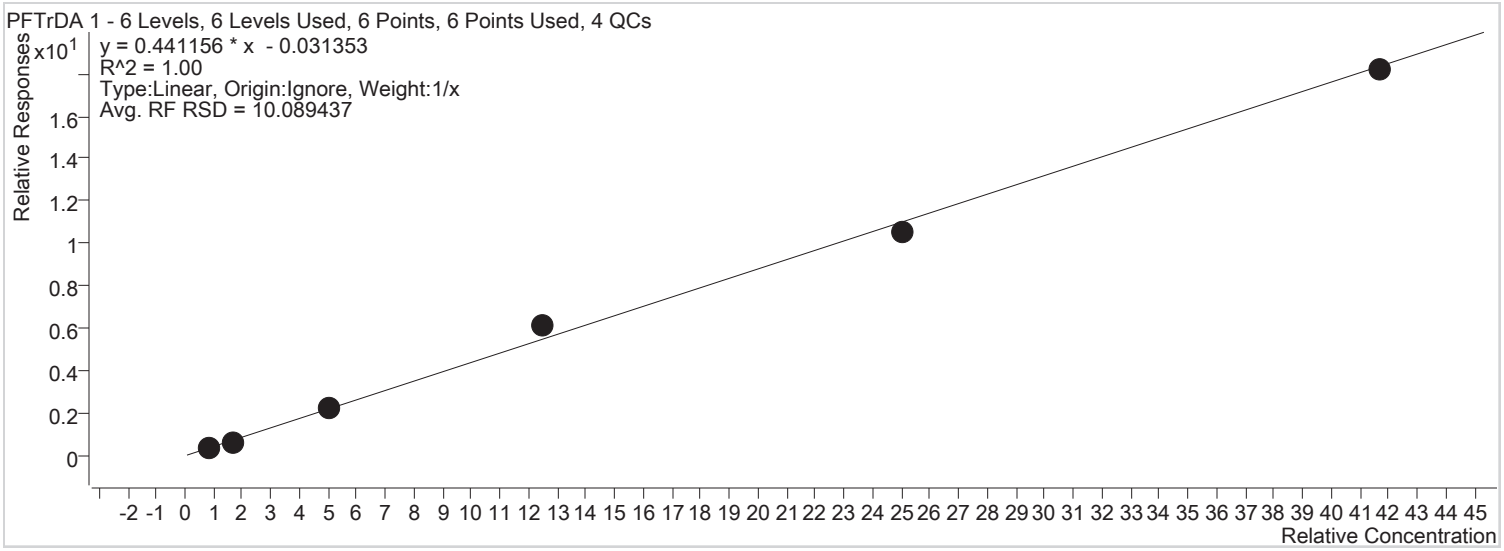
Instrument: LCMS04

Analyte: PFTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.88	4362	0.4305	30	106.1
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.44	7325	0.3557	61	84.8
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	5.11	25051	0.4448	103	102.2
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.95	64981	0.4899	116	111.6
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	24.02	123004	0.4227	134	96.1
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	41.32	211990	0.4364	157	99.1

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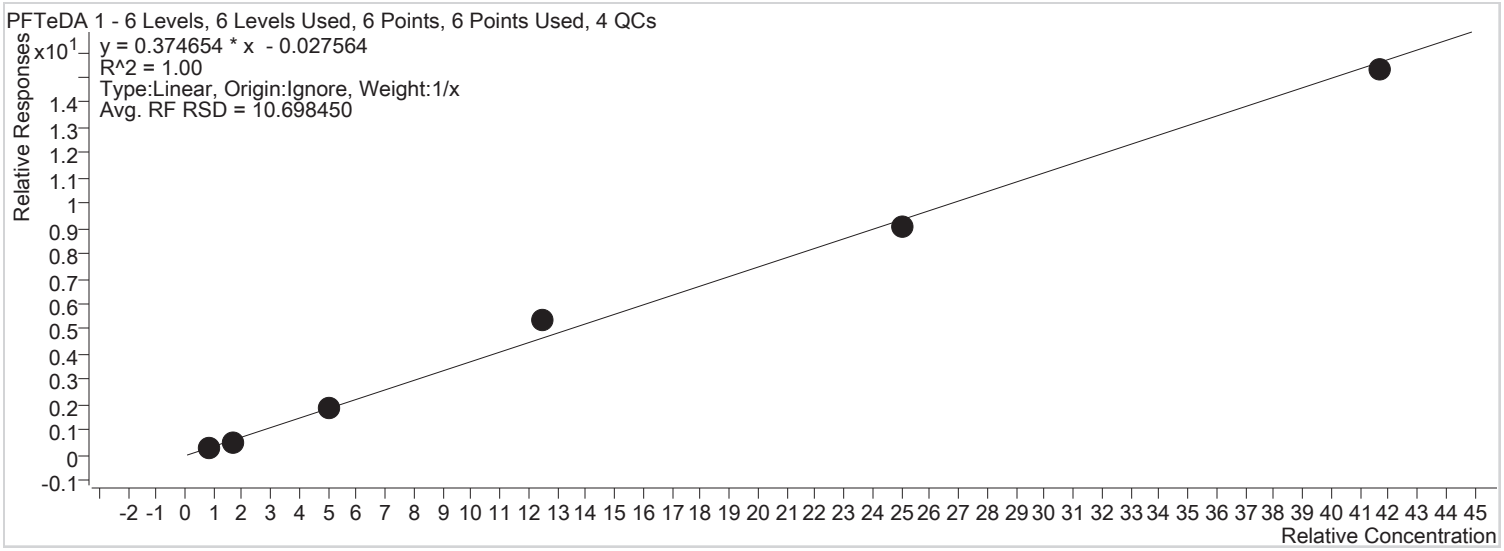
Instrument: LCMS04

Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.87	3658	0.3610	18	105.2
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.45	6233	0.3027	38	85.1
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	5.03	20912	0.3713	76	100.6
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	14.27	56450	0.4256	106	114.2
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	24.20	105224	0.3616	112	96.8
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	40.91	178225	0.3669	129	98.1

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
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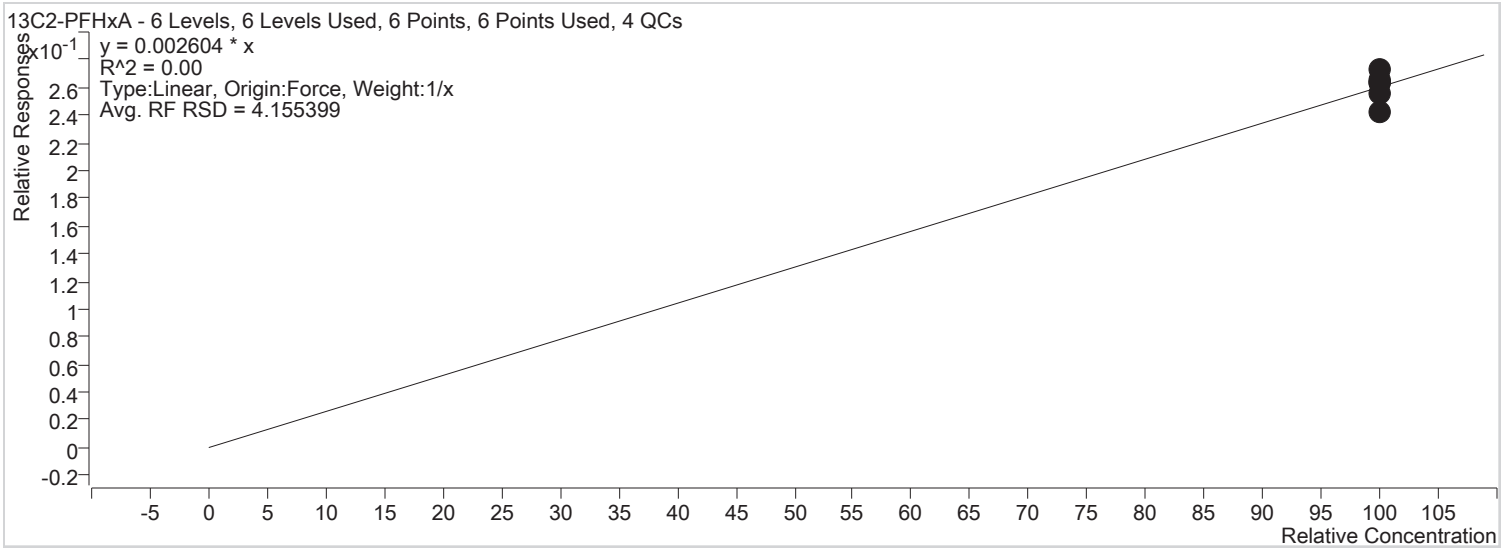
Instrument: LCMS04

Analyte: 13C2-PFHxA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	100.00	101.80	5701	0.0027	118	101.8
STD 2	STD 2	x	2018/02/09 12:37:12 PM	100.00	104.77	6002	0.0027	126	104.8
STD 3	STD 3	x	2018/02/09 12:42:07 PM	100.00	92.77	5587	0.0024	185	92.8
STD 4	STD 4	x	2018/02/09 12:47:02 PM	100.00	97.93	5250	0.0026	217	97.9
STD 5	STD 5	x	2018/02/09 12:51:58 PM	100.00	101.40	5591	0.0026	224	101.4
STD 6	STD 6	x	2018/02/09 12:56:54 PM	100.00	101.34	5384	0.0026	240	101.3

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
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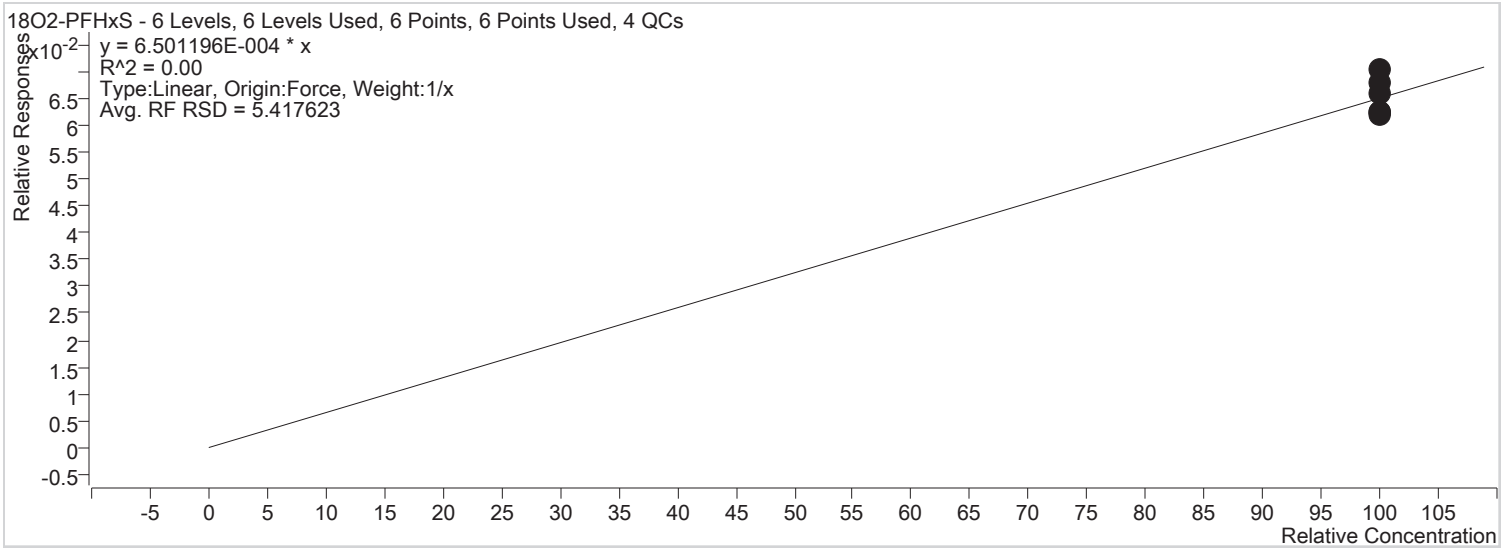
Instrument: LCMS04

Analyte: 18O2-PFHxS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	100.00	104.36	1459	0.0007	112	104.4
STD 2	STD 2	x	2018/02/09 12:37:12 PM	100.00	95.72	1369	0.0006	246	95.7
STD 3	STD 3	x	2018/02/09 12:42:07 PM	100.00	95.70	1439	0.0006	206	95.7
STD 4	STD 4	x	2018/02/09 12:47:02 PM	100.00	101.02	1352	0.0007	261	101.0
STD 5	STD 5	x	2018/02/09 12:51:58 PM	100.00	95.09	1309	0.0006	139	95.1
STD 6	STD 6	x	2018/02/09 12:56:54 PM	100.00	108.11	1434	0.0007	214	108.1

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
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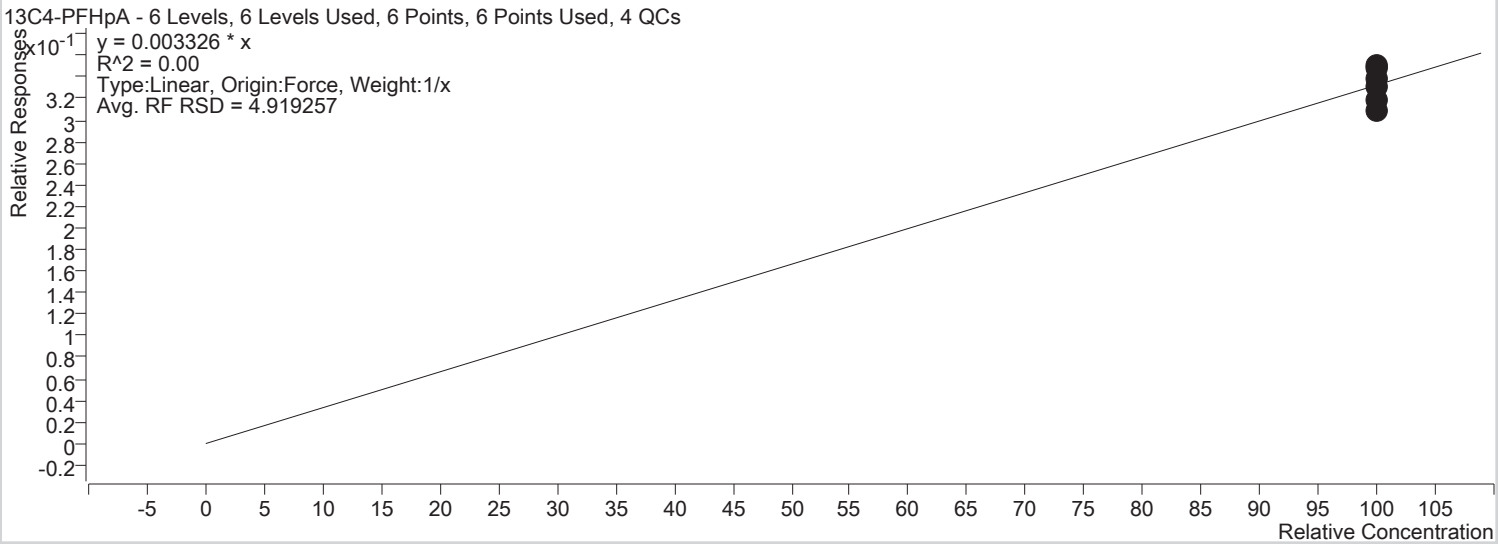
Instrument: LCMS04

Analyte: 13C4-PFHpA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	100.00	104.63	7483	0.0035	267	104.6
STD 2	STD 2	x	2018/02/09 12:37:12 PM	100.00	99.22	7259	0.0033	181	99.2
STD 3	STD 3	x	2018/02/09 12:42:07 PM	100.00	92.88	7144	0.0031	131	92.9
STD 4	STD 4	x	2018/02/09 12:47:02 PM	100.00	101.89	6976	0.0034	380	101.9
STD 5	STD 5	x	2018/02/09 12:51:58 PM	100.00	96.01	6761	0.0032	242	96.0
STD 6	STD 6	x	2018/02/09 12:56:54 PM	100.00	105.37	7149	0.0035	252	105.4

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
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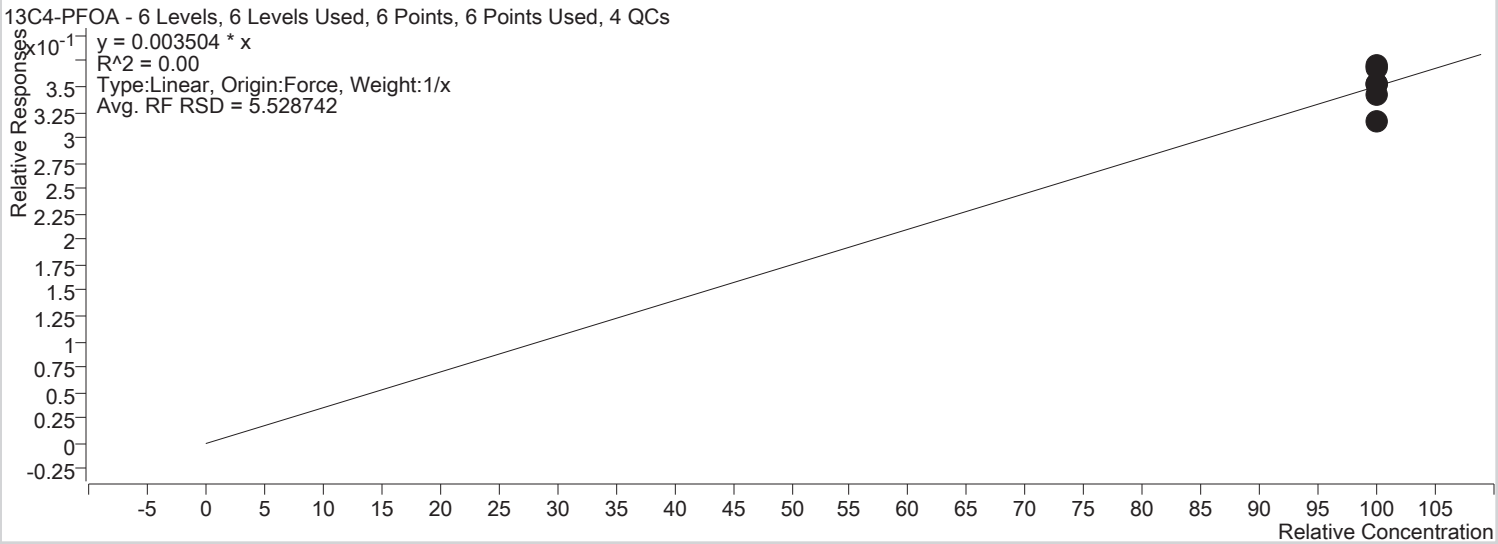
Instrument: LCMS04

Analyte: 13C4-PFOA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	100.00	100.35	7562	0.0035	141	100.4
STD 2	STD 2	x	2018/02/09 12:37:12 PM	100.00	100.78	7769	0.0035	108	100.8
STD 3	STD 3	x	2018/02/09 12:42:07 PM	100.00	90.49	7333	0.0032	116	90.5
STD 4	STD 4	x	2018/02/09 12:47:02 PM	100.00	104.88	7566	0.0037	205	104.9
STD 5	STD 5	x	2018/02/09 12:51:58 PM	100.00	97.77	7254	0.0034	206	97.8
STD 6	STD 6	x	2018/02/09 12:56:54 PM	100.00	105.72	7558	0.0037	197	105.7

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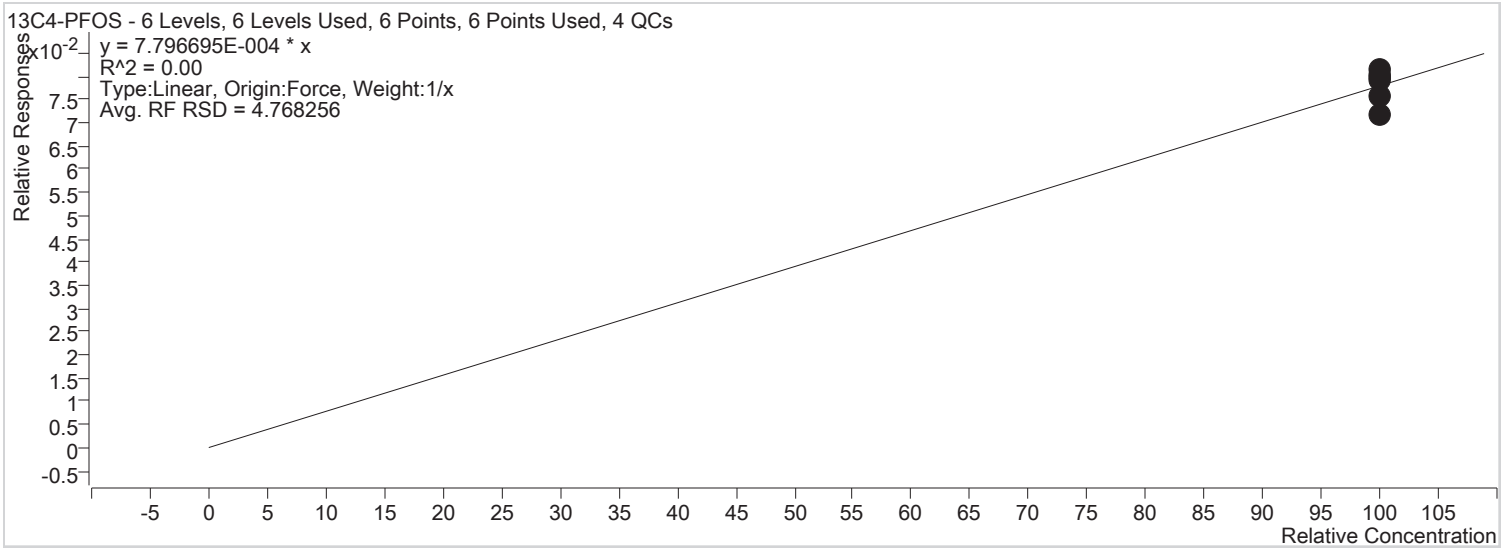
Instrument: LCMS04

Analyte: 13C4-PFOS
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	100.00	103.42	1734	0.0008	160	103.4
STD 2	STD 2	x	2018/02/09 12:37:12 PM	100.00	97.13	1666	0.0008	195	97.1
STD 3	STD 3	x	2018/02/09 12:42:07 PM	100.00	91.72	1654	0.0007	179	91.7
STD 4	STD 4	x	2018/02/09 12:47:02 PM	100.00	101.30	1626	0.0008	173	101.3
STD 5	STD 5	x	2018/02/09 12:51:58 PM	100.00	102.01	1684	0.0008	153	102.0
STD 6	STD 6	x	2018/02/09 12:56:54 PM	100.00	104.42	1661	0.0008	202	104.4

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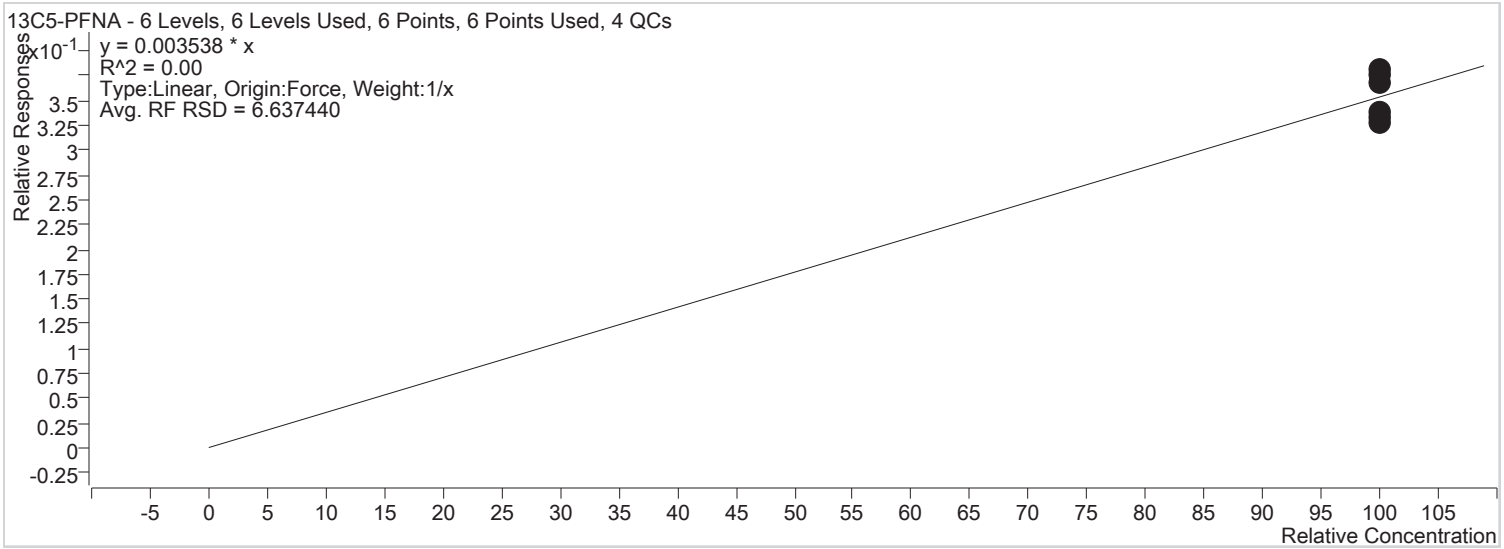
Instrument: LCMS04

Analyte: 13C5-PFNA
Internal Standard: 13C6-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	100.00	103.81	7899	0.0037	232	103.8
STD 2	STD 2	x	2018/02/09 12:37:12 PM	100.00	95.75	7453	0.0034	204	95.7
STD 3	STD 3	x	2018/02/09 12:42:07 PM	100.00	92.29	7552	0.0033	312	92.3
STD 4	STD 4	x	2018/02/09 12:47:02 PM	100.00	107.74	7848	0.0038	214	107.7
STD 5	STD 5	x	2018/02/09 12:51:58 PM	100.00	94.37	7070	0.0033	303	94.4
STD 6	STD 6	x	2018/02/09 12:56:54 PM	100.00	106.04	7655	0.0038	279	106.0

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
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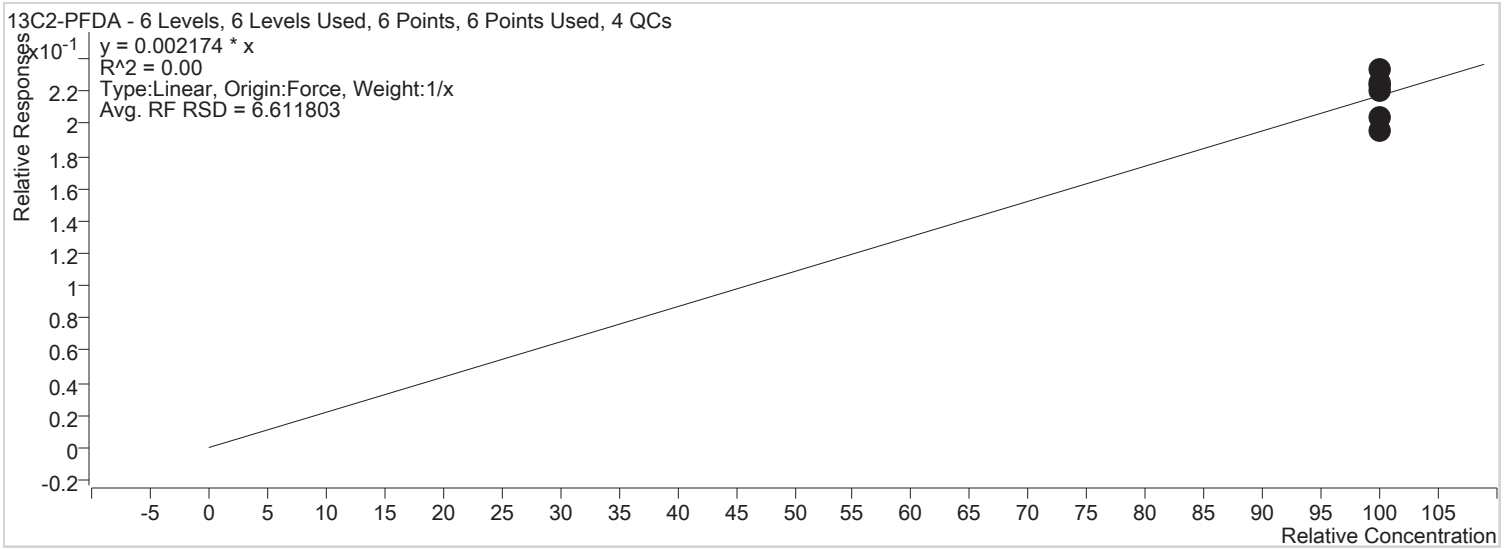
Instrument: LCMS04

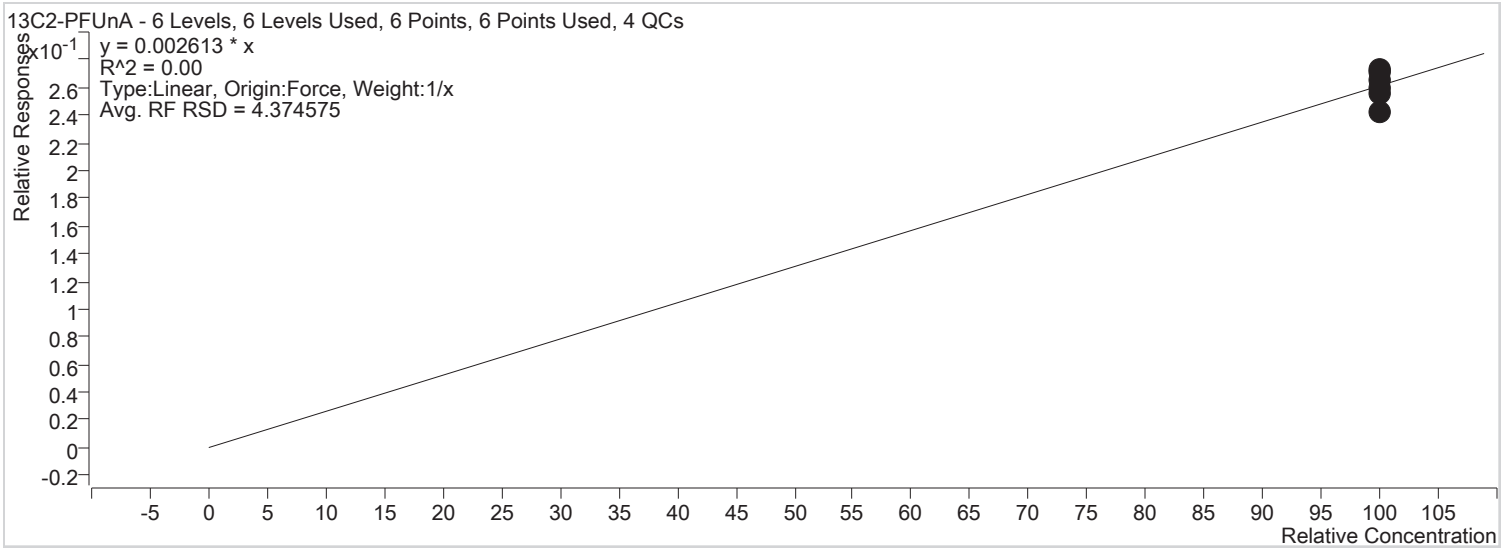
Analyte: 13C2-PFDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	100.00	103.19	6544	0.0022	304	103.2
STD 2	STD 2	x	2018/02/09 12:37:12 PM	100.00	93.99	6154	0.0020	168	94.0
STD 3	STD 3	x	2018/02/09 12:42:07 PM	100.00	89.96	5695	0.0020	186	90.0
STD 4	STD 4	x	2018/02/09 12:47:02 PM	100.00	107.34	6327	0.0023	150	107.3
STD 5	STD 5	x	2018/02/09 12:51:58 PM	100.00	103.86	6149	0.0023	218	103.9
STD 6	STD 6	x	2018/02/09 12:56:54 PM	100.00	101.67	5730	0.0022	204	101.7

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

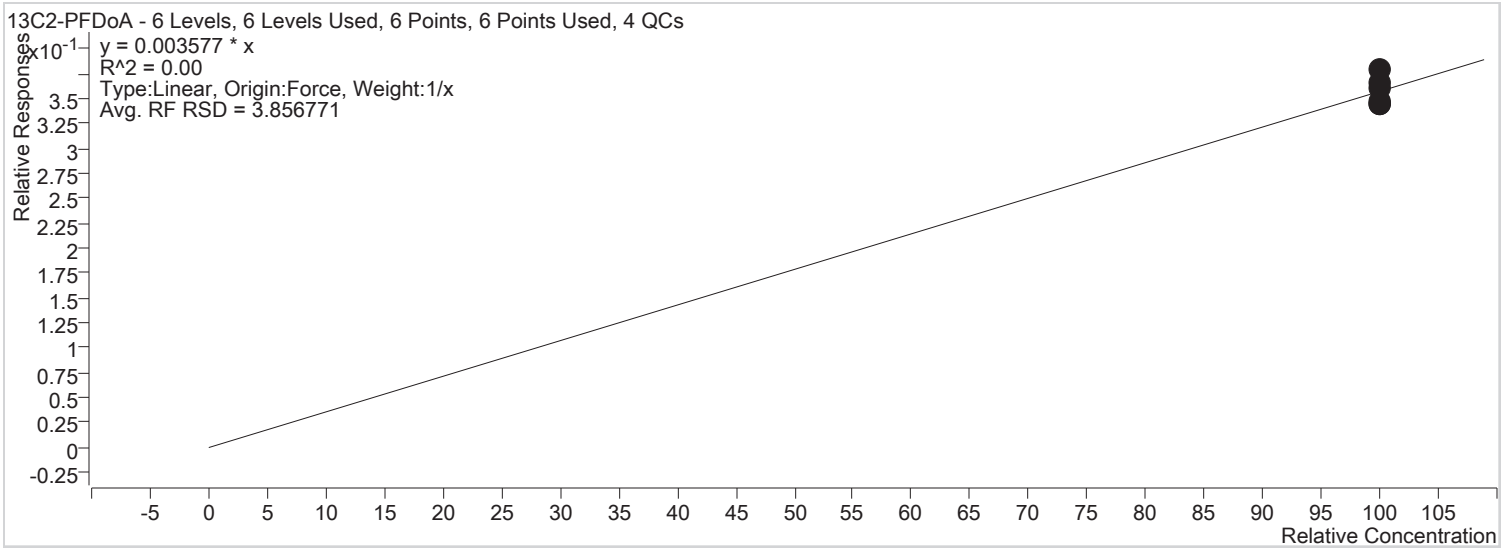
Analyte: 13C2-PFUnA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	100.00	99.70	7599	0.0026	168	99.7
STD 2	STD 2	x	2018/02/09 12:37:12 PM	100.00	98.04	7715	0.0026	207	98.0
STD 3	STD 3	x	2018/02/09 12:42:07 PM	100.00	92.48	7036	0.0024	232	92.5
STD 4	STD 4	x	2018/02/09 12:47:02 PM	100.00	104.40	7396	0.0027	241	104.4
STD 5	STD 5	x	2018/02/09 12:51:58 PM	100.00	101.90	7251	0.0027	282	101.9
STD 6	STD 6	x	2018/02/09 12:56:54 PM	100.00	103.49	7010	0.0027	128	103.5

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

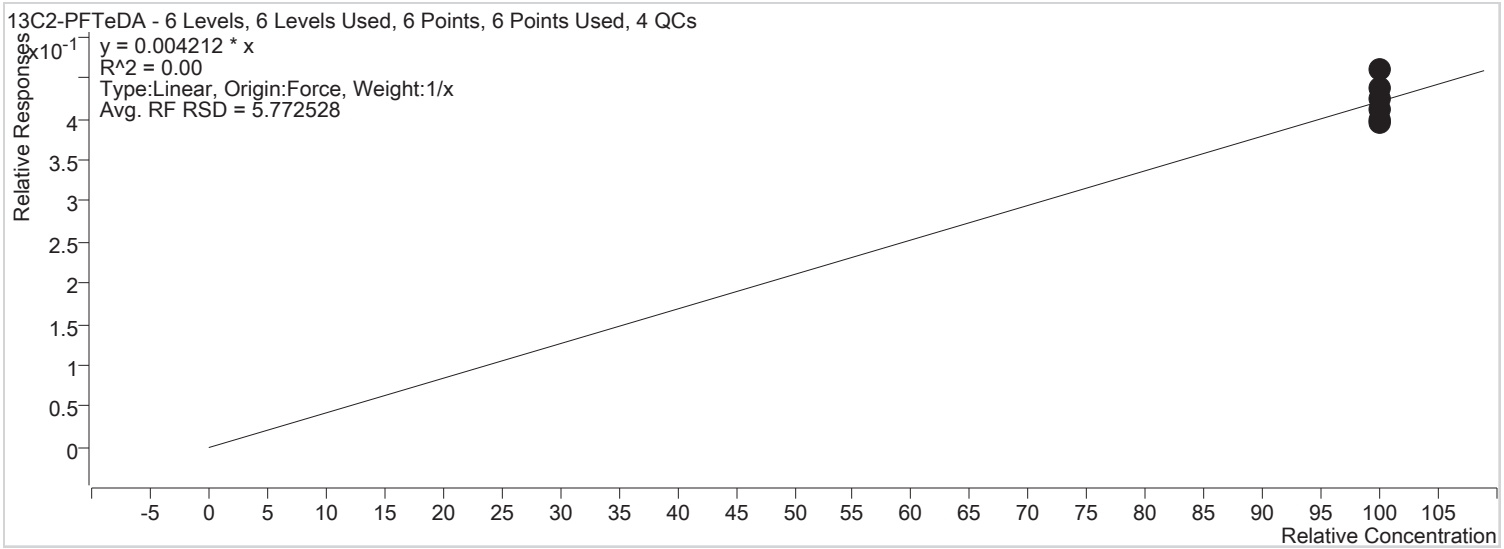
Analyte: 13C2-PFDoA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	100.00	100.74	10510	0.0036	206	100.7
STD 2	STD 2	x	2018/02/09 12:37:12 PM	100.00	96.43	10387	0.0034	191	96.4
STD 3	STD 3	x	2018/02/09 12:42:07 PM	100.00	96.59	10059	0.0035	182	96.6
STD 4	STD 4	x	2018/02/09 12:47:02 PM	100.00	102.62	9951	0.0037	219	102.6
STD 5	STD 5	x	2018/02/09 12:51:58 PM	100.00	97.57	9503	0.0035	247	97.6
STD 6	STD 6	x	2018/02/09 12:56:54 PM	100.00	106.05	9833	0.0038	253	106.1

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

Analyte: 13C2-PFTeDA
Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	100.00	100.94	12401	0.0043	326	100.9
STD 2	STD 2	x	2018/02/09 12:37:12 PM	100.00	97.53	12371	0.0041	565	97.5
STD 3	STD 3	x	2018/02/09 12:42:07 PM	100.00	93.94	11521	0.0040	587	93.9
STD 4	STD 4	x	2018/02/09 12:47:02 PM	100.00	94.85	10831	0.0040	408	94.9
STD 5	STD 5	x	2018/02/09 12:51:58 PM	100.00	103.59	11882	0.0044	423	103.6
STD 6	STD 6	x	2018/02/09 12:56:54 PM	100.00	109.14	11916	0.0046	934	109.1

By Compound Report

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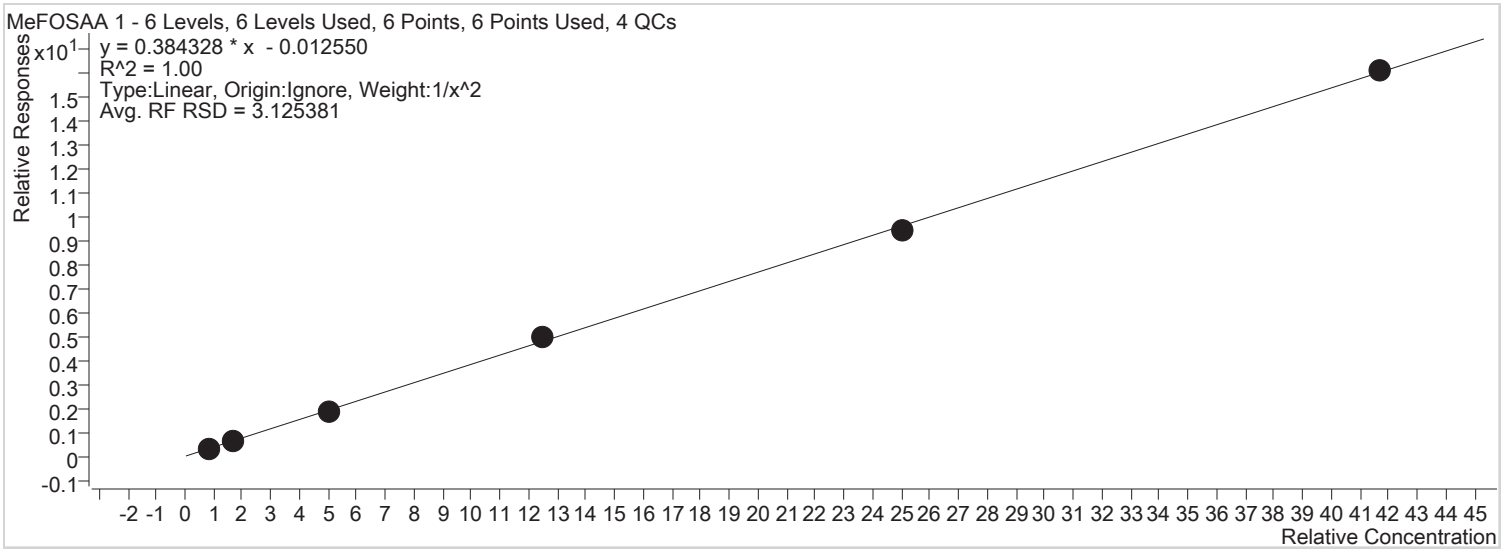
Batch Path T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 4:28:52 PM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 10:29:29 PM	0.83	0.84	566	0.3743	97	101.3
STD 2	STD 2	x	2018/02/09 10:31:54 PM	1.70	1.65	1035	0.3663	342	97.2
STD 3	STD 3	x	2018/02/09 10:34:19 PM	5.00	4.94	3142	0.3772	188	98.8
STD 4	STD 4	x	2018/02/09 10:36:44 PM	12.50	13.06	8392	0.4006	287	104.5
STD 5	STD 5	x	2018/02/09 10:39:09 PM	25.00	24.44	15131	0.3752	250	97.8
STD 6	STD 6	x	2018/02/09 10:41:34 PM	41.70	41.87	26127	0.3856	277	100.4

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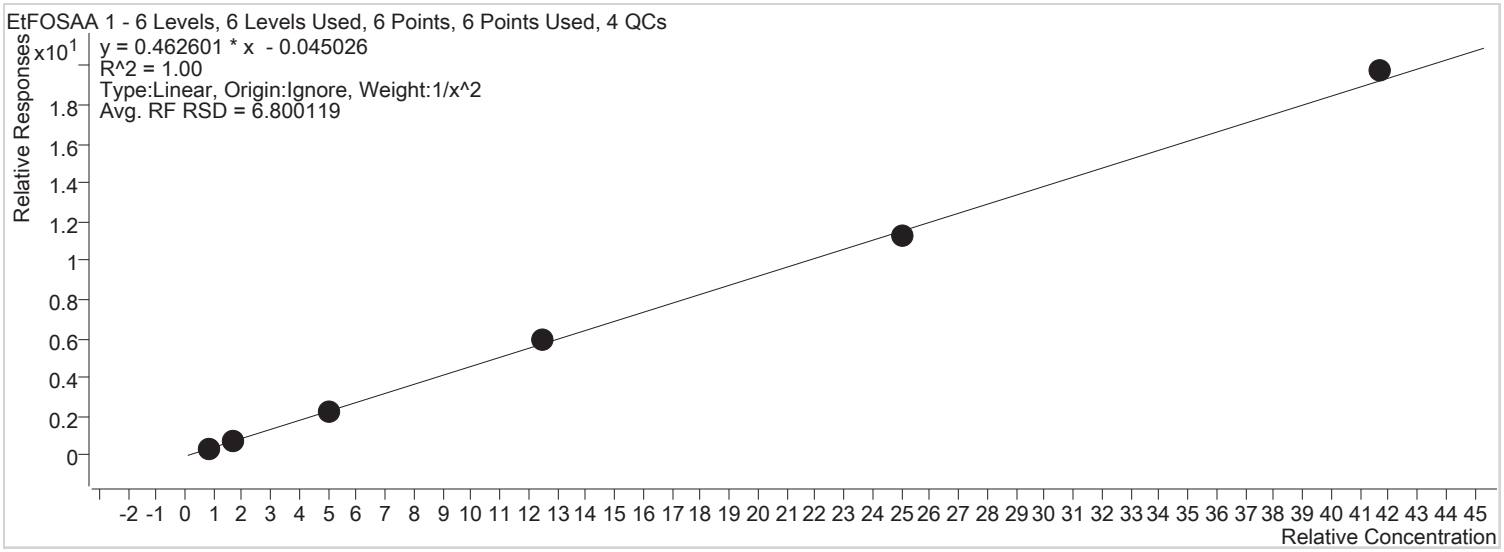
Batch Path T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 4:28:52 PM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 10:29:29 PM	0.83	0.86	582	0.4257	52	103.8
STD 2	STD 2	x	2018/02/09 10:31:54 PM	1.70	1.56	1035	0.3969	122	91.5
STD 3	STD 3	x	2018/02/09 10:34:19 PM	5.00	5.05	3371	0.4586	475	101.1
STD 4	STD 4	x	2018/02/09 10:36:44 PM	12.50	12.93	8840	0.4749	727	103.4
STD 5	STD 5	x	2018/02/09 10:39:09 PM	25.00	24.37	16564	0.4492	1486	97.5
STD 6	STD 6	x	2018/02/09 10:41:34 PM	41.70	42.82	28619	0.4740	3392	102.7

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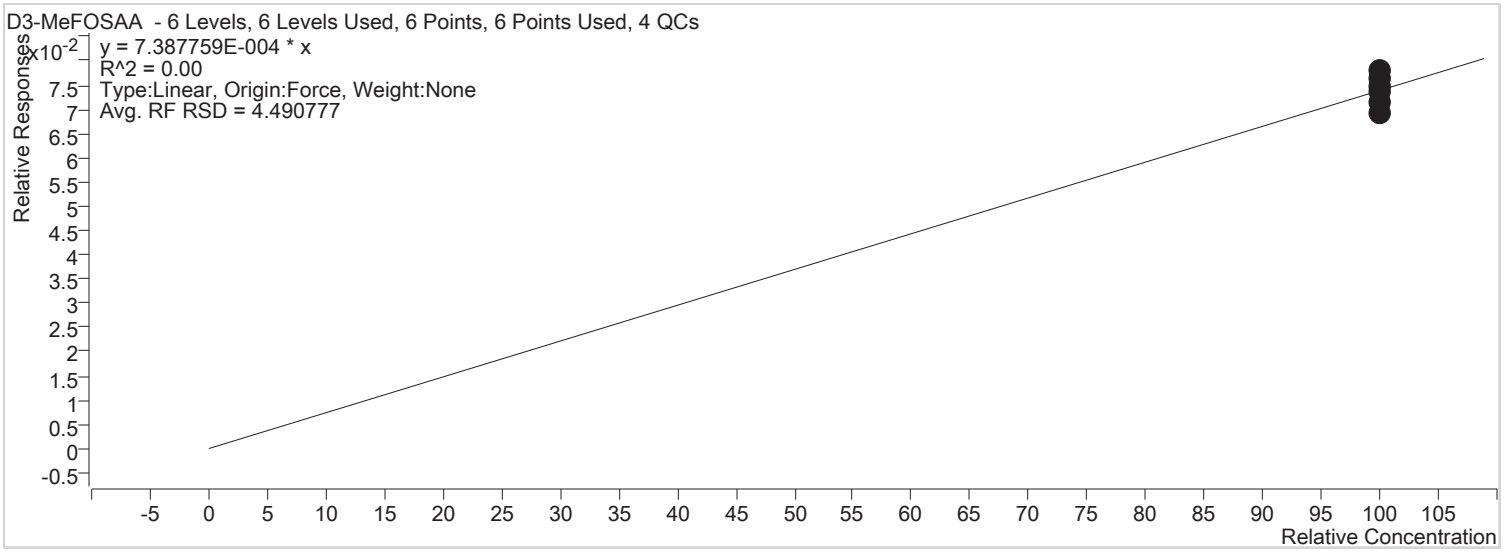
Batch Path T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 4:28:52 PM

Instrument: LCMS04

Analyte: D3-MeFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 10:29:29 PM	100.00	105.49	1860	0.0008	224	105.5
STD 2	STD 2	x	2018/02/09 10:31:54 PM	100.00	96.31	1684	0.0007	161	96.3
STD 3	STD 3	x	2018/02/09 10:34:19 PM	100.00	93.50	1688	0.0007	192	93.5
STD 4	STD 4	x	2018/02/09 10:36:44 PM	100.00	101.31	1686	0.0007	126	101.3
STD 5	STD 5	x	2018/02/09 10:39:09 PM	100.00	99.77	1638	0.0007	182	99.8
STD 6	STD 6	x	2018/02/09 10:41:34 PM	100.00	103.62	1642	0.0008	127	103.6

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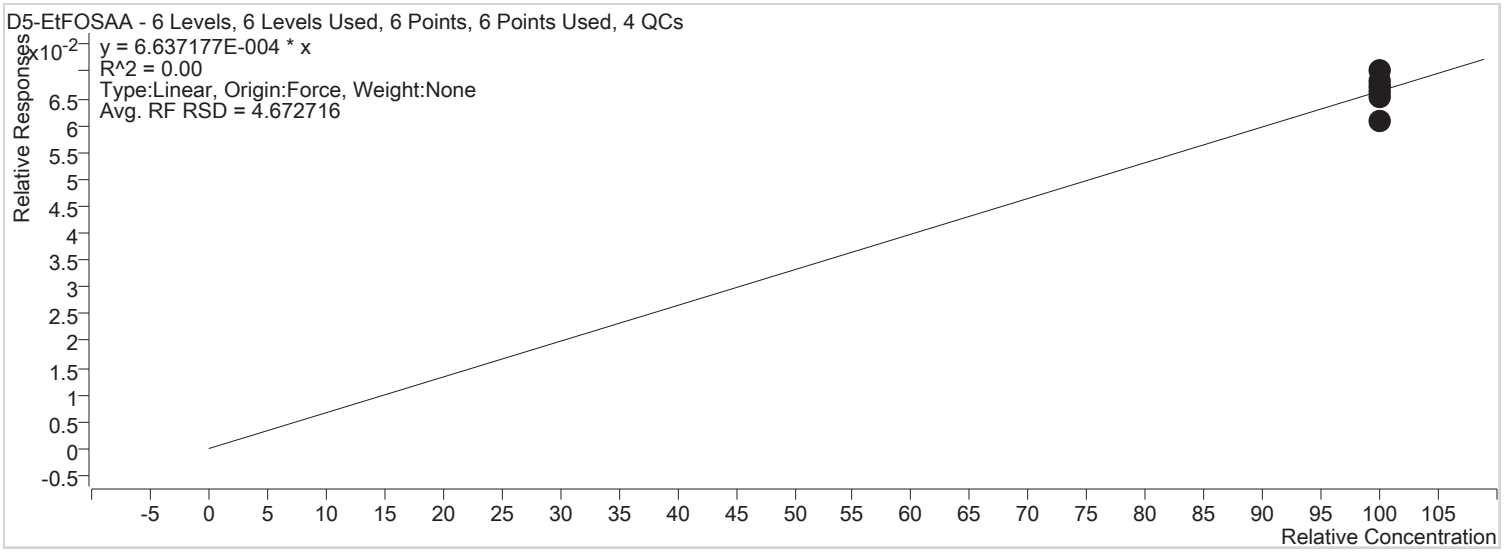
Batch Path T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 4:28:52 PM

Instrument: LCMS04

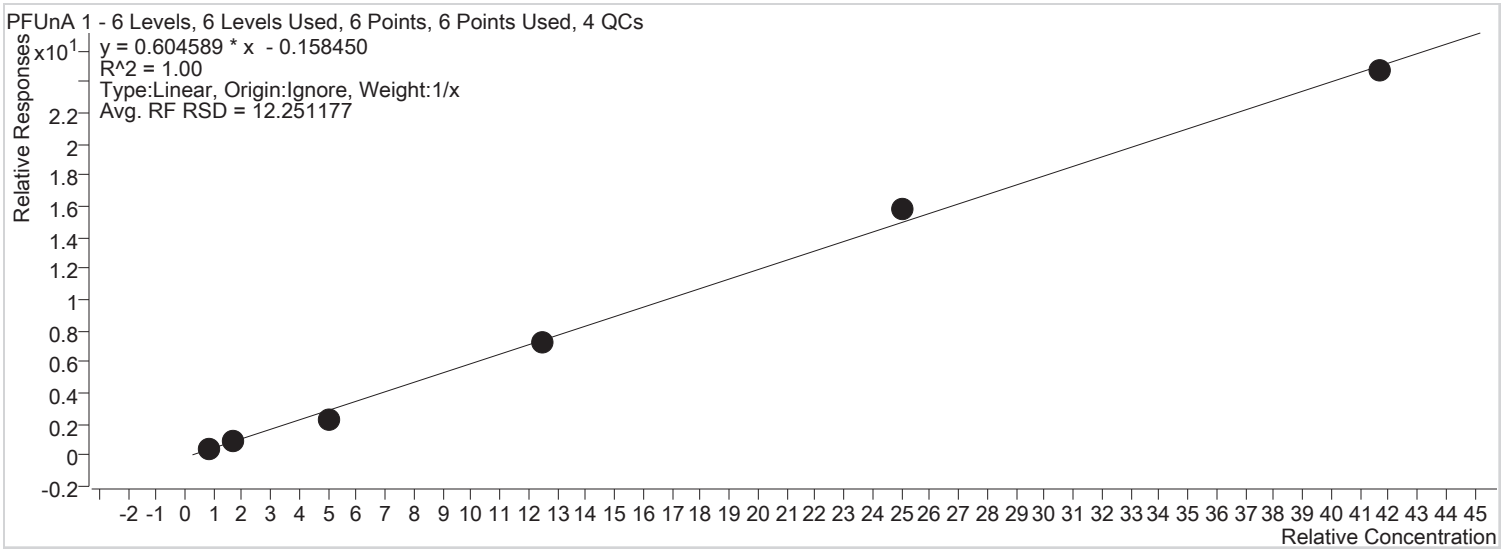
Analyte: D5-EtFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 10:29:29 PM	100.00	105.68	1674	0.0007	240	105.7
STD 2	STD 2	x	2018/02/09 10:31:54 PM	100.00	98.42	1546	0.0007	141	98.4
STD 3	STD 3	x	2018/02/09 10:34:19 PM	100.00	91.93	1491	0.0006	274	91.9
STD 4	STD 4	x	2018/02/09 10:36:44 PM	100.00	99.86	1493	0.0007	93	99.9
STD 5	STD 5	x	2018/02/09 10:39:09 PM	100.00	101.43	1496	0.0007	247	101.4
STD 6	STD 6	x	2018/02/09 10:41:34 PM	100.00	102.69	1462	0.0007	280	102.7

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin
Last Calib Update	2018/02/21 10:39:42 AM
Instrument:	LCMS04
Analyte:	PFUnA 1
Internal Standard:	MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.94	2510	0.4903	27	112.7
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.75	4875	0.5287	33	102.9
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.05	13534	0.4579	87	81.0
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.37	39617	0.5854	132	98.9
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	26.45	87768	0.6334	184	105.8
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	41.18	144868	0.5932	189	98.8

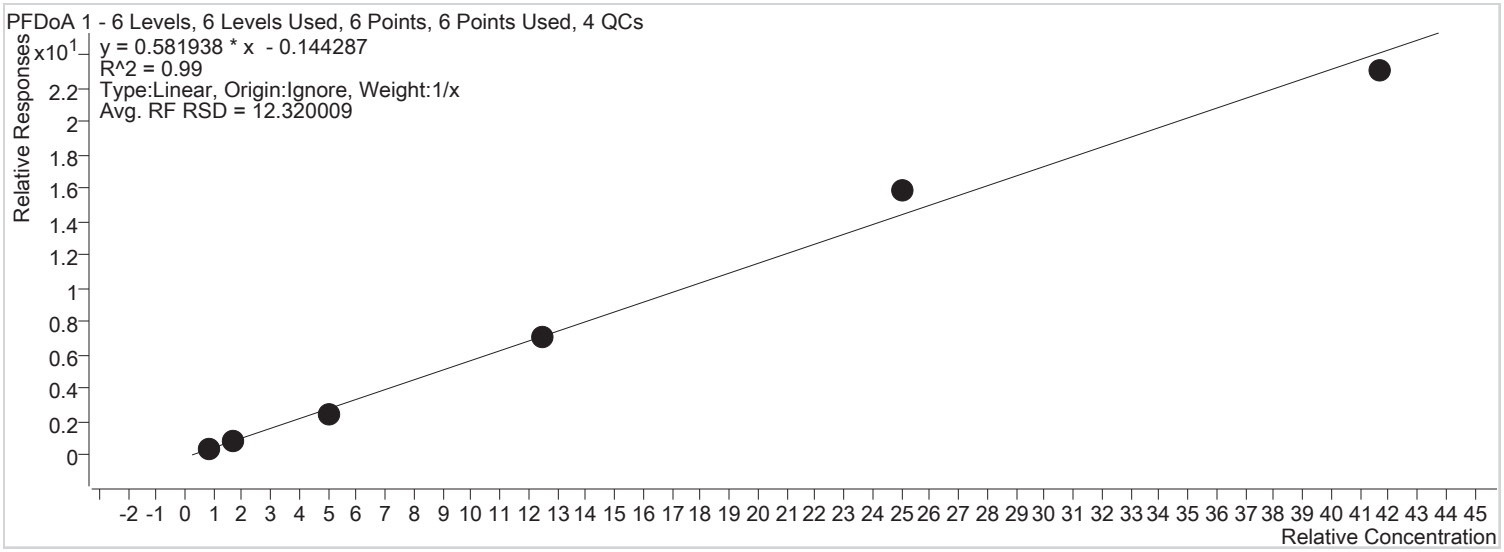
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin

Last Calib Update 2018/02/21 10:39:42 AM

Instrument: LCMS04

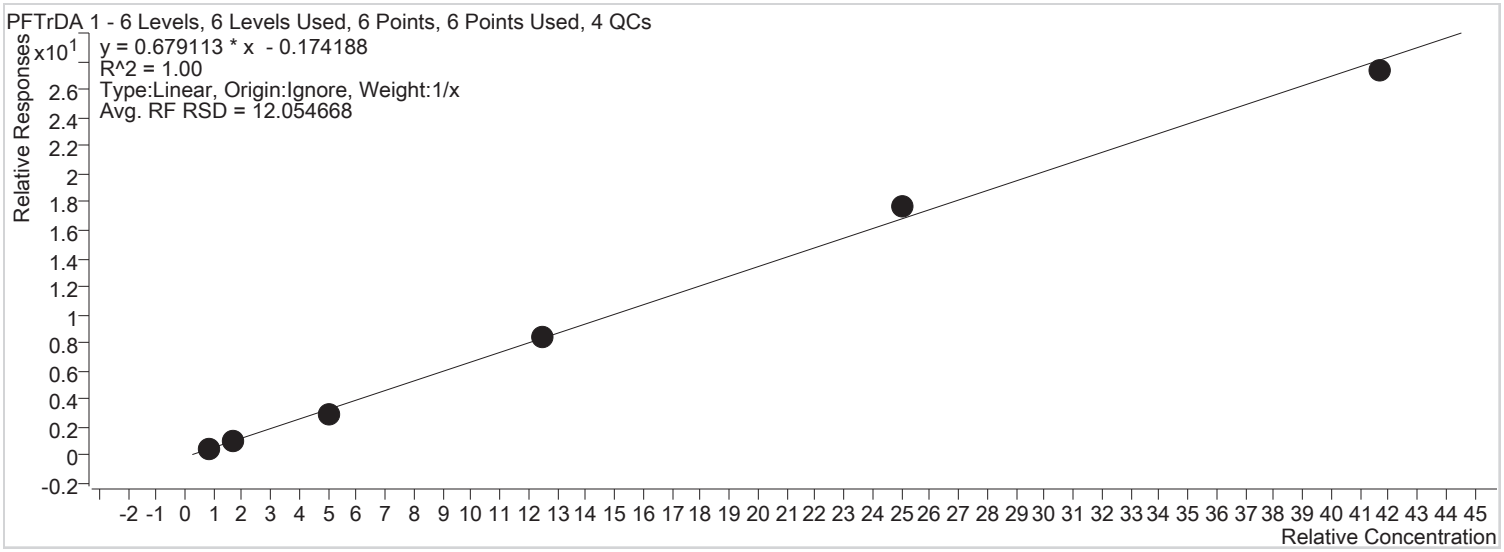
Analyte: PFDoA 1

Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.91	2949	0.4611	42	109.1
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.64	5881	0.4780	164	96.7
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.47	17518	0.4912	199	89.4
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.45	50698	0.5681	1115	99.6
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	27.40	114607	0.6321	3116	109.6
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	39.86	187876	0.5527	11140	95.6

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin
Last Calib Update	2018/02/21 10:39:42 AM
Instrument:	LCMS04
Analyte:	PFTrDA 1
Internal Standard:	MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.89	2946	0.5169	26	107.0
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.67	5994	0.5666	51	98.5
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.51	18012	0.5780	126	90.2
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.65	51716	0.6735	212	101.2
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	26.43	117011	0.7109	248	105.7
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	40.58	195943	0.6566	318	97.3

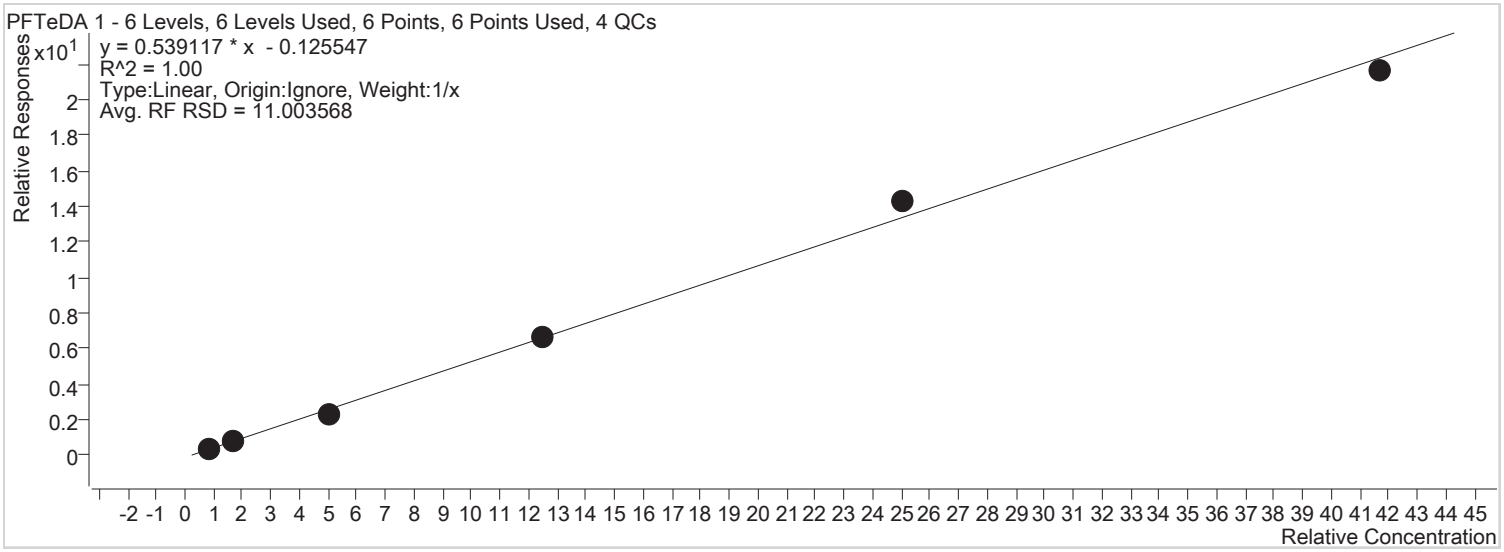
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin

Last Calib Update 2018/02/21 10:39:42 AM

Instrument: LCMS04

Analyte: PFTeDA 1

Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.92	2545	0.4465	21	110.9
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.62	4651	0.4396	37	95.2
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.48	14263	0.4577	103	89.5
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.53	40717	0.5303	197	100.2
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	26.83	94425	0.5737	337	107.3
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	40.35	154772	0.5187	334	96.8

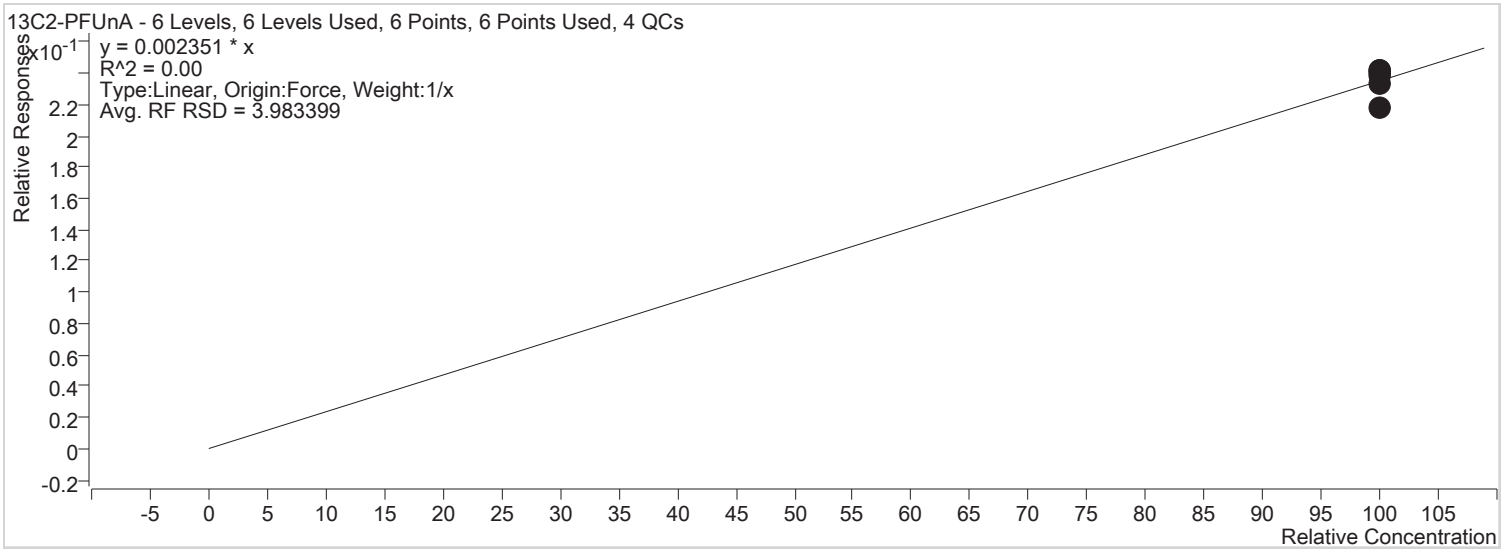
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin

Last Calib Update 2018/02/21 10:39:42 AM

Instrument: LCMS04

Analyte: 13C2-PFUnA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	100.00	101.19	6168	0.0024	395	101.2
STD 2	STD 2	x	2018/02/15 4:20:46 PM	100.00	92.40	5424	0.0022	198	92.4
STD 3	STD 3	x	2018/02/15 4:25:43 PM	100.00	98.92	5911	0.0023	161	98.9
STD 4	STD 4	x	2018/02/15 4:30:38 PM	100.00	102.10	5414	0.0024	112	102.1
STD 5	STD 5	x	2018/02/15 4:35:35 PM	100.00	102.66	5543	0.0024	149	102.7
STD 6	STD 6	x	2018/02/15 4:40:31 PM	100.00	102.73	5856	0.0024	96	102.7

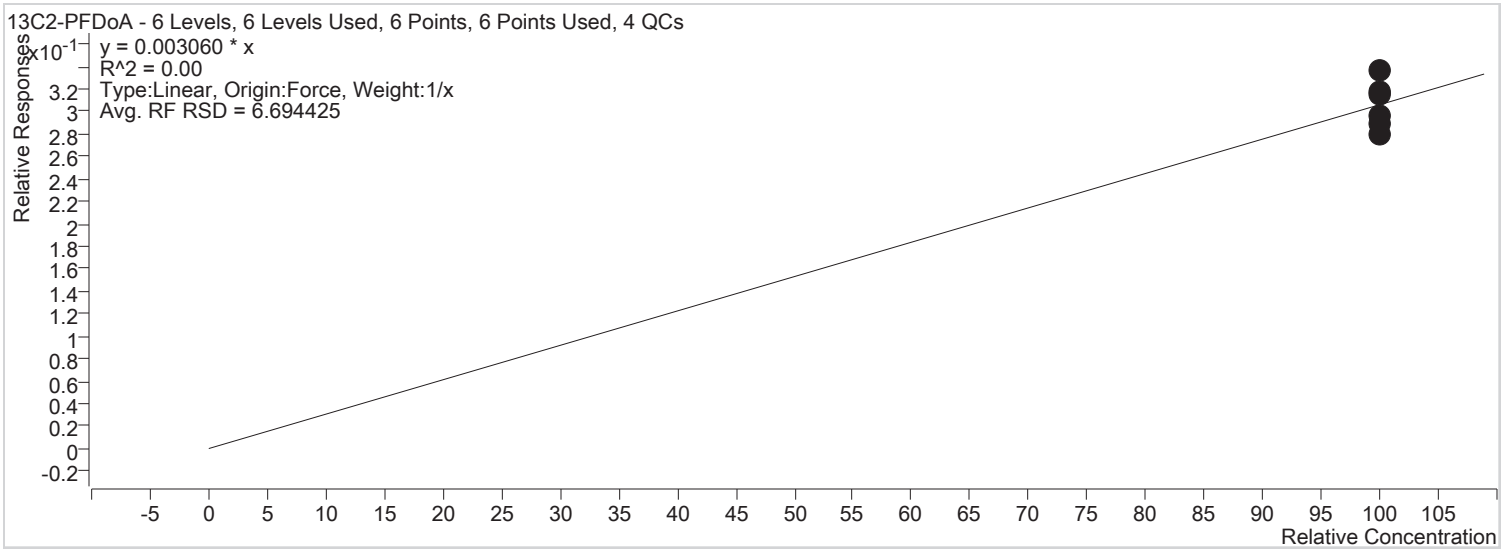
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin

Last Calib Update 2018/02/21 10:39:42 AM

Instrument: LCMS04

Analyte: 13C2-PFDoA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	100.00	97.12	7706	0.0030	327	97.1
STD 2	STD 2	x	2018/02/15 4:20:46 PM	100.00	94.71	7237	0.0029	297	94.7
STD 3	STD 3	x	2018/02/15 4:25:43 PM	100.00	91.70	7133	0.0028	379	91.7
STD 4	STD 4	x	2018/02/15 4:30:38 PM	100.00	103.43	7139	0.0032	254	103.4
STD 5	STD 5	x	2018/02/15 4:35:35 PM	100.00	103.18	7252	0.0032	348	103.2
STD 6	STD 6	x	2018/02/15 4:40:31 PM	100.00	109.85	8151	0.0034	481	109.9

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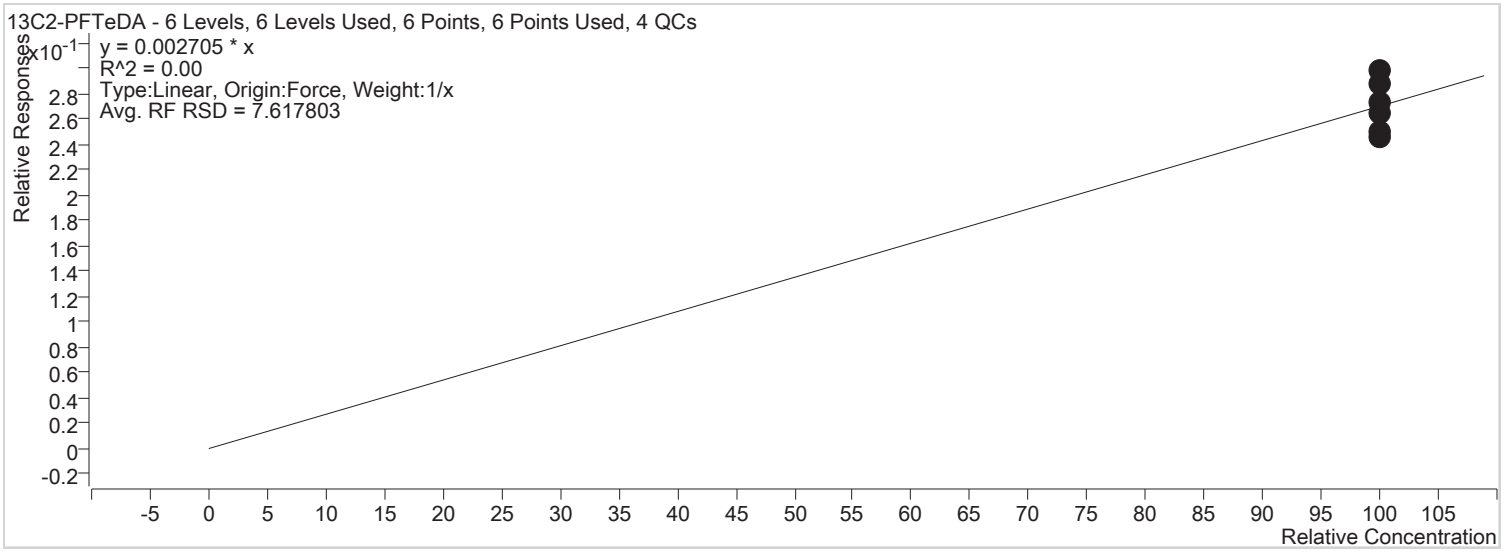
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin

Last Calib Update 2018/02/21 10:39:42 AM

Instrument: LCMS04

Analyte: 13C2-PFTeDA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	100.00	98.11	6881	0.0027	261	98.1
STD 2	STD 2	x	2018/02/15 4:20:46 PM	100.00	92.81	6269	0.0025	282	92.8
STD 3	STD 3	x	2018/02/15 4:25:43 PM	100.00	90.96	6254	0.0025	205	91.0
STD 4	STD 4	x	2018/02/15 4:30:38 PM	100.00	101.08	6167	0.0027	265	101.1
STD 5	STD 5	x	2018/02/15 4:35:35 PM	100.00	106.72	6630	0.0029	198	106.7
STD 6	STD 6	x	2018/02/15 4:40:31 PM	100.00	110.34	7237	0.0030	235	110.3

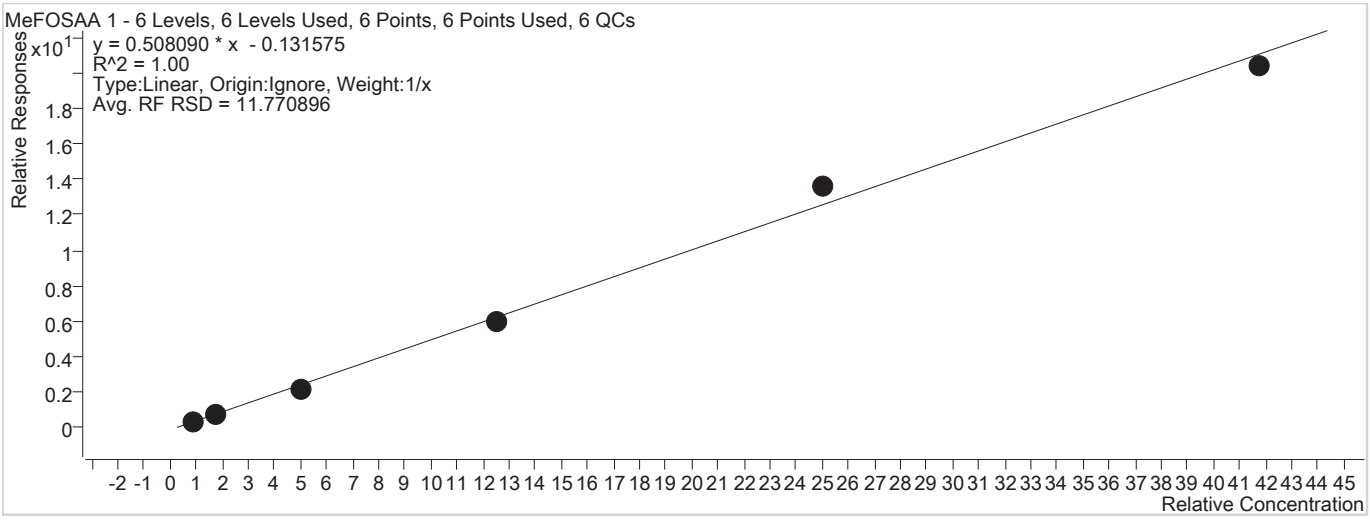
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics.batch.bin

Last Calib Update 2018/02/21 10:41:16 AM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	0.83	0.92	476	0.4067	143	111.3
STD 2	STD 2	x	2018/02/15 10:41:35 AM	1.70	1.64	1031	0.4131	168	96.5
STD 3	STD 3	x	2018/02/15 10:44:00 AM	5.00	4.49	3138	0.4302	294	89.8
STD 4	STD 4	x	2018/02/15 10:46:25 AM	12.50	12.10	8714	0.4814	319	96.8
STD 5	STD 5	x	2018/02/15 10:48:50 AM	25.00	27.16	19911	0.5466	355	108.6
STD 6	STD 6	x	2018/02/15 10:51:15 AM	41.70	40.41	32114	0.4893	353	96.9

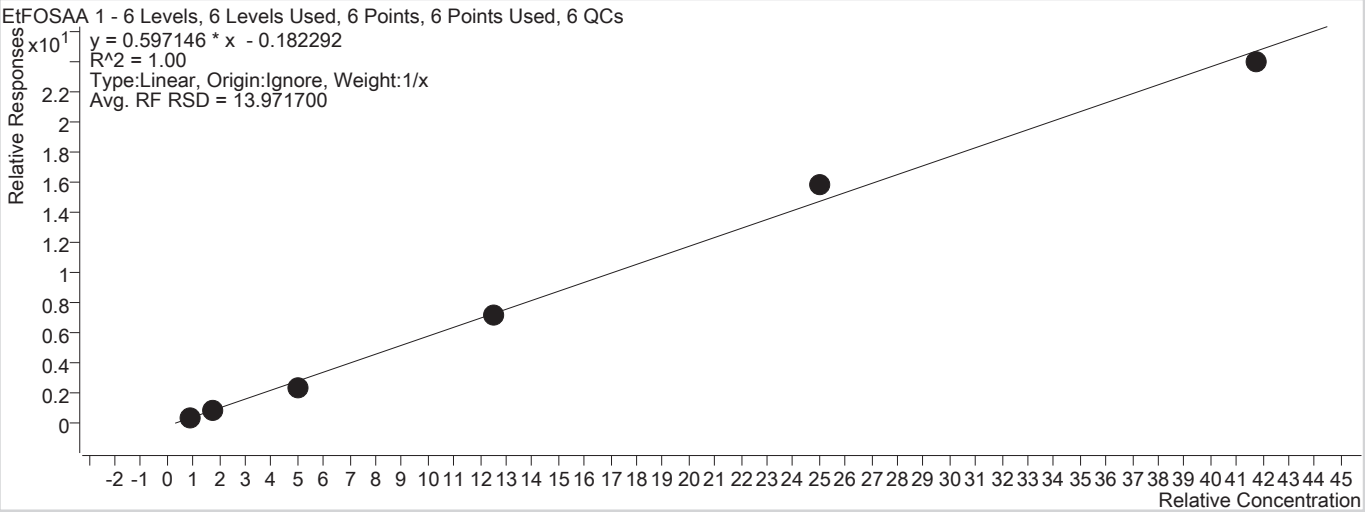
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics.batch.bin

Last Calib Update 2018/02/21 10:41:16 AM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	0.83	0.94	472	0.4575	72	113.4
STD 2	STD 2	x	2018/02/15 10:41:35 AM	1.70	1.65	1008	0.4717	130	97.0
STD 3	STD 3	x	2018/02/15 10:44:00 AM	5.00	4.26	3049	0.4727	411	85.3
STD 4	STD 4	x	2018/02/15 10:46:25 AM	12.50	12.45	8968	0.5800	575	99.6
STD 5	STD 5	x	2018/02/15 10:48:50 AM	25.00	26.91	20560	0.6355	2666	107.7
STD 6	STD 6	x	2018/02/15 10:51:15 AM	41.70	40.52	33330	0.5759	2755	97.2

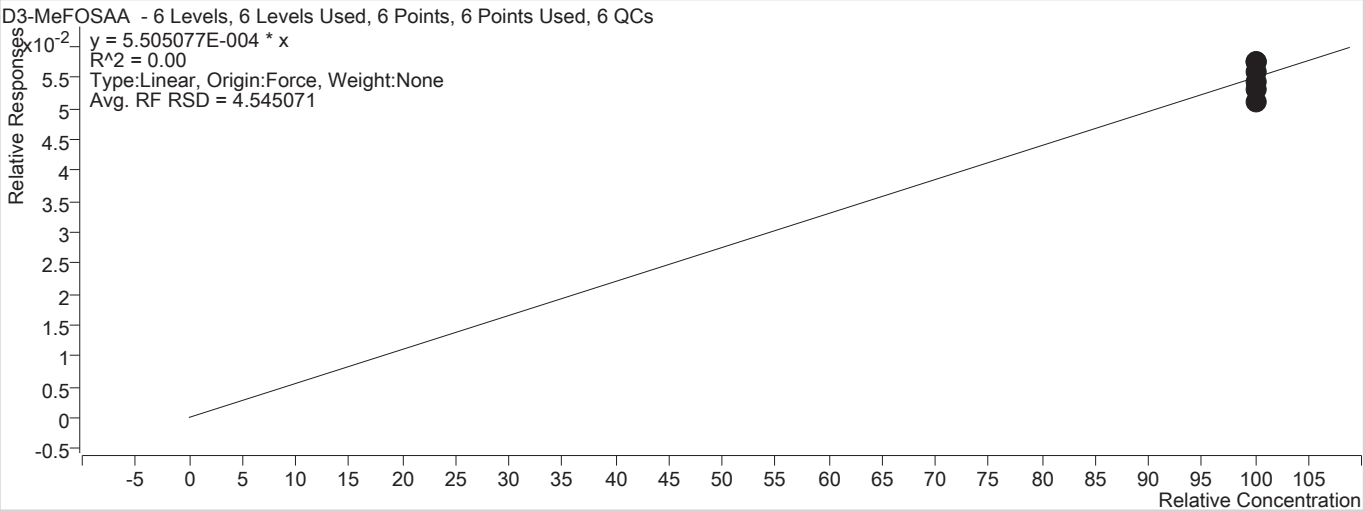
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics.batch.bin

Last Calib Update 2018/02/21 10:41:16 AM

Instrument: LCMS04

Analyte: D3-MeFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	100.00	93.19	1420	0.0005	233	93.2
STD 2	STD 2	x	2018/02/15 10:41:35 AM	100.00	96.76	1474	0.0005	172	96.8
STD 3	STD 3	x	2018/02/15 10:44:00 AM	100.00	98.91	1484	0.0005	150	98.9
STD 4	STD 4	x	2018/02/15 10:46:25 AM	100.00	104.50	1484	0.0006	126	104.5
STD 5	STD 5	x	2018/02/15 10:48:50 AM	100.00	102.09	1483	0.0006	126	102.1
STD 6	STD 6	x	2018/02/15 10:51:15 AM	100.00	104.55	1577	0.0006	161	104.5

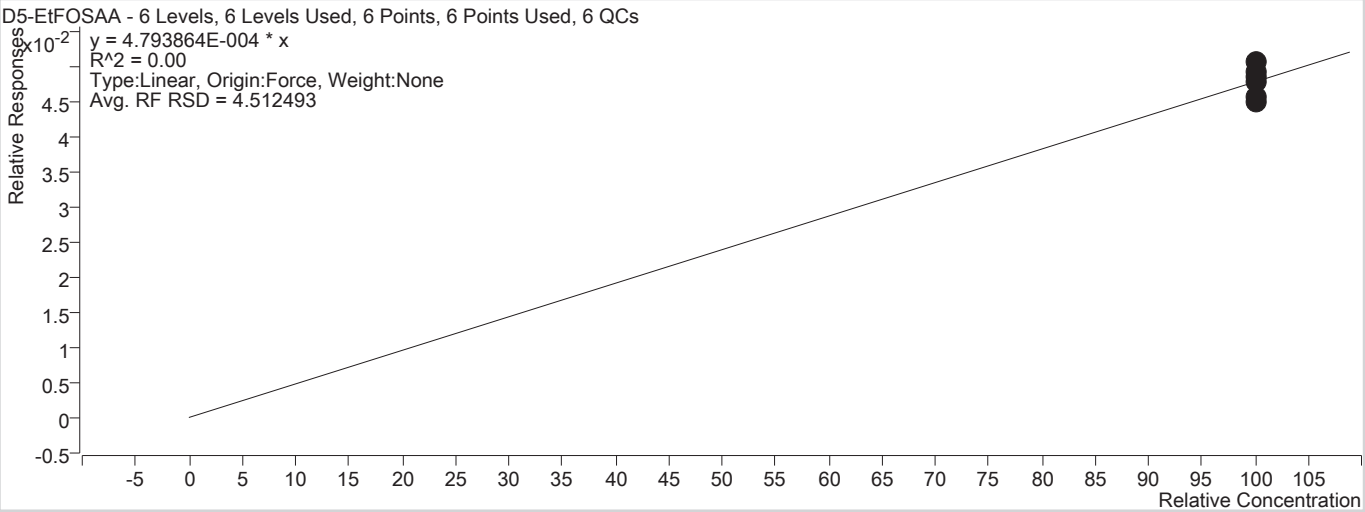
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics.batch.bin

Last Calib Update 2018/02/21 10:41:16 AM

Instrument: LCMS04

Analyte: D5-EtFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	100.00	94.21	1250	0.0005	123	94.2
STD 2	STD 2	x	2018/02/15 10:41:35 AM	100.00	95.29	1264	0.0005	106	95.3
STD 3	STD 3	x	2018/02/15 10:44:00 AM	100.00	100.03	1307	0.0005	227	100.0
STD 4	STD 4	x	2018/02/15 10:46:25 AM	100.00	101.65	1257	0.0005	206	101.6
STD 5	STD 5	x	2018/02/15 10:48:50 AM	100.00	102.92	1302	0.0005	223	102.9
STD 6	STD 6	x	2018/02/15 10:51:15 AM	100.00	105.90	1391	0.0005	151	105.9

By Compound Report

Agilent Technologies

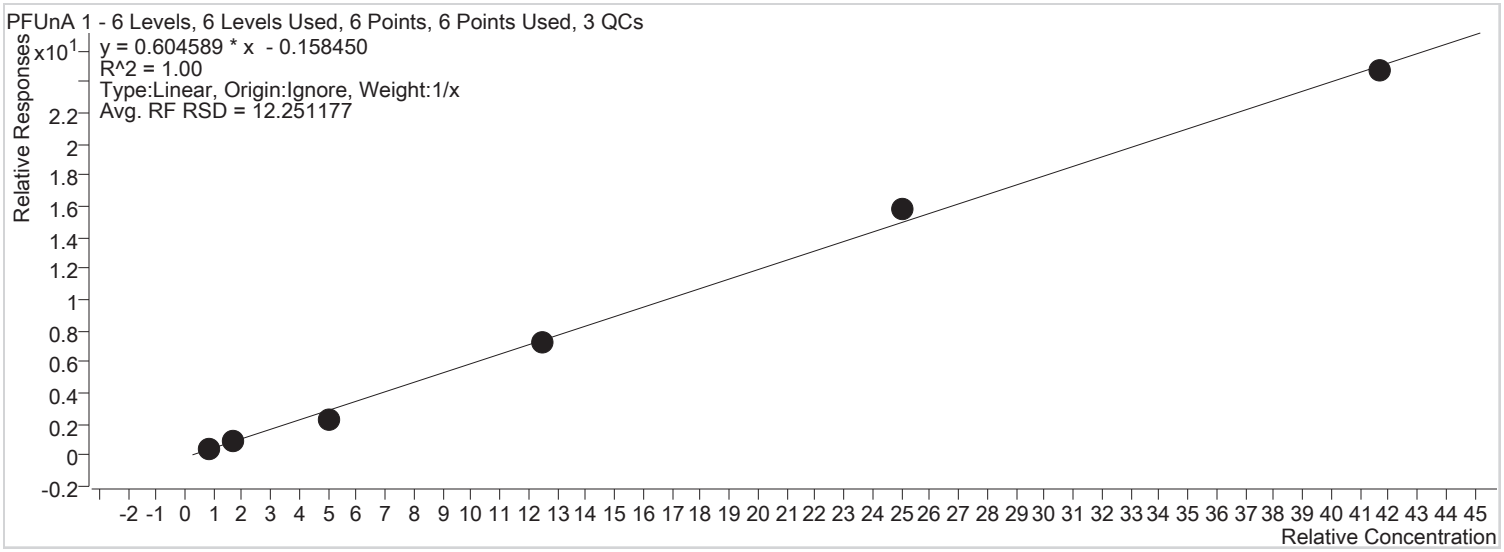
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_EToxics.batch.bin

Last Calib Update 2018/02/21 10:23:46 AM

Instrument: LCMS04

Analyte: PFUnA 1

Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.94	2510	0.4903	27	112.7
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.75	4875	0.5287	33	102.9
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.05	13534	0.4579	87	81.0
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.37	39617	0.5854	132	98.9
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	26.45	87768	0.6334	184	105.8
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	41.18	144868	0.5932	189	98.8

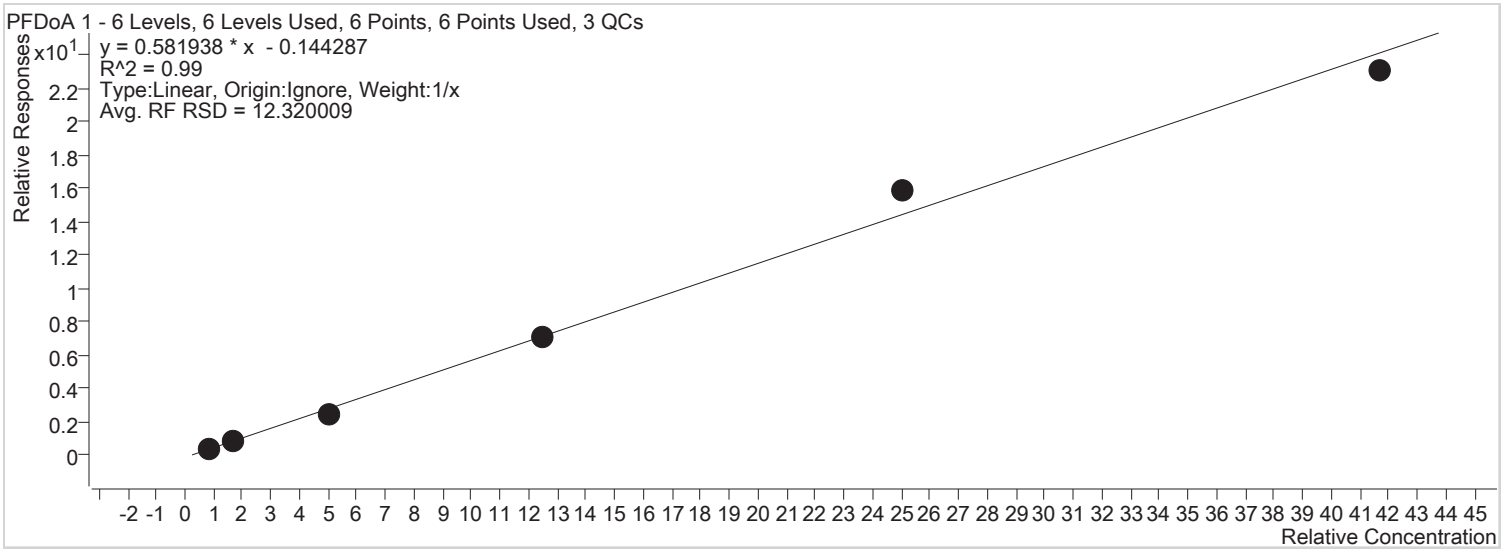
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_EToxics.batch.bin

Last Calib Update 2018/02/21 10:23:46 AM

Instrument: LCMS04

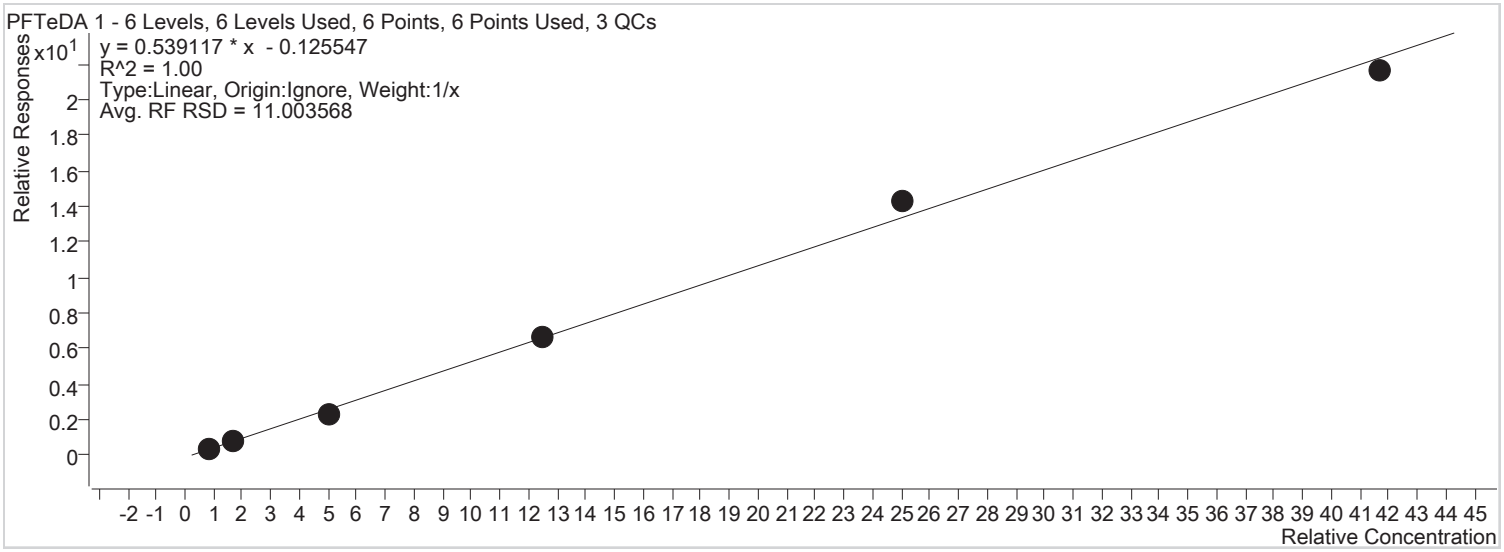
Analyte: PFDoA 1

Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.91	2949	0.4611	42	109.1
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.64	5881	0.4780	164	96.7
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.47	17518	0.4912	199	89.4
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.45	50698	0.5681	1115	99.6
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	27.40	114607	0.6321	3116	109.6
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	39.86	187876	0.5527	11140	95.6

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_EToxics.batch.bin
Last Calib Update	2018/02/21 10:23:46 AM
Instrument:	LCMS04
Analyte:	PFTeDA 1
Internal Standard:	MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.92	2545	0.4465	21	110.9
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.62	4651	0.4396	37	95.2
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.48	14263	0.4577	103	89.5
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.53	40717	0.5303	197	100.2
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	26.83	94425	0.5737	337	107.3
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	40.35	154772	0.5187	334	96.8

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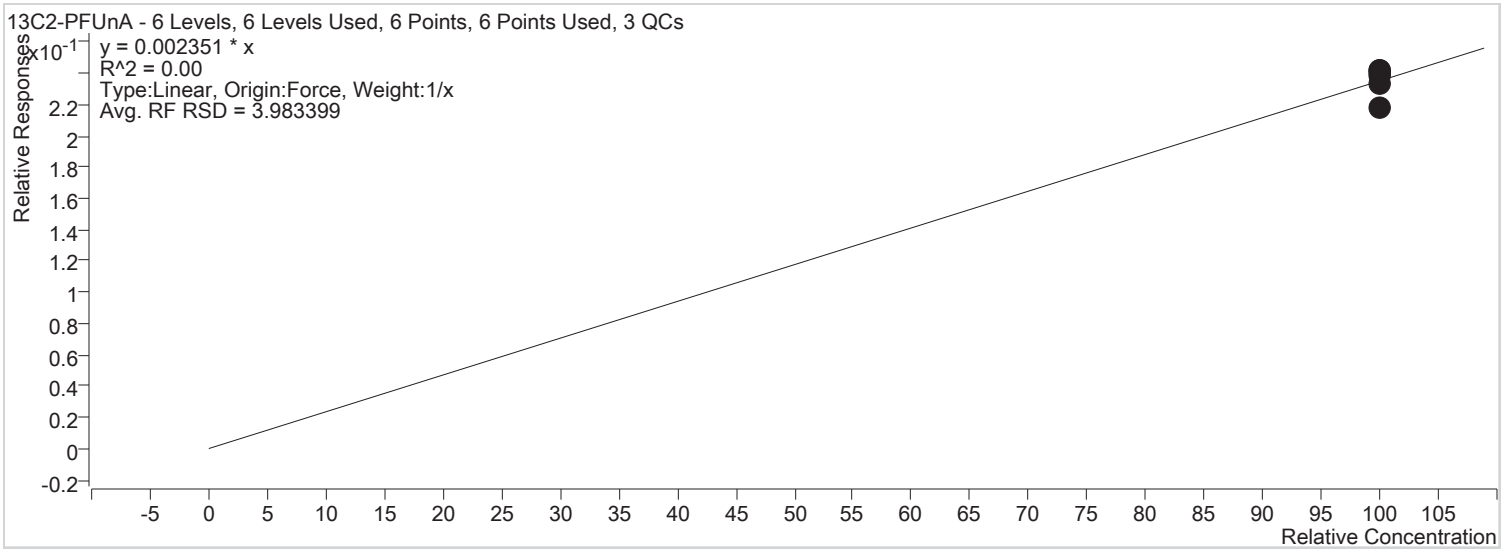
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_EToxics.batch.bin

Last Calib Update 2018/02/21 10:23:46 AM

Instrument: LCMS04

Analyte: 13C2-PFUnA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	100.00	101.19	6168	0.0024	395	101.2
STD 2	STD 2	x	2018/02/15 4:20:46 PM	100.00	92.40	5424	0.0022	198	92.4
STD 3	STD 3	x	2018/02/15 4:25:43 PM	100.00	98.92	5911	0.0023	161	98.9
STD 4	STD 4	x	2018/02/15 4:30:38 PM	100.00	102.10	5414	0.0024	112	102.1
STD 5	STD 5	x	2018/02/15 4:35:35 PM	100.00	102.66	5543	0.0024	149	102.7
STD 6	STD 6	x	2018/02/15 4:40:31 PM	100.00	102.73	5856	0.0024	96	102.7

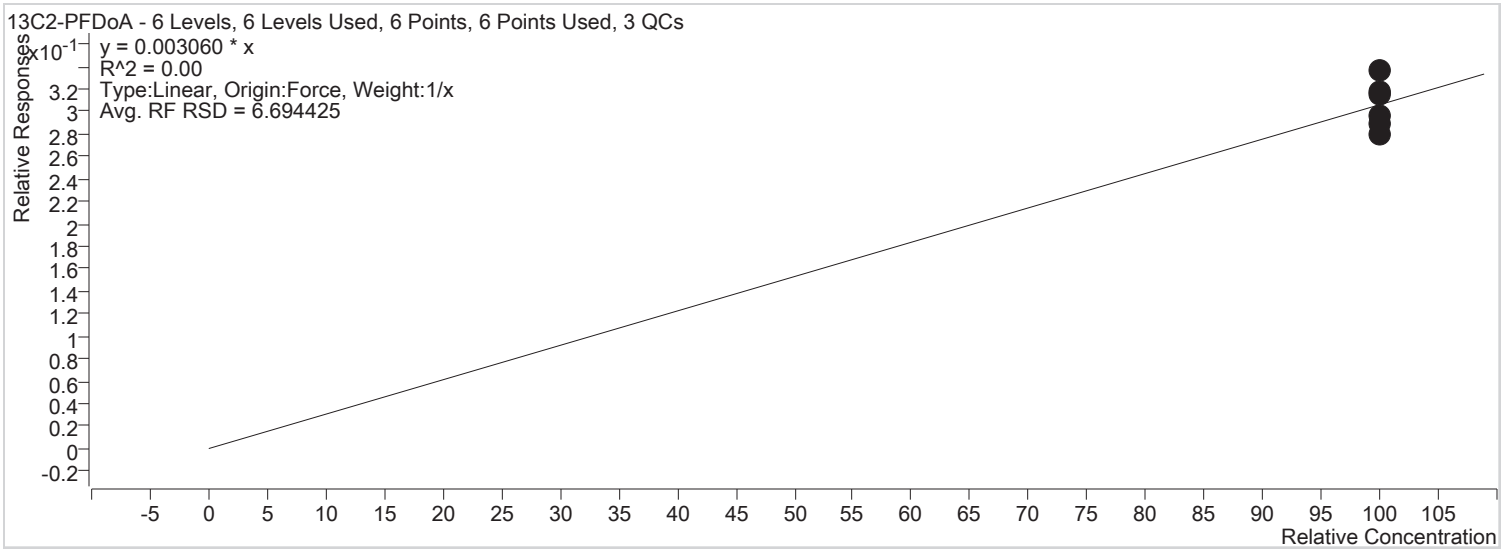
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_EToxics.batch.bin

Last Calib Update 2018/02/21 10:23:46 AM

Instrument: LCMS04

Analyte: 13C2-PFDoA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	100.00	97.12	7706	0.0030	327	97.1
STD 2	STD 2	x	2018/02/15 4:20:46 PM	100.00	94.71	7237	0.0029	297	94.7
STD 3	STD 3	x	2018/02/15 4:25:43 PM	100.00	91.70	7133	0.0028	379	91.7
STD 4	STD 4	x	2018/02/15 4:30:38 PM	100.00	103.43	7139	0.0032	254	103.4
STD 5	STD 5	x	2018/02/15 4:35:35 PM	100.00	103.18	7252	0.0032	348	103.2
STD 6	STD 6	x	2018/02/15 4:40:31 PM	100.00	109.85	8151	0.0034	481	109.9

Agilent Technologies

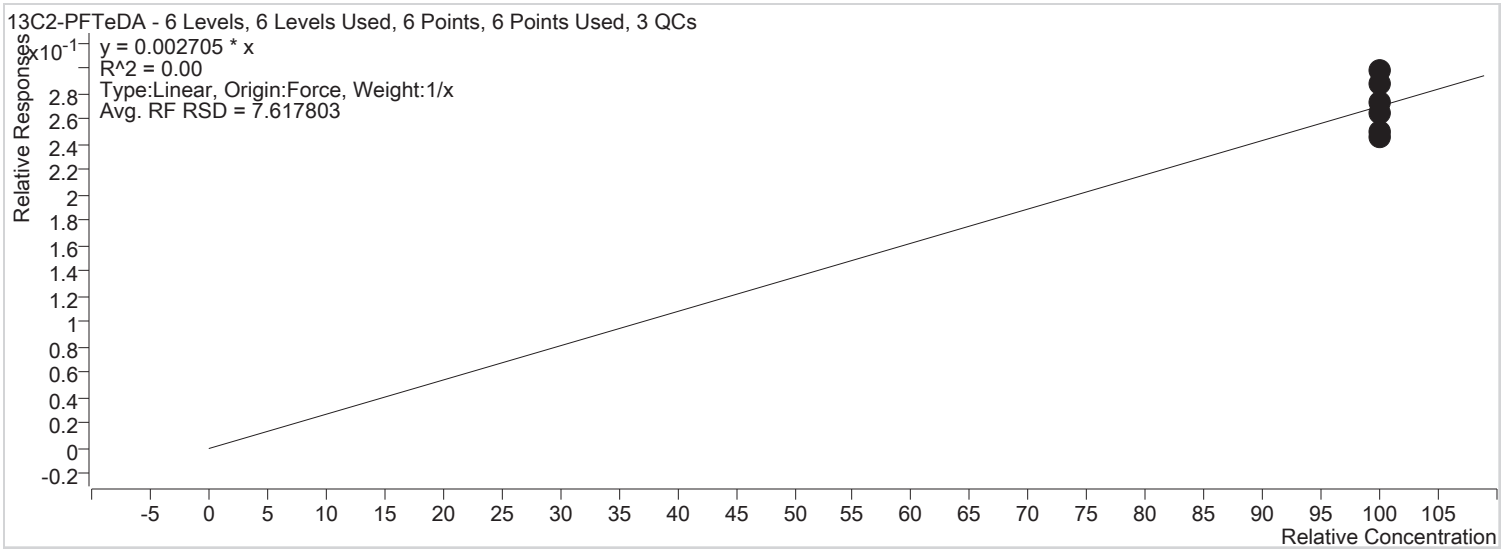
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_EToxics.batch.bin

Last Calib Update 2018/02/21 10:23:46 AM

Instrument: LCMS04

Analyte: 13C2-PFTeDA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	100.00	98.11	6881	0.0027	261	98.1
STD 2	STD 2	x	2018/02/15 4:20:46 PM	100.00	92.81	6269	0.0025	282	92.8
STD 3	STD 3	x	2018/02/15 4:25:43 PM	100.00	90.96	6254	0.0025	205	91.0
STD 4	STD 4	x	2018/02/15 4:30:38 PM	100.00	101.08	6167	0.0027	265	101.1
STD 5	STD 5	x	2018/02/15 4:35:35 PM	100.00	106.72	6630	0.0029	198	106.7
STD 6	STD 6	x	2018/02/15 4:40:31 PM	100.00	110.34	7237	0.0030	235	110.3

By Compound Report

Agilent Technologies

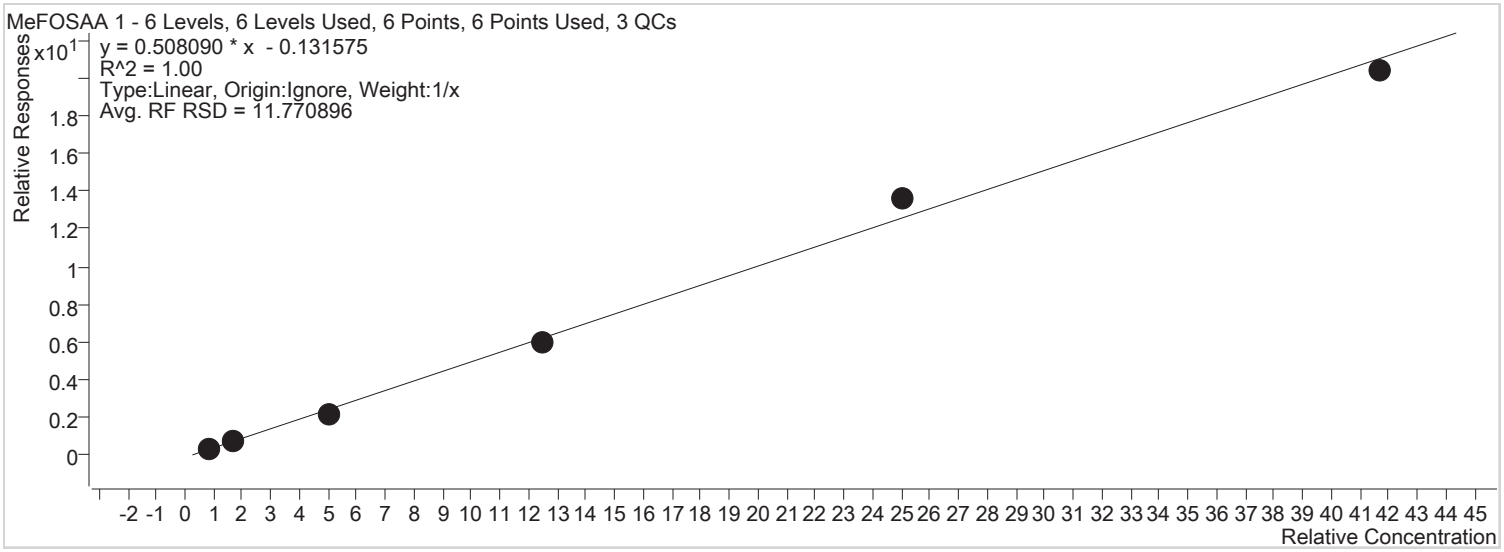
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 10:19:58 AM

Instrument: LCMS04

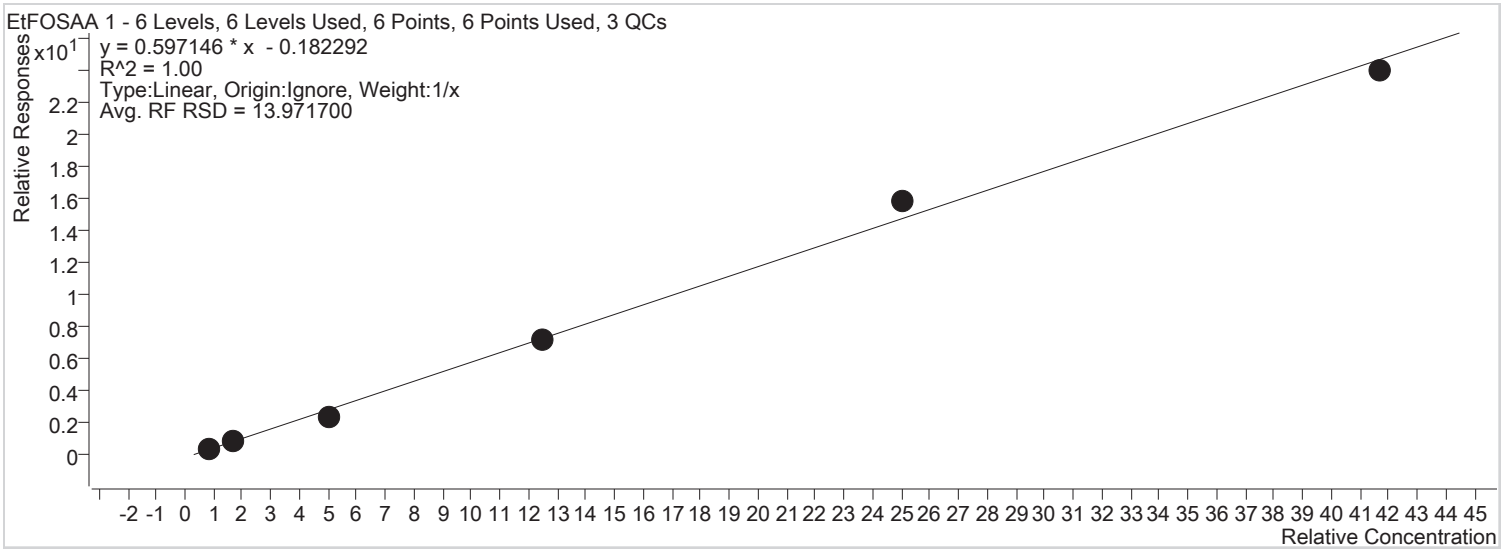
Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	0.83	0.92	476	0.4067	143	111.3
STD 2	STD 2	x	2018/02/15 10:41:35 AM	1.70	1.64	1031	0.4131	168	96.5
STD 3	STD 3	x	2018/02/15 10:44:00 AM	5.00	4.49	3138	0.4302	294	89.8
STD 4	STD 4	x	2018/02/15 10:46:25 AM	12.50	12.10	8714	0.4814	319	96.8
STD 5	STD 5	x	2018/02/15 10:48:50 AM	25.00	27.16	19911	0.5466	355	108.6
STD 6	STD 6	x	2018/02/15 10:51:15 AM	41.70	40.41	32114	0.4893	353	96.9

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics.batch.bin
Last Calib Update	2018/02/21 10:19:58 AM
Instrument:	LCMS04
Analyte:	EtFOSAA 1
Internal Standard:	D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	0.83	0.94	472	0.4575	72	113.4
STD 2	STD 2	x	2018/02/15 10:41:35 AM	1.70	1.65	1008	0.4717	130	97.0
STD 3	STD 3	x	2018/02/15 10:44:00 AM	5.00	4.26	3049	0.4727	411	85.3
STD 4	STD 4	x	2018/02/15 10:46:25 AM	12.50	12.45	8968	0.5800	575	99.6
STD 5	STD 5	x	2018/02/15 10:48:50 AM	25.00	26.91	20560	0.6355	2666	107.7
STD 6	STD 6	x	2018/02/15 10:51:15 AM	41.70	40.52	33330	0.5759	2755	97.2

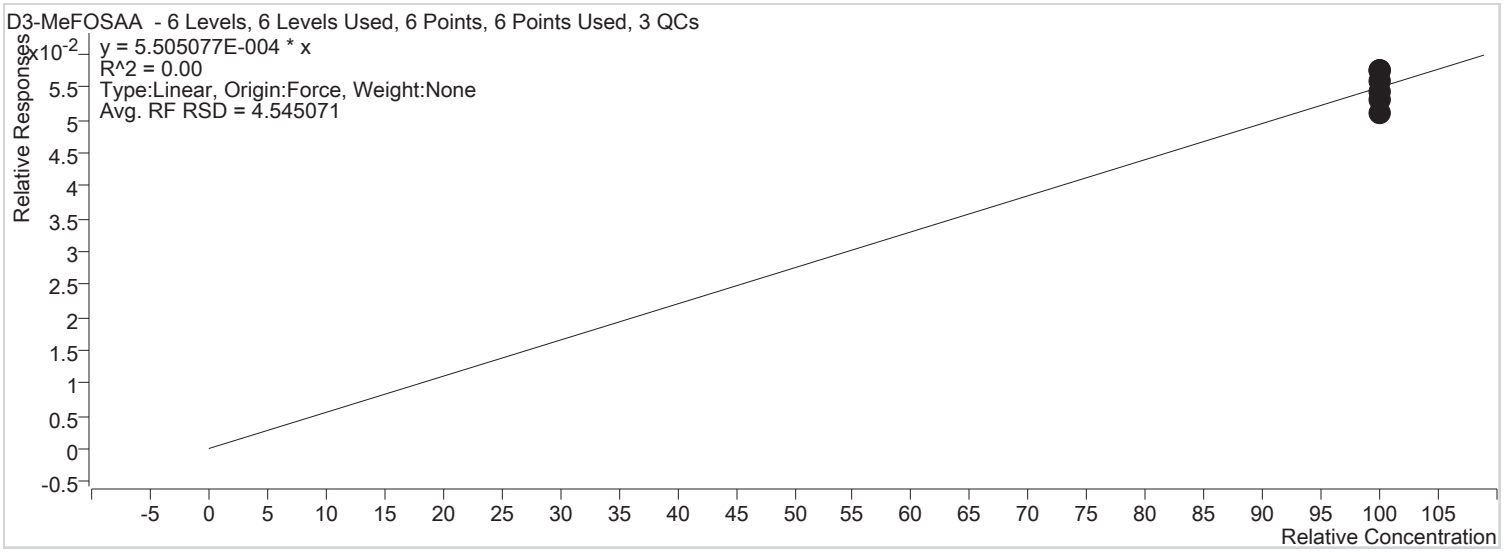
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 10:19:58 AM

Instrument: LCMS04

Analyte: D3-MeFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	100.00	93.19	1420	0.0005	233	93.2
STD 2	STD 2	x	2018/02/15 10:41:35 AM	100.00	96.76	1474	0.0005	172	96.8
STD 3	STD 3	x	2018/02/15 10:44:00 AM	100.00	98.91	1484	0.0005	150	98.9
STD 4	STD 4	x	2018/02/15 10:46:25 AM	100.00	104.50	1484	0.0006	126	104.5
STD 5	STD 5	x	2018/02/15 10:48:50 AM	100.00	102.09	1483	0.0006	126	102.1
STD 6	STD 6	x	2018/02/15 10:51:15 AM	100.00	104.55	1577	0.0006	161	104.5

Agilent Technologies

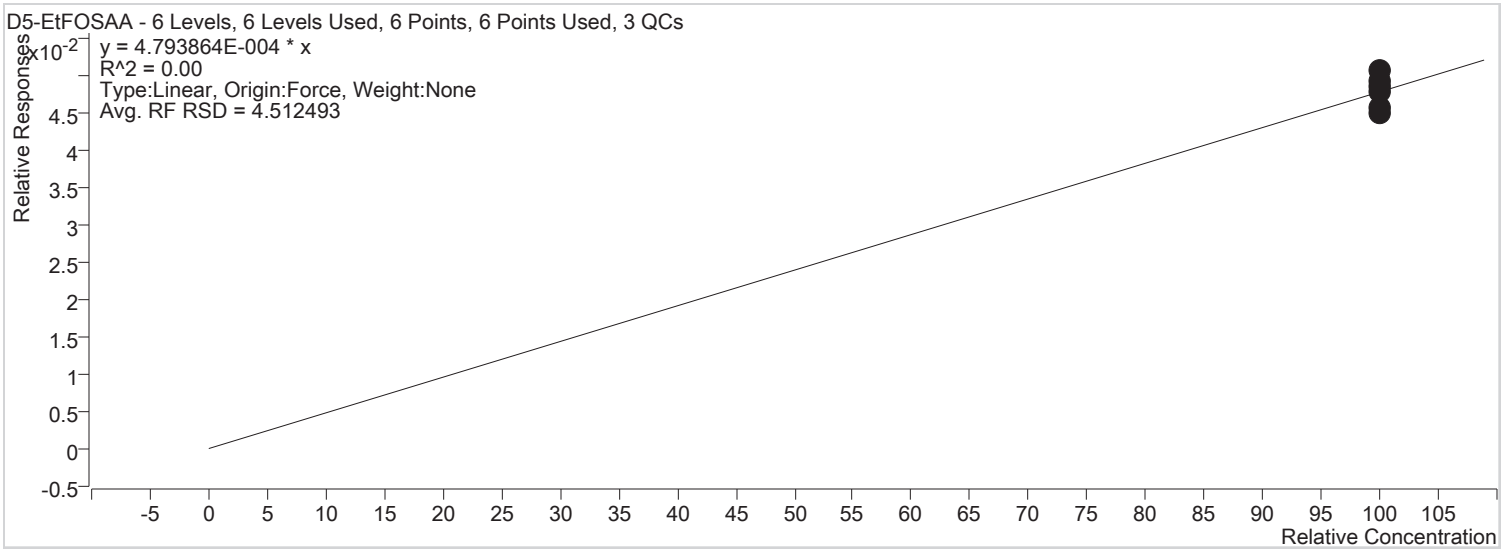
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 10:19:58 AM

Instrument: LCMS04

Analyte: D5-EtFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	100.00	94.21	1250	0.0005	123	94.2
STD 2	STD 2	x	2018/02/15 10:41:35 AM	100.00	95.29	1264	0.0005	106	95.3
STD 3	STD 3	x	2018/02/15 10:44:00 AM	100.00	100.03	1307	0.0005	227	100.0
STD 4	STD 4	x	2018/02/15 10:46:25 AM	100.00	101.65	1257	0.0005	206	101.6
STD 5	STD 5	x	2018/02/15 10:48:50 AM	100.00	102.92	1302	0.0005	223	102.9
STD 6	STD 6	x	2018/02/15 10:51:15 AM	100.00	105.90	1391	0.0005	151	105.9



6. Continuing Calibration

Maxxam Analytics International
6740 Campobello Rd
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.maxxamanalytics.com

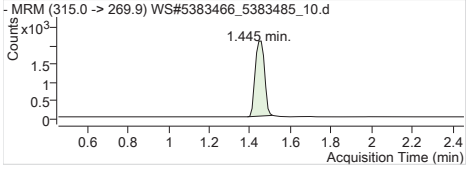
Quantitation Results

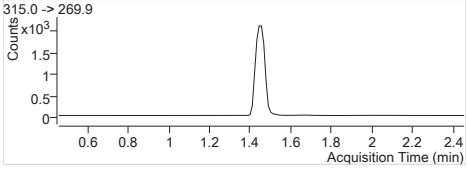
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics		
Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/06 6:51:16 PM	**Injection Volume**	Per Method
Sample Annotation	-		

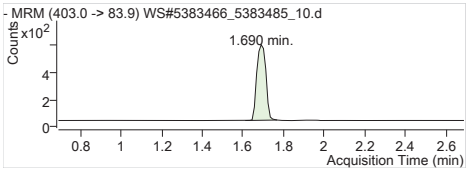
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6584	1.44	1 µg/L		
MPFHxS	1727	1.69	1 µg/L		
MPFHpA	8753	1.71	1 µg/L		
MPFOA	9011	1.89	1 µg/L		
MPFOS	2012	1.99	1 µg/L		
MPFNA	9174	2.04	1 µg/L		
MPFDA	7976	2.15	1 µg/L		
MPFUnA	8831	2.25	1 µg/L		
MPFDoA	11268	2.33	1 µg/L		
MPFTeDA	13509	2.48	1 µg/L		
13C6-PFHxA IS	26497	1.44	1 µg/L		
13C9-PFDA IS	34805	2.15	1 µg/L		

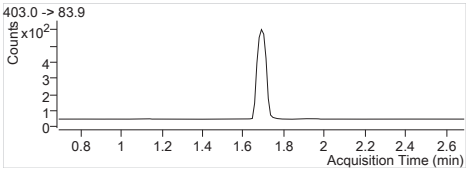
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	578	1.11	0.83	0.90 µg/L	108.98
PFHxA 1	1948	1.46	0.83	1.05 µg/L	126.87
PFHxS 1	567	1.69	0.83	0.99 µg/L	118.71
PFHpA 1	2703	1.71	0.83	0.93 µg/L	111.51
PFOA 1	2981	1.89	0.83	0.95 µg/L	115.04
PFOS 1	550	1.98	0.83	0.85 µg/L	102.71
PFNA 1	2344	2.04	0.83	0.79 µg/L	94.69
PFDA 1	2847	2.15	0.83	0.84 µg/L	101.62
PFUnA 1	3094	2.25	0.83	0.82 µg/L	98.81
PFDoA 1	4022	2.33	0.83	0.99 µg/L	119.52
PFTrDA 1	4356	2.41	0.83	0.82 µg/L	98.22
PFTeDA 1	3525	2.48	0.83	0.80 µg/L	96.28
13C2-PFHxA	6584	1.44	100.00	104.88 µg/L	104.88
18O2-PFHxS	1727	1.69	100.00	112.16 µg/L	112.16
13C4-PFHpA	8753	1.71	100.00	113.07 µg/L	113.07
13C4-PFOA	9011	1.89	100.00	108.34 µg/L	108.34
13C4-PFOS	2012	1.99	100.00	110.01 µg/L	110.01
13C5-PFNA	9154	2.04	100.00	111.70 µg/L	111.70
13C2-PFDA	7930	2.15	100.00	113.54 µg/L	113.54
13C2-PFUnA	8831	2.25	100.00	104.90 µg/L	104.90
13C2-PFDoA	11268	2.33	100.00	100.57 µg/L	100.57
13C2-PFTeDA	13849	2.48	100.00	108.48 µg/L	108.48
13C6-PFHxA	26497	1.44	100.00	93.20 µg/L	93.20
13C9-PFDA	34805	2.15	100.00	97.29 µg/L	97.29



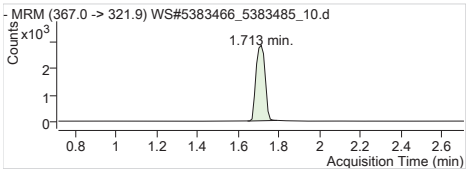


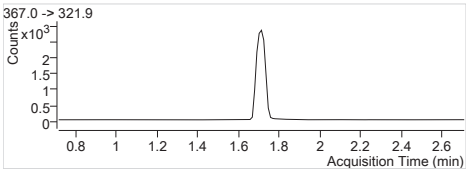
MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: CC



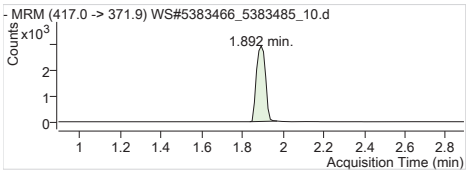


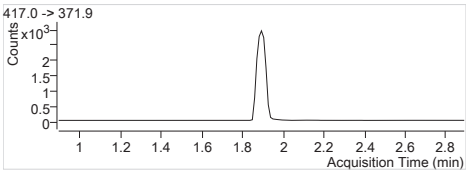
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



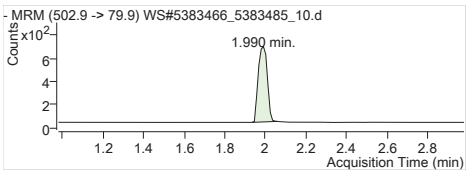


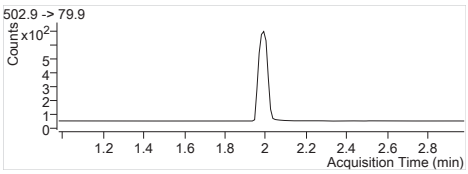
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: CC



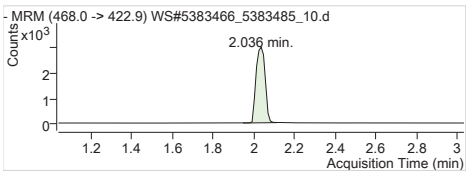


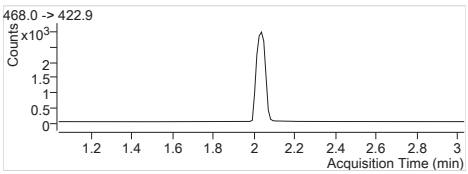
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: CC



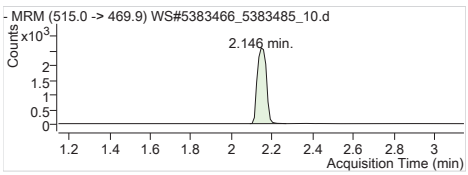


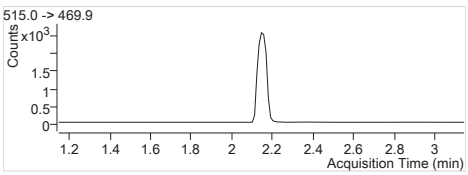
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: CC



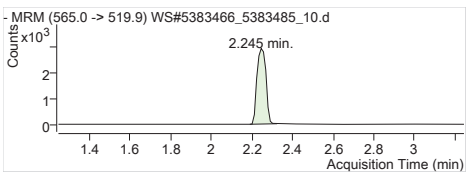


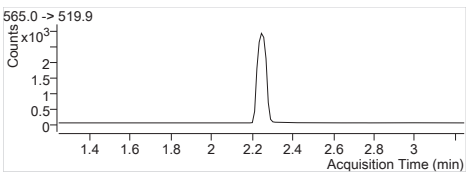
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: CC



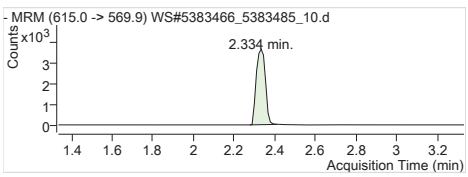


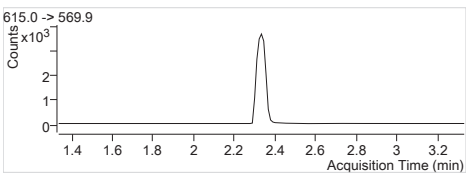
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



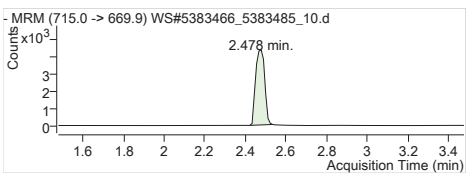


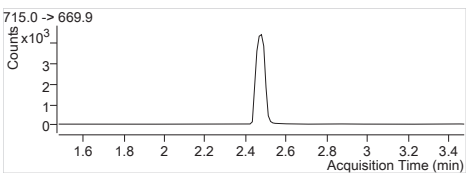
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC



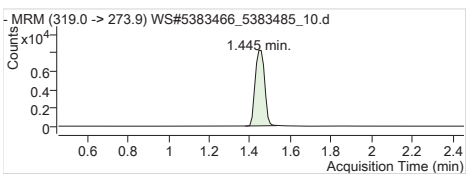


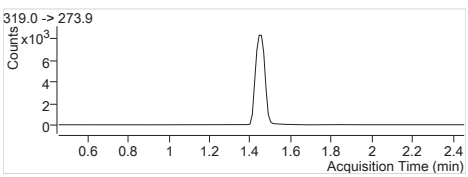
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: CC



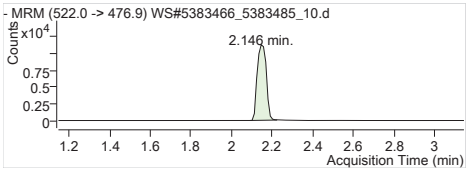


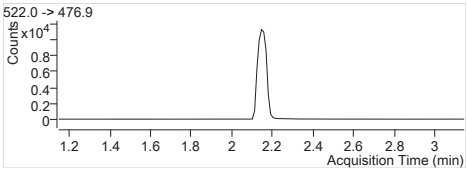
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: CC



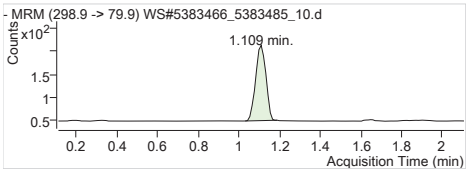


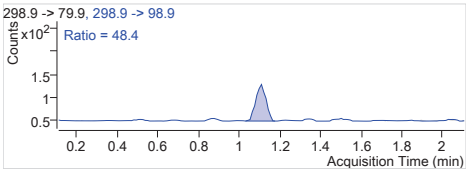
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: CC



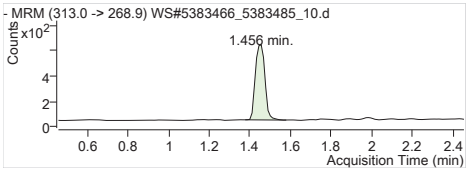


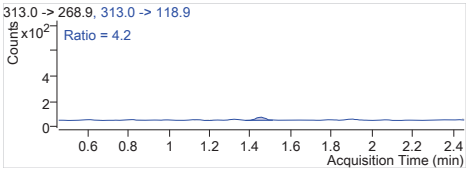
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



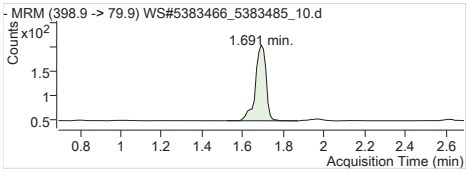


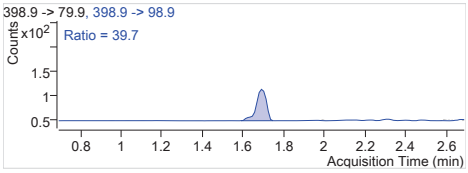
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 0.90 µg/L
Area ratio: 0.33468
Sample type: CC



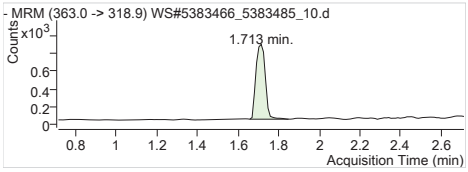


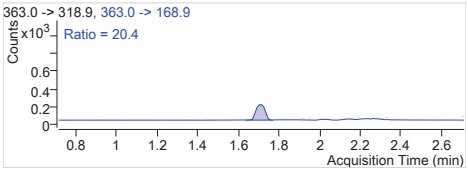
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 1.05 µg/L
Area ratio: 0.29587
Sample type: CC



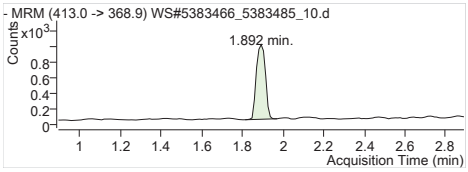


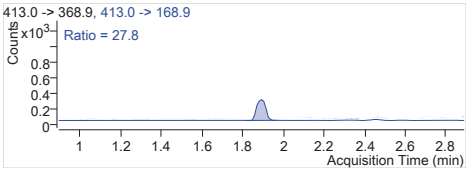
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.99 µg/L
Area ratio: 0.32831
Sample type: CC



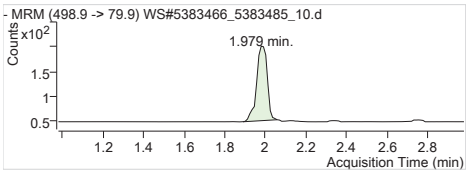


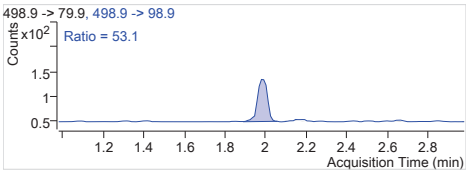
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 0.93 µg/L
Area ratio: 0.30881
Sample type: CC



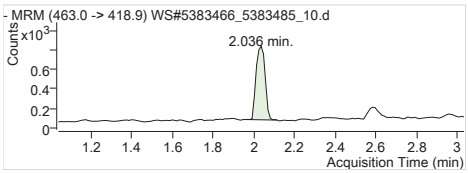


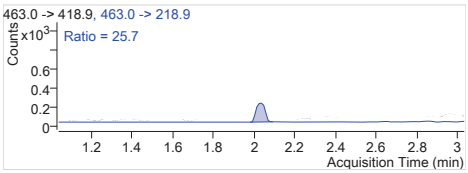
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 0.95 µg/L
Area ratio: 0.33082
Sample type: CC



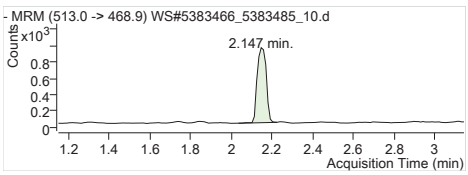


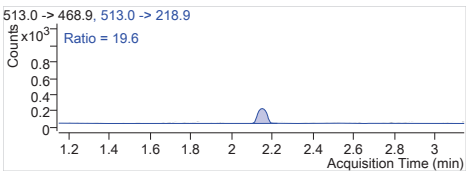
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.85 µg/L
Area ratio: 0.27336
Sample type: CC



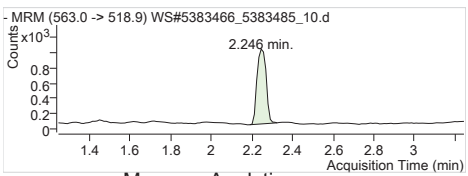


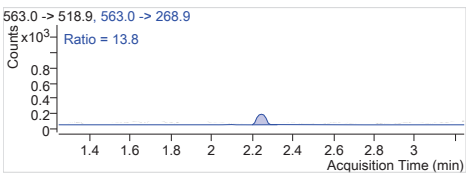
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.79 µg/L
Area ratio: 0.25550
Sample type: CC



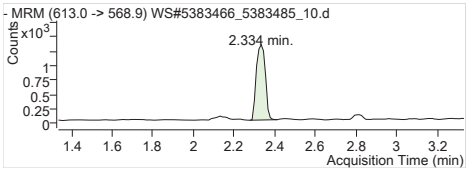


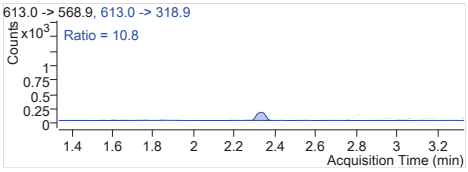
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 0.84 µg/L
Area ratio: 0.35695
Sample type: CC



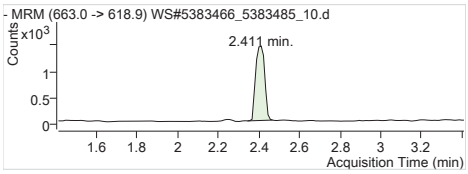


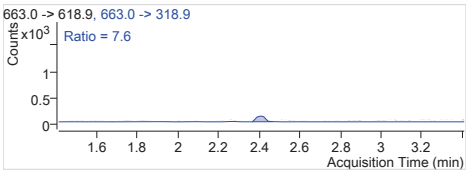
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.82 µg/L
Area ratio: 0.35036
Sample type: CC



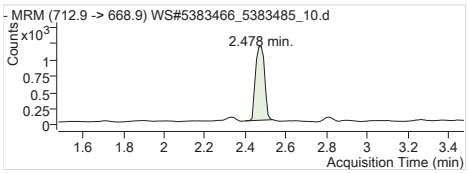


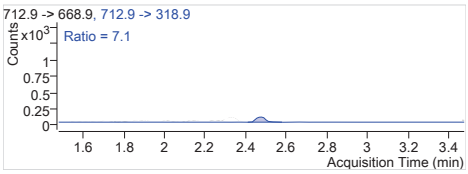
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 0.99 µg/L
Area ratio: 0.35694
Sample type: CC



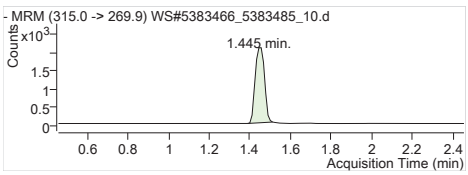


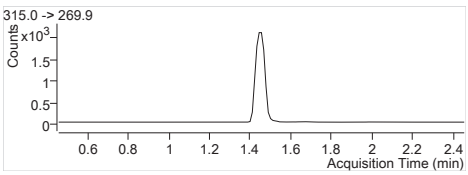
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 0.82 µg/L
Area ratio: 0.32245
Sample type: CC



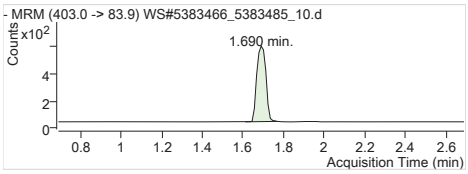


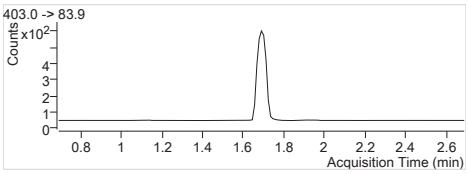
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 0.80 µg/L
Area ratio: 0.26094
Sample type: CC



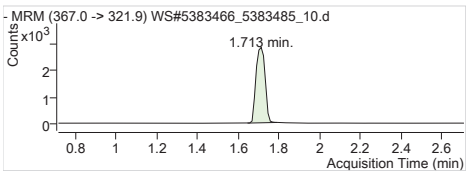


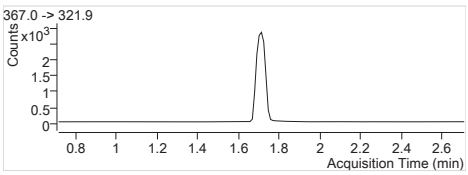
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 104.88 µg/L
Area ratio: 0.24848
Sample type: CC



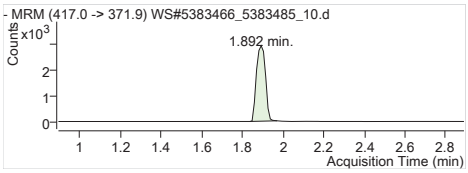


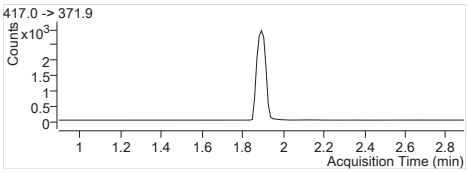
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 112.16 µg/L
Area ratio: 0.06518
Sample type: CC



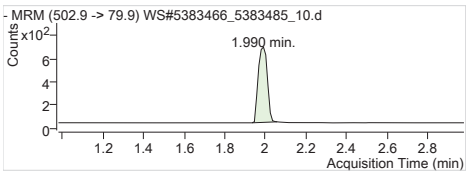


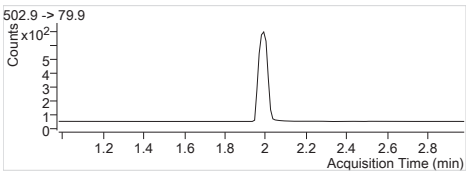
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 113.07 µg/L
Area ratio: 0.33034
Sample type: CC



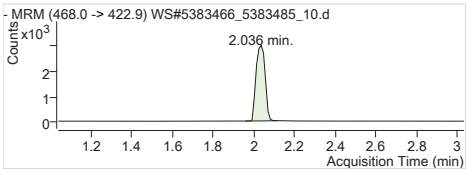


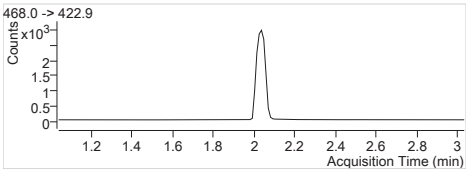
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 108.34 µg/L
Area ratio: 0.34008
Sample type: CC



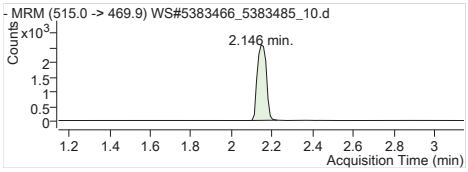


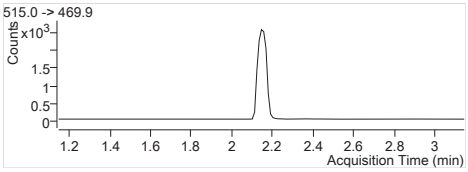
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 110.01 µg/L
Area ratio: 0.07593
Sample type: CC



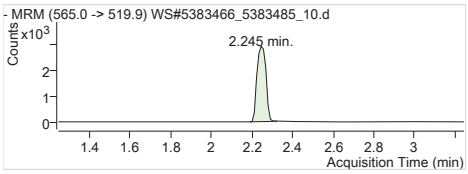


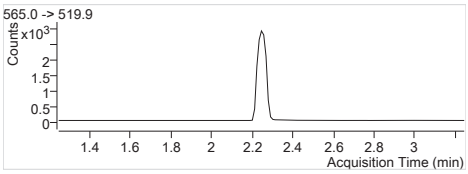
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 111.70 µg/L
Area ratio: 0.34547
Sample type: CC



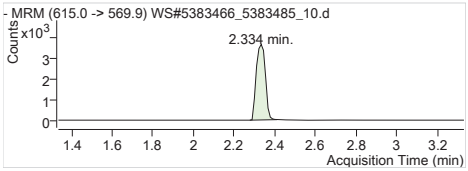


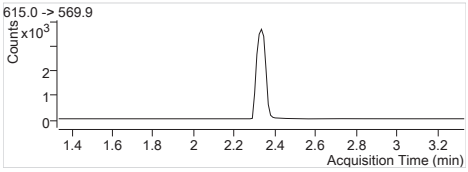
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 113.54 µg/L
Area ratio: 0.22784
Sample type: CC



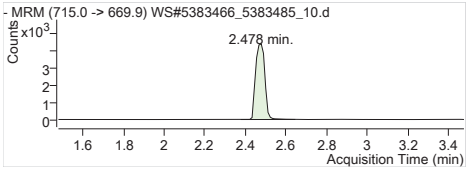


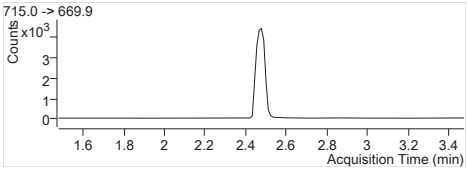
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 104.90 µg/L
Area ratio: 0.25373
Sample type: CC



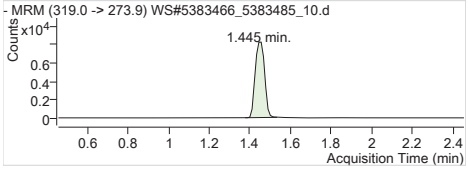


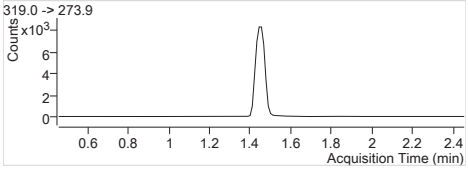
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 100.57 µg/L
Area ratio: 0.32375
Sample type: CC



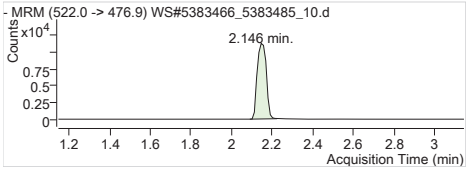


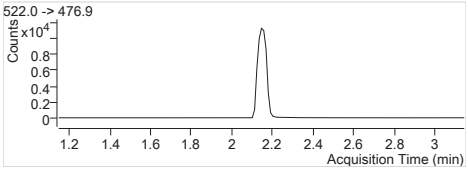
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 108.48 µg/L
Area ratio: 0.39790
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 93.20 µg/L
Area ratio: 0
Sample type: CC





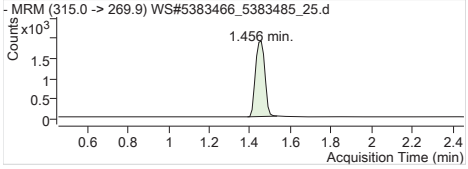
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 97.29 µg/L
Area ratio: 0
Sample type: CC

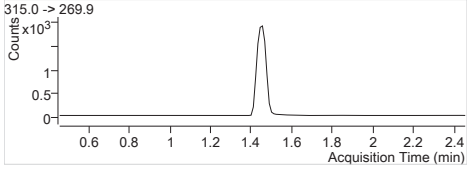
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/06 8:05:24 PM	**Injection Volume**	Per Method
Sample Annotation	-		

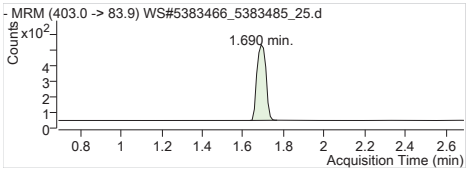
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6023	1.46	1 µg/L		
MPFHxS	1496	1.69	1 µg/L		
MPFHpA	8389	1.71	1 µg/L		
MPFOA	8761	1.89	1 µg/L		
MPFOS	1951	1.99	1 µg/L		
MPFNA	8720	2.04	1 µg/L		
MPFDA	6932	2.15	1 µg/L		
MPFUnA	8831	2.25	1 µg/L		
MPFDoA	10652	2.33	1 µg/L		
MPFTeDA	13187	2.48	1 µg/L		
13C6-PFHxA IS	26693	1.46	1 µg/L		
13C9-PFDA IS	36124	2.15	1 µg/L		

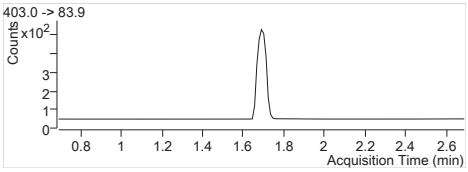
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7974	1.11	12.50	12.21 µg/L	97.66
PFHxA 1	28486	1.46	12.50	12.00 µg/L	95.96
PFHxS 1	7934	1.69	12.50	12.11 µg/L	96.89
PFHpA 1	38973	1.71	12.50	11.21 µg/L	89.71
PFOA 1	43942	1.89	12.50	11.93 µg/L	95.45
PFOS 1	7815	1.98	12.50	11.69 µg/L	93.48
PFNA 1	37389	2.04	12.50	11.54 µg/L	92.29
PFDA 1	38777	2.15	12.50	11.93 µg/L	95.48
PFUnA 1	43664	2.25	12.50	11.67 µg/L	93.38
PFDoA 1	56352	2.33	12.50	12.99 µg/L	103.94
PFTrDA 1	62695	2.41	12.50	11.52 µg/L	92.12
PFTeDA 1	54785	2.48	12.50	12.09 µg/L	96.69
13C2-PFHxA	6023	1.46	100.00	95.24 µg/L	95.24
18O2-PFHxS	1496	1.69	100.00	96.45 µg/L	96.45
13C4-PFHpA	8389	1.71	100.00	107.57 µg/L	107.57
13C4-PFOA	8761	1.89	100.00	104.56 µg/L	104.56
13C4-PFOS	1951	1.99	100.00	105.89 µg/L	105.89
13C5-PFNA	8646	2.04	100.00	104.73 µg/L	104.73
13C2-PFDA	6832	2.15	100.00	94.25 µg/L	94.25
13C2-PFUnA	8831	2.25	100.00	101.07 µg/L	101.07
13C2-PFDoA	10652	2.33	100.00	91.60 µg/L	91.60
13C2-PFTeDA	13522	2.48	100.00	102.05 µg/L	102.05
13C6-PFHxA	26693	1.46	100.00	93.89 µg/L	93.89
13C9-PFDA	36124	2.15	100.00	100.98 µg/L	100.98



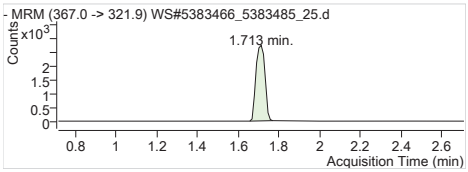


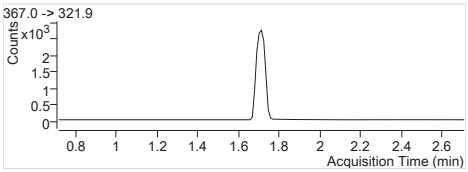
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	CC



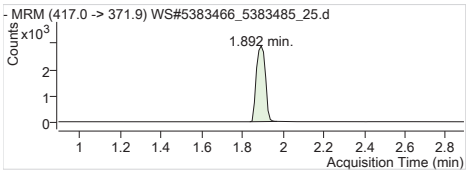


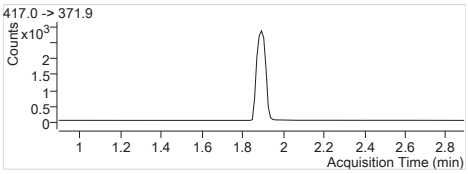
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



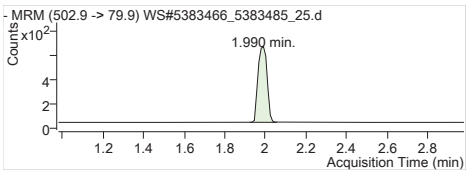


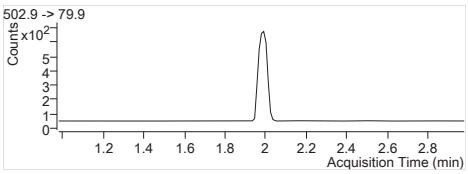
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: CC



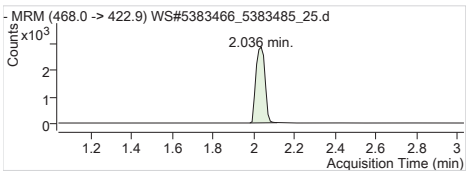


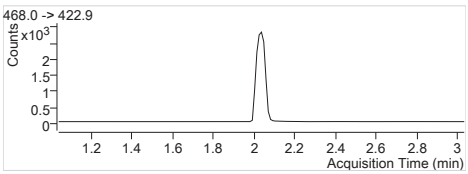
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: CC



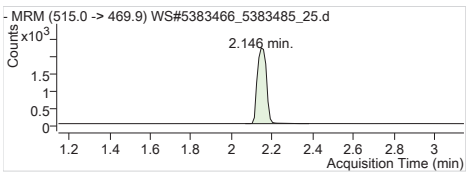


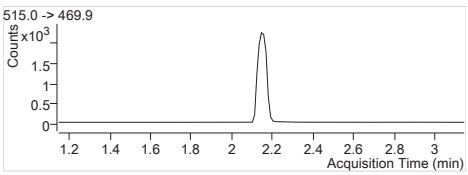
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: CC



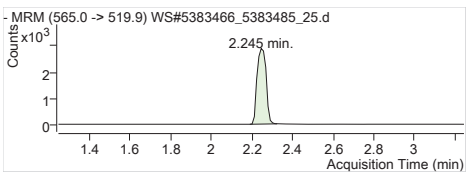


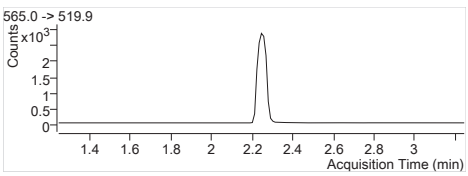
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: CC



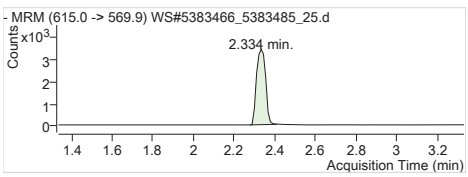


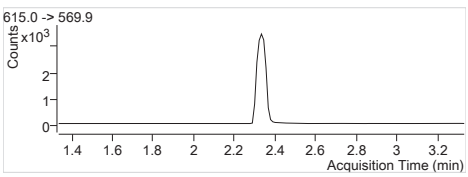
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



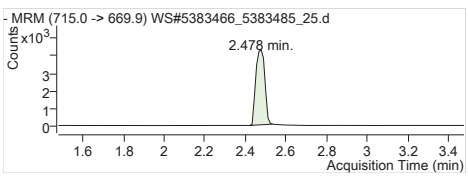


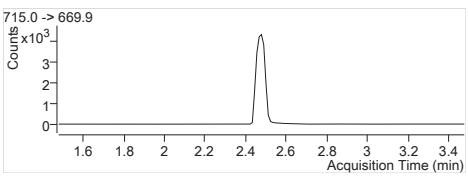
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC



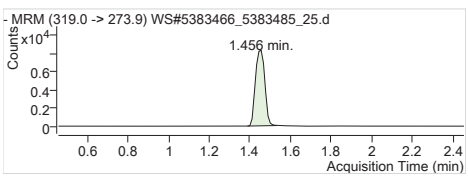


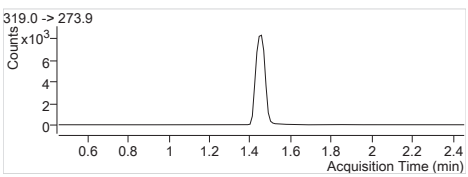
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: CC



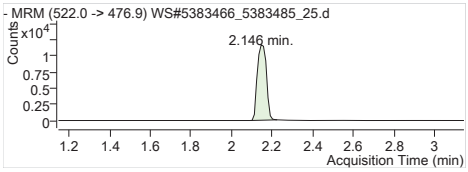


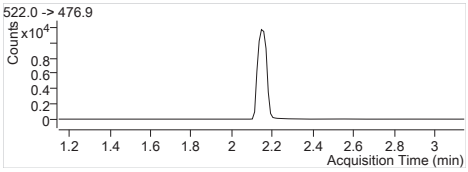
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: CC



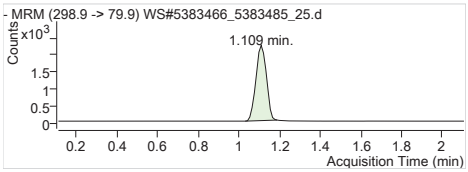


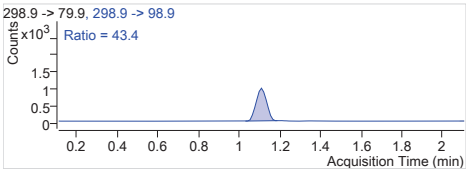
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: CC



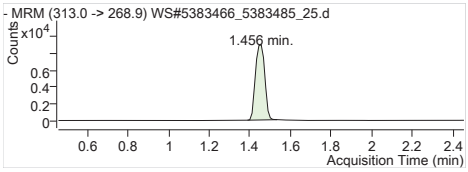


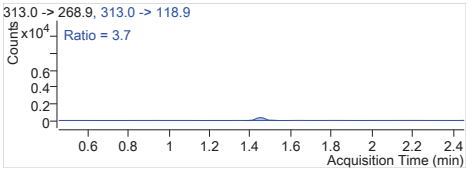
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



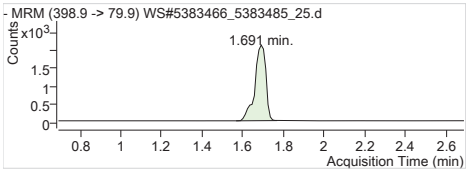


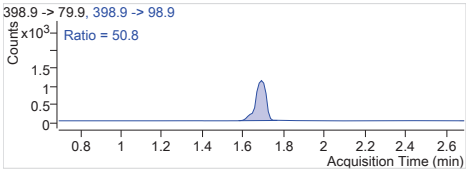
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 12.21 µg/L
Area ratio: 5.33021
Sample type: CC



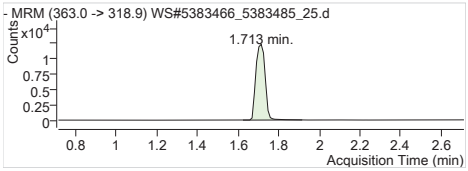


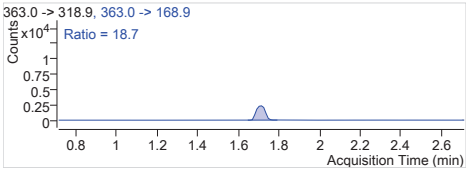
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 12.00 µg/L
Area ratio: 4.72954
Sample type: CC



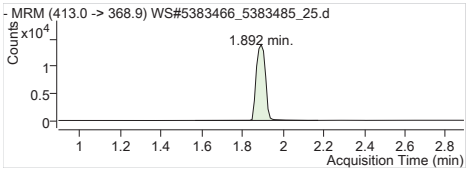


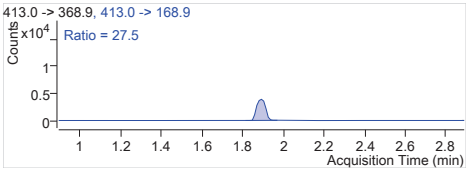
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.11 µg/L
Area ratio: 5.30348
Sample type: CC



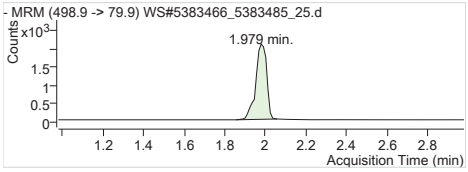


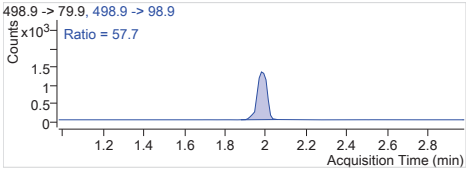
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 11.21 µg/L
Area ratio: 4.64573
Sample type: CC



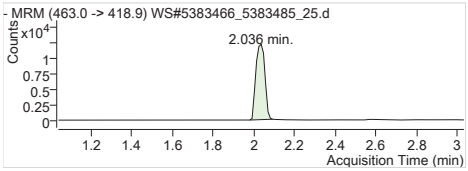


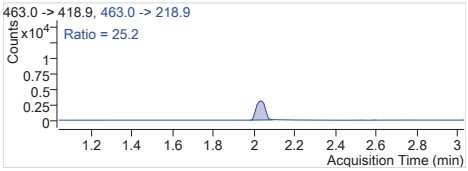
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 11.93 µg/L
Area ratio: 5.01564
Sample type: CC



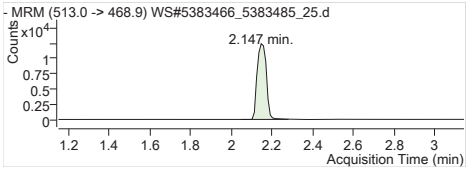


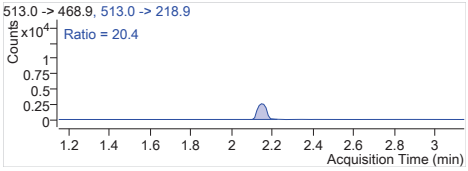
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 11.69 µg/L
Area ratio: 4.00564
Sample type: CC



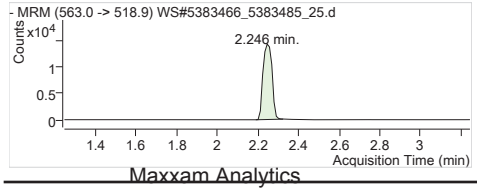


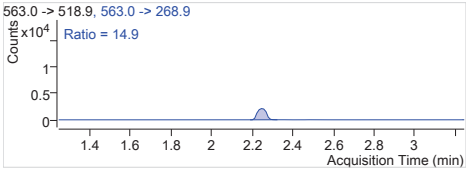
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 11.54 µg/L
Area ratio: 4.28773
Sample type: CC



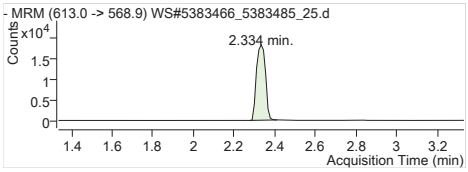


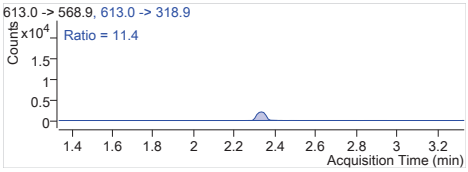
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 11.93 µg/L
Area ratio: 5.59391
Sample type: CC



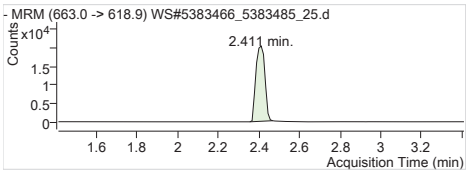


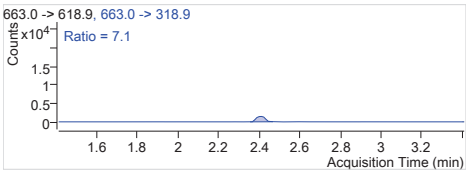
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 11.67 µg/L
Area ratio: 4.94440
Sample type: CC



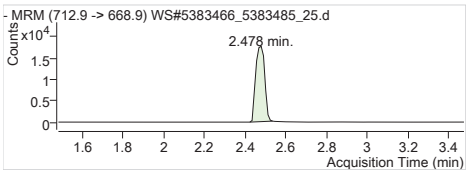


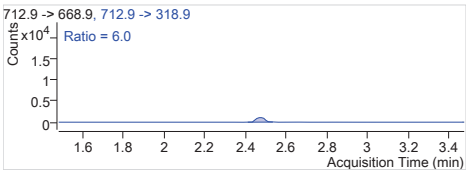
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.334 (2.334)
Calc. conc.	12.99 µg/L
Area ratio:	5.29027
Sample type:	CC



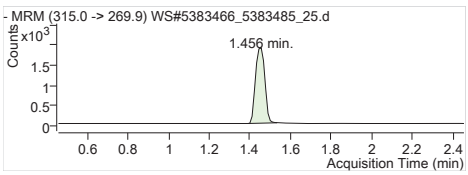


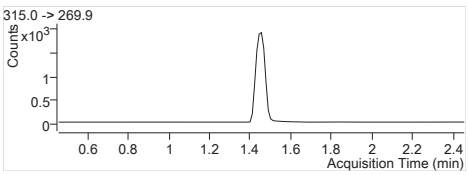
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.411 (2.411)
Calc. conc.	11.52 µg/L
Area ratio:	4.75430
Sample type:	CC



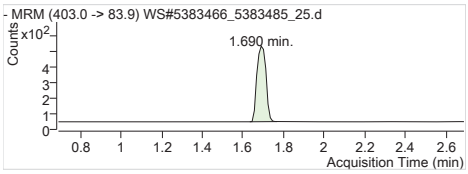


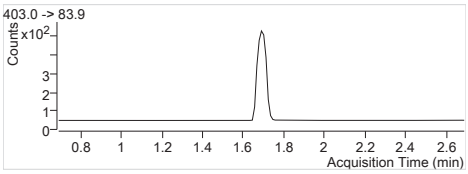
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.478 (2.478)
Calc. conc.	12.09 µg/L
Area ratio:	4.15447
Sample type:	CC



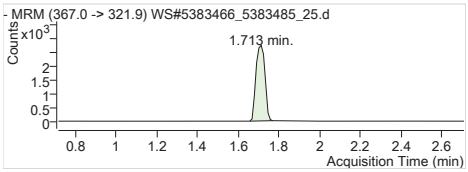


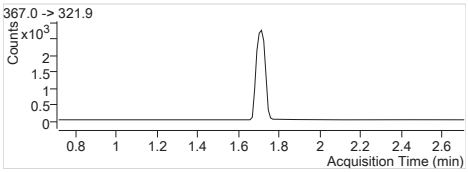
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	95.24 µg/L
Area ratio:	0.22564
Sample type:	CC



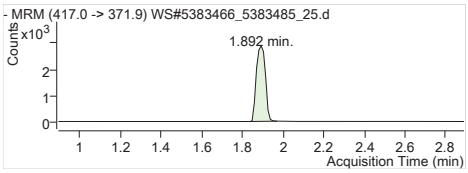


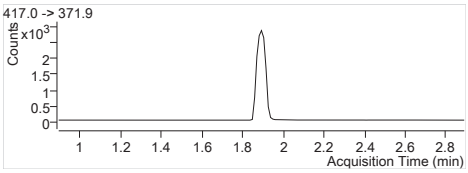
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	96.45 µg/L
Area ratio:	0.05604
Sample type:	CC



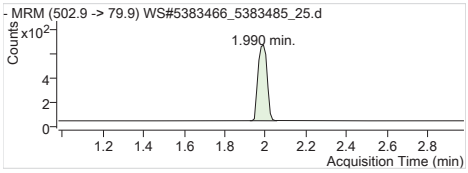


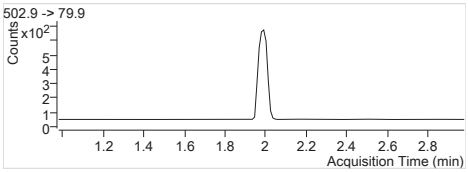
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	107.57 µg/L
Area ratio:	0.31428
Sample type:	CC



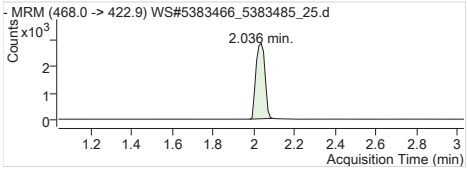


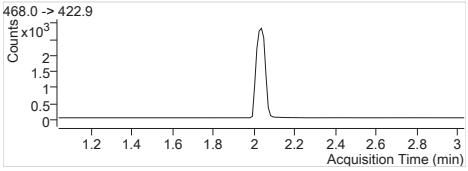
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	104.56 µg/L
Area ratio:	0.32821
Sample type:	CC



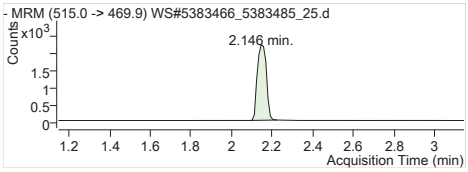


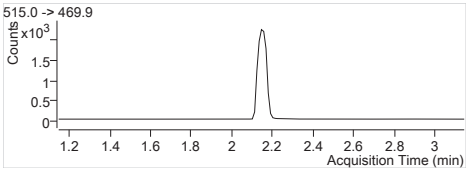
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	105.89 µg/L
Area ratio:	0.07309
Sample type:	CC



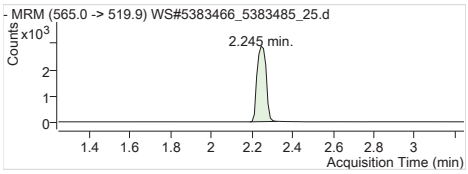


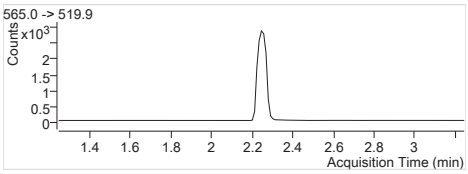
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	104.73 µg/L
Area ratio:	0.32391
Sample type:	CC



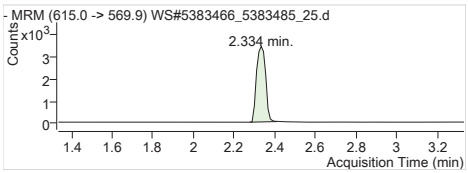


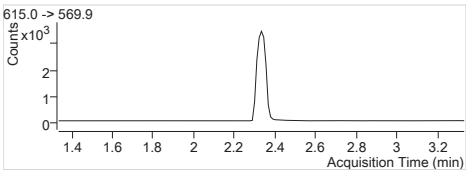
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 94.25 µg/L
Area ratio: 0.18913
Sample type: CC



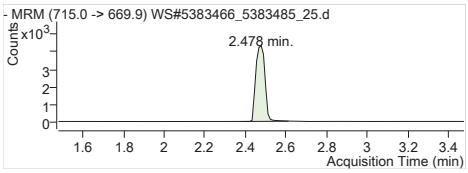


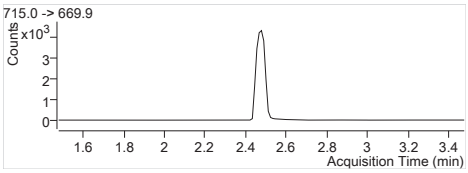
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 101.07 µg/L
Area ratio: 0.24446
Sample type: CC



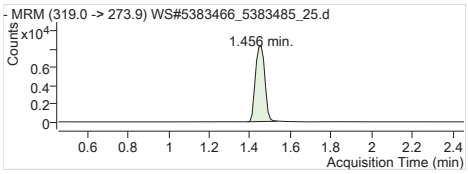


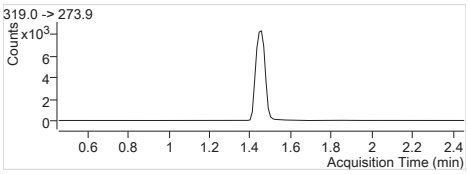
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 91.60 µg/L
Area ratio: 0.29487
Sample type: CC



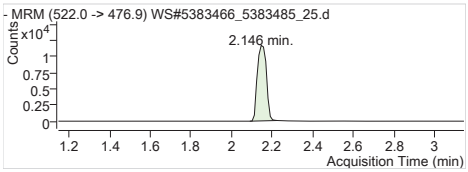


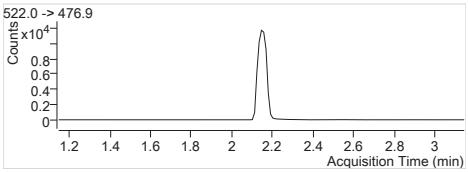
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 102.05 µg/L
Area ratio: 0.37432
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 93.89 µg/L
Area ratio: 0
Sample type: CC





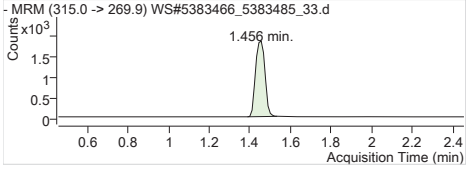
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 100.98 µg/L
Area ratio: 0
Sample type: CC

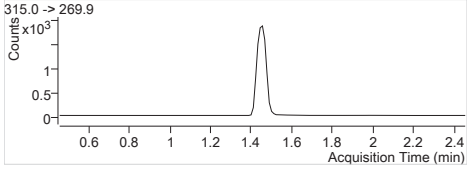
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_33.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/06 8:44:52 PM	**Injection Volume**	Per Method
Sample Annotation	-		

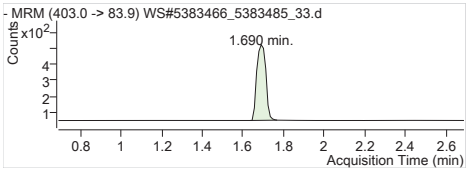
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5952	1.46	1 µg/L		
MPFHxS	1479	1.69	1 µg/L		
MPFHpA	8195	1.71	1 µg/L		
MPFOA	8316	1.89	1 µg/L		
MPFOS	1991	1.99	1 µg/L		
MPFNA	8403	2.04	1 µg/L		
MPFDA	7326	2.15	1 µg/L		
MPFUnA	8523	2.25	1 µg/L		
MPFDoA	11402	2.33	1 µg/L		
MPFTeDA	12531	2.48	1 µg/L		
13C6-PFHxA IS	27441	1.46	1 µg/L		
13C9-PFDA IS	35024	2.15	1 µg/L		

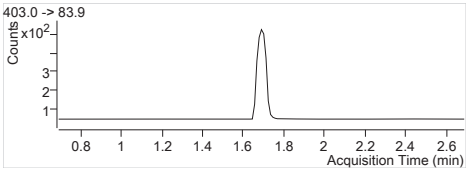
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7494	1.11	12.50	11.61 µg/L	92.89
PFHxA 1	28156	1.46	12.50	12.00 µg/L	95.98
PFHxS 1	7812	1.69	12.50	12.06 µg/L	96.51
PFHpA 1	37324	1.71	12.50	11.00 µg/L	87.98
PFOA 1	41978	1.89	12.50	12.01 µg/L	96.06
PFOS 1	8158	1.98	12.50	11.95 µg/L	95.61
PFNA 1	38160	2.04	12.50	12.21 µg/L	97.69
PFDA 1	39337	2.15	12.50	11.46 µg/L	91.68
PFUnA 1	41560	2.25	12.50	11.51 µg/L	92.09
PFDoA 1	54433	2.33	12.50	11.74 µg/L	93.90
PFTrDA 1	61489	2.41	12.50	11.88 µg/L	95.07
PFTeDA 1	54112	2.48	12.50	12.56 µg/L	100.48
13C2-PFHxA	5952	1.46	100.00	91.55 µg/L	91.55
18O2-PFHxS	1479	1.69	100.00	92.75 µg/L	92.75
13C4-PFHpA	8195	1.71	100.00	102.22 µg/L	102.22
13C4-PFOA	8316	1.89	100.00	96.54 µg/L	96.54
13C4-PFOS	1991	1.99	100.00	105.12 µg/L	105.12
13C5-PFNA	8349	2.04	100.00	98.37 µg/L	98.37
13C2-PFDA	7211	2.15	100.00	102.60 µg/L	102.60
13C2-PFUnA	8523	2.25	100.00	100.61 µg/L	100.61
13C2-PFDoA	11402	2.33	100.00	101.13 µg/L	101.13
13C2-PFTeDA	12767	2.48	100.00	99.38 µg/L	99.38
13C6-PFHxA	27441	1.46	100.00	96.52 µg/L	96.52
13C9-PFDA	35024	2.15	100.00	97.90 µg/L	97.90



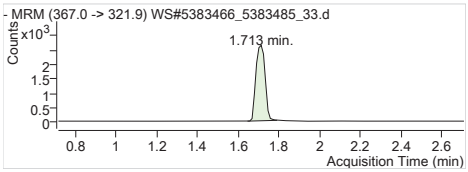


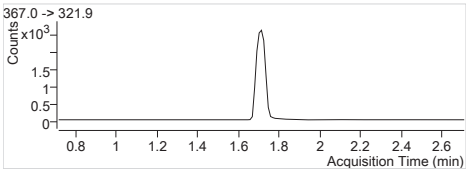
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	CC



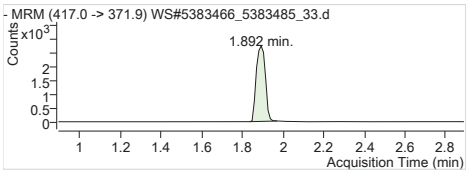


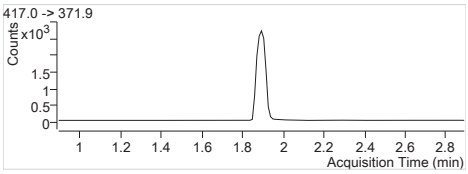
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



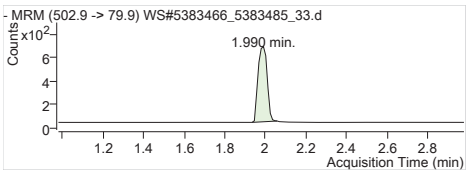


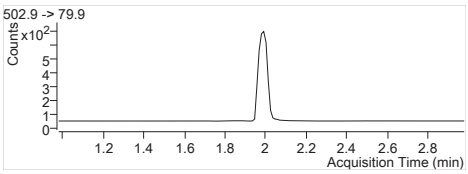
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: CC



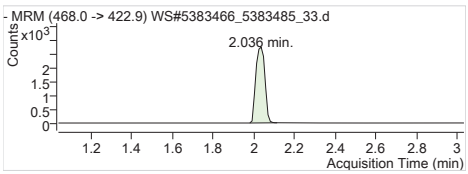


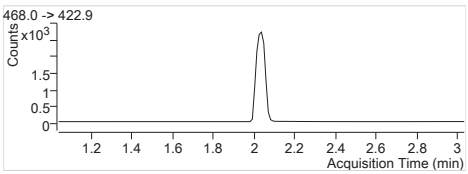
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: CC



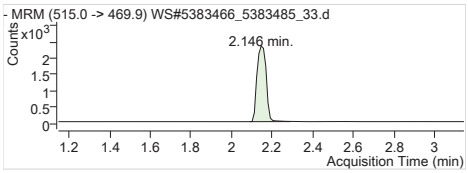


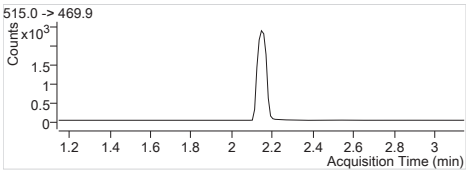
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: CC



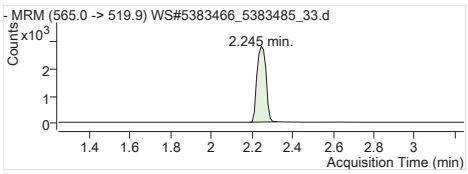


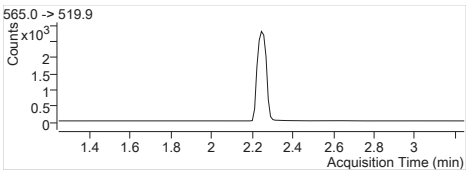
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: CC



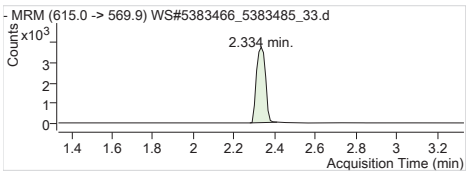


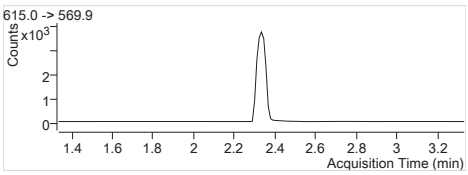
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



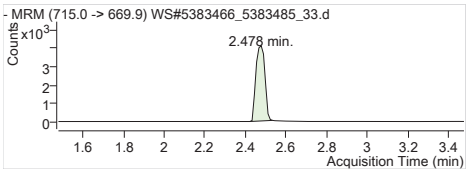


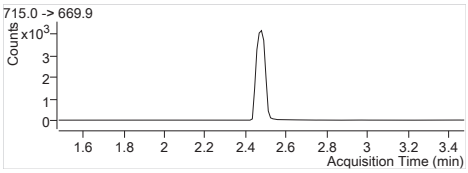
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC



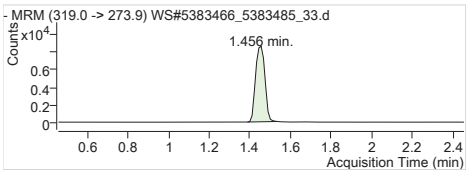


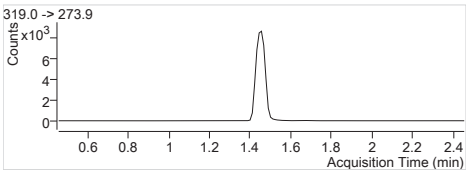
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: CC



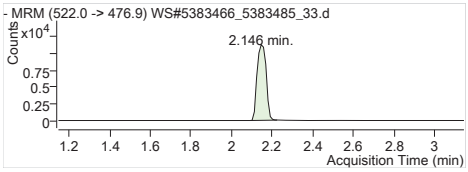


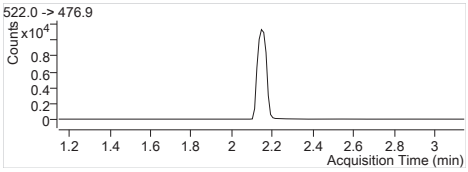
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: CC



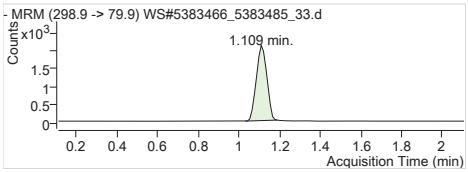


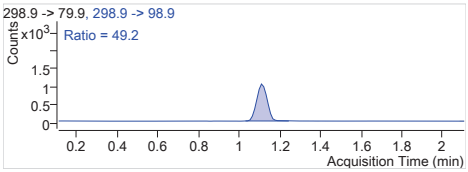
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: CC



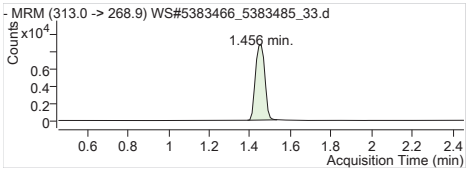


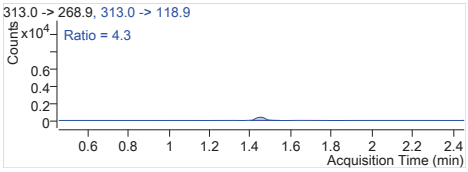
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



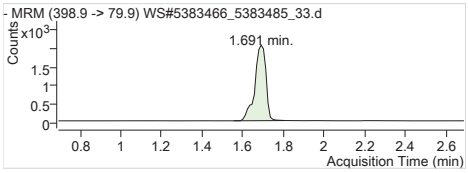


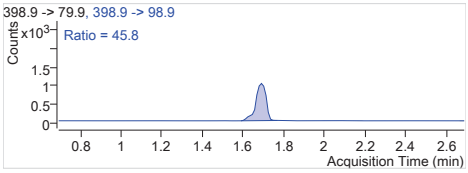
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 11.61 µg/L
Area ratio: 5.06694
Sample type: CC



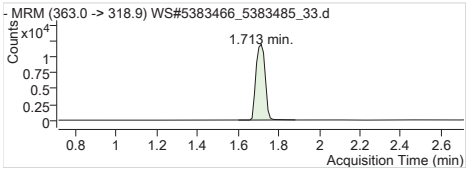


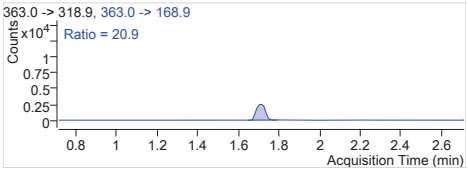
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 12.00 µg/L
Area ratio: 4.73051
Sample type: CC



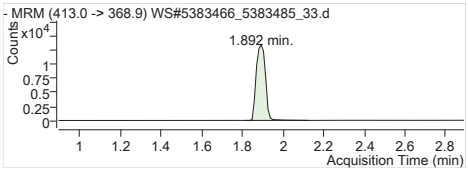


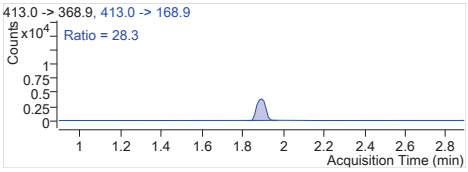
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.06 µg/L
Area ratio: 5.28195
Sample type: CC



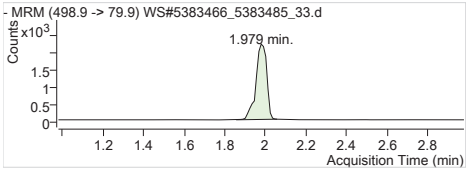


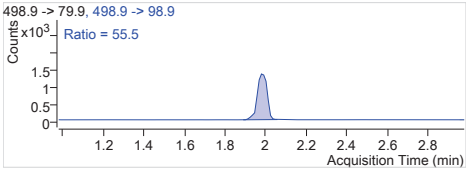
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 11.00 µg/L
Area ratio: 4.55448
Sample type: CC



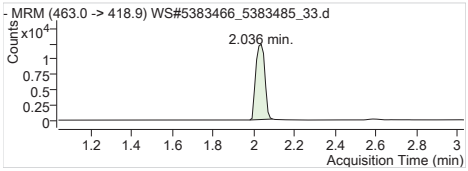


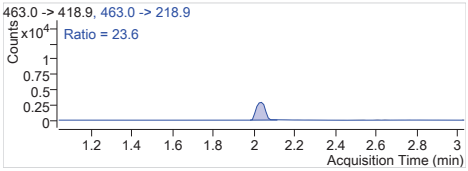
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 12.01 µg/L
Area ratio: 5.04786
Sample type: CC



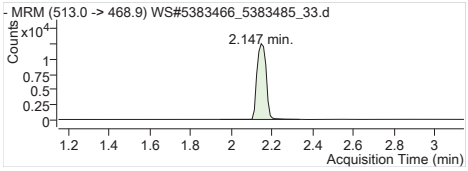


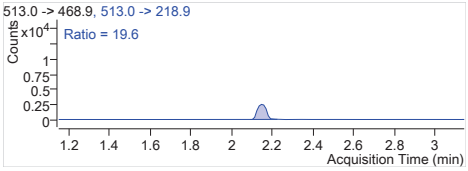
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 11.95 µg/L
Area ratio: 4.09744
Sample type: CC



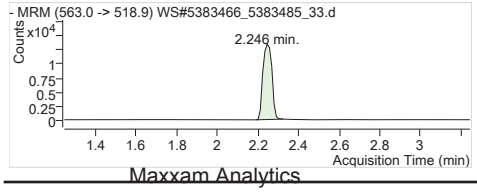


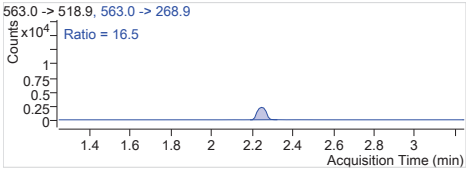
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 12.21 µg/L
Area ratio: 4.54124
Sample type: CC



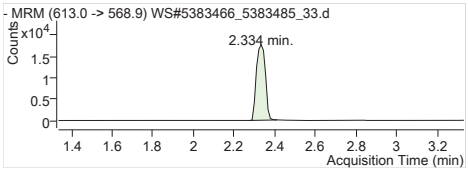


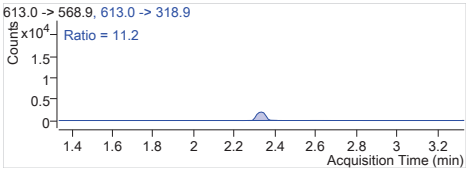
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 11.46 µg/L
Area ratio: 5.36951
Sample type: CC



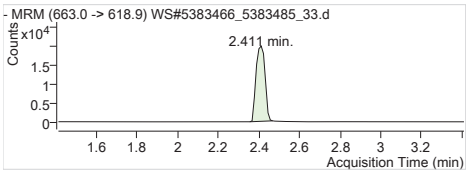


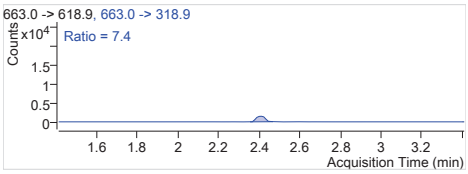
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 11.51 µg/L
Area ratio: 4.87622
Sample type: CC



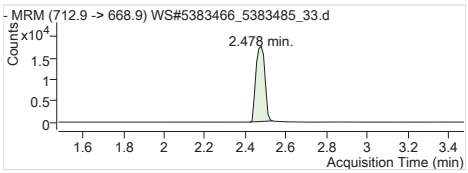


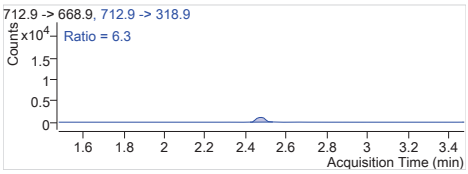
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 11.74 µg/L
Area ratio: 4.77399
Sample type: CC



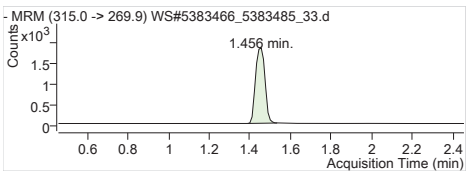


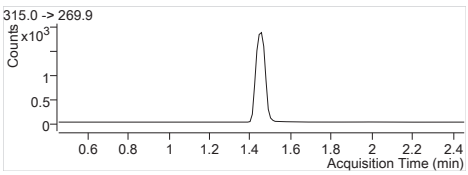
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 11.88 µg/L
Area ratio: 4.90695
Sample type: CC



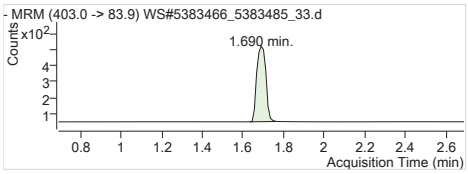


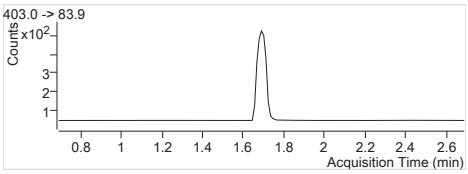
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 12.56 µg/L
Area ratio: 4.31825
Sample type: CC



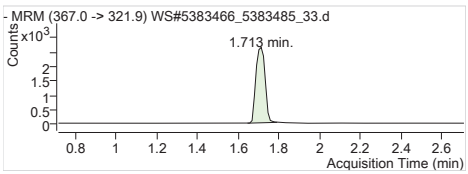


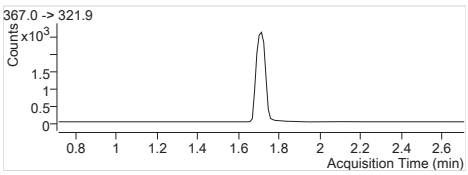
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 91.55 µg/L
Area ratio: 0.21690
Sample type: CC



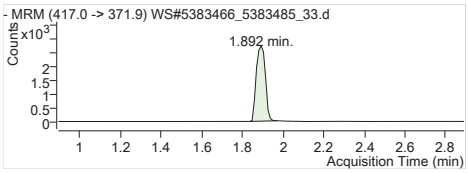


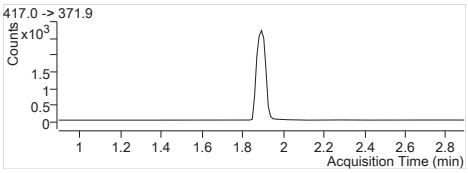
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 92.75 µg/L
Area ratio: 0.05390
Sample type: CC



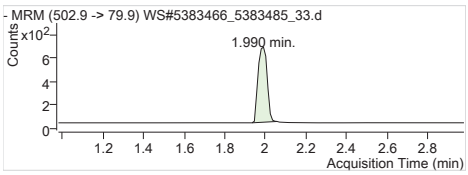


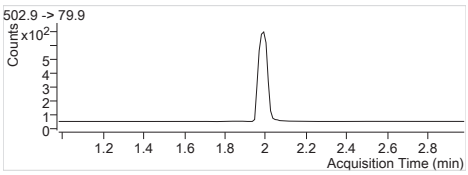
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 102.22 µg/L
Area ratio: 0.29864
Sample type: CC



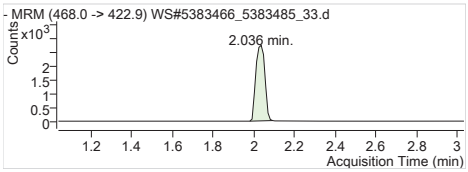


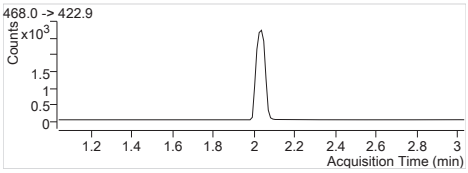
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 96.54 µg/L
Area ratio: 0.30305
Sample type: CC



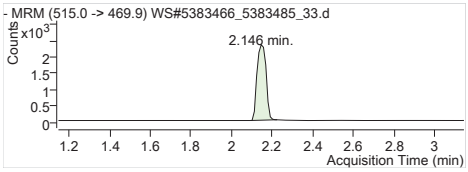


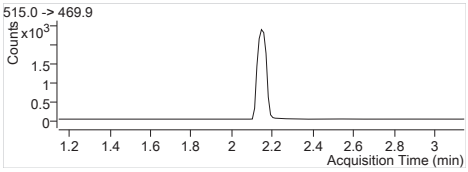
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 105.12 µg/L
Area ratio: 0.07256
Sample type: CC



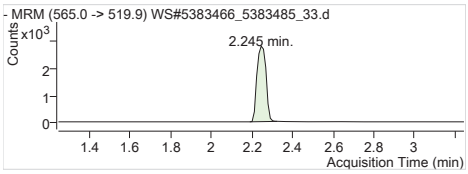


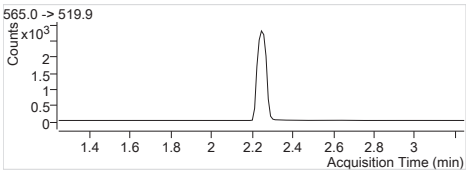
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 98.37 µg/L
Area ratio: 0.30425
Sample type: CC



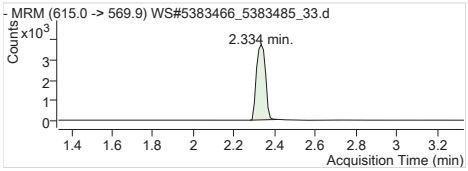


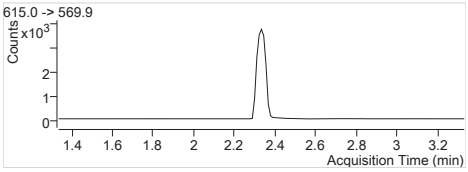
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 102.60 µg/L
Area ratio: 0.20589
Sample type: CC



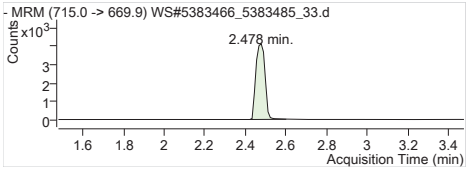


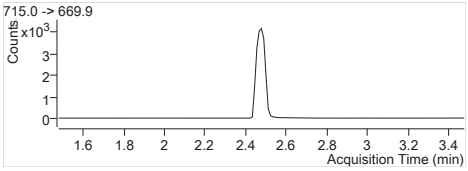
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 100.61 µg/L
Area ratio: 0.24335
Sample type: CC



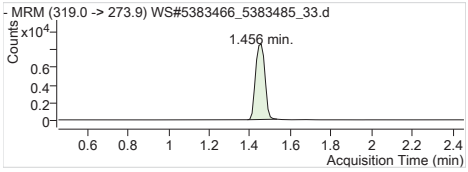


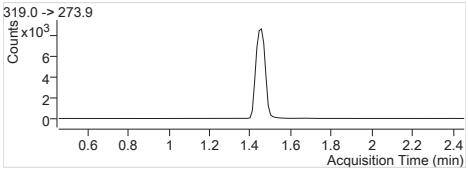
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 101.13 µg/L
Area ratio: 0.32555
Sample type: CC



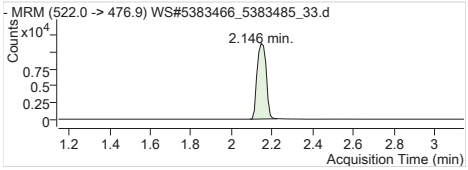


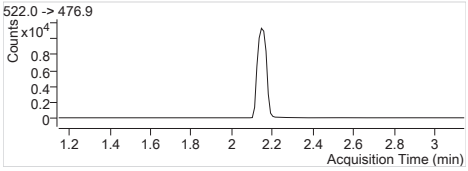
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 99.38 µg/L
Area ratio: 0.36452
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 96.52 µg/L
Area ratio: 0
Sample type: CC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 97.90 µg/L
Area ratio: 0
Sample type: CC

Quantitation Results

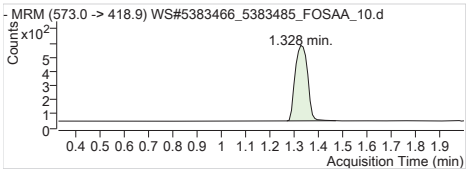
Agilent Technologies

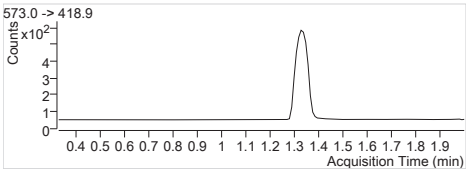
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/06 12:47:23 PM	**Injection Volume**	Per Method
Sample Annotation	-		

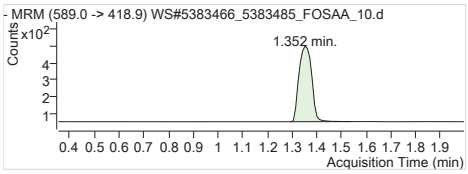
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1894	1.33	1 µg/L		
D5-EtFOSAA IS	1604	1.35	1 µg/L		
13C9-PFDA IS	25890	0.96	1 µg/L		

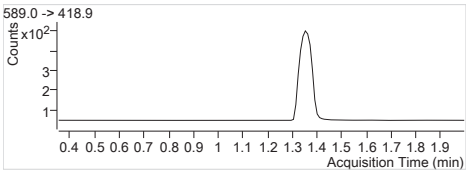
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	559	1.33	0.83	0.84 µg/L	101.80
EtFOSAA 1	528	1.35	0.83	0.93 µg/L	112.21
D3-MeFOSAA	1894	1.33	100.00	111.37 µg/L	111.37
D5-EtFOSAA	1604	1.35	100.00	109.47 µg/L	109.47
13C9-PFDA	25738	0.96	100.00	91.30 µg/L	91.30



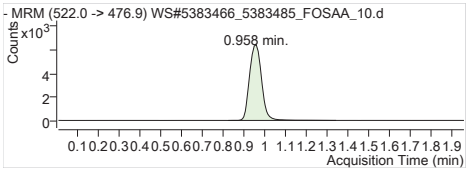


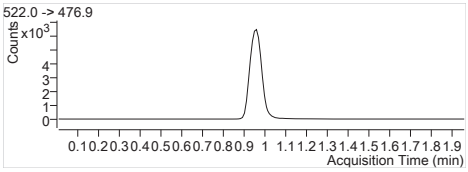
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



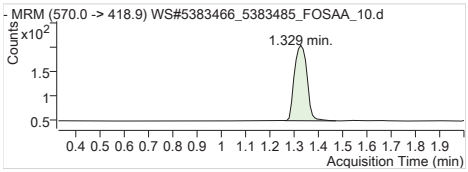


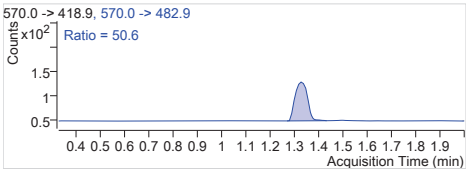
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



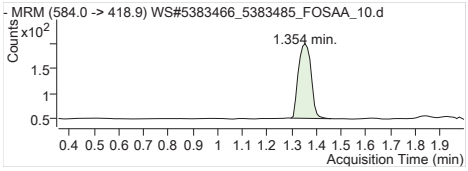


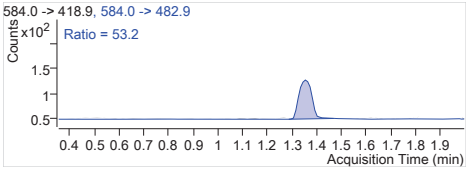
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: CC



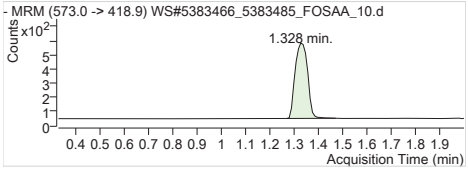


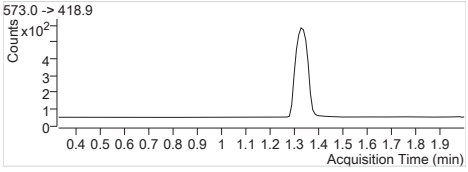
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 0.84 µg/L
Area ratio: 0.29514
Sample type: CC



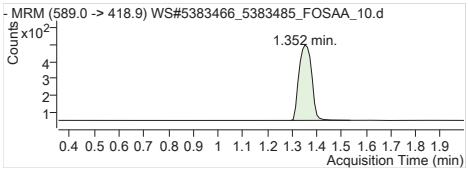


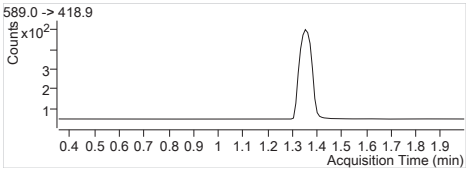
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 0.93 µg/L
Area ratio: 0.32918
Sample type: CC



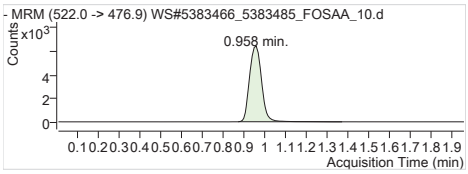


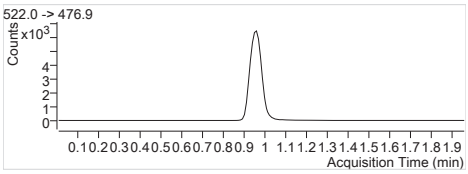
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 111.37 µg/L
Area ratio: 0.07316
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	109.47 µg/L
Area ratio:	0.06195
Sample type:	CC





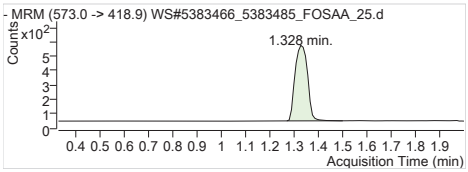
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	91.30 µg/L
Area ratio:	0
Sample type:	CC

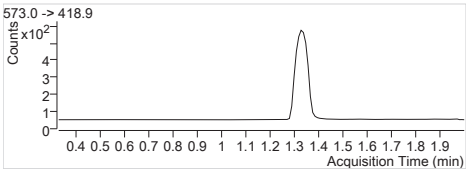
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 1:23:33 PM	**Injection Volume**	Per Method
Sample Annotation	-		

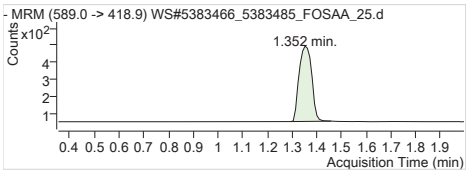
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1876	1.33	1 µg/L		
D5-EtFOSAA IS	1574	1.35	1 µg/L		
13C9-PFDA IS	28320	0.95	1 µg/L		

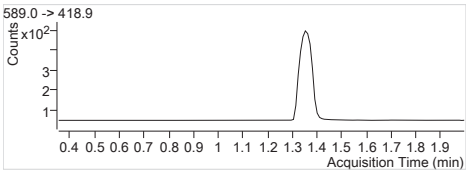
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7752	1.33	12.50	11.44 µg/L	91.49
EtFOSAA 1	7641	1.35	12.50	11.53 µg/L	92.25
D3-MeFOSAA	1876	1.33	100.00	100.84 µg/L	100.84
D5-EtFOSAA	1574	1.35	100.00	98.20 µg/L	98.20
13C9-PFDA	28134	0.95	100.00	99.80 µg/L	99.80



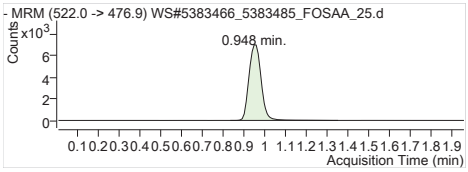


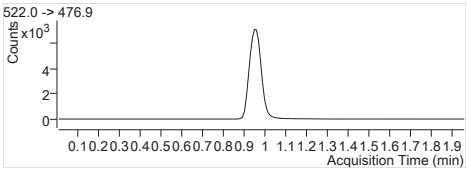
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



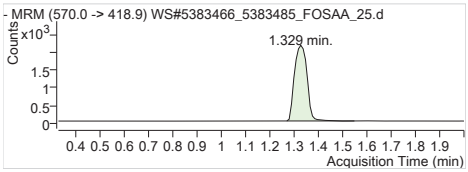


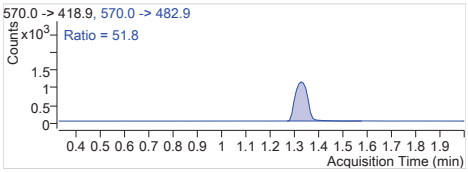
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



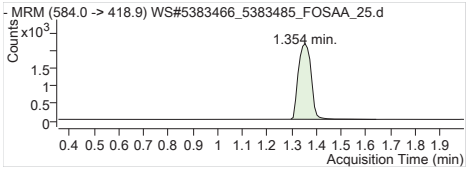


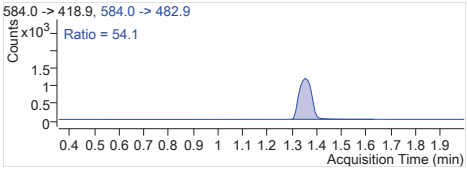
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: CC



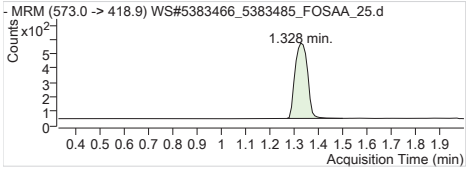


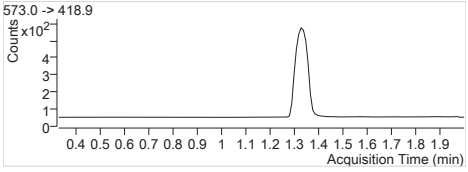
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 11.44 µg/L
Area ratio: 4.13220
Sample type: CC



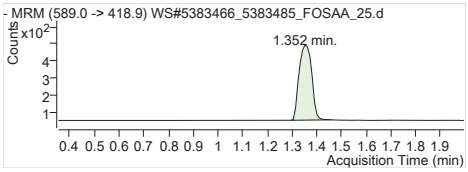


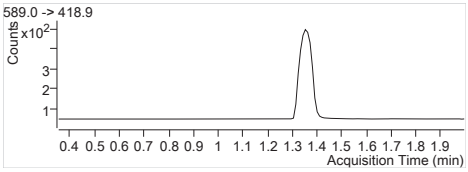
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.53 µg/L
Area ratio: 4.85451
Sample type: CC



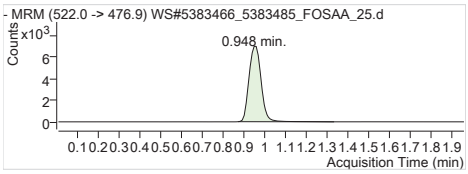


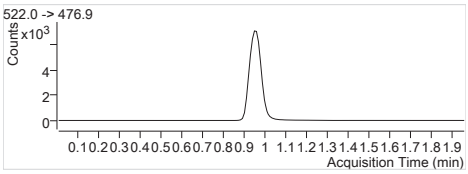
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 100.84 µg/L
Area ratio: 0.06624
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	98.20 µg/L
Area ratio:	0.05558
Sample type:	CC





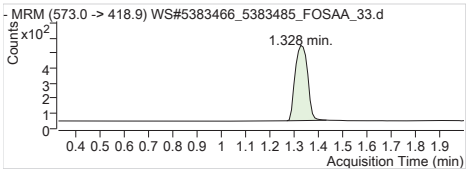
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	99.80 µg/L
Area ratio:	0
Sample type:	CC

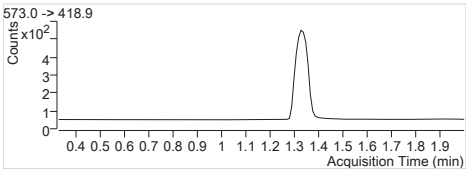
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_33.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 1:42:50 PM	**Injection Volume**	Per Method
Sample Annotation	-		

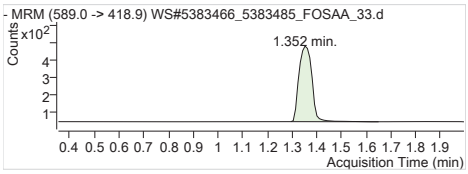
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1776	1.33	1 µg/L		
D5-EtFOSAA IS	1575	1.35	1 µg/L		
13C9-PFDA IS	28229	0.96	1 µg/L		

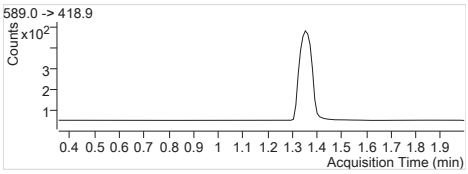
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7618	1.33	12.50	11.87 µg/L	94.96
EtFOSAA 1	7636	1.35	12.50	11.52 µg/L	92.13
D3-MeFOSAA	1776	1.33	100.00	95.77 µg/L	95.77
D5-EtFOSAA	1575	1.35	100.00	98.58 µg/L	98.58
13C9-PFDA	28351	0.96	100.00	100.57 µg/L	100.57



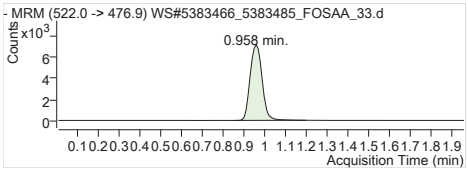


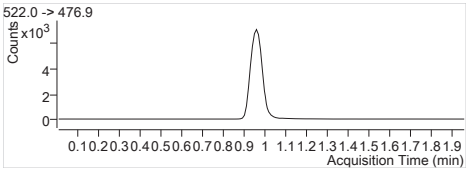
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



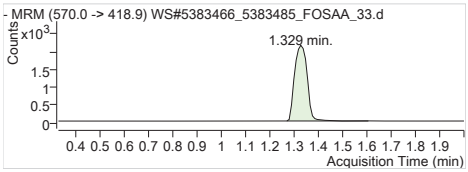


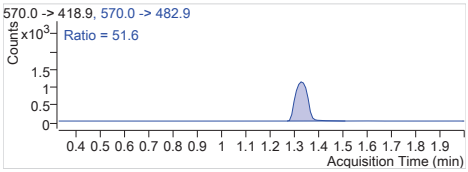
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



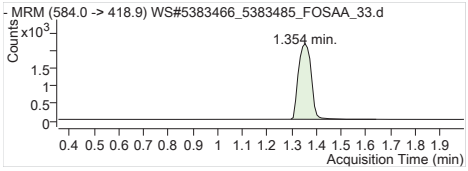


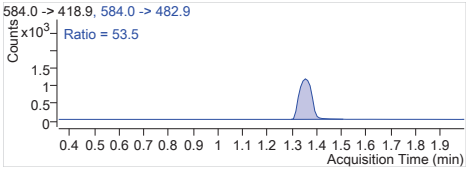
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: CC



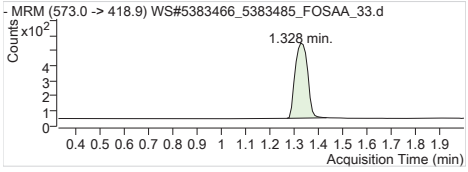


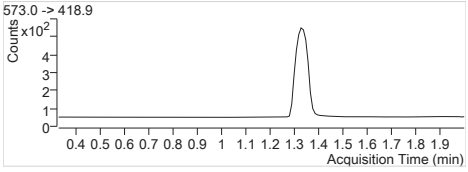
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 11.87 µg/L
Area ratio: 4.28941
Sample type: CC



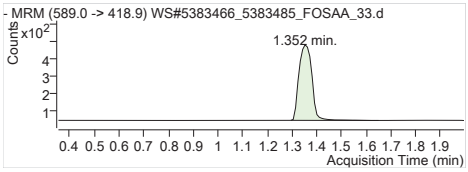


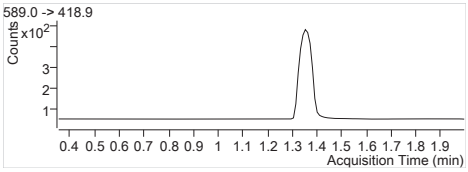
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.52 µg/L
Area ratio: 4.84825
Sample type: CC



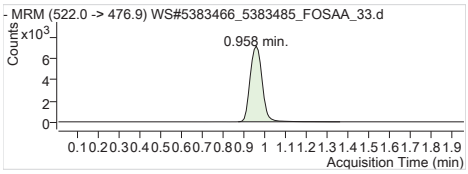


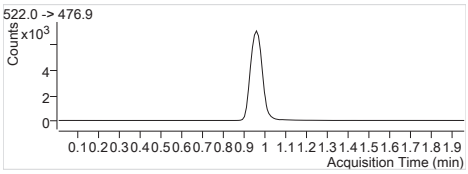
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 95.77 µg/L
Area ratio: 0.06291
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	98.58 µg/L
Area ratio:	0.05579
Sample type:	CC





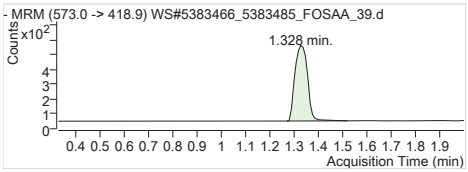
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	100.57 µg/L
Area ratio:	0
Sample type:	CC

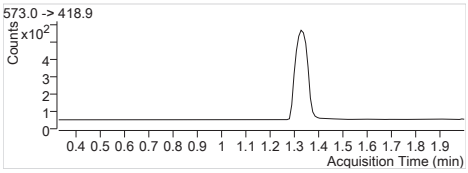
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_39.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 2:52:44 PM	**Injection Volume**	Per Method
Sample Annotation	-		

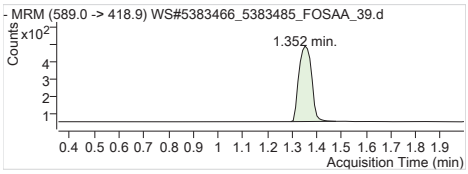
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1857	1.33	1 µg/L		
D5-EtFOSAA IS	1565	1.35	1 µg/L		
13C9-PFDA IS	28622	0.95	1 µg/L		

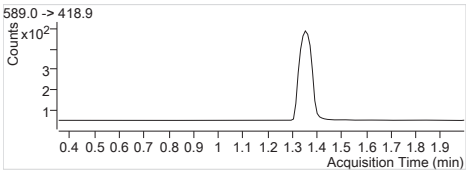
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7748	1.33	12.50	11.55 µg/L	92.38
EtFOSAA 1	7645	1.35	12.50	11.60 µg/L	92.82
D3-MeFOSAA	1857	1.33	100.00	98.77 µg/L	98.77
D5-EtFOSAA	1565	1.35	100.00	96.61 µg/L	96.61
13C9-PFDA	28872	0.95	100.00	102.42 µg/L	102.42



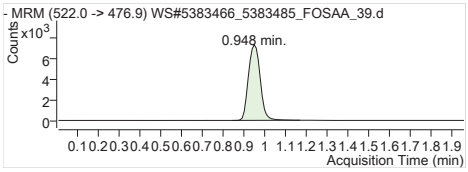


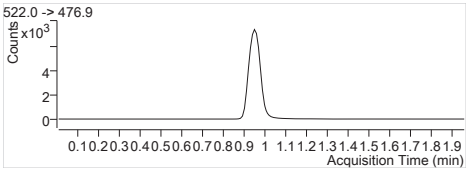
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



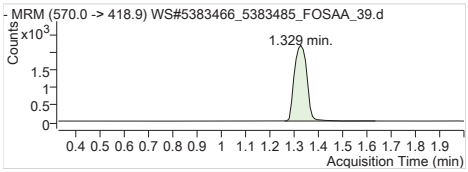


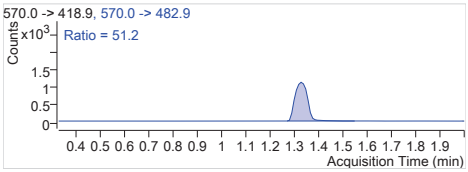
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



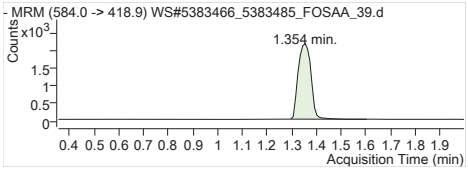


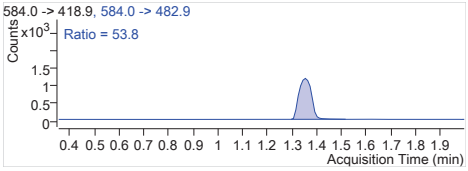
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: CC



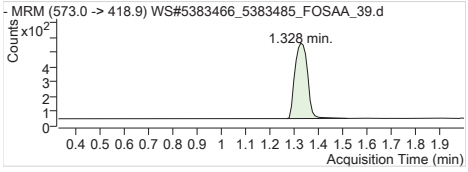


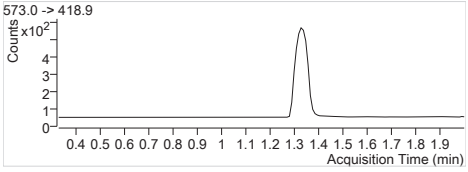
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 11.55 µg/L
Area ratio: 4.17232
Sample type: CC



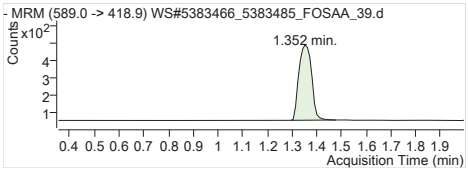


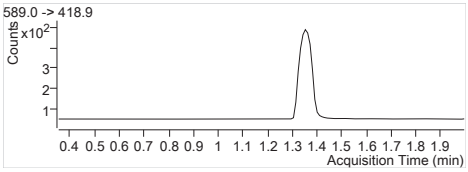
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.60 µg/L
Area ratio: 4.88498
Sample type: CC



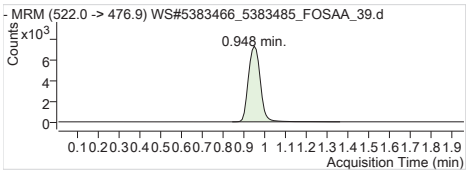


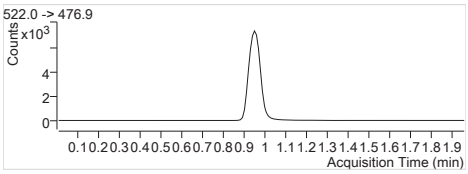
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 98.77 µg/L
Area ratio: 0.06488
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	96.61 µg/L
Area ratio:	0.05468
Sample type:	CC





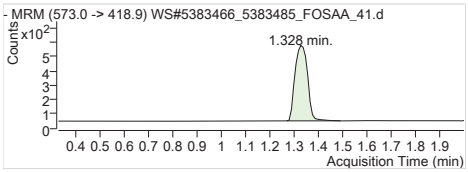
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	102.42 µg/L
Area ratio:	0
Sample type:	CC

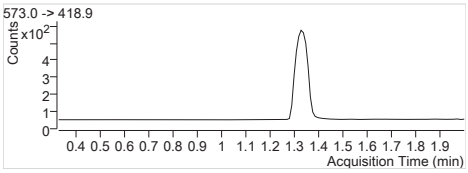
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_41.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 2:57:34 PM	**Injection Volume**	Per Method
Sample Annotation	-		

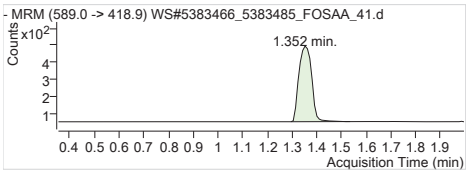
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1885	1.33	1 µg/L		
D5-EtFOSAA IS	1595	1.35	1 µg/L		
13C9-PFDA IS	29001	0.95	1 µg/L		

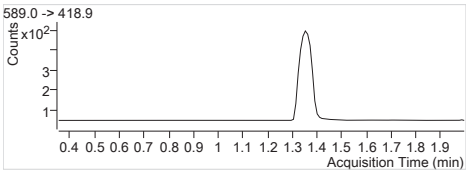
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7711	1.33	12.50	11.32 µg/L	90.58
EtFOSAA 1	7693	1.35	12.50	11.46 µg/L	91.66
D3-MeFOSAA	1885	1.33	100.00	98.95 µg/L	98.95
D5-EtFOSAA	1595	1.35	100.00	97.18 µg/L	97.18
13C9-PFDA	29023	0.95	100.00	102.95 µg/L	102.95



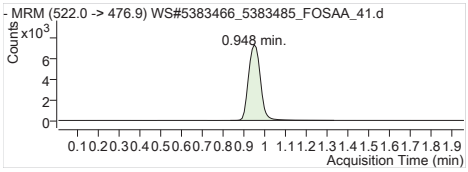


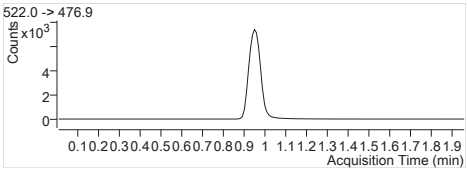
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



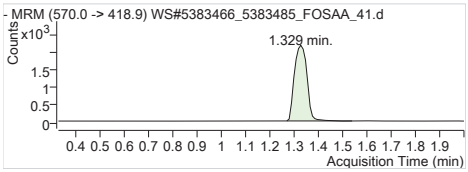


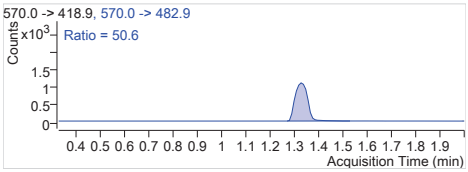
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



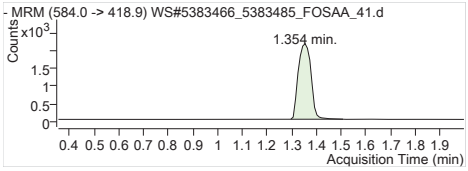


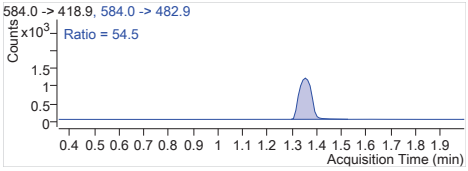
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: CC



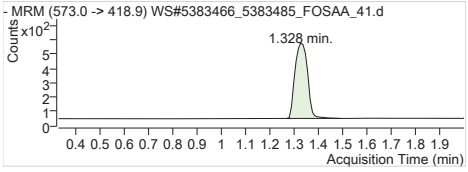


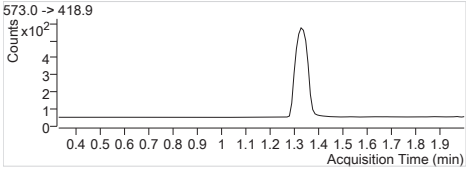
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 11.32 µg/L
Area ratio: 4.09072
Sample type: CC



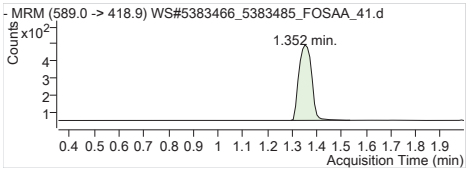


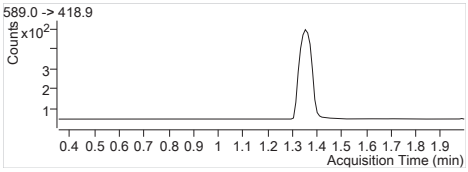
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.46 µg/L
Area ratio: 4.82320
Sample type: CC



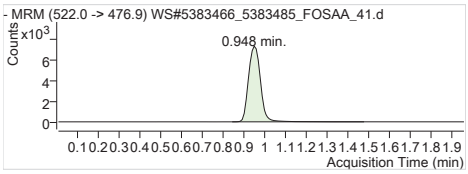


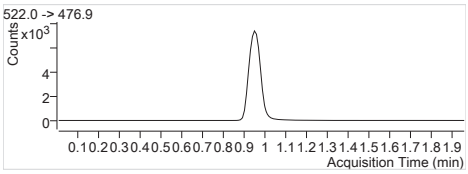
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 98.95 µg/L
Area ratio: 0.06500
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	97.18 µg/L
Area ratio:	0.05500
Sample type:	CC





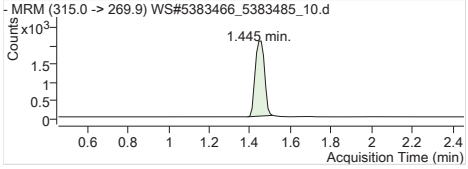
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.948 (0.958)
Calc. conc.	102.95 µg/L
Area ratio:	0
Sample type:	CC

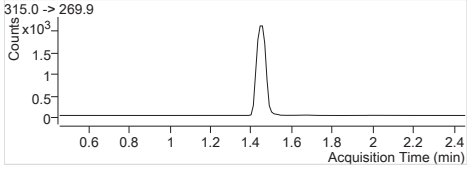
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/06 6:51:16 PM	**Injection Volume**	Per Method
Sample Annotation	-		

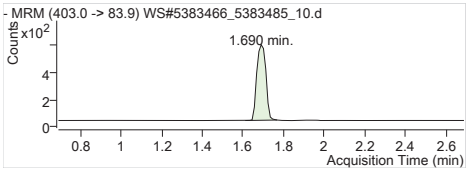
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6584	1.44	1 µg/L		
MPFHxS	1727	1.69	1 µg/L		
MPFHpA	8753	1.71	1 µg/L		
MPFOA	9011	1.89	1 µg/L		
MPFOS	2012	1.99	1 µg/L		
MPFNA	9174	2.04	1 µg/L		
MPFDA	7976	2.15	1 µg/L		
MPFUnA	8831	2.25	1 µg/L		
MPFDoA	11268	2.33	1 µg/L		
MPFTeDA	13509	2.48	1 µg/L		
13C6-PFHxA IS	26497	1.44	1 µg/L		
13C9-PFDA IS	34805	2.15	1 µg/L		

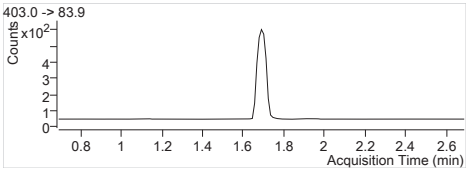
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	578	1.11	0.83	0.90 µg/L	108.98
PFHxA 1	1948	1.46	0.83	1.05 µg/L	126.87
PFHxS 1	567	1.69	0.83	0.99 µg/L	118.71
PFHpA 1	2703	1.71	0.83	0.93 µg/L	111.51
PFOA 1	2981	1.89	0.83	0.95 µg/L	115.04
PFOS 1	550	1.98	0.83	0.85 µg/L	102.71
PFNA 1	2344	2.04	0.83	0.79 µg/L	94.69
PFDA 1	2847	2.15	0.83	0.84 µg/L	101.62
PFUnA 1	3094	2.25	0.83	0.82 µg/L	98.81
PFDoA 1	4022	2.33	0.83	0.99 µg/L	119.52
PFTrDA 1	4356	2.41	0.83	0.82 µg/L	98.22
PFTeDA 1	3525	2.48	0.83	0.80 µg/L	96.28
13C2-PFHxA	6584	1.44	100.00	104.88 µg/L	104.88
18O2-PFHxS	1727	1.69	100.00	112.16 µg/L	112.16
13C4-PFHpA	8753	1.71	100.00	113.07 µg/L	113.07
13C4-PFOA	9011	1.89	100.00	108.34 µg/L	108.34
13C4-PFOS	2012	1.99	100.00	110.01 µg/L	110.01
13C5-PFNA	9154	2.04	100.00	111.70 µg/L	111.70
13C2-PFDA	7930	2.15	100.00	113.54 µg/L	113.54
13C2-PFUnA	8831	2.25	100.00	104.90 µg/L	104.90
13C2-PFDoA	11268	2.33	100.00	100.57 µg/L	100.57
13C2-PFTeDA	13849	2.48	100.00	108.48 µg/L	108.48
13C6-PFHxA	26497	1.44	100.00	93.20 µg/L	93.20
13C9-PFDA	34805	2.15	100.00	97.29 µg/L	97.29



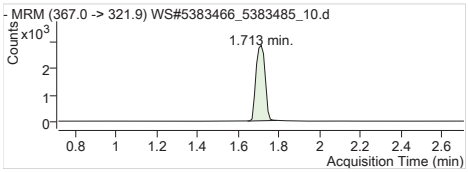


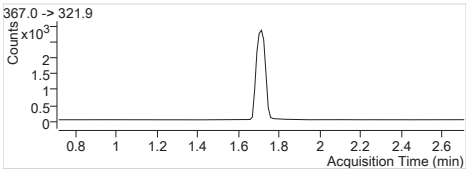
MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	CC



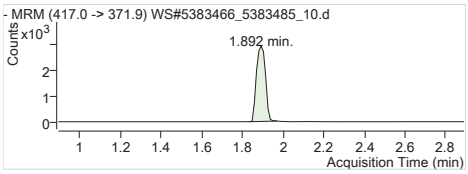


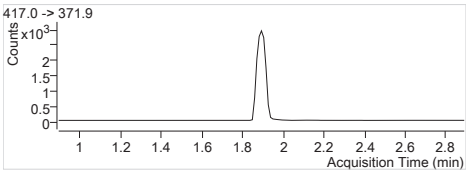
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



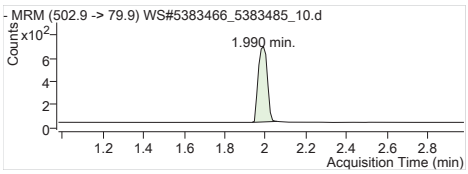


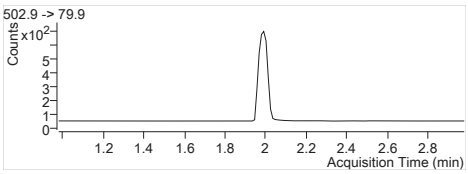
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: CC



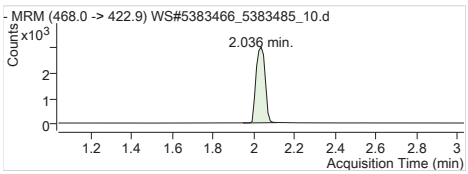


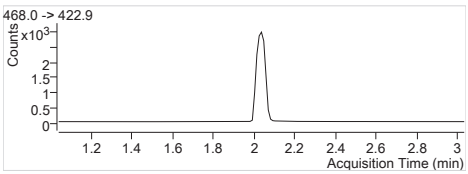
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: CC



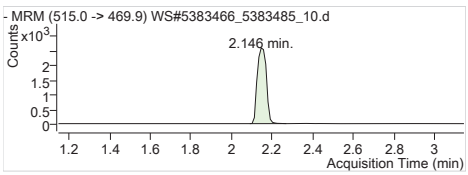


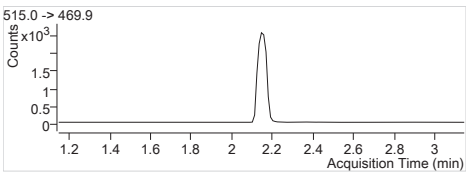
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: CC



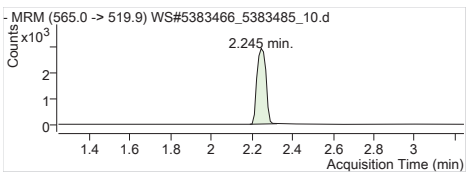


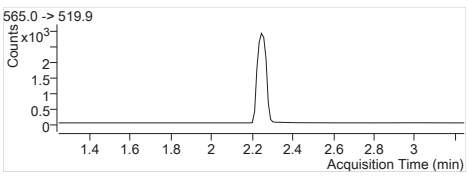
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: CC



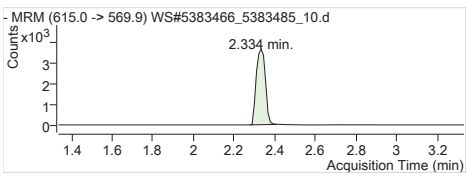


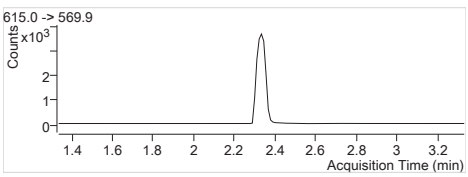
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



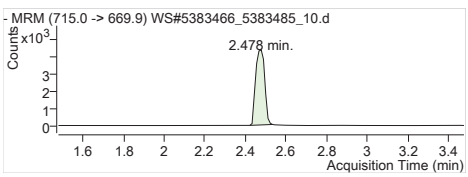


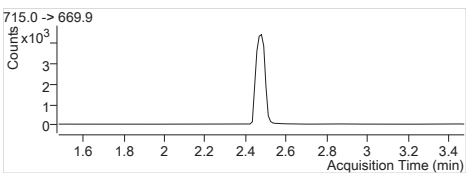
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC



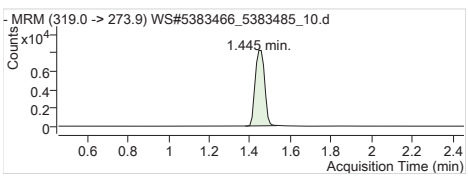


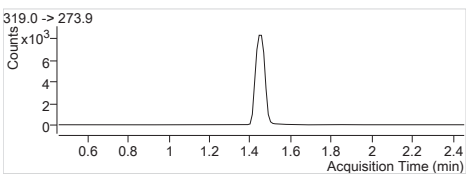
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: CC



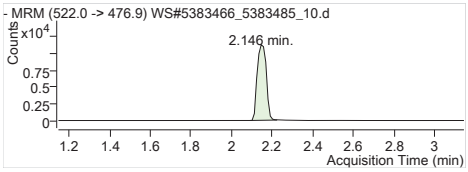


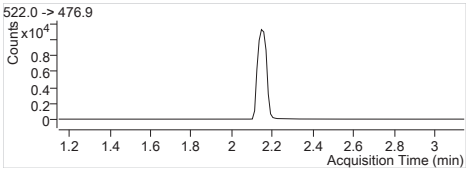
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: CC



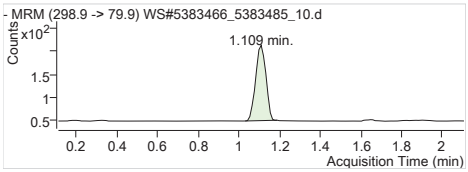


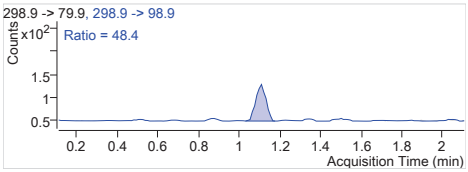
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.456)
Concentration: 1 µg/L
Sample type: CC



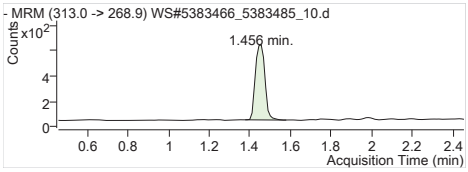


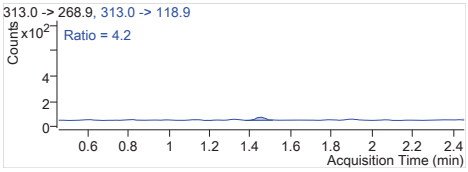
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



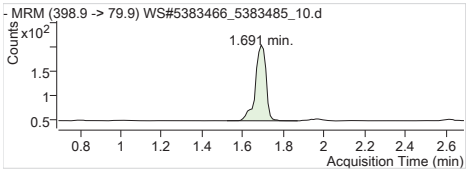


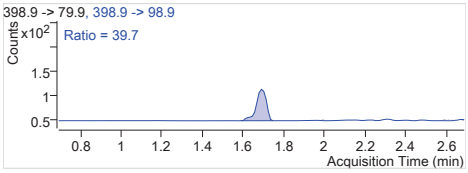
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 0.90 µg/L
Area ratio: 0.33468
Sample type: CC



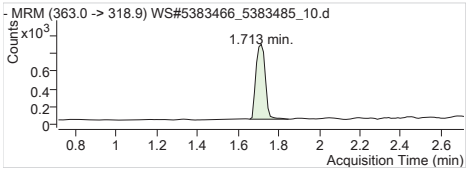


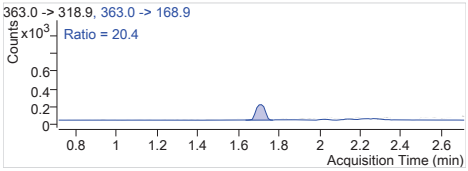
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 1.05 µg/L
Area ratio: 0.29587
Sample type: CC



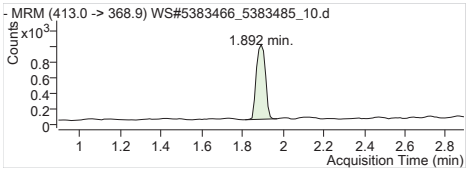


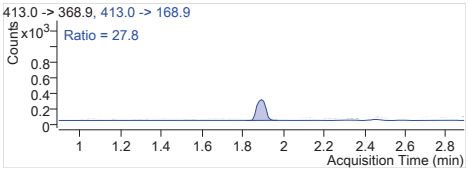
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.99 µg/L
Area ratio: 0.32831
Sample type: CC



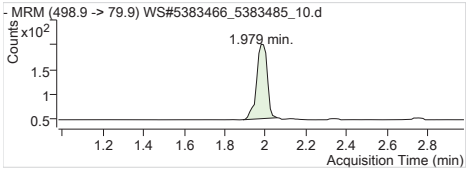


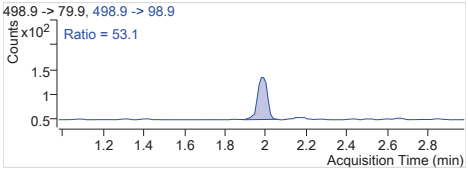
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 0.93 µg/L
Area ratio: 0.30881
Sample type: CC



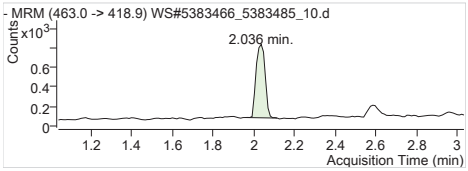


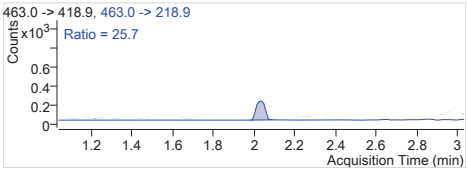
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 0.95 µg/L
Area ratio: 0.33082
Sample type: CC



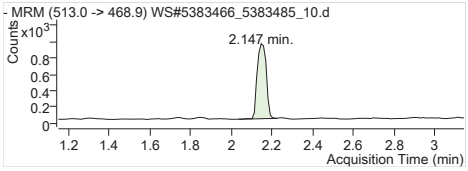


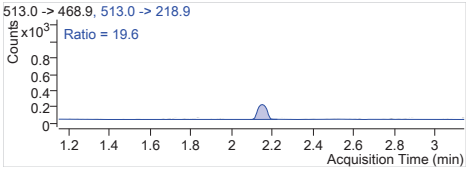
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.85 µg/L
Area ratio: 0.27336
Sample type: CC



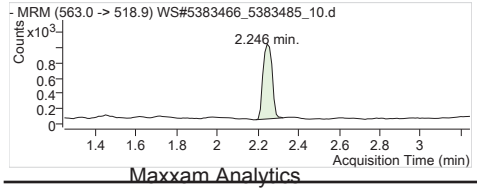


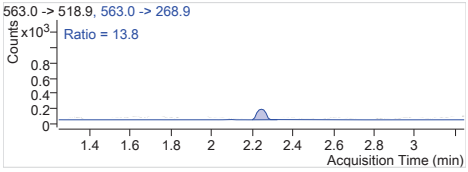
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 0.79 µg/L
Area ratio: 0.25550
Sample type: CC



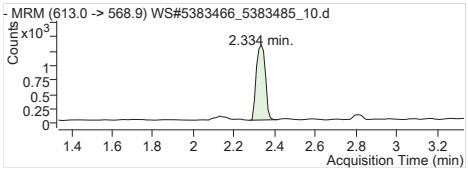


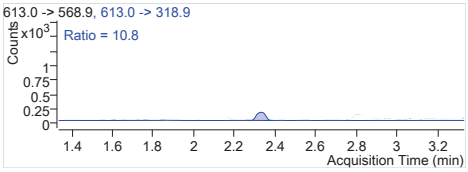
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 0.84 µg/L
Area ratio: 0.35695
Sample type: CC



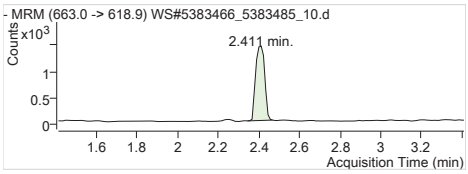


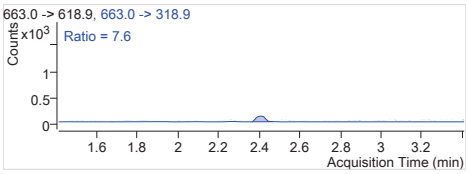
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.82 µg/L
Area ratio: 0.35036
Sample type: CC



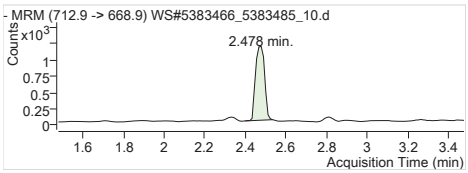


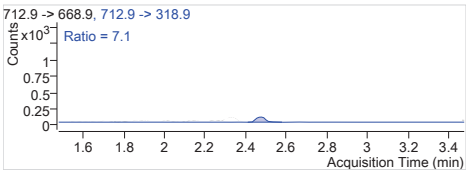
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 0.99 µg/L
Area ratio: 0.35694
Sample type: CC



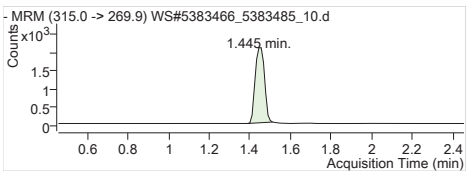


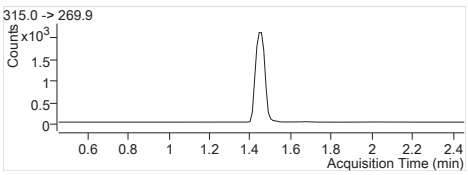
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.411 (2.411)
Calc. conc. 0.82 µg/L
Area ratio: 0.32245
Sample type: CC



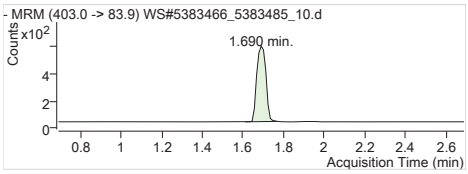


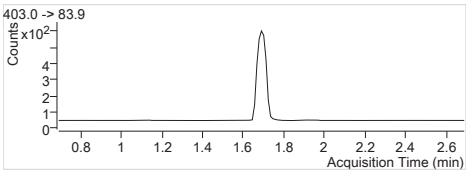
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 0.80 µg/L
Area ratio: 0.26094
Sample type: CC



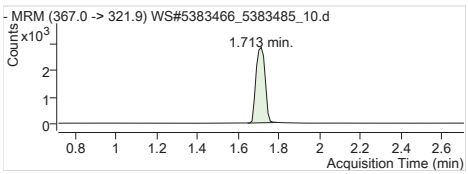


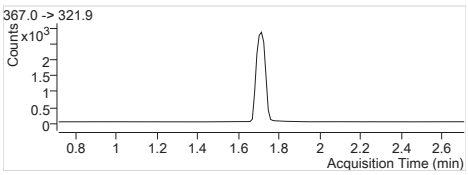
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 104.88 µg/L
Area ratio: 0.24848
Sample type: CC



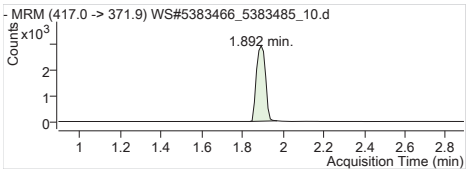


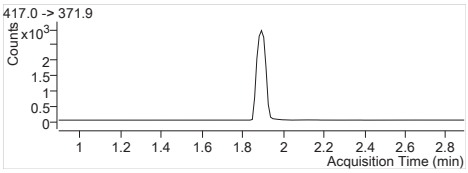
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 112.16 µg/L
Area ratio: 0.06518
Sample type: CC



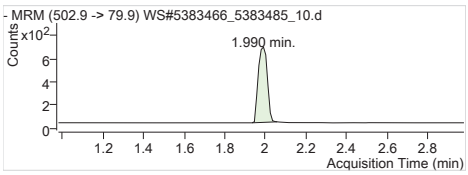


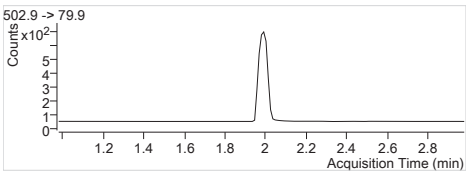
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 113.07 µg/L
Area ratio: 0.33034
Sample type: CC



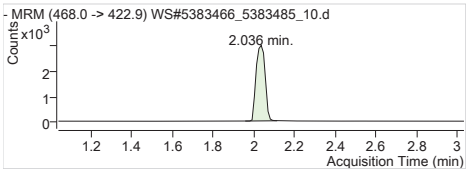


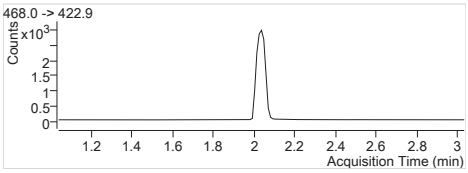
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 108.34 µg/L
Area ratio: 0.34008
Sample type: CC



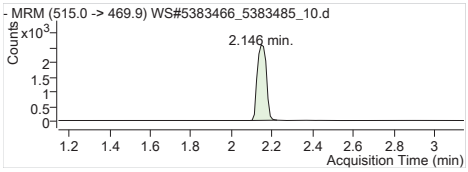


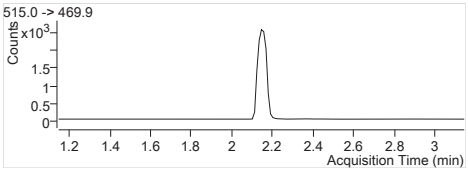
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.990 (1.979)
Calc. conc. 110.01 µg/L
Area ratio: 0.07593
Sample type: CC



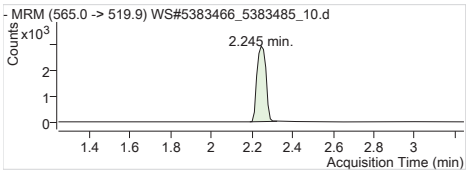


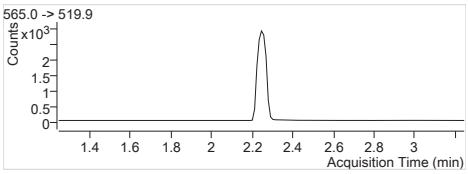
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 111.70 µg/L
Area ratio: 0.34547
Sample type: CC



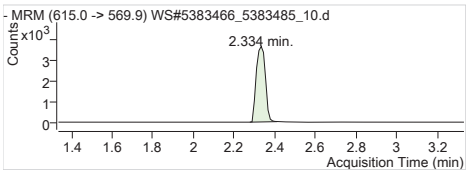


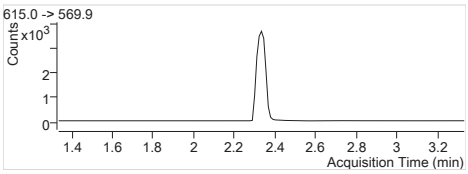
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 113.54 µg/L
Area ratio: 0.22784
Sample type: CC



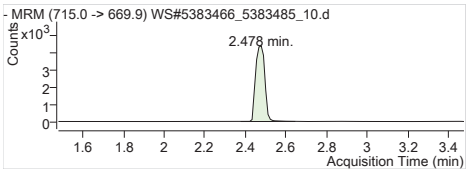


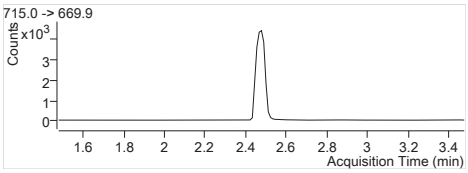
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 104.90 µg/L
Area ratio: 0.25373
Sample type: CC



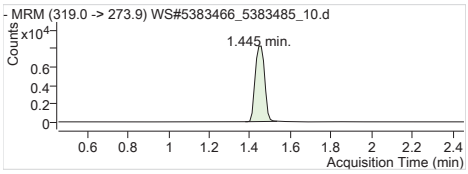


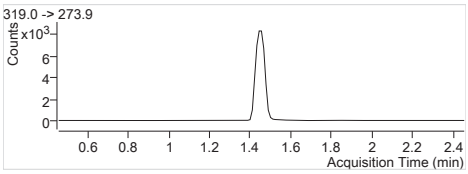
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 100.57 µg/L
Area ratio: 0.32375
Sample type: CC



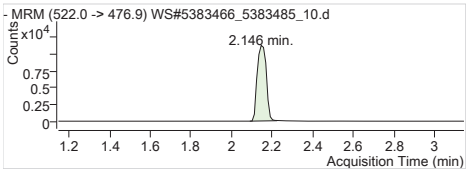


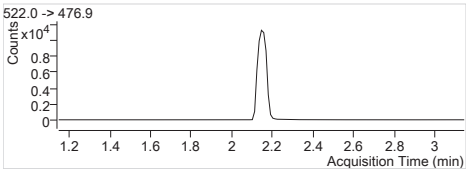
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 108.48 µg/L
Area ratio: 0.39790
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.445 (1.456)
Calc. conc. 93.20 µg/L
Area ratio: 0
Sample type: CC





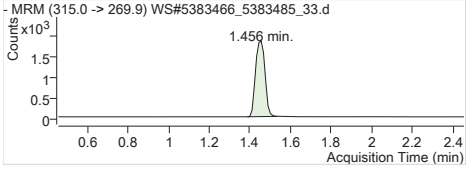
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 97.29 µg/L
Area ratio: 0
Sample type: CC

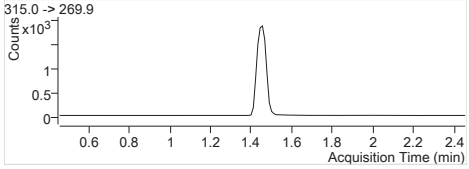
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_33.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/06 8:44:52 PM	**Injection Volume**	Per Method
Sample Annotation	-		

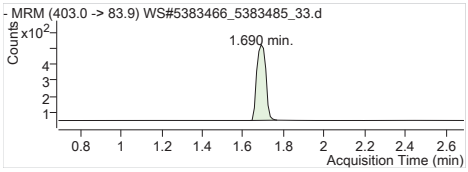
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5952	1.46	1 µg/L		
MPFHxS	1479	1.69	1 µg/L		
MPFHpA	8195	1.71	1 µg/L		
MPFOA	8316	1.89	1 µg/L		
MPFOS	1991	1.99	1 µg/L		
MPFNA	8403	2.04	1 µg/L		
MPFDA	7326	2.15	1 µg/L		
MPFUnA	8523	2.25	1 µg/L		
MPFDoA	11402	2.33	1 µg/L		
MPFTeDA	12531	2.48	1 µg/L		
13C6-PFHxA IS	27441	1.46	1 µg/L		
13C9-PFDA IS	35024	2.15	1 µg/L		

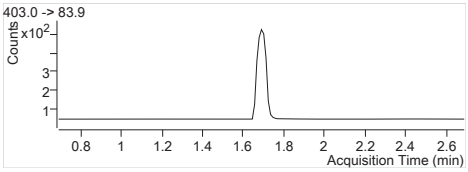
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7494	1.11	12.50	11.61 µg/L	92.89
PFHxA 1	28156	1.46	12.50	12.00 µg/L	95.98
PFHxS 1	7812	1.69	12.50	12.06 µg/L	96.51
PFHpA 1	37324	1.71	12.50	11.00 µg/L	87.98
PFOA 1	41978	1.89	12.50	12.01 µg/L	96.06
PFOS 1	8158	1.98	12.50	11.95 µg/L	95.61
PFNA 1	38160	2.04	12.50	12.21 µg/L	97.69
PFDA 1	39337	2.15	12.50	11.46 µg/L	91.68
PFUnA 1	41560	2.25	12.50	11.51 µg/L	92.09
PFDoA 1	54433	2.33	12.50	11.74 µg/L	93.90
PFTrDA 1	61489	2.41	12.50	11.88 µg/L	95.07
PFTeDA 1	54112	2.48	12.50	12.56 µg/L	100.48
13C2-PFHxA	5952	1.46	100.00	91.55 µg/L	91.55
18O2-PFHxS	1479	1.69	100.00	92.75 µg/L	92.75
13C4-PFHpA	8195	1.71	100.00	102.22 µg/L	102.22
13C4-PFOA	8316	1.89	100.00	96.54 µg/L	96.54
13C4-PFOS	1991	1.99	100.00	105.12 µg/L	105.12
13C5-PFNA	8349	2.04	100.00	98.37 µg/L	98.37
13C2-PFDA	7211	2.15	100.00	102.60 µg/L	102.60
13C2-PFUnA	8523	2.25	100.00	100.61 µg/L	100.61
13C2-PFDoA	11402	2.33	100.00	101.13 µg/L	101.13
13C2-PFTeDA	12767	2.48	100.00	99.38 µg/L	99.38
13C6-PFHxA	27441	1.46	100.00	96.52 µg/L	96.52
13C9-PFDA	35024	2.15	100.00	97.90 µg/L	97.90



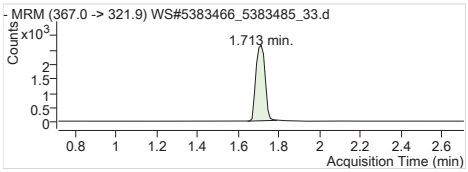


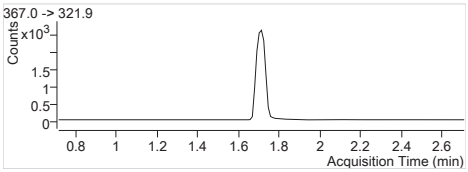
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	CC



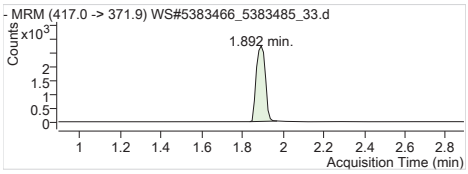


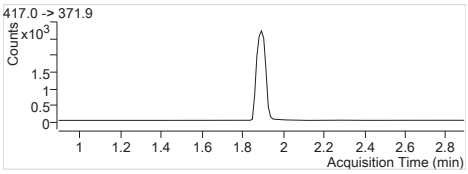
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



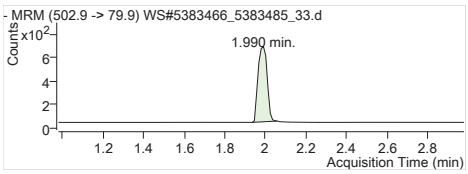


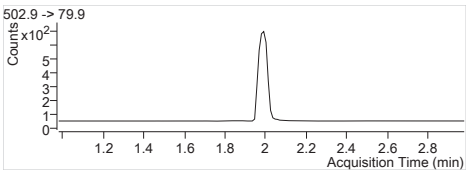
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: CC



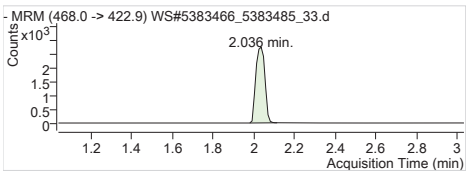


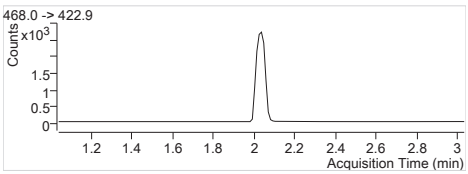
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: CC



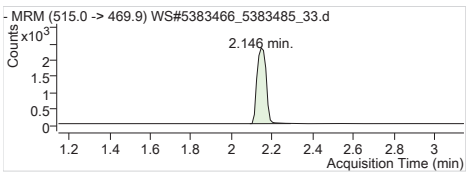


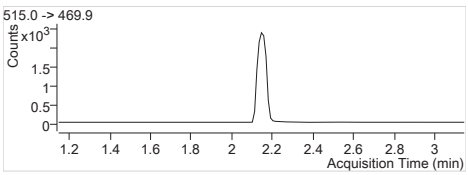
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: CC



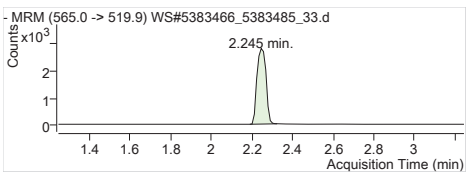


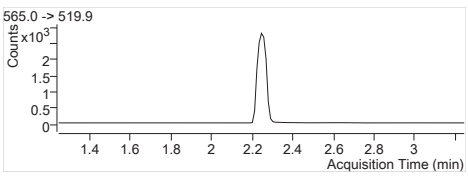
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: CC



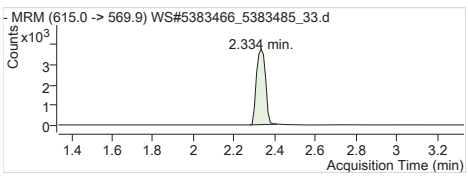


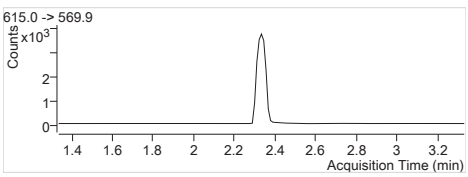
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



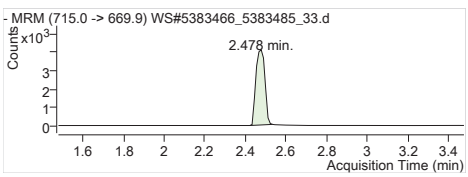


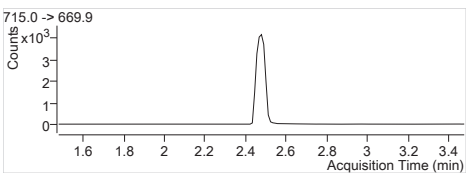
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC



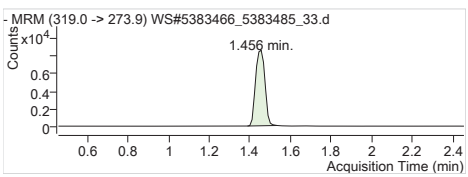


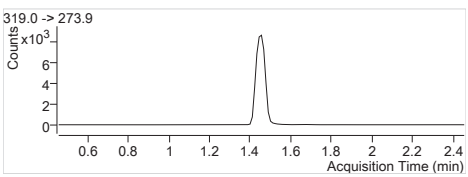
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: CC



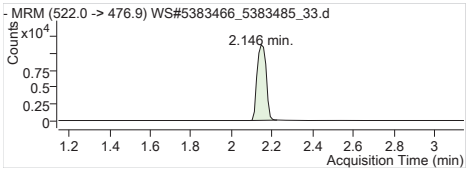


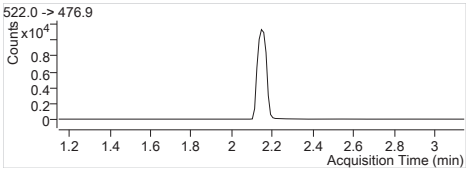
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: CC



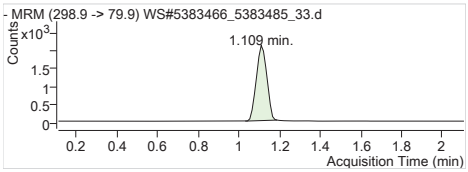


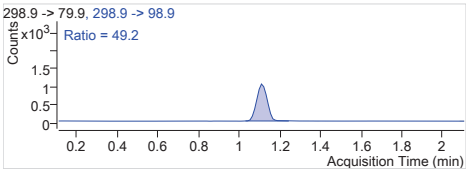
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: CC



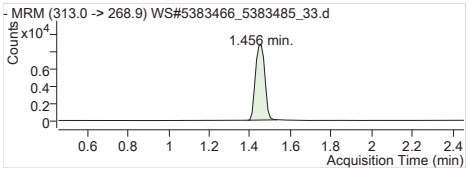


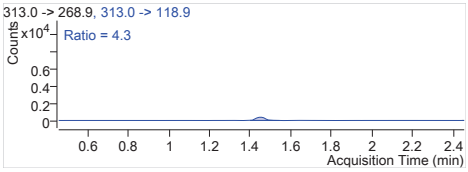
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



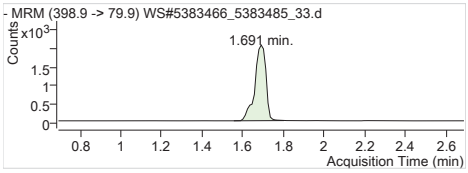


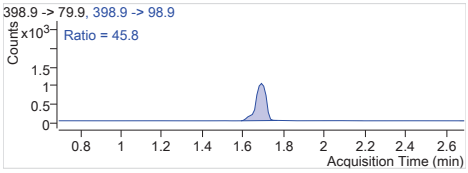
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 11.61 µg/L
Area ratio: 5.06694
Sample type: CC



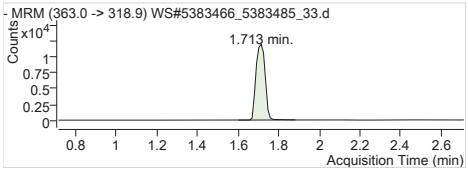


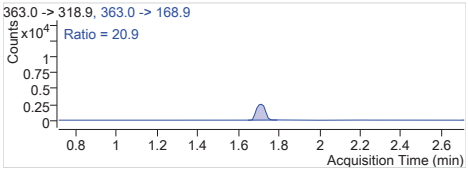
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 12.00 µg/L
Area ratio: 4.73051
Sample type: CC



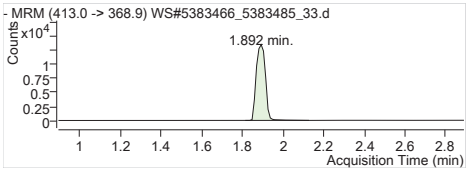


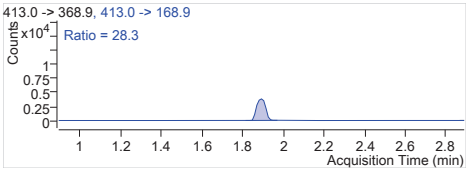
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.06 µg/L
Area ratio: 5.28195
Sample type: CC



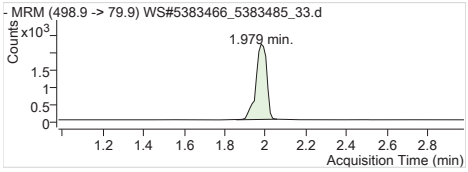


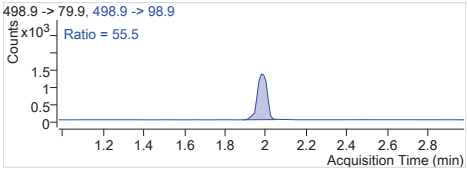
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 11.00 µg/L
Area ratio: 4.55448
Sample type: CC



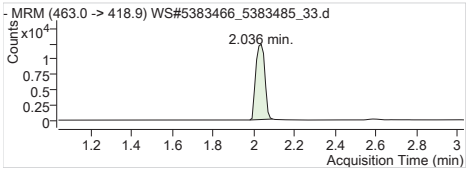


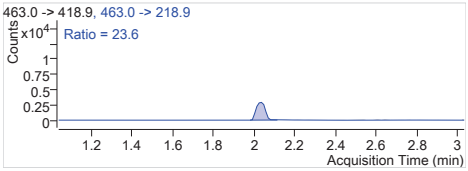
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 12.01 µg/L
Area ratio: 5.04786
Sample type: CC



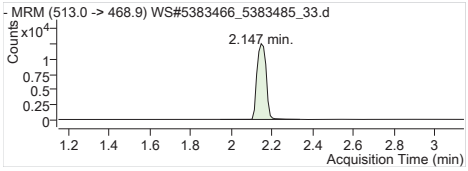


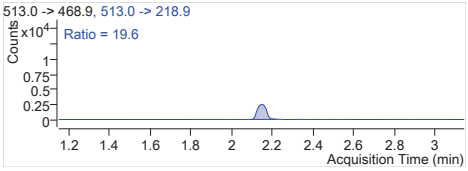
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 11.95 µg/L
Area ratio: 4.09744
Sample type: CC



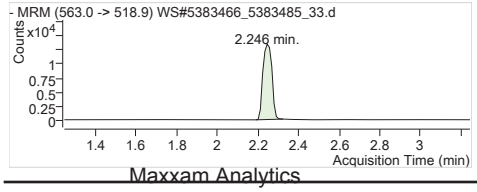


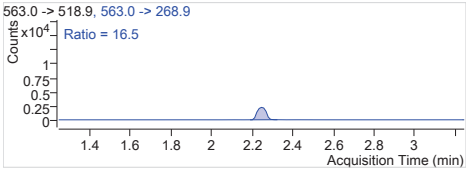
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 12.21 µg/L
Area ratio: 4.54124
Sample type: CC



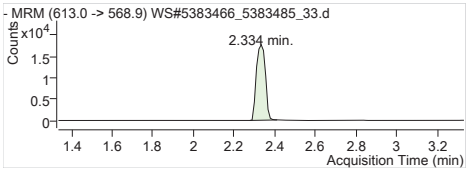


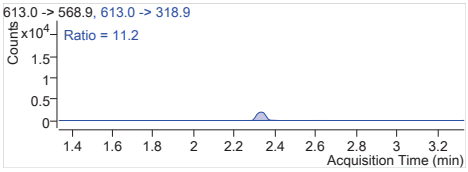
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 11.46 µg/L
Area ratio: 5.36951
Sample type: CC



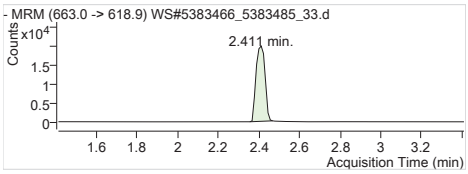


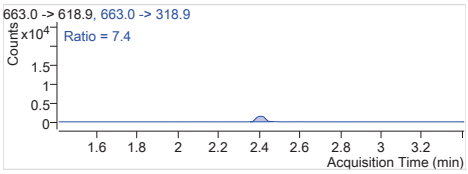
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 11.51 µg/L
Area ratio: 4.87622
Sample type: CC



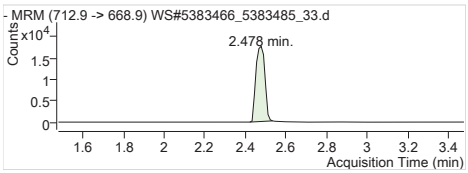


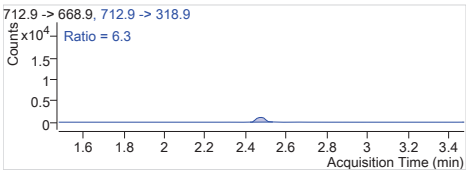
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.334 (2.334)
Calc. conc.	11.74 µg/L
Area ratio:	4.77399
Sample type:	CC



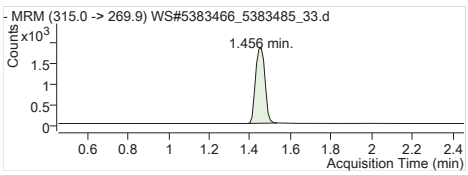


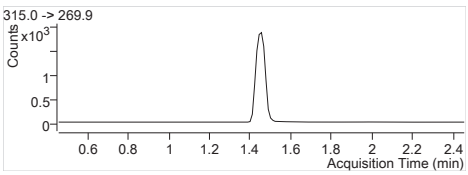
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.411 (2.411)
Calc. conc.	11.88 µg/L
Area ratio:	4.90695
Sample type:	CC



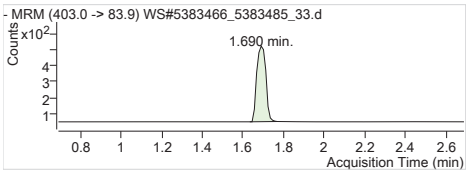


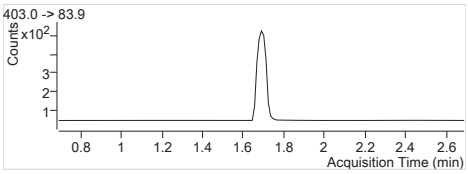
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.478 (2.478)
Calc. conc.	12.56 µg/L
Area ratio:	4.31825
Sample type:	CC



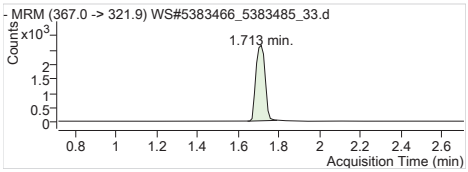


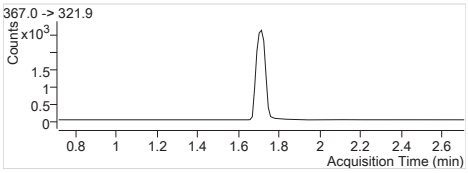
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	91.55 µg/L
Area ratio:	0.21690
Sample type:	CC



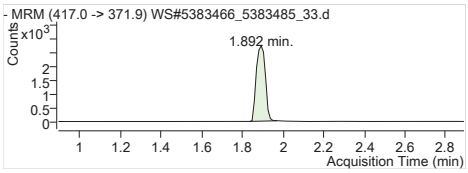


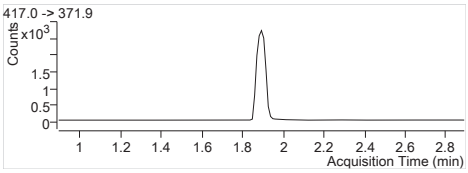
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	92.75 µg/L
Area ratio:	0.05390
Sample type:	CC



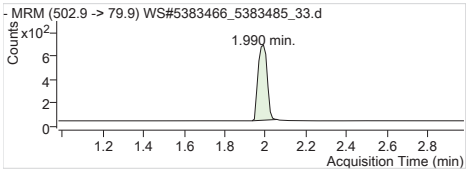


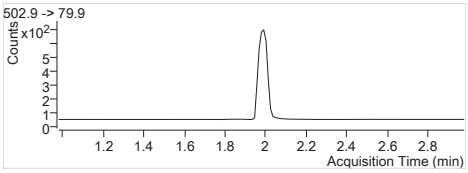
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	102.22 µg/L
Area ratio:	0.29864
Sample type:	CC



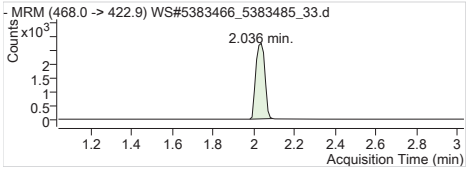


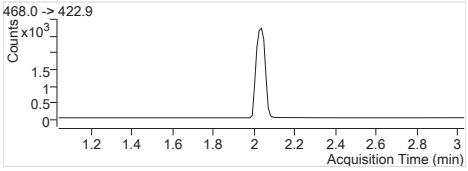
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	96.54 µg/L
Area ratio:	0.30305
Sample type:	CC



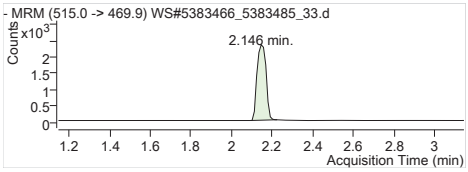


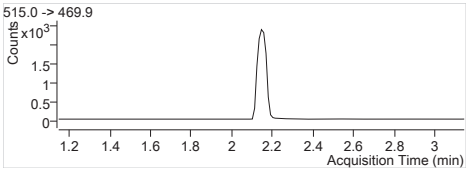
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	105.12 µg/L
Area ratio:	0.07256
Sample type:	CC



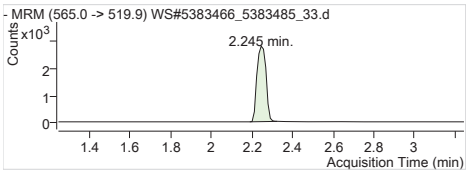


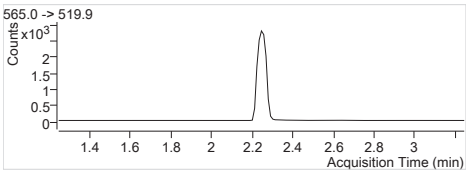
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	98.37 µg/L
Area ratio:	0.30425
Sample type:	CC



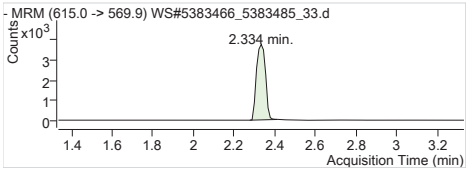


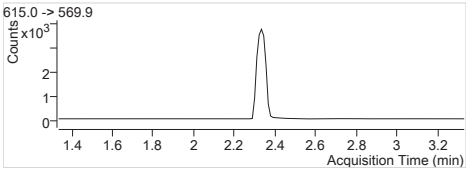
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 102.60 µg/L
Area ratio: 0.20589
Sample type: CC



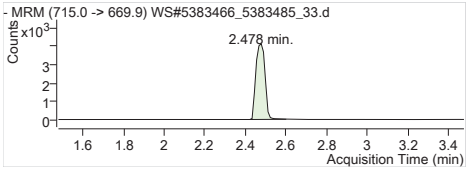


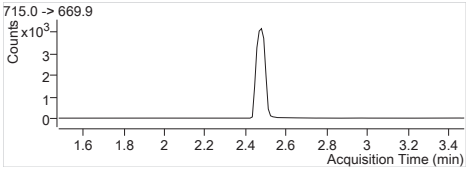
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 100.61 µg/L
Area ratio: 0.24335
Sample type: CC



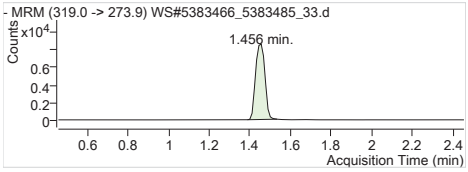


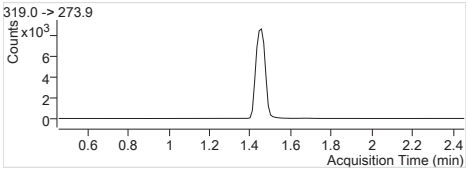
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 101.13 µg/L
Area ratio: 0.32555
Sample type: CC



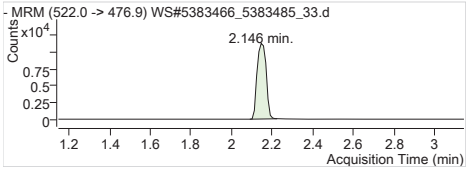


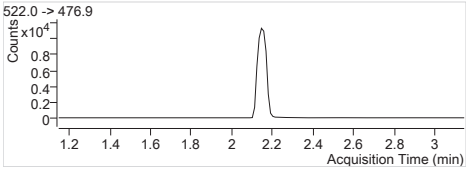
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 99.38 µg/L
Area ratio: 0.36452
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 96.52 µg/L
Area ratio: 0
Sample type: CC





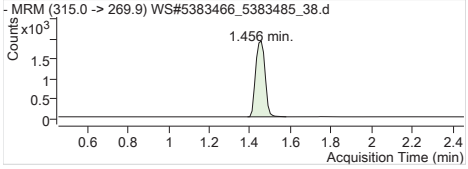
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 97.90 µg/L
Area ratio: 0
Sample type: CC

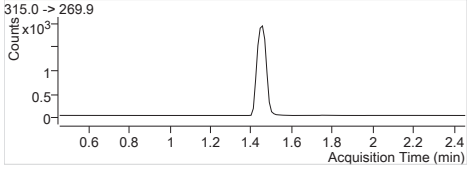
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_38.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/06 9:09:32 PM	**Injection Volume**	Per Method
Sample Annotation	-		

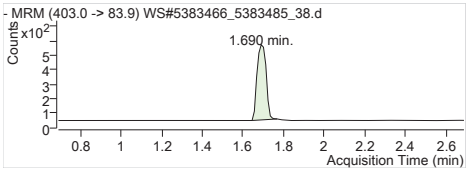
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6139	1.46	1 µg/L		
MPFHxS	1614	1.69	1 µg/L		
MPFHpA	8503	1.71	1 µg/L		
MPFOA	8311	1.89	1 µg/L		
MPFOS	2047	1.99	1 µg/L		
MPFNA	8310	2.04	1 µg/L		
MPFDA	7262	2.15	1 µg/L		
MPFUnA	8508	2.25	1 µg/L		
MPFDoA	11691	2.33	1 µg/L		
MPFTeDA	13609	2.48	1 µg/L		
13C6-PFHxA IS	27560	1.46	1 µg/L		
13C9-PFDA IS	36811	2.15	1 µg/L		

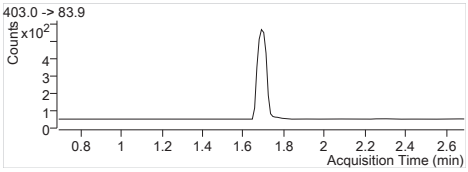
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7720	1.11	12.50	10.97 µg/L	87.76
PFHxA 1	28914	1.46	12.50	11.95 µg/L	95.58
PFHxS 1	8104	1.69	12.50	11.48 µg/L	91.84
PFHpA 1	38120	1.71	12.50	10.83 µg/L	86.63
PFOA 1	42099	1.89	12.50	12.05 µg/L	96.39
PFOS 1	8146	1.98	12.50	11.61 µg/L	92.87
PFNA 1	37296	2.04	12.50	12.07 µg/L	96.56
PFDA 1	41519	2.15	12.50	12.20 µg/L	97.57
PFUnA 1	41913	2.25	12.50	11.63 µg/L	93.04
PFDoA 1	55703	2.33	12.50	11.71 µg/L	93.71
PFTrDA 1	64129	2.41	12.50	11.41 µg/L	91.31
PFTeDA 1	53280	2.48	12.50	11.39 µg/L	91.13
13C2-PFHxA	6139	1.46	100.00	94.02 µg/L	94.02
18O2-PFHxS	1614	1.69	100.00	100.78 µg/L	100.78
13C4-PFHpA	8503	1.71	100.00	105.61 µg/L	105.61
13C4-PFOA	8311	1.89	100.00	96.07 µg/L	96.07
13C4-PFOS	2047	1.99	100.00	107.61 µg/L	107.61
13C5-PFNA	8310	2.04	100.00	97.49 µg/L	97.49
13C2-PFDA	7168	2.15	100.00	97.04 µg/L	97.04
13C2-PFUnA	8508	2.25	100.00	95.55 µg/L	95.55
13C2-PFDoA	11691	2.33	100.00	98.66 µg/L	98.66
13C2-PFTeDA	13875	2.48	100.00	102.76 µg/L	102.76
13C6-PFHxA	27560	1.46	100.00	96.94 µg/L	96.94
13C9-PFDA	36811	2.15	100.00	102.90 µg/L	102.90



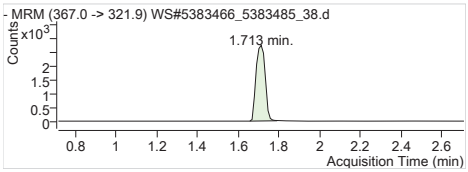


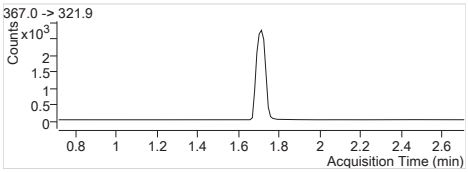
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	CC



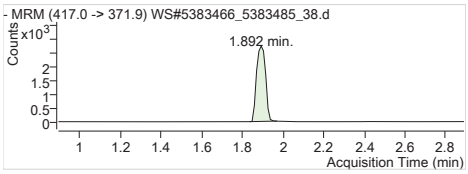


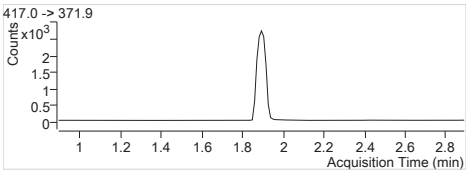
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



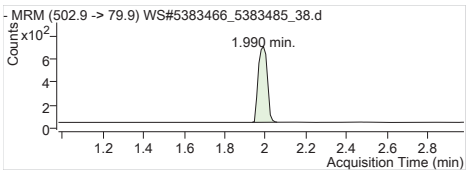


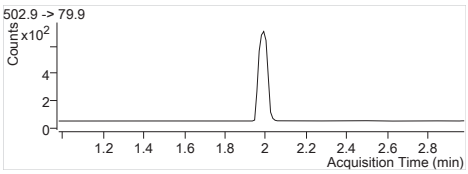
MPFHpA Internal Standard
RT (Exp. RT): 1.713 (1.713)
Concentration: 1 µg/L
Sample type: CC



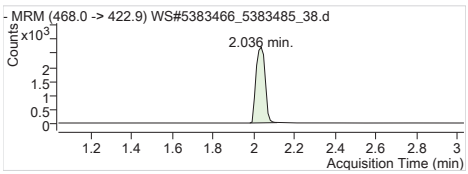


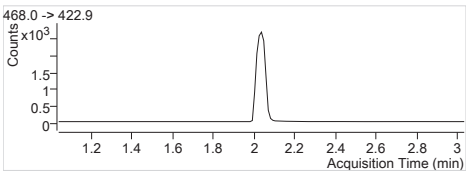
MPFOA Internal Standard
RT (Exp. RT): 1.892 (1.892)
Concentration: 1 µg/L
Sample type: CC



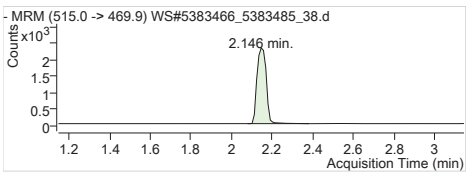


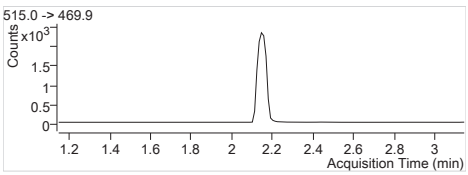
MPFOS Internal Standard
RT (Exp. RT): 1.990 (1.979)
Concentration: 1 µg/L
Sample type: CC



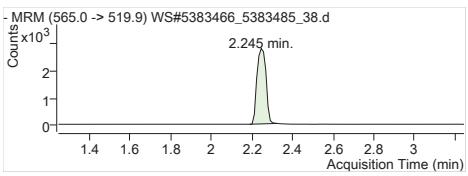


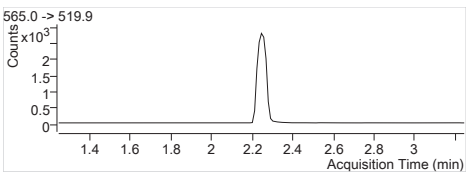
MPFNA Internal Standard
RT (Exp. RT): 2.036 (2.036)
Concentration: 1 µg/L
Sample type: CC



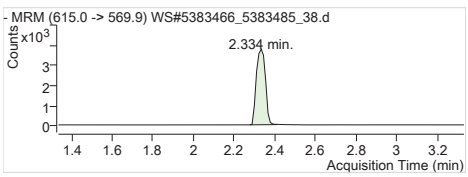


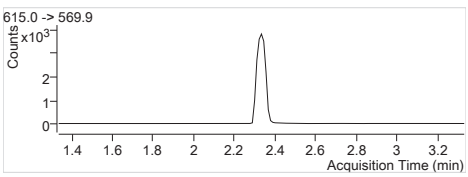
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



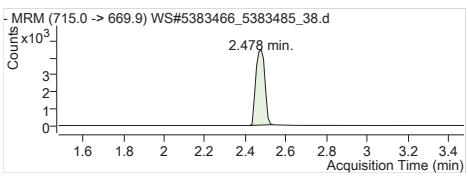


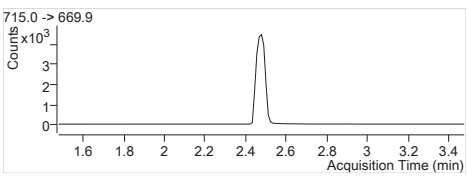
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC



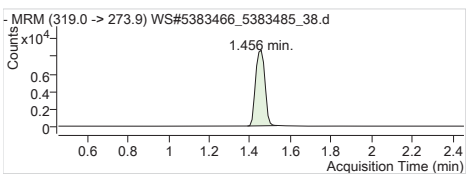


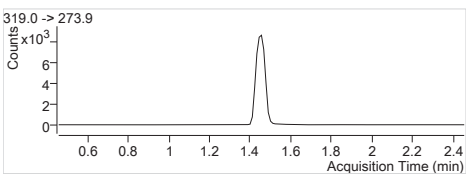
MPFDoA Internal Standard
RT (Exp. RT): 2.334 (2.334)
Concentration: 1 µg/L
Sample type: CC



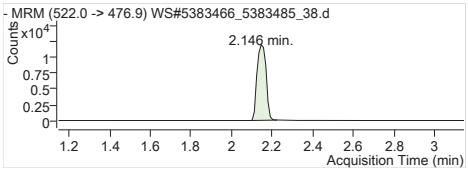


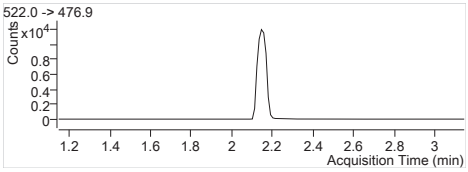
MPFTeDA Internal Standard
RT (Exp. RT): 2.478 (2.478)
Concentration: 1 µg/L
Sample type: CC



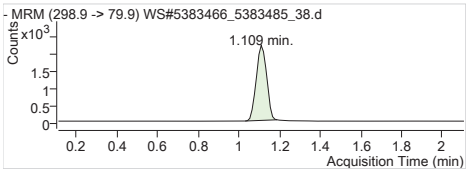


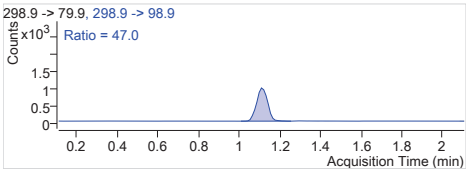
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.456 (1.456)
Concentration: 1 µg/L
Sample type: CC



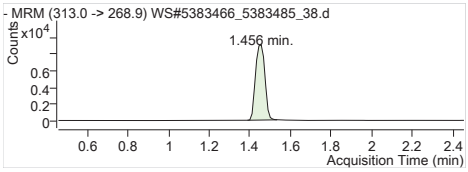


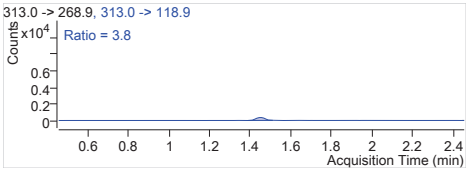
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



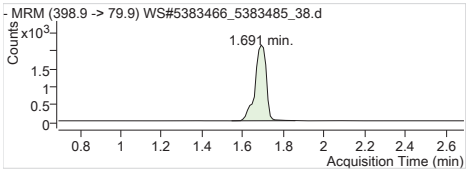


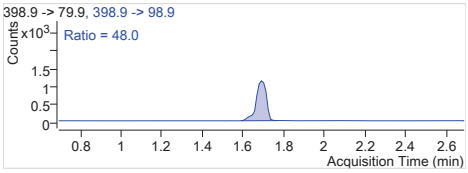
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.109 (1.109)
Calc. conc. 10.97 µg/L
Area ratio: 4.78315
Sample type: CC



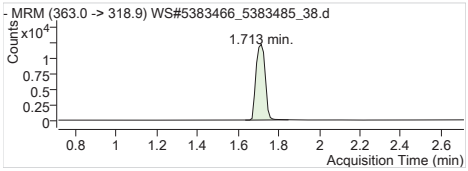


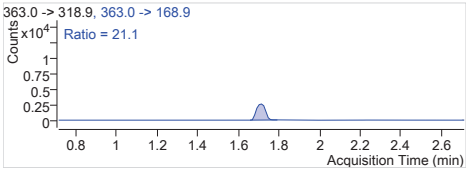
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 11.95 µg/L
Area ratio: 4.70989
Sample type: CC



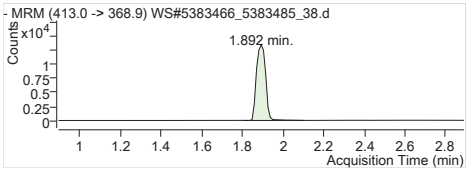


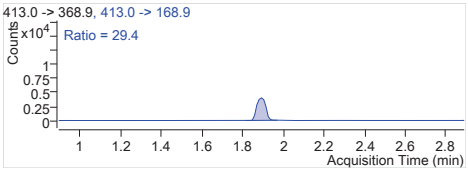
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 11.48 µg/L
Area ratio: 5.02107
Sample type: CC



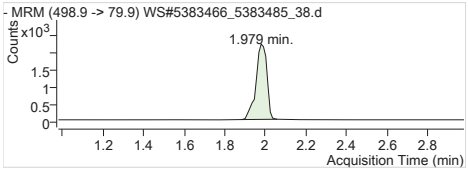


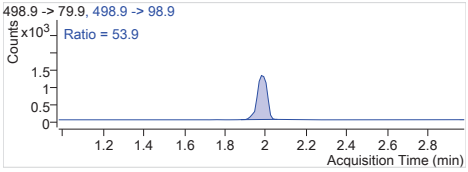
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.713 (1.713)
Calc. conc. 10.83 µg/L
Area ratio: 4.48312
Sample type: CC



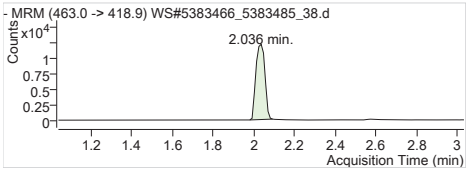


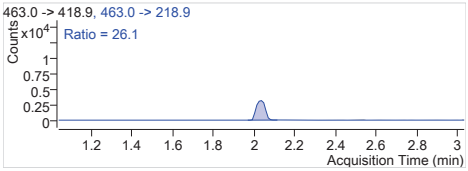
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.892 (1.892)
Calc. conc. 12.05 µg/L
Area ratio: 5.06546
Sample type: CC



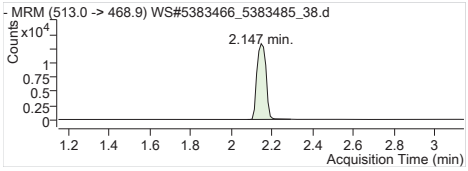


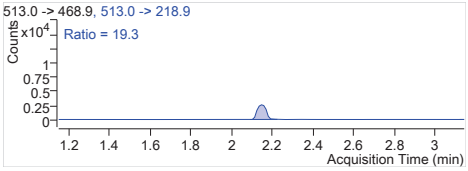
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 11.61 µg/L
Area ratio: 3.97948
Sample type: CC



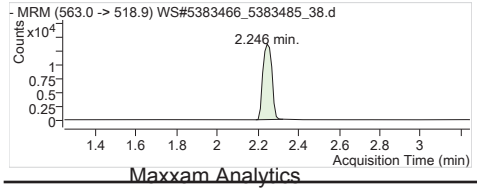


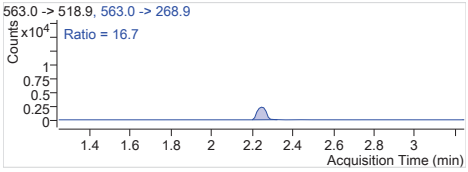
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.036 (2.036)
Calc. conc. 12.07 µg/L
Area ratio: 4.48809
Sample type: CC



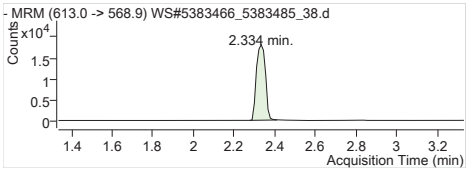


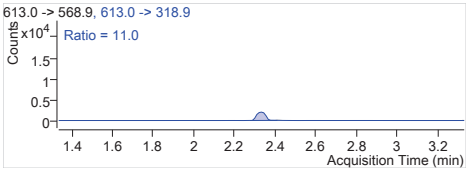
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 12.20 µg/L
Area ratio: 5.71730
Sample type: CC



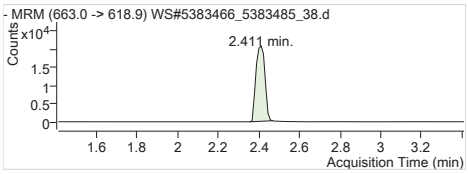


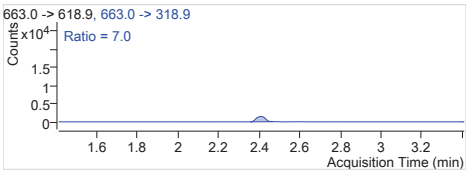
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 11.63 µg/L
Area ratio: 4.92630
Sample type: CC



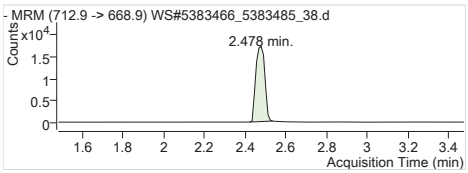


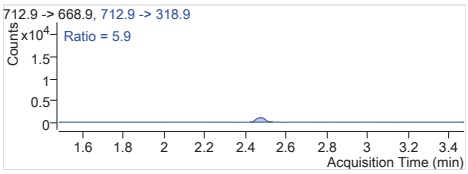
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.334 (2.334)
Calc. conc.	11.71 µg/L
Area ratio:	4.76461
Sample type:	CC



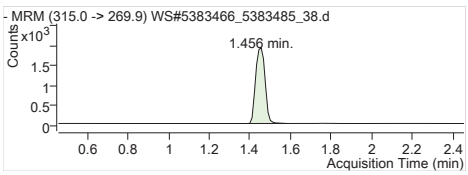


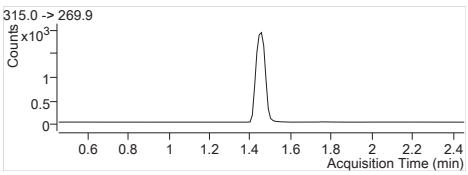
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.411 (2.411)
Calc. conc.	11.41 µg/L
Area ratio:	4.71225
Sample type:	CC



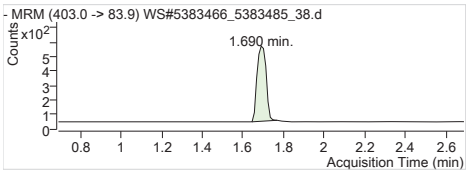


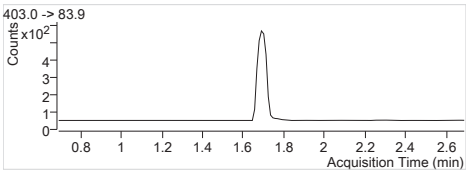
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.478 (2.478)
Calc. conc.	11.39 µg/L
Area ratio:	3.91506
Sample type:	CC



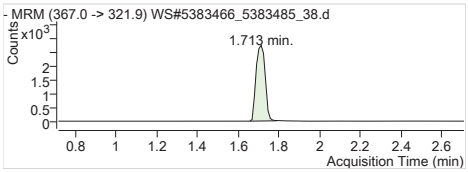


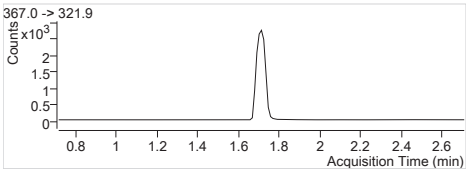
13C2-PFHxA	315.0 -> 269.9
RT (Exp. RT):	1.456 (1.456)
Calc. conc.	94.02 µg/L
Area ratio:	0.22275
Sample type:	CC



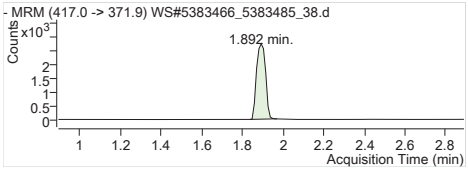


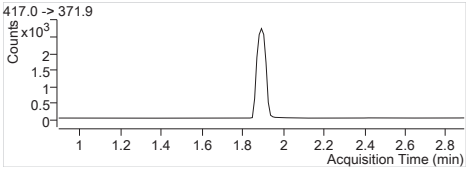
18O2-PFHxS	403.0 -> 83.9
RT (Exp. RT):	1.690 (1.690)
Calc. conc.	100.78 µg/L
Area ratio:	0.05856
Sample type:	CC



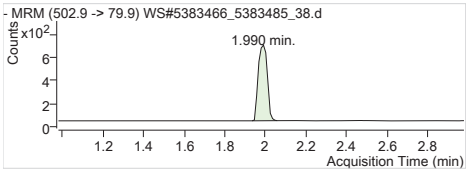


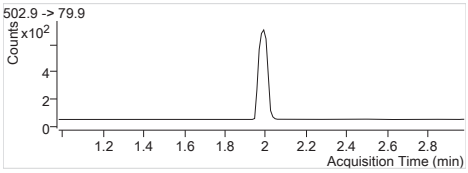
13C4-PFHpA	367.0 -> 321.9
RT (Exp. RT):	1.713 (1.713)
Calc. conc.	105.61 µg/L
Area ratio:	0.30853
Sample type:	CC



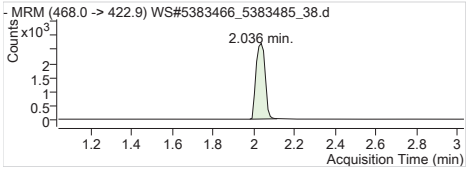


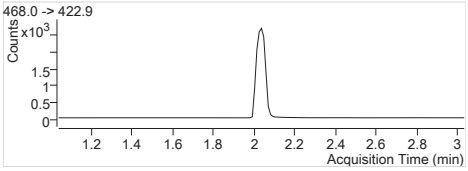
13C4-PFOA	417.0 -> 371.9
RT (Exp. RT):	1.892 (1.892)
Calc. conc.	96.07 µg/L
Area ratio:	0.30156
Sample type:	CC



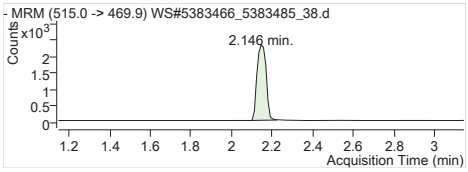


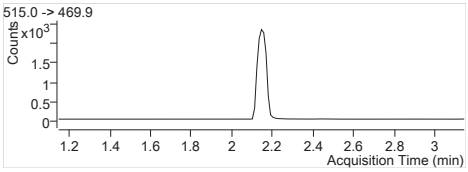
13C4-PFOS	502.9 -> 79.9
RT (Exp. RT):	1.990 (1.979)
Calc. conc.	107.61 µg/L
Area ratio:	0.07427
Sample type:	CC



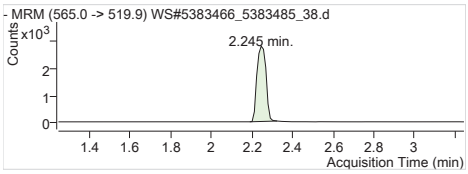


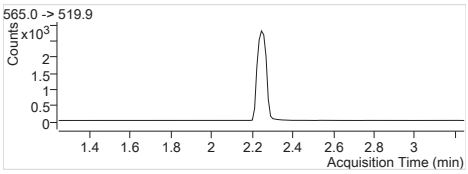
13C5-PFNA	468.0 -> 422.9
RT (Exp. RT):	2.036 (2.036)
Calc. conc.	97.49 µg/L
Area ratio:	0.30152
Sample type:	CC



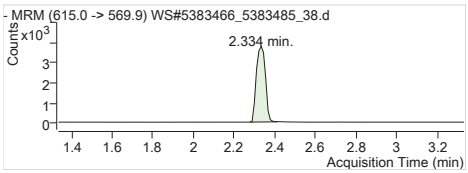


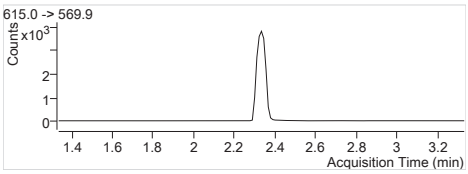
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 97.04 µg/L
Area ratio: 0.19472
Sample type: CC



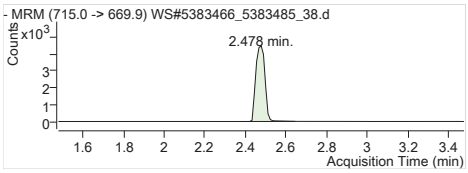


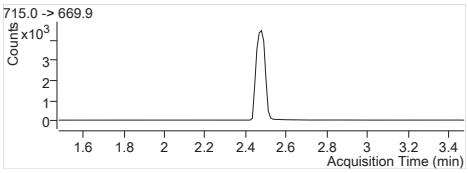
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.245)
Calc. conc. 95.55 µg/L
Area ratio: 0.23113
Sample type: CC



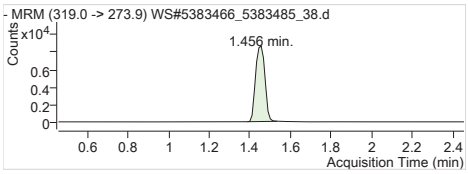


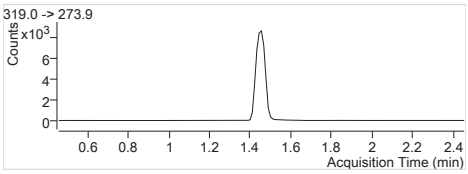
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.334 (2.334)
Calc. conc. 98.66 µg/L
Area ratio: 0.31760
Sample type: CC



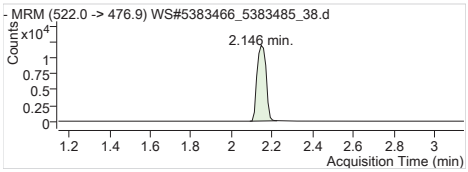


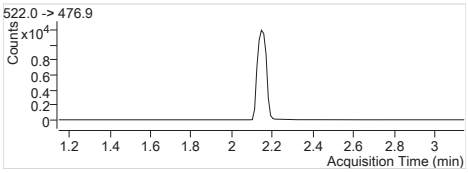
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.478 (2.478)
Calc. conc. 102.76 µg/L
Area ratio: 0.37693
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.456 (1.456)
Calc. conc. 96.94 µg/L
Area ratio: 0
Sample type: CC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 102.90 µg/L
Area ratio: 0
Sample type: CC

Quantitation Results

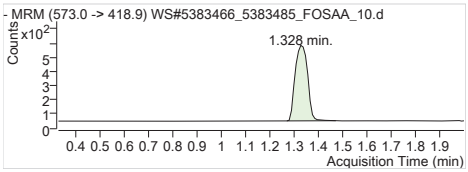
Agilent Technologies

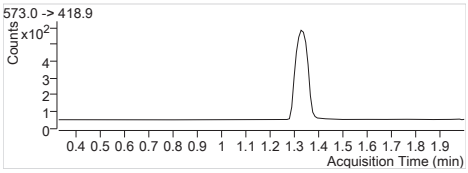
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/06 12:47:23 PM	**Injection Volume**	Per Method
Sample Annotation	-		

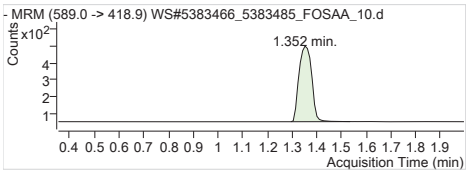
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1894	1.33	1 µg/L		
D5-EtFOSAA IS	1604	1.35	1 µg/L		
13C9-PFDA IS	25890	0.96	1 µg/L		

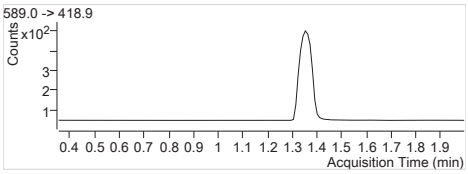
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	559	1.33	0.83	0.84 µg/L	101.80
EtFOSAA 1	528	1.35	0.83	0.93 µg/L	112.21
D3-MeFOSAA	1894	1.33	100.00	111.37 µg/L	111.37
D5-EtFOSAA	1604	1.35	100.00	109.47 µg/L	109.47
13C9-PFDA	25738	0.96	100.00	91.30 µg/L	91.30



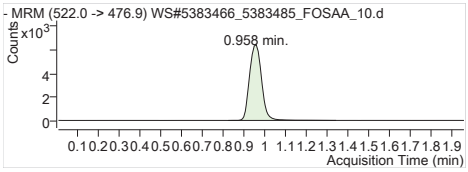


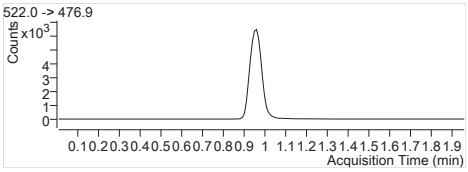
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



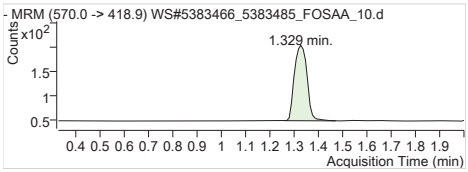


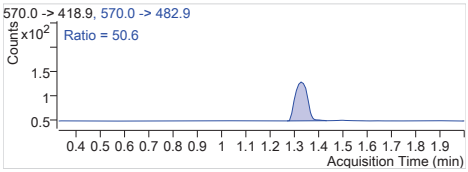
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



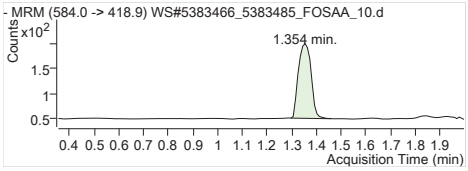


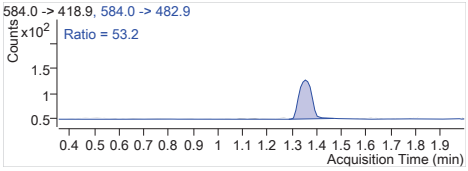
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: CC



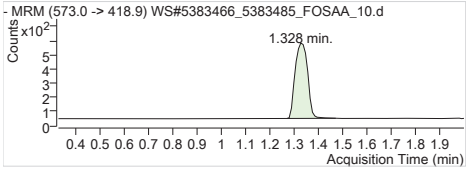


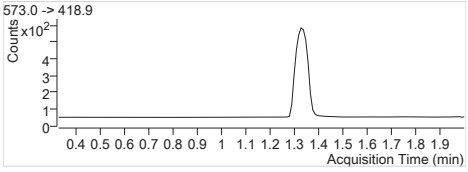
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 0.84 µg/L
Area ratio: 0.29514
Sample type: CC



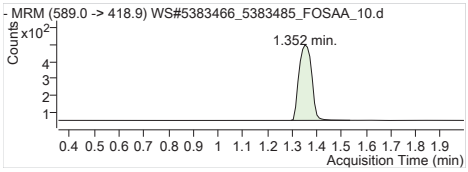


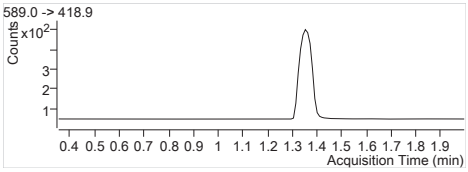
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 0.93 µg/L
Area ratio: 0.32918
Sample type: CC



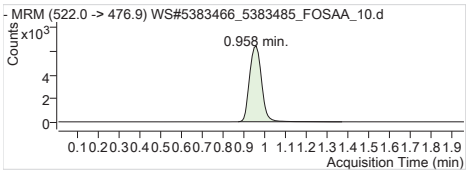


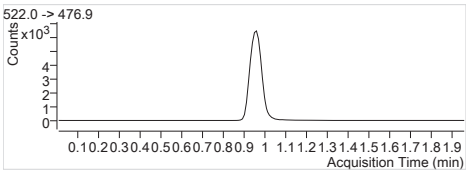
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 111.37 µg/L
Area ratio: 0.07316
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	109.47 µg/L
Area ratio:	0.06195
Sample type:	CC





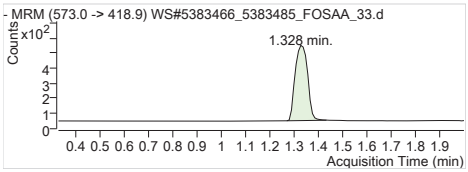
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	91.30 µg/L
Area ratio:	0
Sample type:	CC

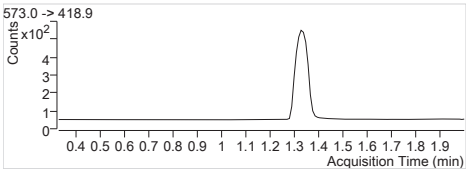
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_33.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 1:42:50 PM	**Injection Volume**	Per Method
Sample Annotation	-		

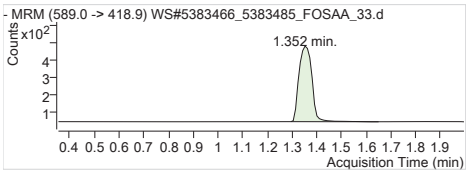
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1776	1.33	1 µg/L		
D5-EtFOSAA IS	1575	1.35	1 µg/L		
13C9-PFDA IS	28229	0.96	1 µg/L		

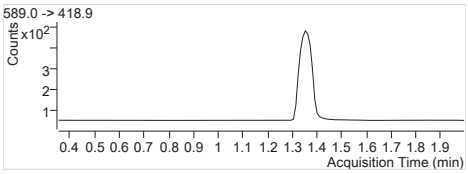
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7618	1.33	12.50	11.87 µg/L	94.96
EtFOSAA 1	7636	1.35	12.50	11.52 µg/L	92.13
D3-MeFOSAA	1776	1.33	100.00	95.77 µg/L	95.77
D5-EtFOSAA	1575	1.35	100.00	98.58 µg/L	98.58
13C9-PFDA	28351	0.96	100.00	100.57 µg/L	100.57



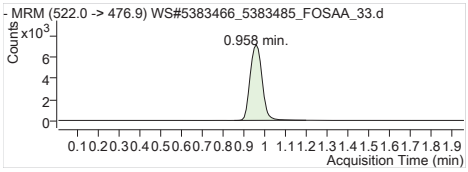


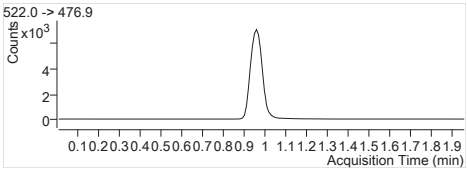
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



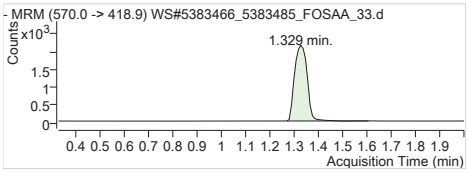


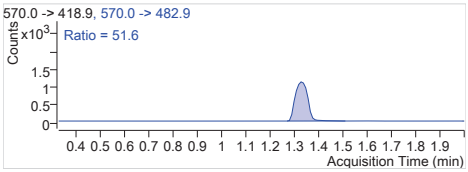
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



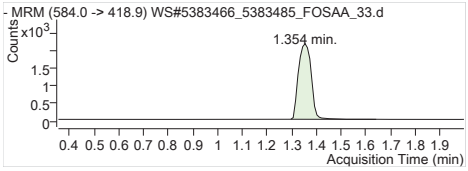


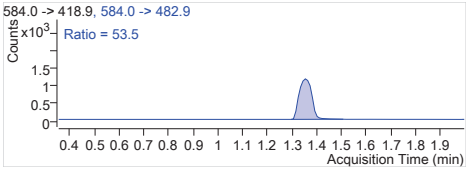
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: CC



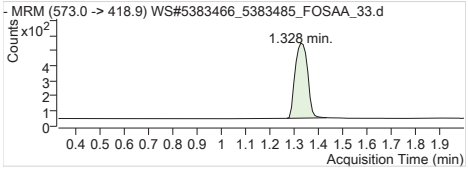


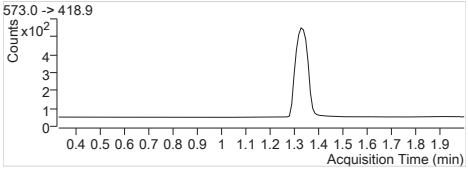
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 11.87 µg/L
Area ratio: 4.28941
Sample type: CC



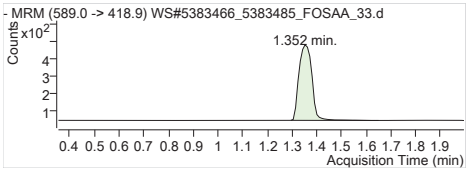


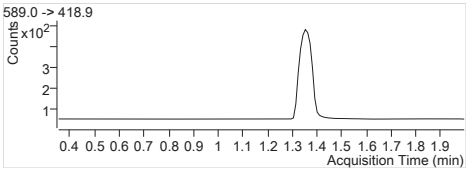
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.52 µg/L
Area ratio: 4.84825
Sample type: CC



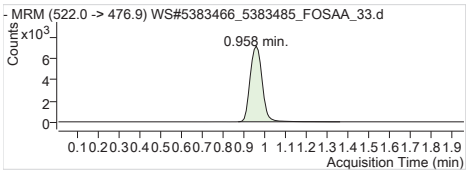


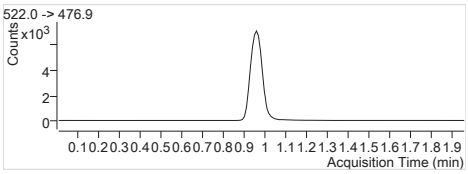
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 95.77 µg/L
Area ratio: 0.06291
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	98.58 µg/L
Area ratio:	0.05579
Sample type:	CC





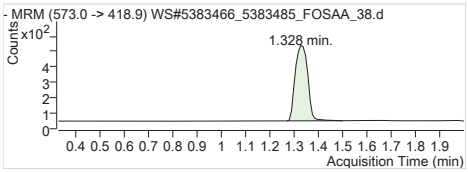
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	100.57 µg/L
Area ratio:	0
Sample type:	CC

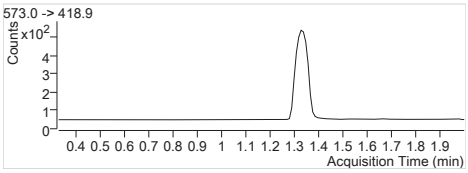
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_38.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 1:54:56 PM	**Injection Volume**	Per Method
Sample Annotation	-		

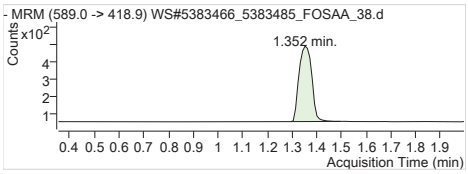
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1753	1.33	1 µg/L		
D5-EtFOSAA IS	1574	1.35	1 µg/L		
13C9-PFDA IS	28421	0.96	1 µg/L		

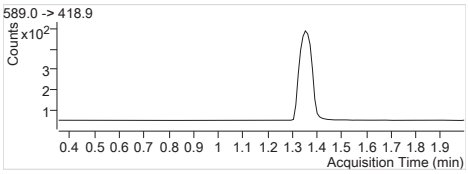
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7662	1.33	12.50	12.10 µg/L	96.76
EtFOSAA 1	7381	1.35	12.50	11.14 µg/L	89.16
D3-MeFOSAA	1753	1.33	100.00	93.90 µg/L	93.90
D5-EtFOSAA	1574	1.35	100.00	97.85 µg/L	97.85
13C9-PFDA	28308	0.96	100.00	100.42 µg/L	100.42



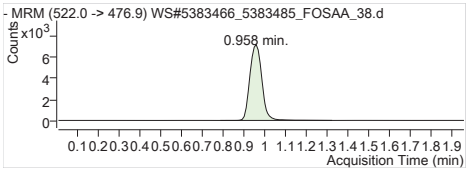


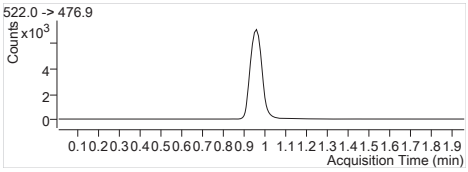
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



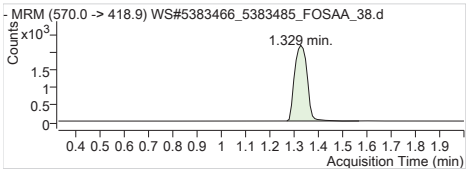


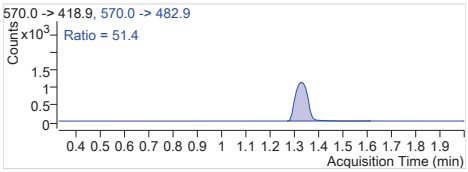
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



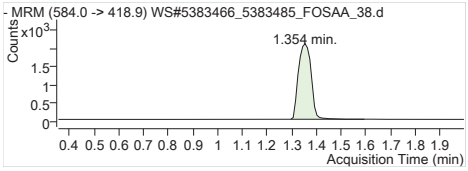


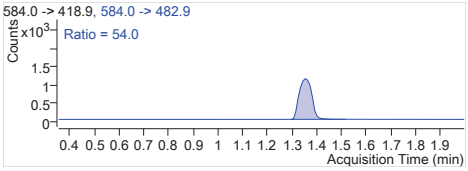
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: CC



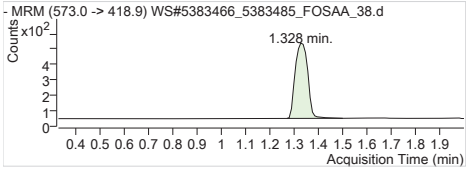


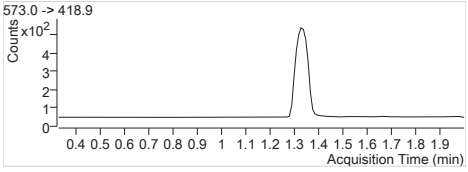
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 12.10 µg/L
Area ratio: 4.37079
Sample type: CC



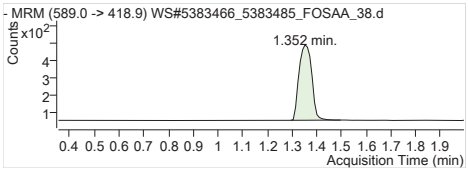


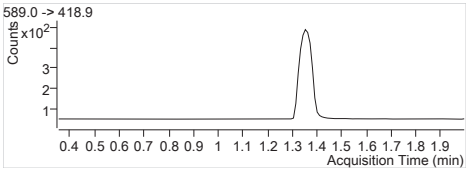
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.14 µg/L
Area ratio: 4.68933
Sample type: CC



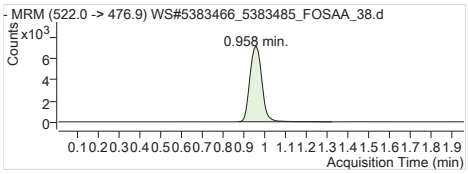


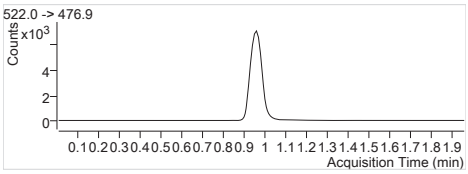
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 93.90 µg/L
Area ratio: 0.06168
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.352 (1.352)
Calc. conc.	97.85 µg/L
Area ratio:	0.05538
Sample type:	CC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.958 (0.958)
Calc. conc.	100.42 µg/L
Area ratio:	0
Sample type:	CC

Quantitation Results

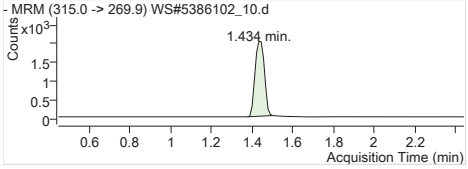
Agilent Technologies

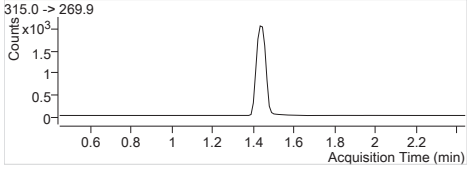
Batch Path	T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5386102_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C8
Acq. Date	2018/02/08 3:51:17 AM	**Injection Volume**	Per Method
Sample Annotation	-		

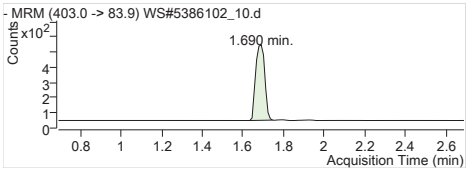
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6401	1.43	1 µg/L		
MPFHxS	1558	1.69	1 µg/L		
MPFHpA	7910	1.70	1 µg/L		
MPFOA	8320	1.88	1 µg/L		
MPFOS	1920	1.98	1 µg/L		
MPFNA	8655	2.02	1 µg/L		
MPFDA	7196	2.14	1 µg/L		
MPFUnA	8481	2.23	1 µg/L		
MPFDoA	11855	2.32	1 µg/L		
MPFTeDA	12712	2.47	1 µg/L		
13C6-PFHxA IS	32150	1.43	1 µg/L		
13C9-PFDA IS	41525	2.13	1 µg/L		

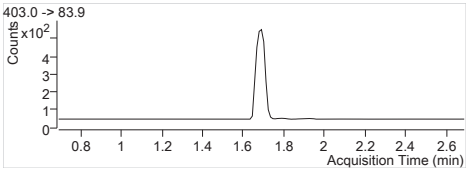
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	513	1.09	0.83	0.84 µg/L	100.66
PFHxA 1	1900	1.43	0.83	0.82 µg/L	98.85
PFHxS 1	472	1.69	0.83	0.68 µg/L	82.01
PFHpA 1	2414	1.70	0.83	0.84 µg/L	100.86
PFOA 1	2863	1.88	0.83	0.94 µg/L	113.70
PFOS 1	593	1.98	0.83	0.94 µg/L	113.82
PFNA 1	2412	2.03	0.83	0.81 µg/L	97.61
PFDA 1	2787	2.14	0.83	0.79 µg/L	95.10
PFUnA 1	2888	2.23	0.83	0.84 µg/L	100.98
PFDoA 1	3466	2.32	0.83	0.78 µg/L	93.61
PFTrDA 1	4415	2.40	0.83	0.93 µg/L	112.20
PFTeDA 1	3792	2.47	0.83	0.90 µg/L	108.78
13C2-PFHxA	6401	1.43	100.00	102.45 µg/L	102.45
18O2-PFHxS	1558	1.69	100.00	97.47 µg/L	97.47
13C4-PFHpA	7910	1.70	100.00	96.68 µg/L	96.68
13C4-PFOA	8320	1.88	100.00	96.39 µg/L	96.39
13C4-PFOS	1920	1.98	100.00	98.63 µg/L	98.63
13C5-PFNA	8656	2.02	100.00	100.48 µg/L	100.48
13C2-PFDA	6981	2.14	100.00	98.77 µg/L	98.77
13C2-PFUnA	8481	2.23	100.00	101.19 µg/L	101.19
13C2-PFDoA	11855	2.32	100.00	101.88 µg/L	101.88
13C2-PFTeDA	13021	2.47	100.00	98.10 µg/L	98.10
13C6-PFHxA	32150	1.43	100.00	101.35 µg/L	101.35
13C9-PFDA	41525	2.13	100.00	102.39 µg/L	102.39



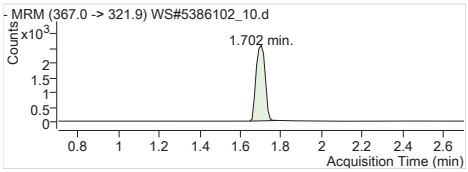


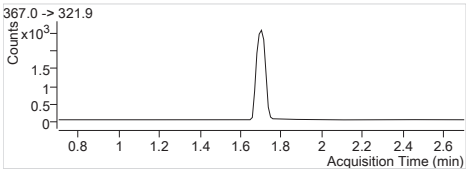
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	CC



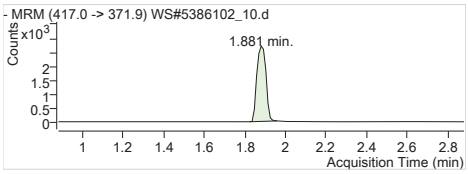


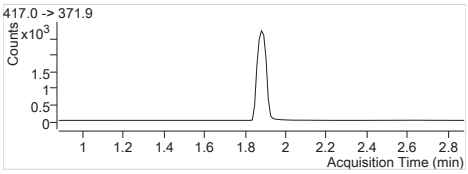
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



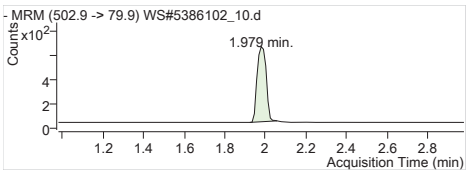


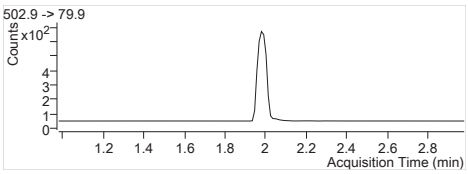
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: CC



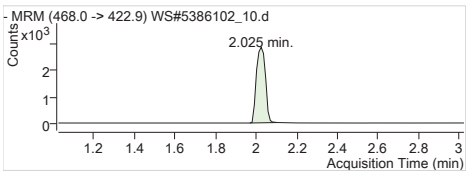


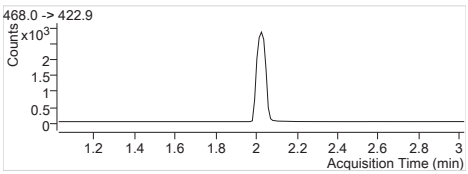
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



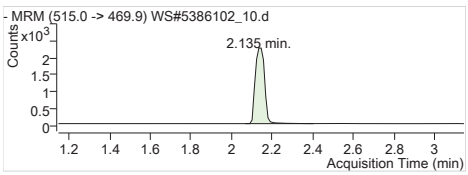


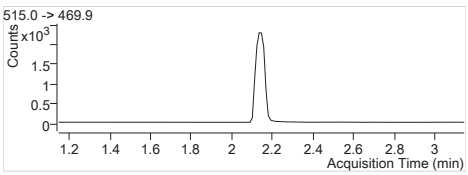
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



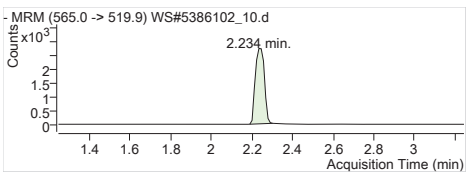


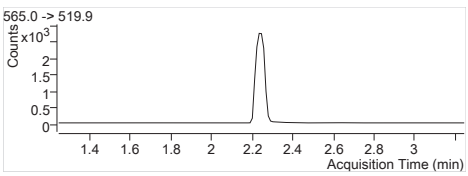
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: CC



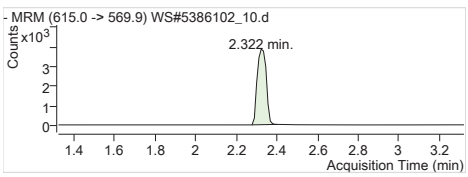


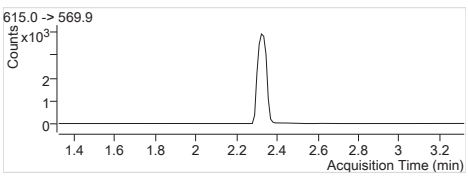
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: CC



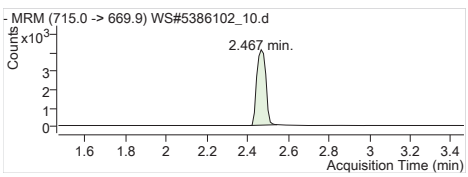


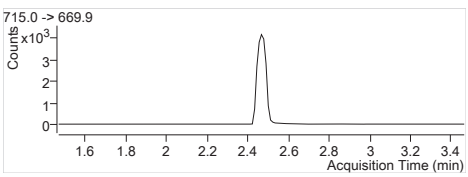
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.245)
Concentration: 1 µg/L
Sample type: CC



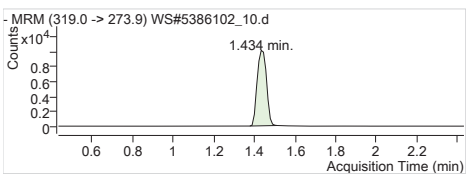


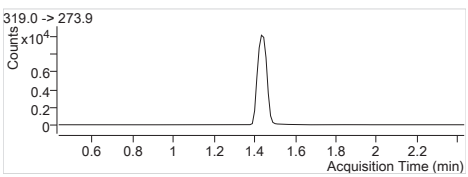
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



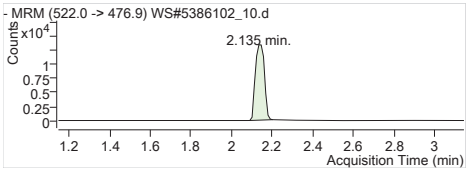


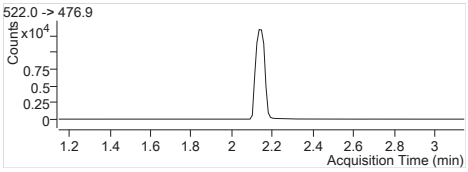
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



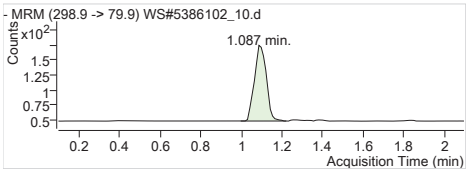


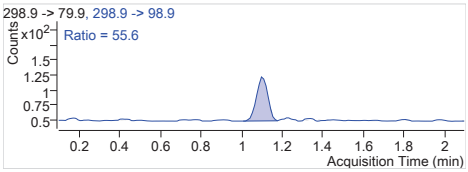
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



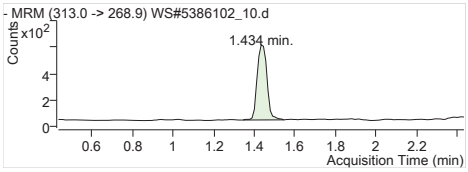


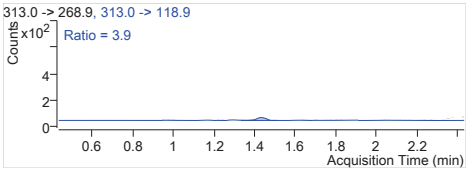
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: CC



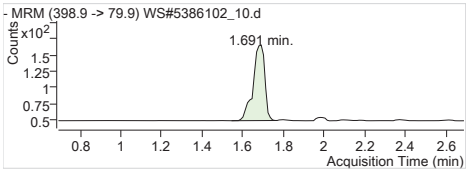


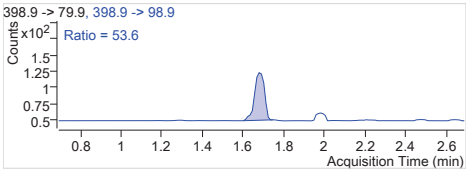
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.098)
Calc. conc. 0.84 µg/L
Area ratio: 0.32927
Sample type: CC



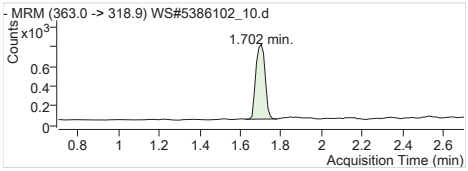


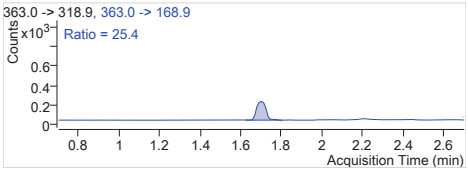
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.82 µg/L
Area ratio: 0.29683
Sample type: CC



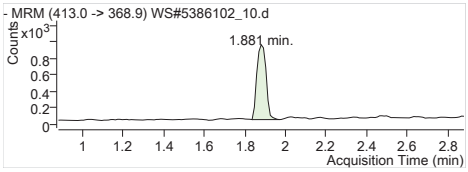


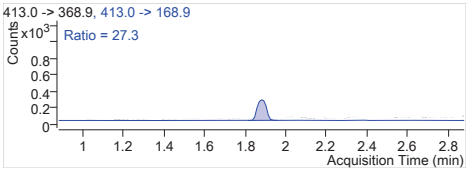
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.68 µg/L
Area ratio: 0.30295
Sample type: CC



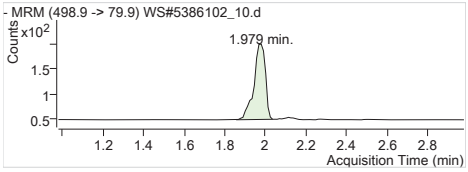


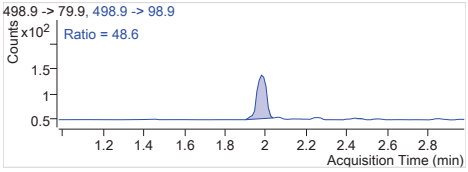
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.84 µg/L
Area ratio: 0.30518
Sample type: CC



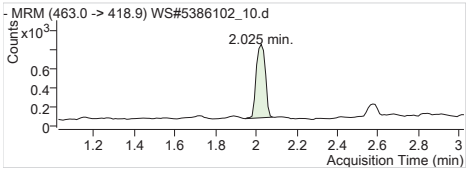


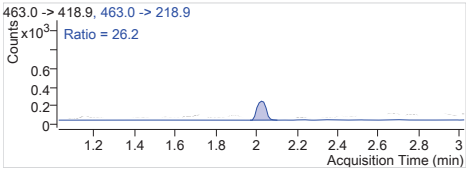
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.94 µg/L
Area ratio: 0.34411
Sample type: CC



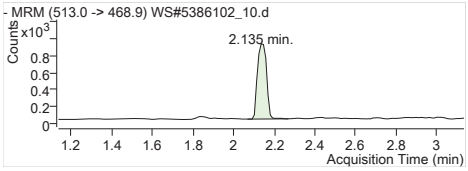


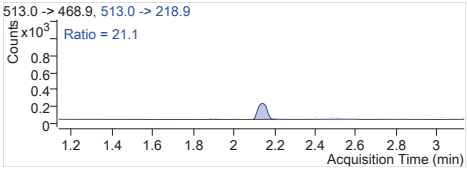
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.94 µg/L
Area ratio: 0.30885
Sample type: CC



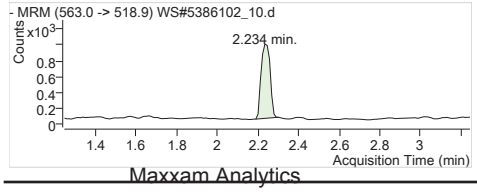


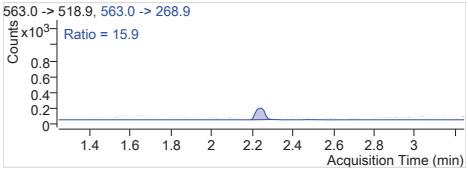
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 0.81 µg/L
Area ratio: 0.27868
Sample type: CC



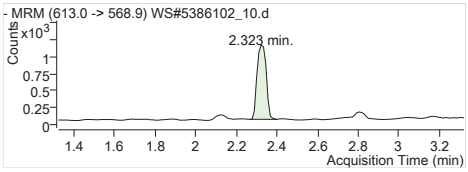


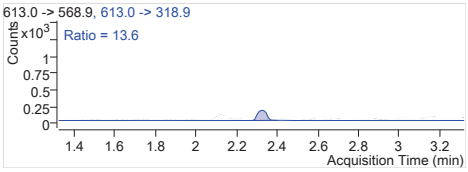
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.79 µg/L
Area ratio: 0.38730
Sample type: CC



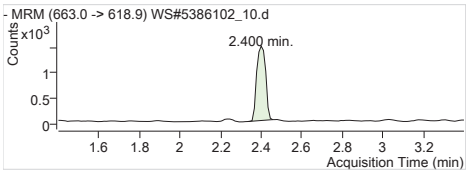


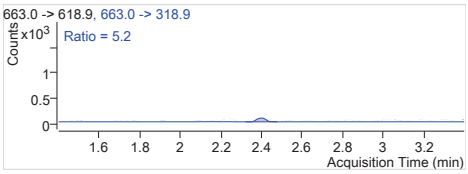
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.246)
Calc. conc. 0.84 µg/L
Area ratio: 0.34053
Sample type: CC



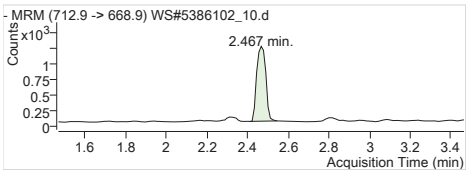


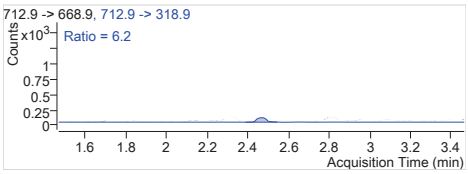
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.78 µg/L
Area ratio: 0.29237
Sample type: CC



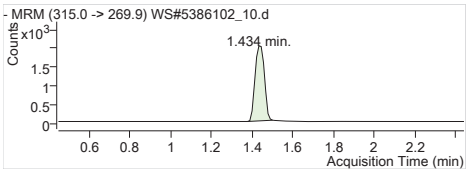


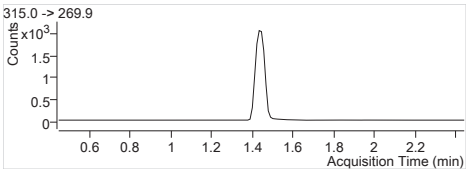
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.93 µg/L
Area ratio: 0.34731
Sample type: CC



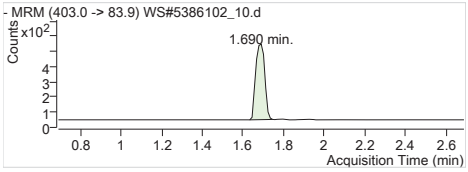


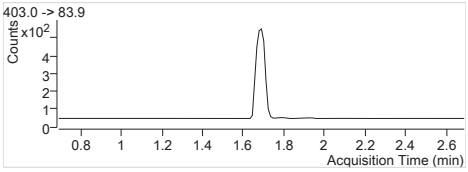
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.90 µg/L
Area ratio: 0.29830
Sample type: CC



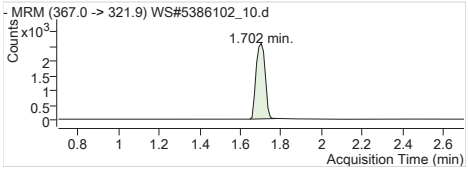


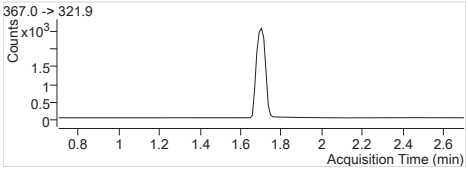
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 102.45 µg/L
Area ratio: 0.19910
Sample type: CC



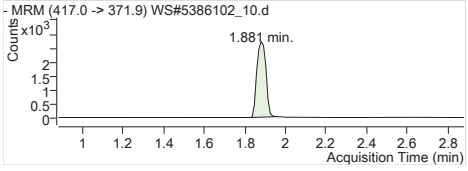


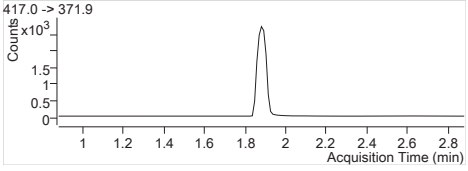
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 97.47 µg/L
Area ratio: 0.04846
Sample type: CC



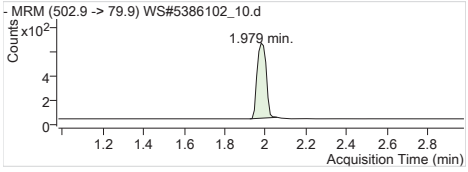


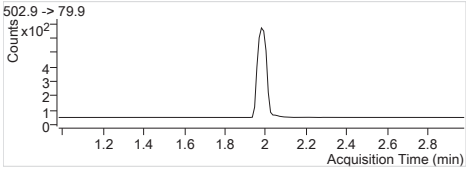
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 96.68 µg/L
Area ratio: 0.24603
Sample type: CC



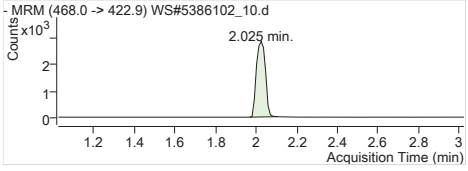


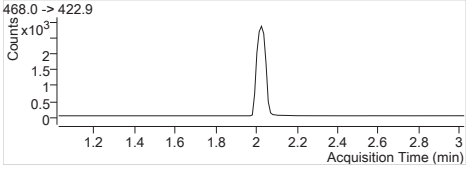
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 96.39 µg/L
Area ratio: 0.25879
Sample type: CC



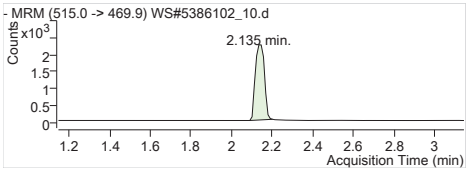


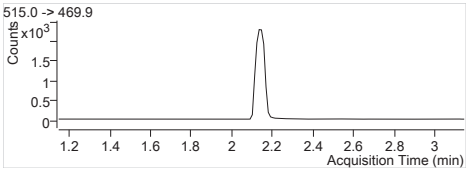
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 98.63 µg/L
Area ratio: 0.05972
Sample type: CC



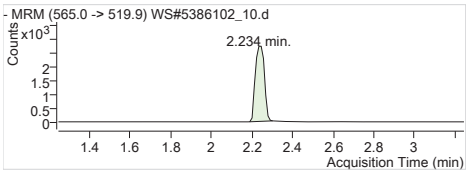


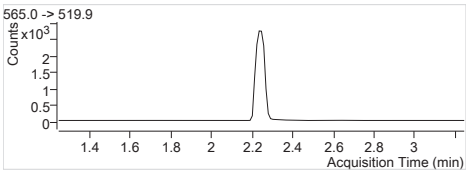
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 100.48 µg/L
Area ratio: 0.26924
Sample type: CC



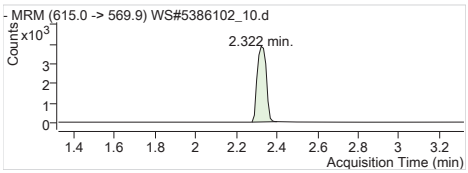


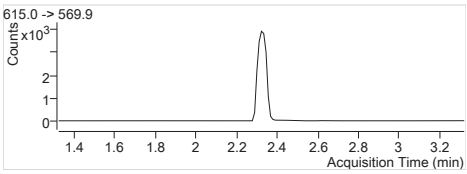
13C2-PFDA	515.0 -> 469.9
RT (Exp. RT):	2.135 (2.146)
Calc. conc.	98.77 µg/L
Area ratio:	0.16812
Sample type:	CC



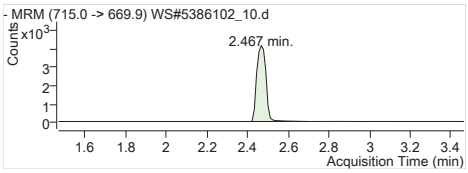


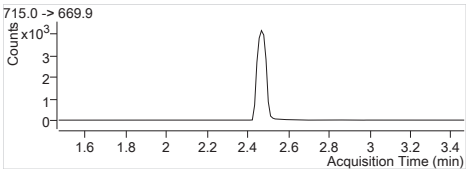
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.234 (2.245)
Calc. conc.	101.19 µg/L
Area ratio:	0.20424
Sample type:	CC



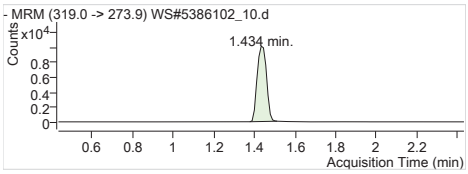


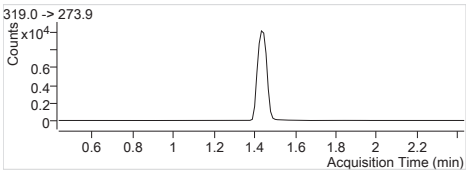
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.322 (2.322)
Calc. conc.	101.88 µg/L
Area ratio:	0.28549
Sample type:	CC



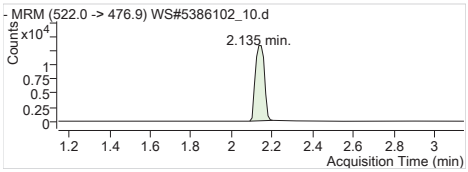


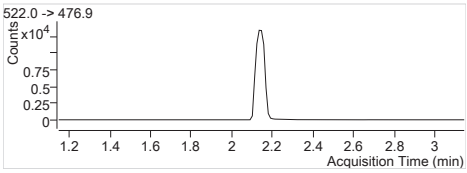
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	98.10 µg/L
Area ratio:	0.31357
Sample type:	CC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	101.35 µg/L
Area ratio:	0
Sample type:	CC





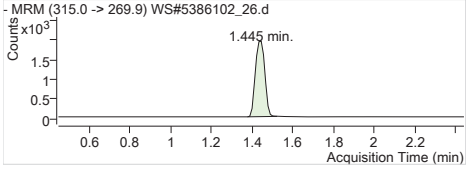
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.146)
Calc. conc.	102.39 µg/L
Area ratio:	0
Sample type:	CC

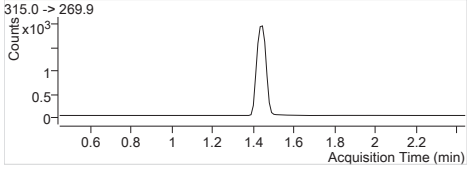
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5386102_26.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-D2
Acq. Date	2018/02/08 5:10:13 AM	**Injection Volume**	Per Method
Sample Annotation	-		

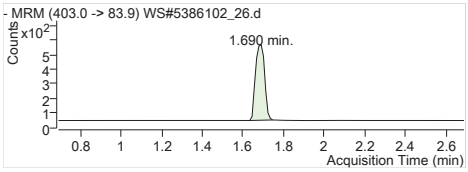
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6212	1.44	1 µg/L		
MPFHxS	1630	1.69	1 µg/L		
MPFHpA	8094	1.70	1 µg/L		
MPFOA	8918	1.88	1 µg/L		
MPFOS	1863	1.98	1 µg/L		
MPFNA	8635	2.02	1 µg/L		
MPFDA	7264	2.15	1 µg/L		
MPFUnA	8228	2.25	1 µg/L		
MPFDoA	10776	2.32	1 µg/L		
MPFTeDA	12927	2.47	1 µg/L		
13C6-PFHxA IS	33413	1.44	1 µg/L		
13C9-PFDA IS	42329	2.15	1 µg/L		

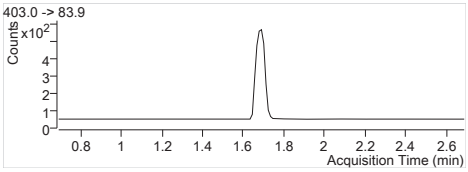
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8588	1.10	12.50	12.45 µg/L	99.58
PFHxA 1	30130	1.45	12.50	11.99 µg/L	95.94
PFHxS 1	8023	1.68	12.50	11.86 µg/L	94.85
PFHpA 1	38378	1.70	12.50	12.00 µg/L	95.97
PFOA 1	42614	1.88	12.50	11.51 µg/L	92.10
PFOS 1	8167	1.98	12.50	11.97 µg/L	95.77
PFNA 1	37896	2.03	12.50	12.04 µg/L	96.31
PFDA 1	40871	2.15	12.50	11.62 µg/L	92.98
PFUnA 1	44297	2.25	12.50	11.54 µg/L	92.33
PFDoA 1	57343	2.32	12.50	12.82 µg/L	102.57
PFTrDA 1	63954	2.40	12.50	12.02 µg/L	96.14
PFTeDA 1	55279	2.47	12.50	12.28 µg/L	98.23
13C2-PFHxA	6212	1.44	100.00	95.67 µg/L	95.67
18O2-PFHxS	1630	1.69	100.00	98.12 µg/L	98.12
13C4-PFHpA	8094	1.70	100.00	95.19 µg/L	95.19
13C4-PFOA	8918	1.88	100.00	99.42 µg/L	99.42
13C4-PFOS	1863	1.98	100.00	92.09 µg/L	92.09
13C5-PFNA	8635	2.02	100.00	96.45 µg/L	96.45
13C2-PFDA	7108	2.15	100.00	98.66 µg/L	98.66
13C2-PFUnA	8228	2.25	100.00	96.30 µg/L	96.30
13C2-PFDoA	10776	2.32	100.00	90.85 µg/L	90.85
13C2-PFTeDA	13120	2.47	100.00	96.97 µg/L	96.97
13C6-PFHxA	33413	1.44	100.00	105.33 µg/L	105.33
13C9-PFDA	42329	2.15	100.00	104.37 µg/L	104.37



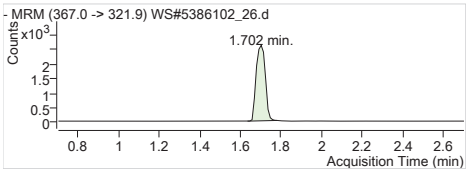


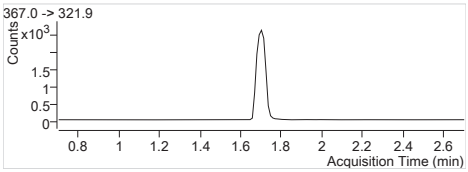
MPFHxA Internal Standard
RT (Exp. RT): 1.445 (1.445)
Concentration: 1 µg/L
Sample type: CC



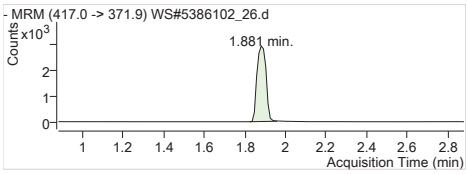


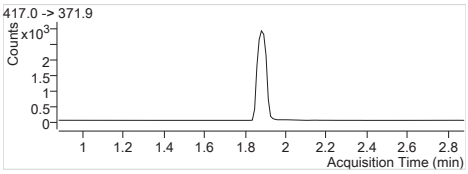
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



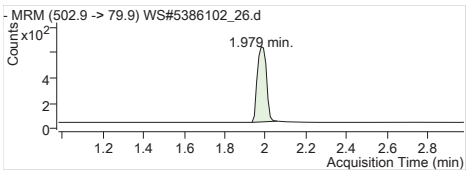


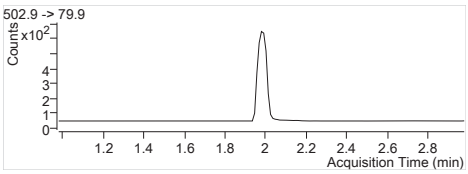
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: CC



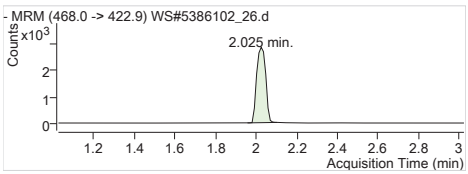


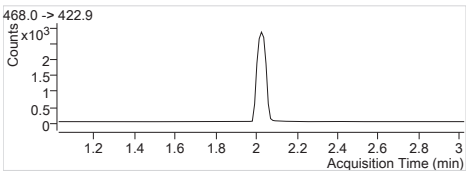
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



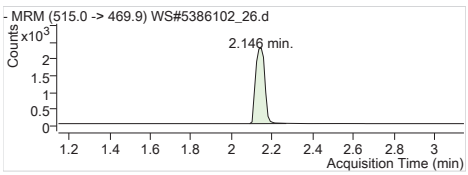


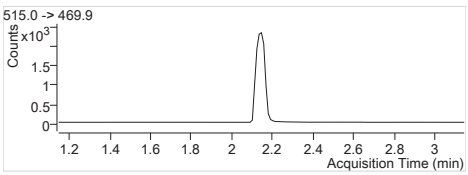
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



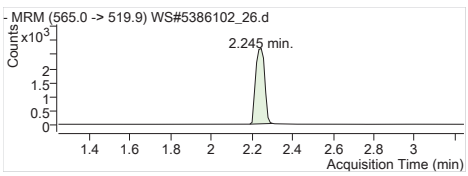


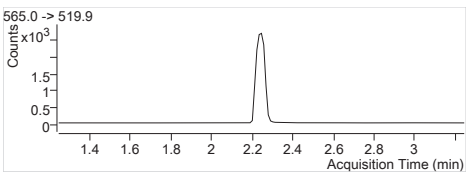
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: CC



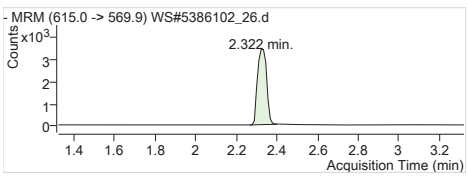


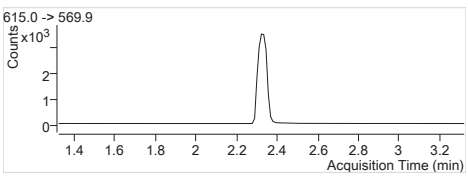
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



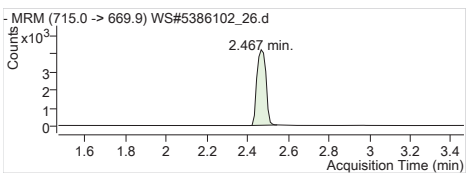


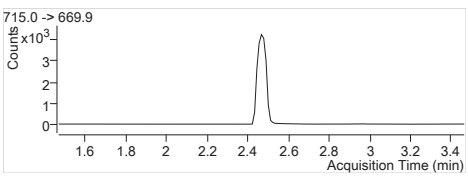
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.245)
Concentration: 1 µg/L
Sample type: CC



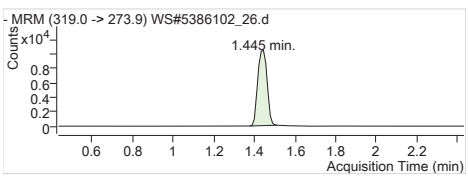


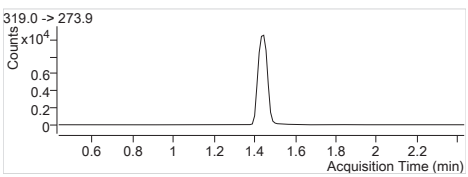
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



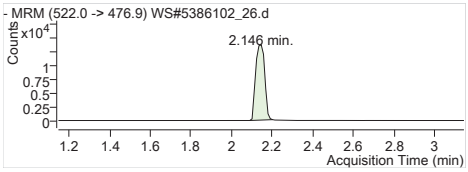


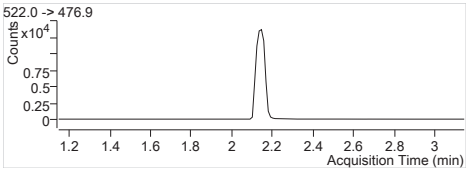
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



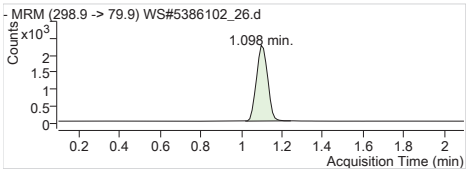


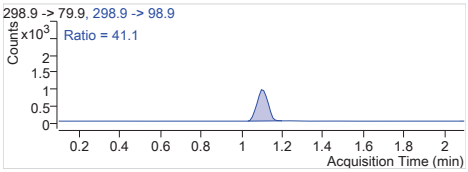
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.434)
Concentration: 1 µg/L
Sample type: CC



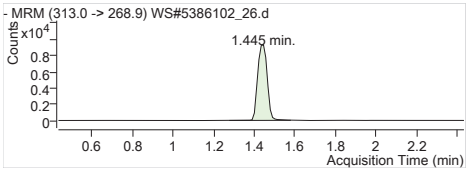


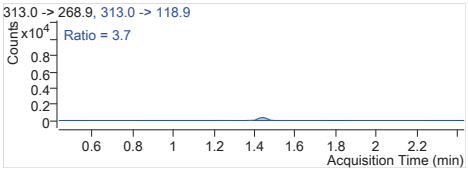
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



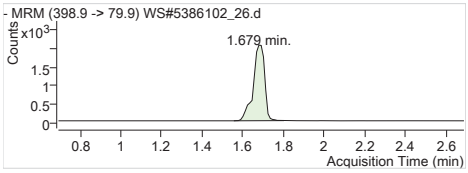


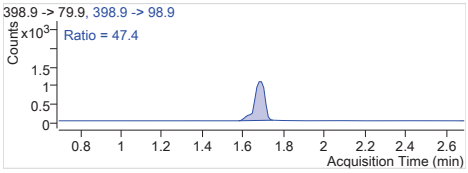
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 12.45 µg/L
Area ratio: 5.26871
Sample type: CC



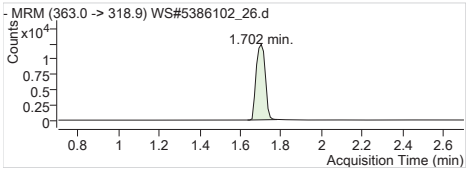


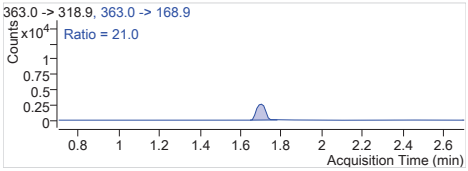
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.445 (1.434)
Calc. conc. 11.99 µg/L
Area ratio: 4.85029
Sample type: CC



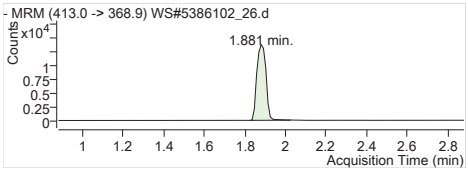


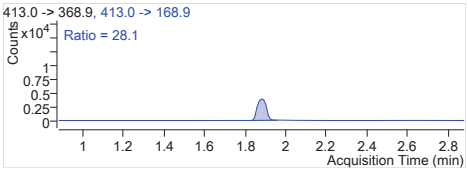
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 11.86 µg/L
Area ratio: 4.92209
Sample type: CC



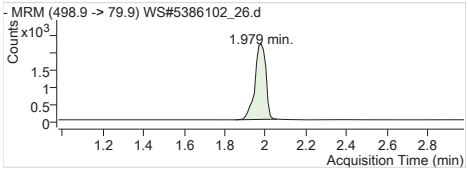


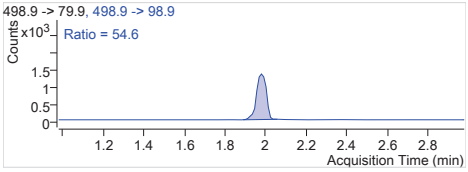
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 12.00 µg/L
Area ratio: 4.74154
Sample type: CC



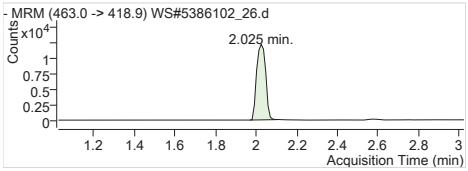


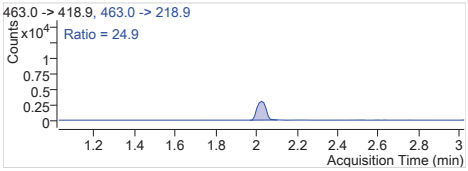
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 11.51 µg/L
Area ratio: 4.77843
Sample type: CC



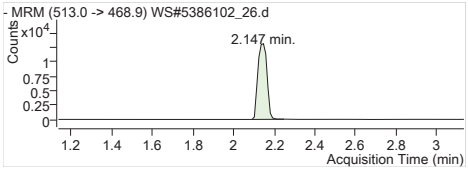


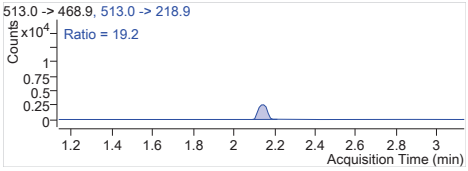
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 11.97 µg/L
Area ratio: 4.38379
Sample type: CC



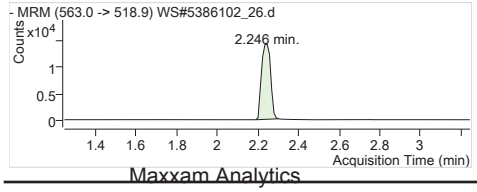


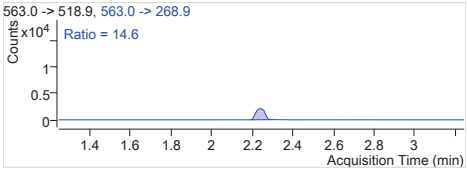
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 12.04 µg/L
Area ratio: 4.38865
Sample type: CC



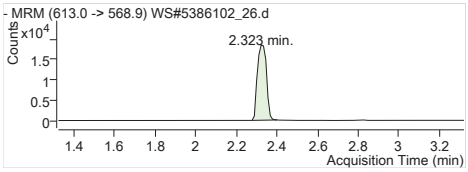


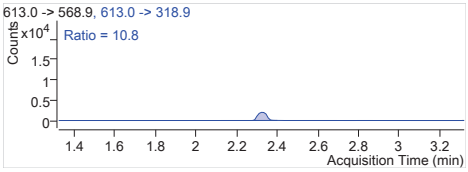
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.135)
Calc. conc. 11.62 µg/L
Area ratio: 5.62651
Sample type: CC



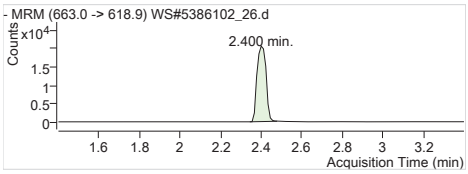


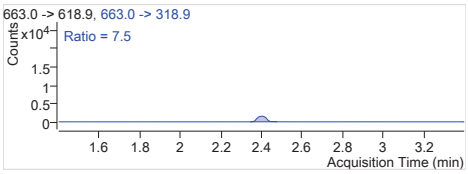
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 11.54 µg/L
Area ratio: 5.38369
Sample type: CC



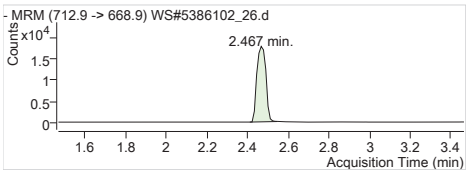


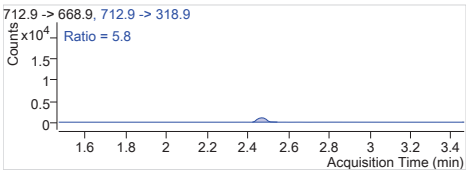
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 12.82 µg/L
Area ratio: 5.32136
Sample type: CC



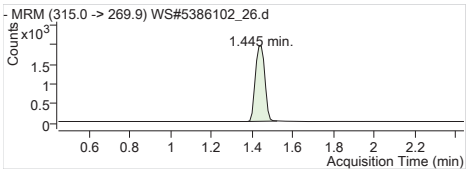


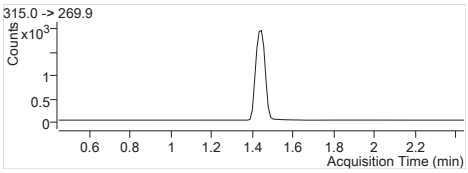
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 12.02 µg/L
Area ratio: 4.94732
Sample type: CC



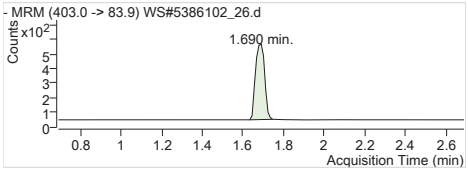


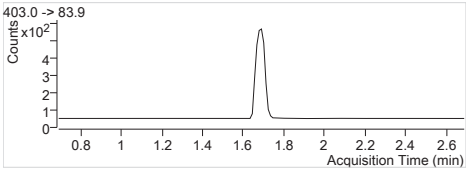
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 12.28 µg/L
Area ratio: 4.27624
Sample type: CC



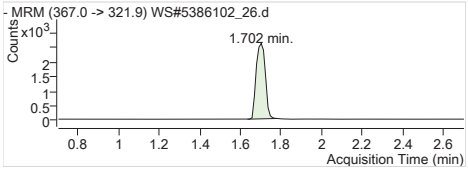


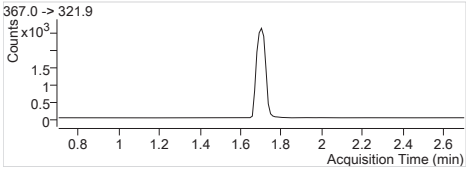
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.445 (1.445)
Calc. conc. 95.67 µg/L
Area ratio: 0.18592
Sample type: CC



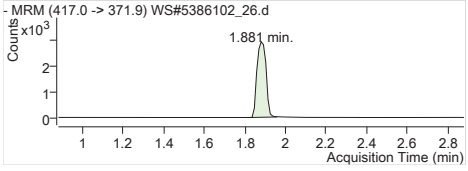


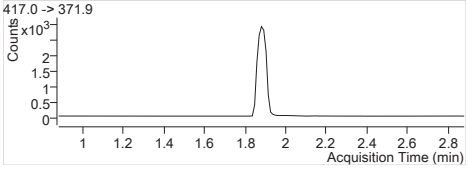
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 98.12 µg/L
Area ratio: 0.04878
Sample type: CC



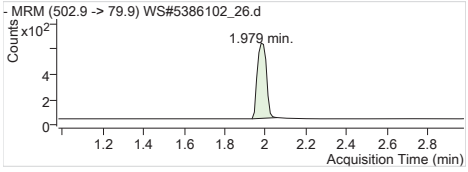


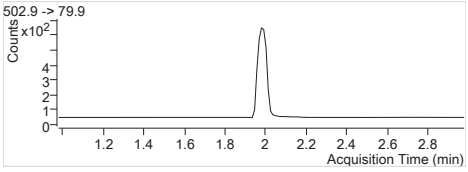
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 95.19 µg/L
Area ratio: 0.24224
Sample type: CC



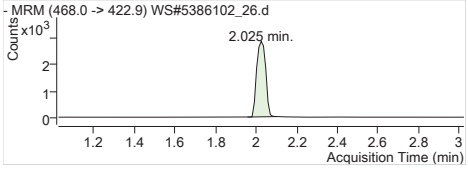


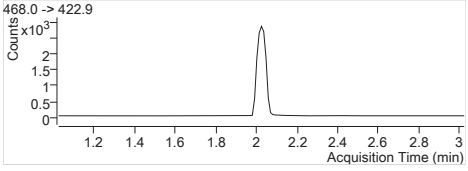
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 99.42 µg/L
Area ratio: 0.26690
Sample type: CC



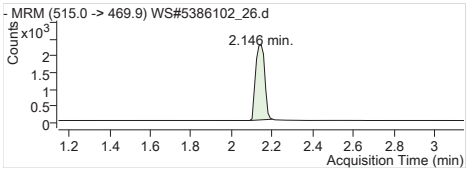


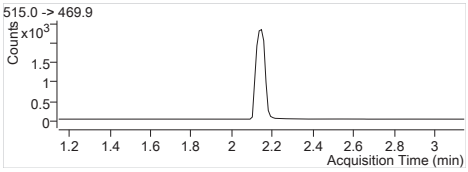
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 92.09 µg/L
Area ratio: 0.05576
Sample type: CC



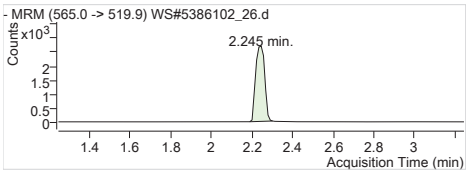


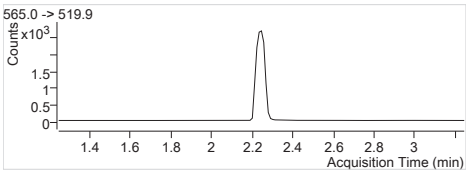
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 96.45 µg/L
Area ratio: 0.25843
Sample type: CC



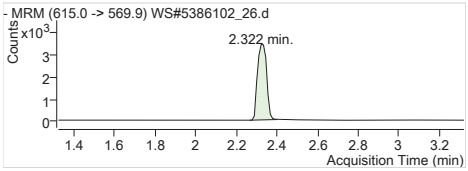


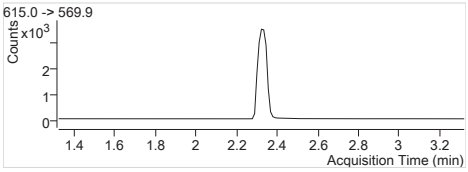
13C2-PFDA	515.0 -> 469.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	98.66 µg/L
Area ratio:	0.16792
Sample type:	CC



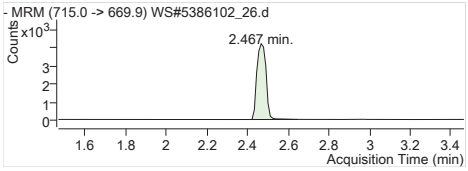


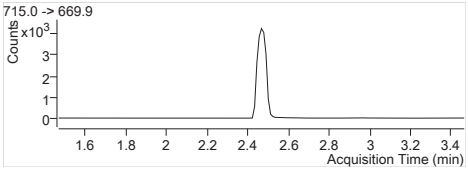
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.245 (2.245)
Calc. conc.	96.30 µg/L
Area ratio:	0.19438
Sample type:	CC



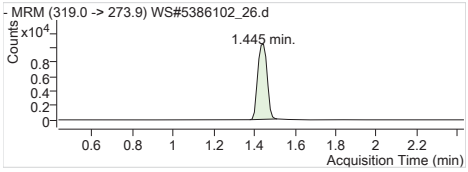


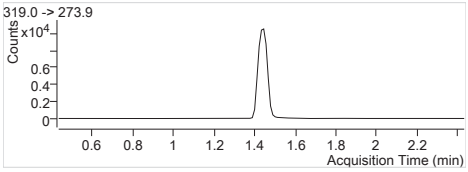
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.322 (2.322)
Calc. conc.	90.85 µg/L
Area ratio:	0.25458
Sample type:	CC



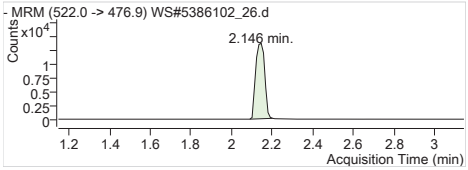


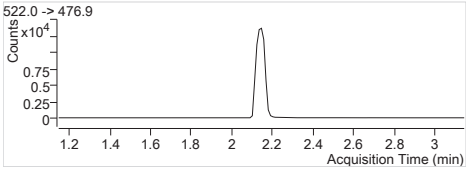
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	96.97 µg/L
Area ratio:	0.30995
Sample type:	CC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.445 (1.434)
Calc. conc.	105.33 µg/L
Area ratio:	0
Sample type:	CC





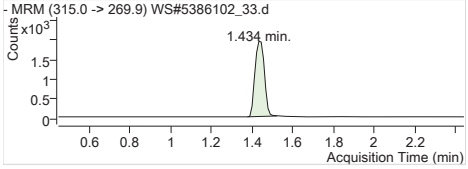
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	104.37 µg/L
Area ratio:	0
Sample type:	CC

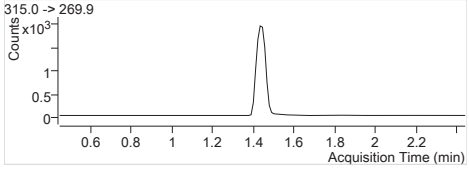
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5386102_33.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-D2
Acq. Date	2018/02/08 5:44:45 AM	**Injection Volume**	Per Method
Sample Annotation	-		

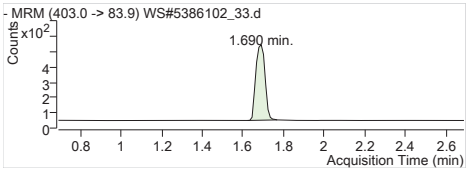
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6168	1.43	1 µg/L		
MPFHxS	1571	1.69	1 µg/L		
MPFHpA	8387	1.70	1 µg/L		
MPFOA	8961	1.88	1 µg/L		
MPFOS	1864	1.98	1 µg/L		
MPFNA	8761	2.02	1 µg/L		
MPFDA	6818	2.15	1 µg/L		
MPFUnA	8456	2.23	1 µg/L		
MPFDoA	11590	2.32	1 µg/L		
MPFTeDA	12009	2.47	1 µg/L		
13C6-PFHxA IS	32937	1.43	1 µg/L		
13C9-PFDA IS	44706	2.15	1 µg/L		

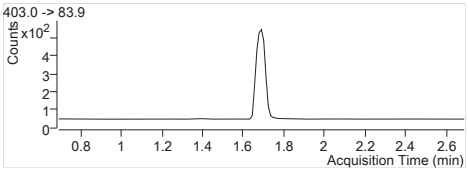
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7701	1.10	12.50	11.58 µg/L	92.68
PFHxA 1	30556	1.43	12.50	12.25 µg/L	97.97
PFHxS 1	7973	1.68	12.50	12.23 µg/L	97.81
PFHpA 1	37171	1.70	12.50	11.22 µg/L	89.74
PFOA 1	41537	1.88	12.50	11.17 µg/L	89.37
PFOS 1	7884	1.98	12.50	11.55 µg/L	92.43
PFNA 1	38655	2.03	12.50	12.10 µg/L	96.83
PFDA 1	41735	2.14	12.50	12.65 µg/L	101.17
PFUnA 1	44591	2.23	12.50	11.31 µg/L	90.45
PFDoA 1	56589	2.32	12.50	11.77 µg/L	94.16
PFTrDA 1	60995	2.40	12.50	12.33 µg/L	98.68
PFTeDA 1	54366	2.47	12.50	13.00 µg/L	103.97
13C2-PFHxA	6168	1.43	100.00	96.37 µg/L	96.37
18O2-PFHxS	1571	1.69	100.00	95.93 µg/L	95.93
13C4-PFHpA	8387	1.70	100.00	100.06 µg/L	100.06
13C4-PFOA	8961	1.88	100.00	101.34 µg/L	101.34
13C4-PFOS	1864	1.98	100.00	93.47 µg/L	93.47
13C5-PFNA	8760	2.02	100.00	99.26 µg/L	99.26
13C2-PFDA	6675	2.15	100.00	87.72 µg/L	87.72
13C2-PFUnA	8456	2.23	100.00	93.71 µg/L	93.71
13C2-PFDoA	11590	2.32	100.00	92.52 µg/L	92.52
13C2-PFTeDA	12184	2.47	100.00	85.26 µg/L	85.26
13C6-PFHxA	32937	1.43	100.00	103.83 µg/L	103.83
13C9-PFDA	44706	2.15	100.00	110.24 µg/L	110.24



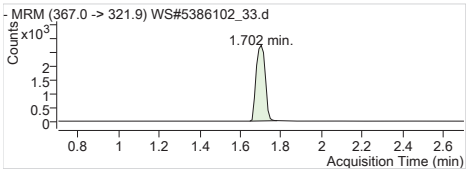


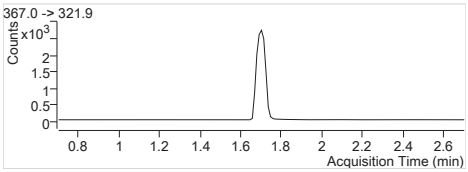
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.445)
Concentration: 1 µg/L
Sample type: CC



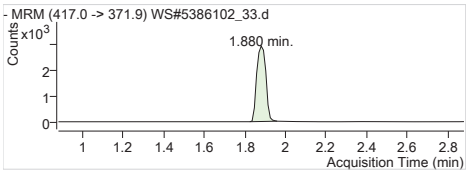


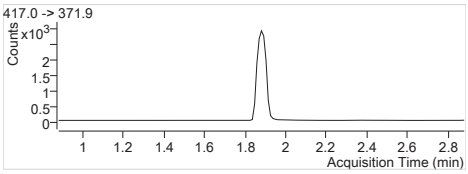
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



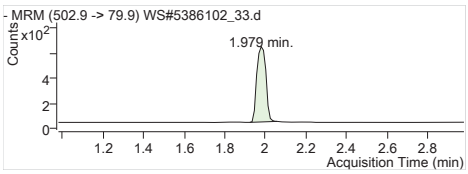


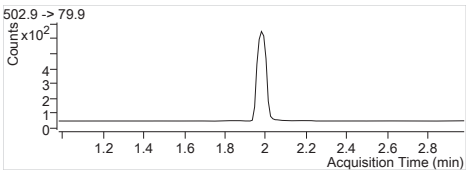
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: CC



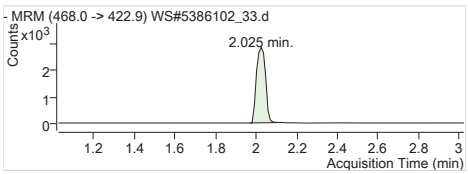


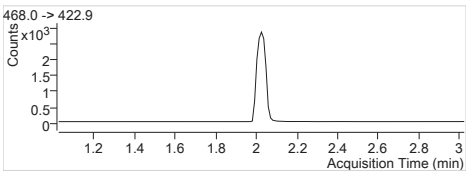
MPFOA Internal Standard
RT (Exp. RT): 1.880 (1.881)
Concentration: 1 µg/L
Sample type: CC



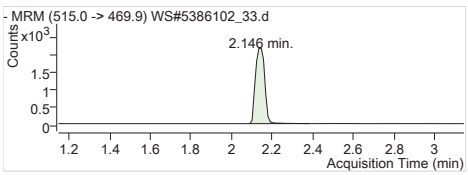


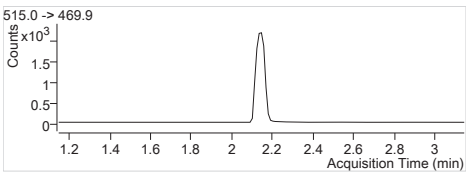
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



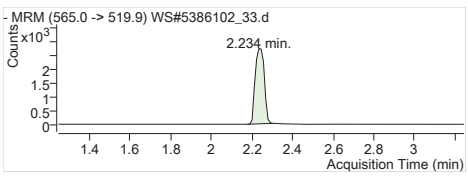


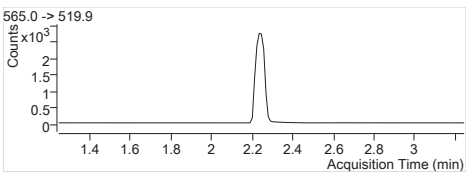
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: CC



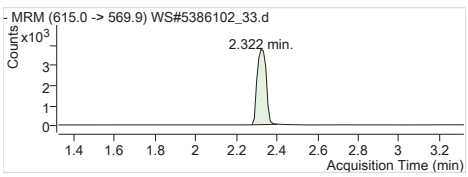


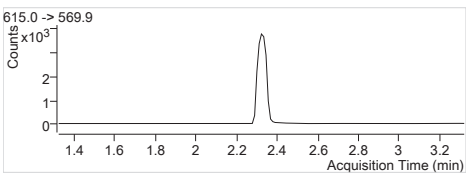
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



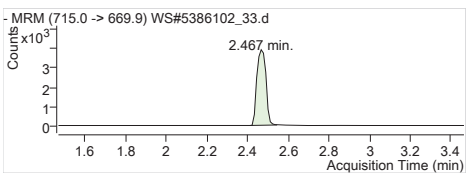


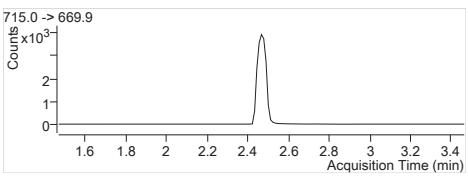
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.245)
Concentration: 1 µg/L
Sample type: CC



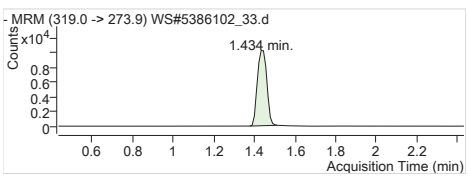


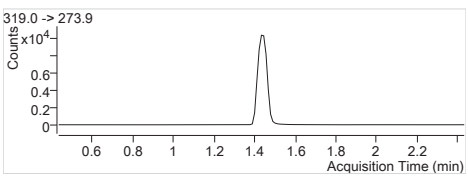
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



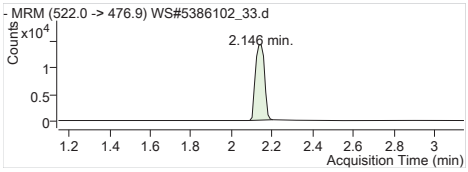


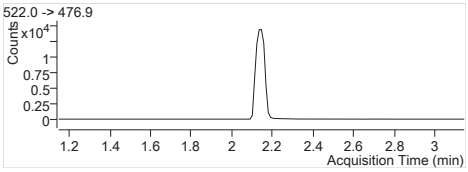
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



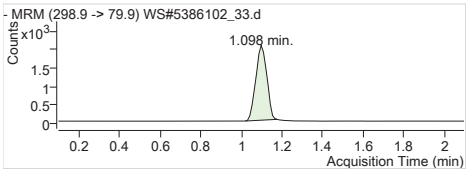


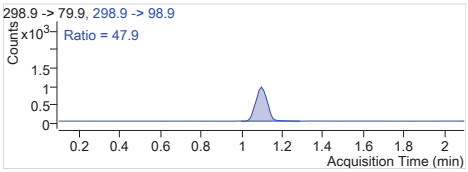
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



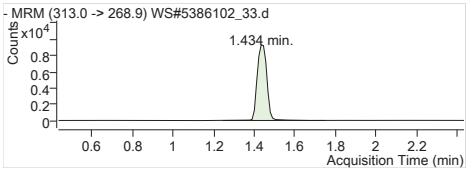


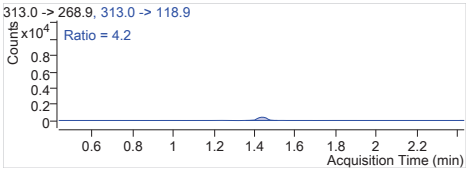
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



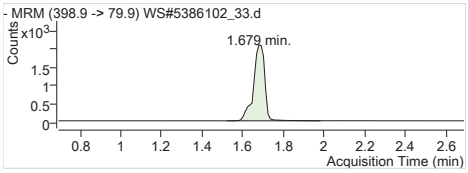


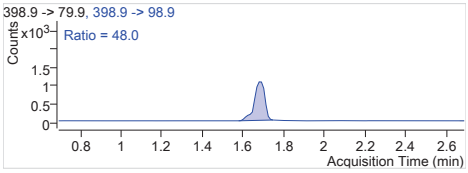
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 11.58 µg/L
Area ratio: 4.90197
Sample type: CC



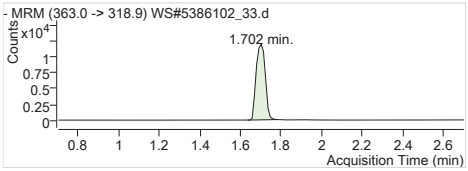


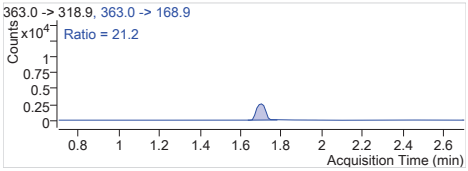
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 12.25 µg/L
Area ratio: 4.95396
Sample type: CC



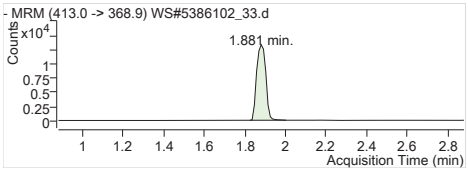


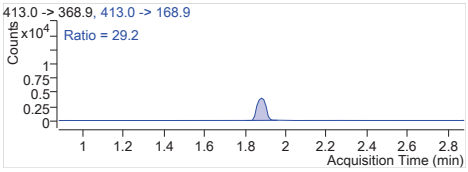
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 12.23 µg/L
Area ratio: 5.07511
Sample type: CC



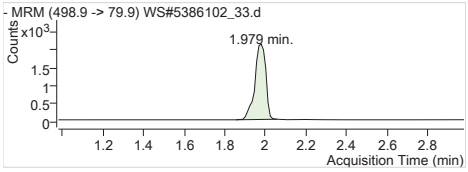


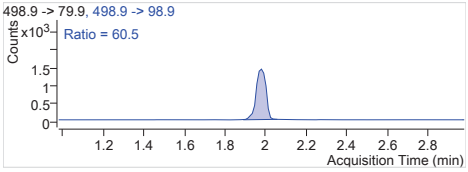
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 11.22 µg/L
Area ratio: 4.43198
Sample type: CC



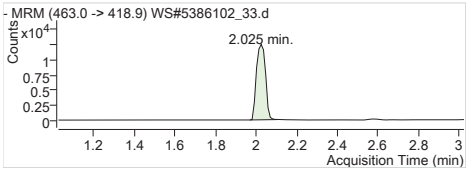


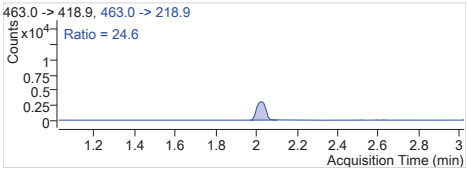
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 11.17 µg/L
Area ratio: 4.63531
Sample type: CC



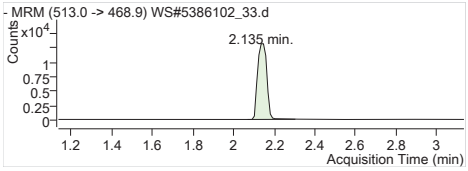


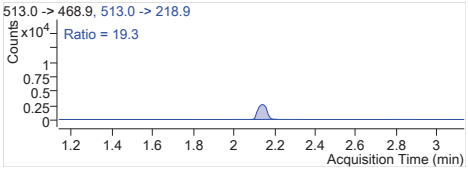
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 11.55 µg/L
Area ratio: 4.22961
Sample type: CC



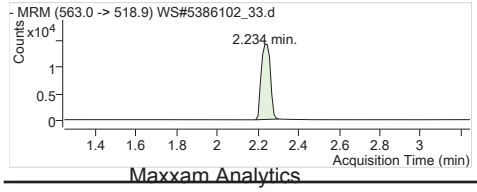


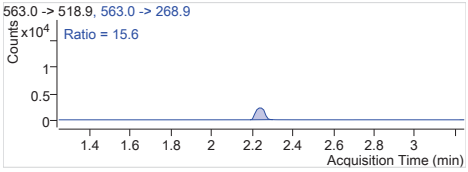
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 12.10 µg/L
Area ratio: 4.41217
Sample type: CC



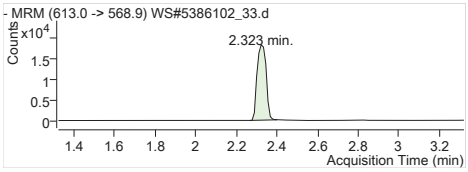


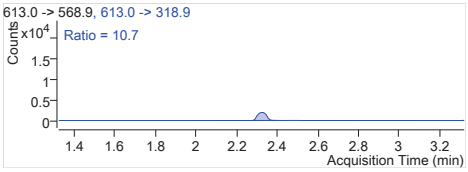
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 12.65 µg/L
Area ratio: 6.12130
Sample type: CC



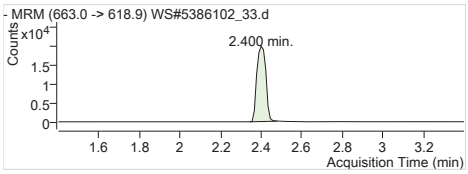


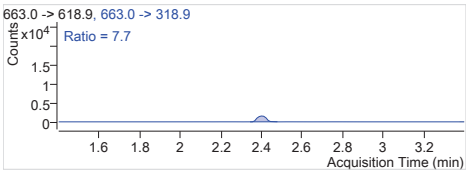
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.246)
Calc. conc. 11.31 µg/L
Area ratio: 5.27330
Sample type: CC



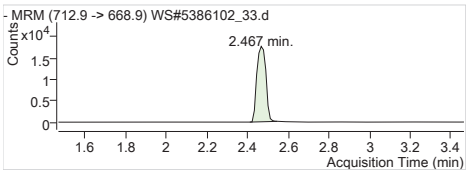


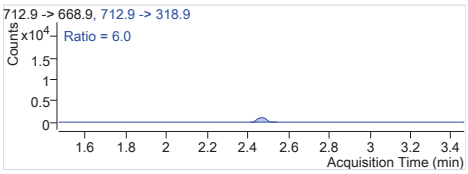
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 11.77 µg/L
Area ratio: 4.88257
Sample type: CC



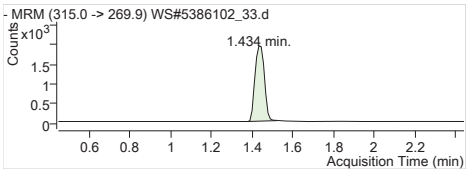


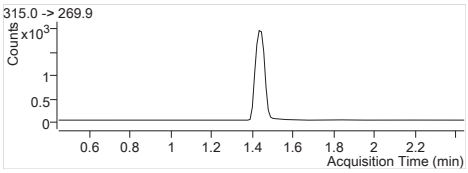
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 12.33 µg/L
Area ratio: 5.07911
Sample type: CC



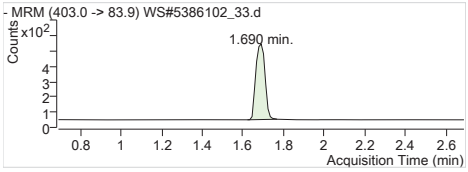


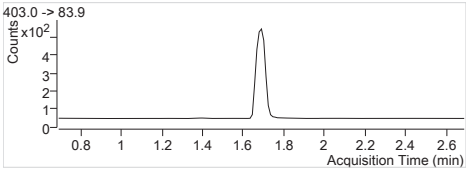
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 13.00 µg/L
Area ratio: 4.52710
Sample type: CC



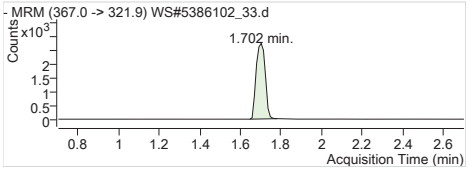


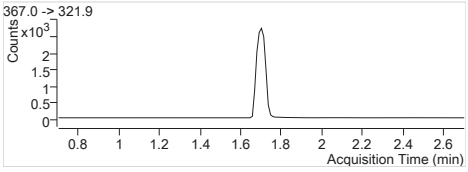
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 96.37 µg/L
Area ratio: 0.18727
Sample type: CC



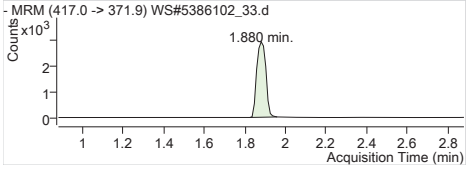


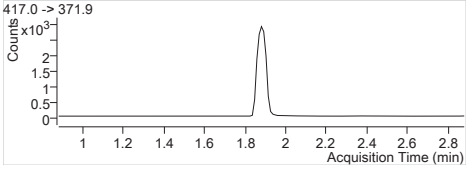
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 95.93 µg/L
Area ratio: 0.04770
Sample type: CC



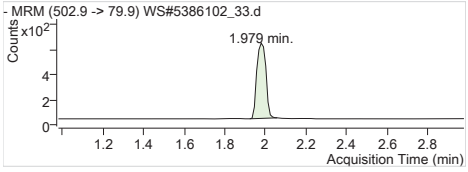


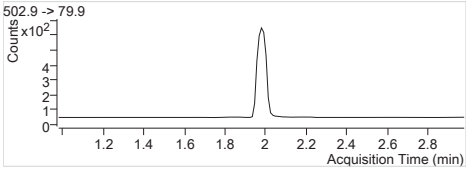
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 100.06 µg/L
Area ratio: 0.25464
Sample type: CC



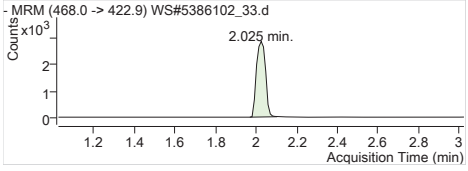


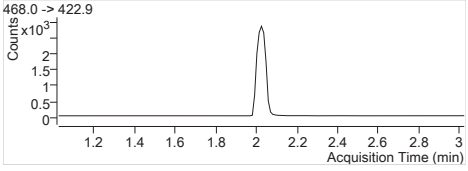
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.880 (1.881)
Calc. conc. 101.34 µg/L
Area ratio: 0.27206
Sample type: CC



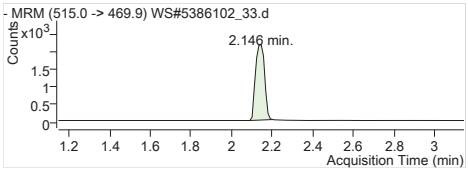


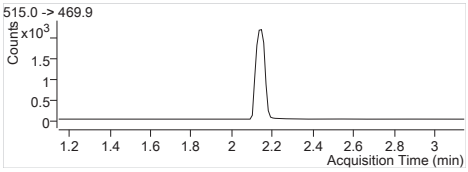
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 93.47 µg/L
Area ratio: 0.05659
Sample type: CC



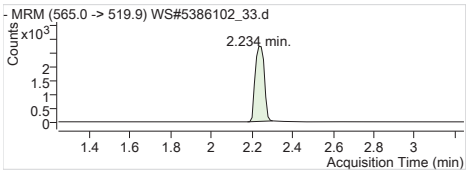


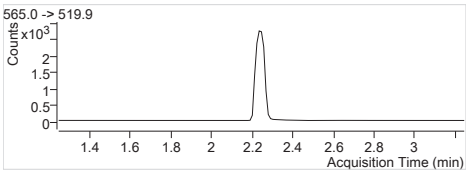
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 99.26 µg/L
Area ratio: 0.26596
Sample type: CC



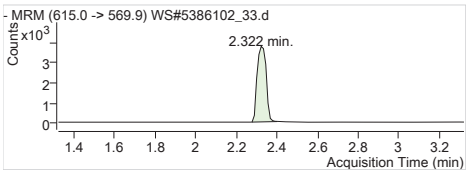


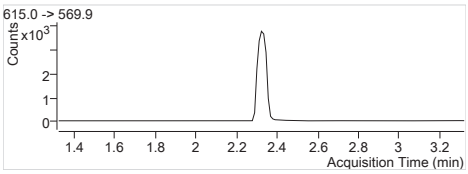
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 87.72 µg/L
Area ratio: 0.14931
Sample type: CC



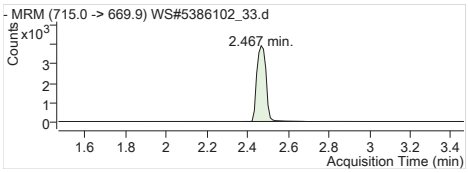


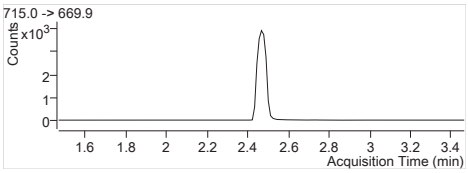
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.245)
Calc. conc. 93.71 µg/L
Area ratio: 0.18915
Sample type: CC



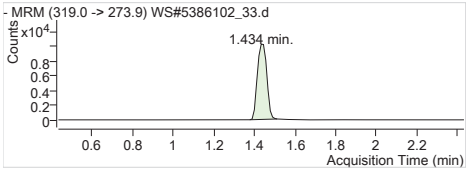


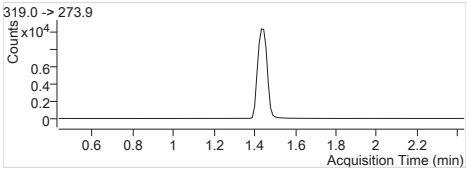
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 92.52 µg/L
Area ratio: 0.25925
Sample type: CC



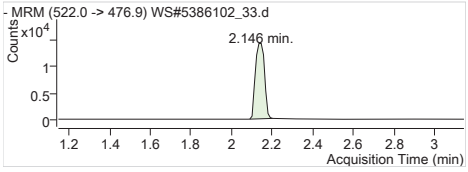


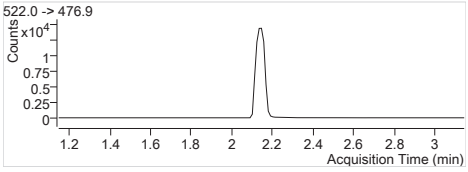
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 85.26 µg/L
Area ratio: 0.27254
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 103.83 µg/L
Area ratio: 0
Sample type: CC





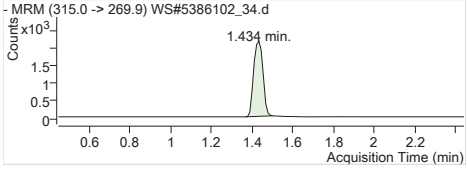
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 110.24 µg/L
Area ratio: 0
Sample type: CC

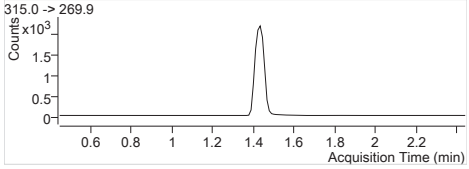
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5386102_34.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C8
Acq. Date	2018/02/08 3:47:11 PM	**Injection Volume**	Per Method
Sample Annotation	-		

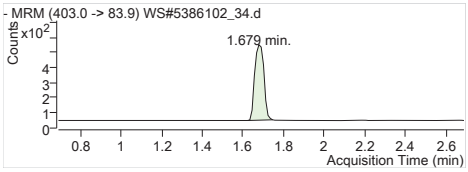
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6824	1.43	1 µg/L		
MPFHxS	1577	1.68	1 µg/L		
MPFHpA	8844	1.69	1 µg/L		
MPFOA	8986	1.88	1 µg/L		
MPFOS	2166	1.98	1 µg/L		
MPFNA	10142	2.02	1 µg/L		
MPFDA	7734	2.14	1 µg/L		
MPFUnA	8702	2.23	1 µg/L		
MPFDoA	11944	2.32	1 µg/L		
MPFTeDA	14298	2.47	1 µg/L		
13C6-PFHxA IS	34491	1.43	1 µg/L		
13C9-PFDA IS	43455	2.13	1 µg/L		

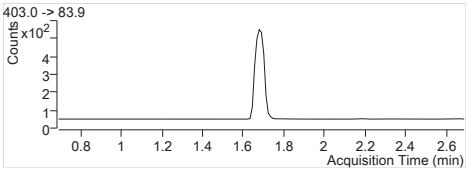
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	642	1.09	0.83	1.02 µg/L	122.71
PFHxA 1	1851	1.43	0.83	0.76 µg/L	91.29
PFHxS 1	534	1.68	0.83	0.77 µg/L	92.41
PFHpA 1	2888	1.69	0.83	0.89 µg/L	107.34
PFOA 1	3343	1.88	0.83	1.01 µg/L	121.71
PFOS 1	579	1.97	0.83	0.83 µg/L	100.28
PFNA 1	2723	2.01	0.83	0.78 µg/L	94.26
PFDA 1	2908	2.14	0.83	0.77 µg/L	92.29
PFUnA 1	2999	2.23	0.83	0.85 µg/L	102.03
PFDoA 1	4144	2.32	0.83	0.91 µg/L	109.36
PFTrDA 1	4355	2.40	0.83	0.83 µg/L	99.79
PFTeDA 1	3818	2.47	0.83	0.81 µg/L	98.01
13C2-PFHxA	6824	1.43	100.00	101.81 µg/L	101.81
18O2-PFHxS	1577	1.68	100.00	91.96 µg/L	91.96
13C4-PFHpA	8844	1.69	100.00	100.76 µg/L	100.76
13C4-PFOA	8986	1.88	100.00	97.04 µg/L	97.04
13C4-PFOS	2166	1.98	100.00	103.72 µg/L	103.72
13C5-PFNA	10047	2.02	100.00	108.71 µg/L	108.71
13C2-PFDA	7567	2.14	100.00	102.31 µg/L	102.31
13C2-PFUnA	8702	2.23	100.00	99.21 µg/L	99.21
13C2-PFDoA	11944	2.32	100.00	98.09 µg/L	98.09
13C2-PFTeDA	14299	2.47	100.00	102.94 µg/L	102.94
13C6-PFHxA	34491	1.43	100.00	108.73 µg/L	108.73
13C9-PFDA	43455	2.13	100.00	107.15 µg/L	107.15



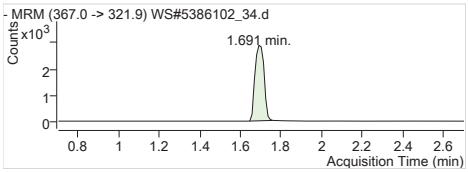


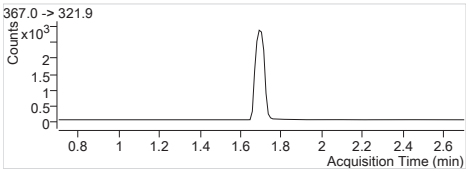
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	CC



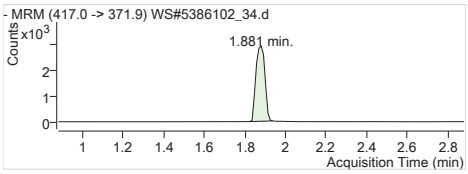


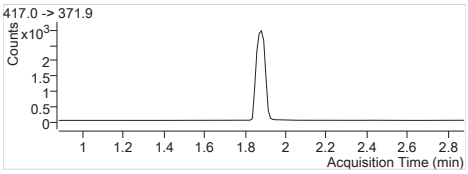
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.690)
Concentration: 1 µg/L
Sample type: CC



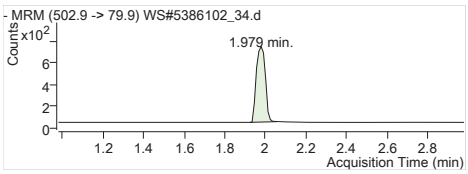


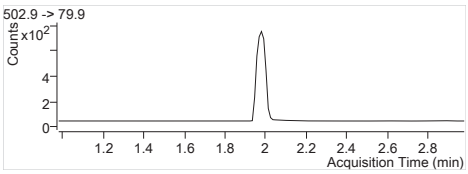
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.702)
Concentration: 1 µg/L
Sample type: CC



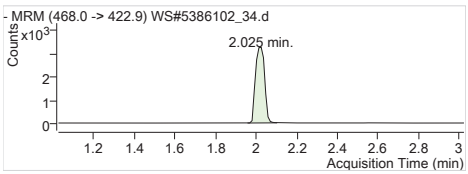


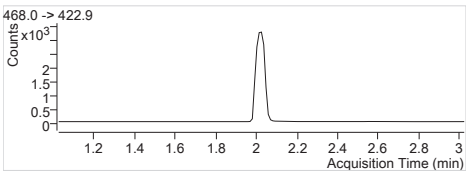
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



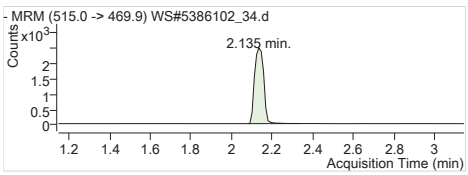


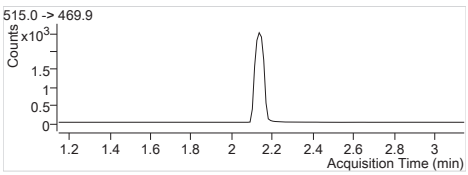
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



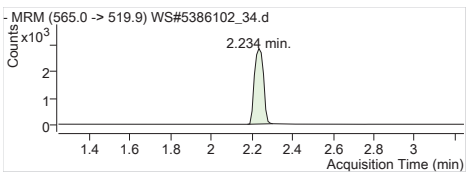


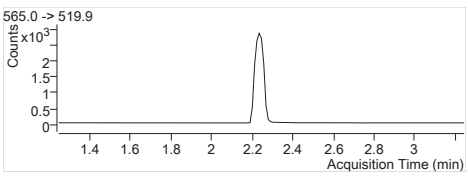
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: CC



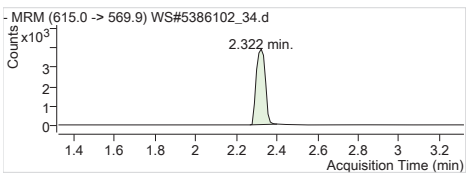


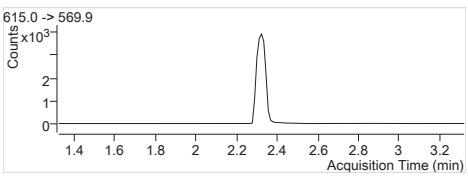
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: CC



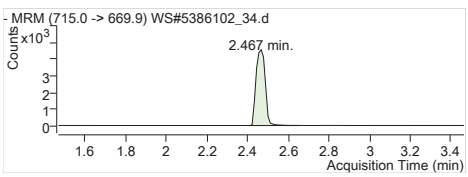


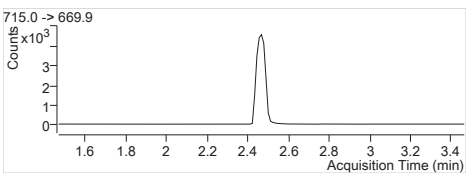
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.245)
Concentration: 1 µg/L
Sample type: CC



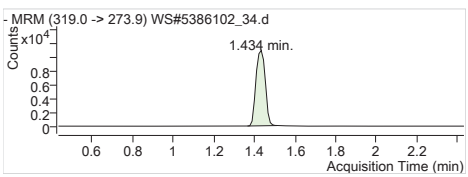


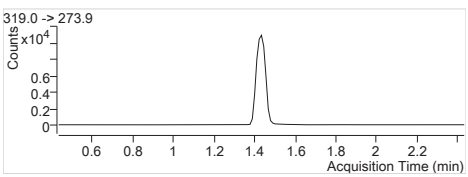
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



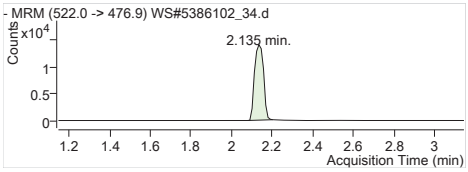


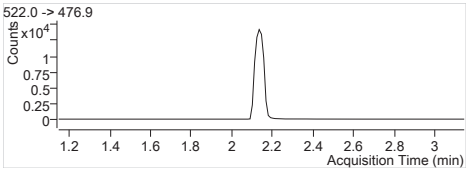
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



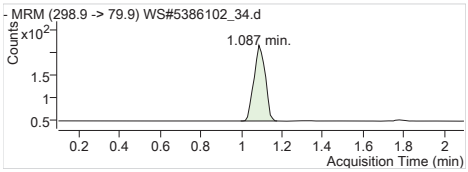


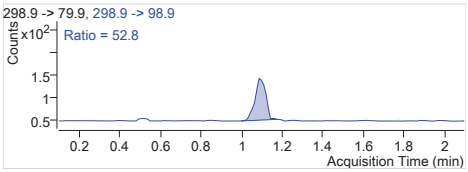
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



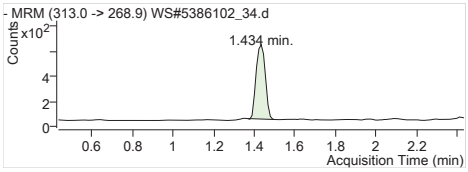


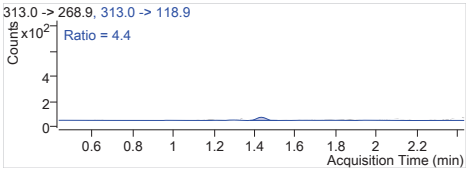
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: CC



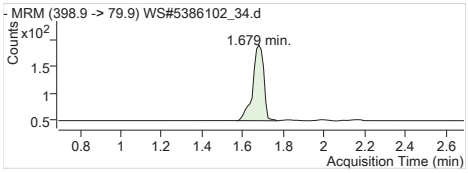


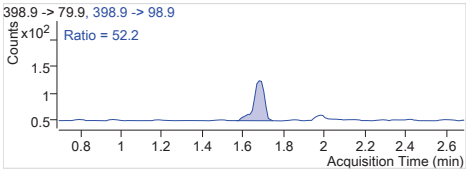
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.098)
Calc. conc. 1.02 µg/L
Area ratio: 0.40710
Sample type: CC



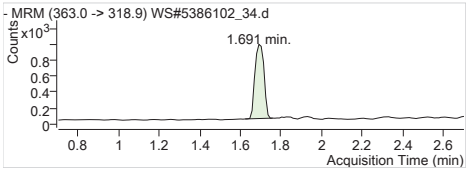


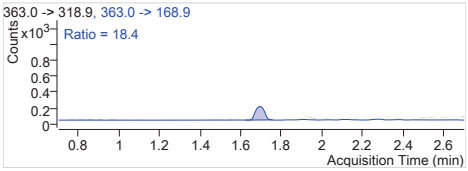
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 0.76 µg/L
Area ratio: 0.27125
Sample type: CC



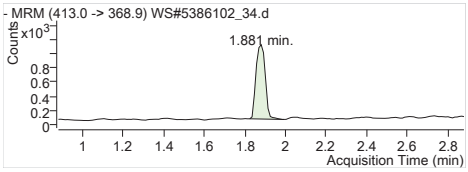


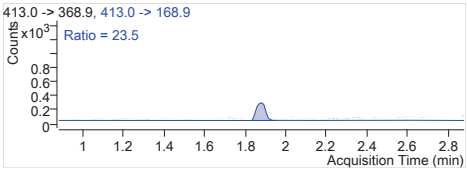
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 0.77 µg/L
Area ratio: 0.33862
Sample type: CC



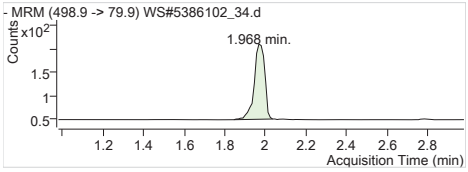


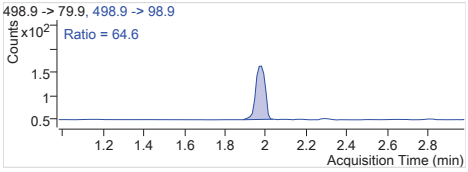
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.702)
Calc. conc. 0.89 µg/L
Area ratio: 0.32655
Sample type: CC



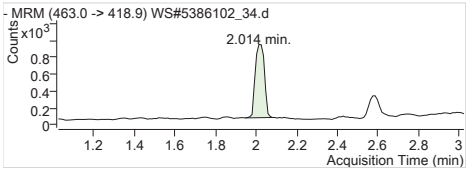


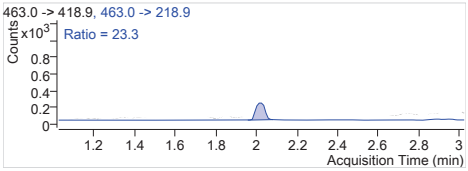
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 1.01 µg/L
Area ratio: 0.37202
Sample type: CC



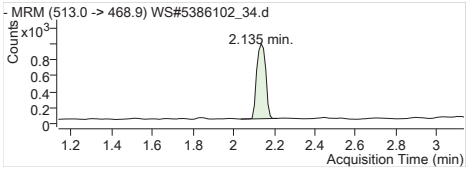


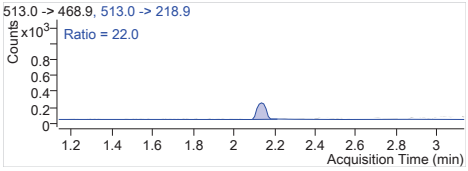
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.979)
Calc. conc. 0.83 µg/L
Area ratio: 0.26731
Sample type: CC



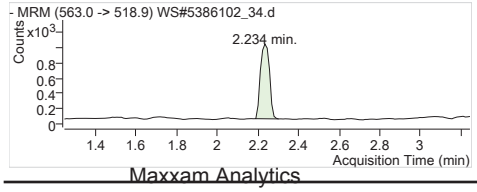


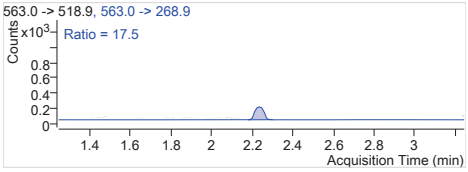
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.025)
Calc. conc. 0.78 µg/L
Area ratio: 0.26849
Sample type: CC



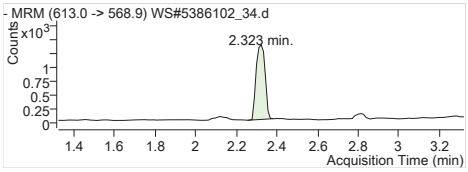


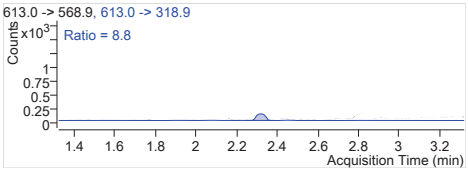
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.77 µg/L
Area ratio: 0.37600
Sample type: CC



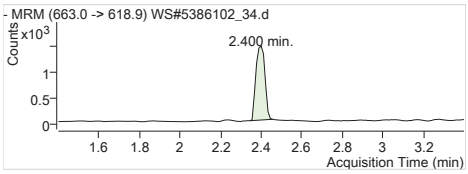


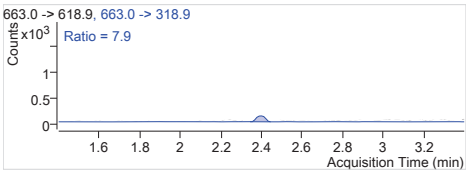
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.246)
Calc. conc. 0.85 µg/L
Area ratio: 0.34463
Sample type: CC



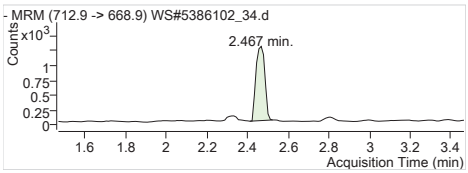


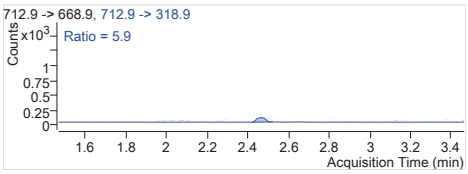
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.91 µg/L
Area ratio: 0.34695
Sample type: CC



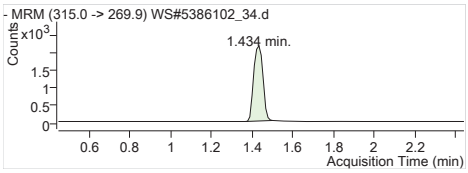


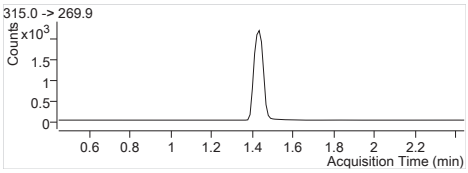
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.83 µg/L
Area ratio: 0.30459
Sample type: CC



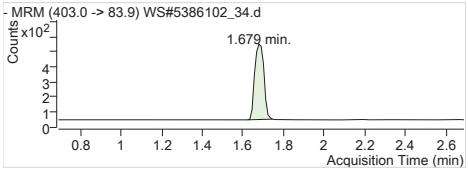


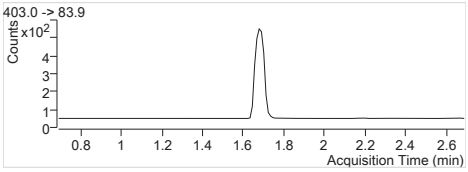
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.81 µg/L
Area ratio: 0.26703
Sample type: CC



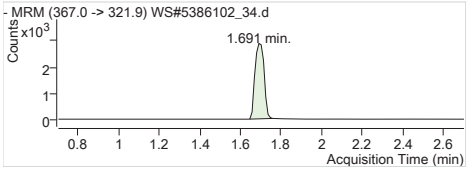


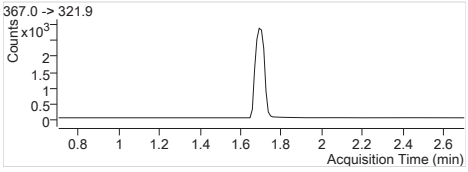
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 101.81 µg/L
Area ratio: 0.19785
Sample type: CC



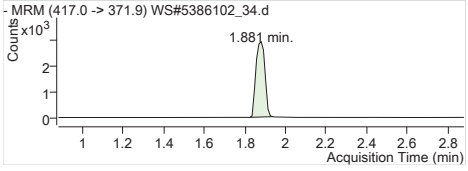


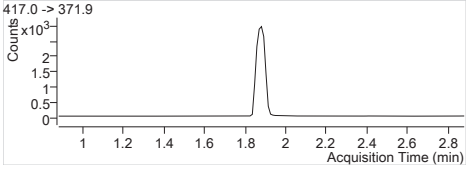
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.690)
Calc. conc. 91.96 µg/L
Area ratio: 0.04572
Sample type: CC



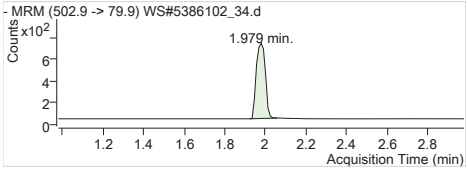


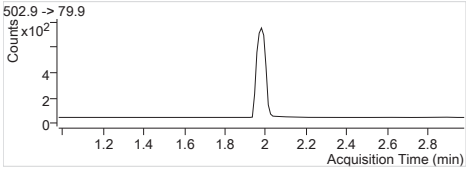
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.702)
Calc. conc. 100.76 µg/L
Area ratio: 0.25641
Sample type: CC



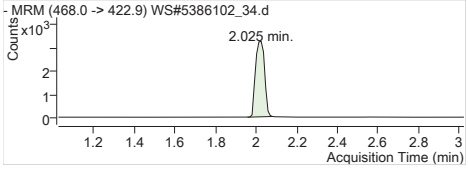


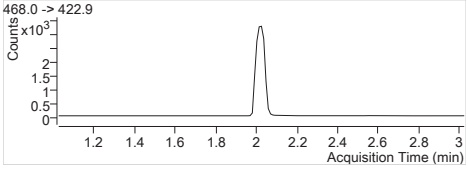
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 97.04 µg/L
Area ratio: 0.26053
Sample type: CC



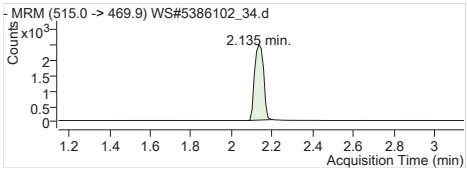


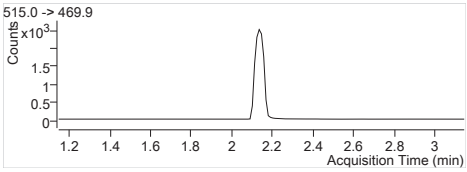
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 103.72 µg/L
Area ratio: 0.06280
Sample type: CC



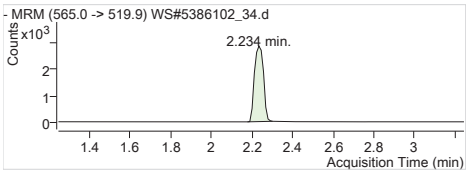


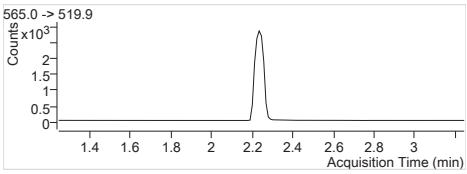
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 108.71 µg/L
Area ratio: 0.29129
Sample type: CC



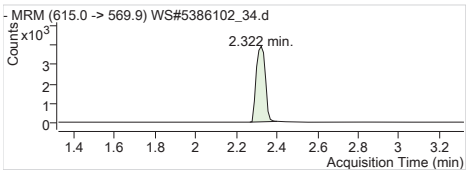


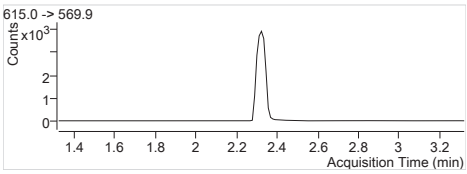
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 102.31 µg/L
Area ratio: 0.17413
Sample type: CC



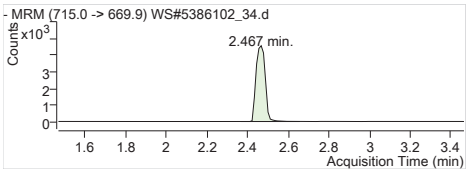


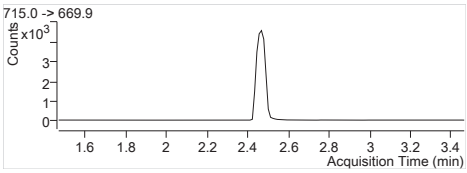
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.245)
Calc. conc. 99.21 µg/L
Area ratio: 0.20025
Sample type: CC



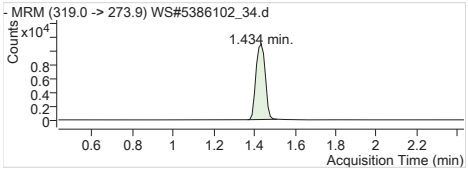


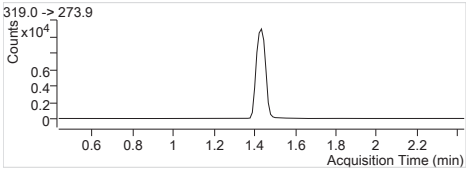
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 98.09 µg/L
Area ratio: 0.27486
Sample type: CC



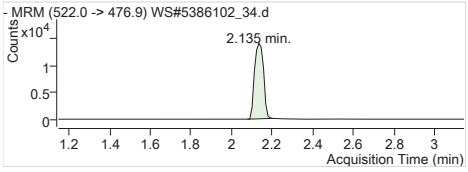


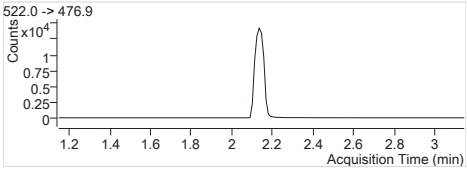
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 102.94 µg/L
Area ratio: 0.32905
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 108.73 µg/L
Area ratio: 0
Sample type: CC





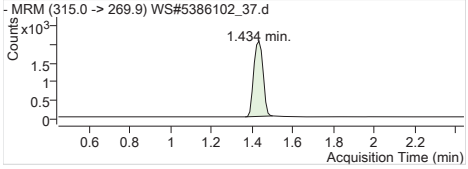
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 107.15 µg/L
Area ratio: 0
Sample type: CC

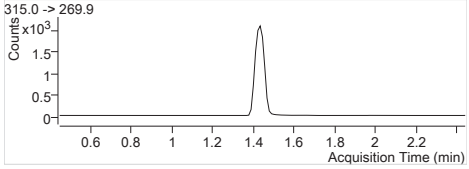
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5386102_37.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-D2
Acq. Date	2018/02/08 4:01:57 PM	**Injection Volume**	Per Method
Sample Annotation	-		

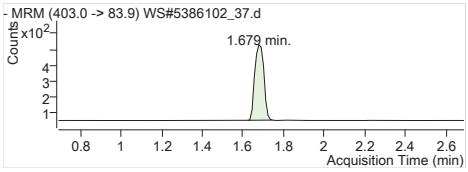
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6476	1.43	1 µg/L		
MPFHxS	1498	1.68	1 µg/L		
MPFHpA	8243	1.69	1 µg/L		
MPFOA	9595	1.88	1 µg/L		
MPFOS	1878	1.98	1 µg/L		
MPFNA	8637	2.02	1 µg/L		
MPFDA	6880	2.14	1 µg/L		
MPFUnA	8813	2.23	1 µg/L		
MPFDoA	11599	2.32	1 µg/L		
MPFTeDA	13627	2.47	1 µg/L		
13C6-PFHxA IS	35453	1.43	1 µg/L		
13C9-PFDA IS	44102	2.13	1 µg/L		

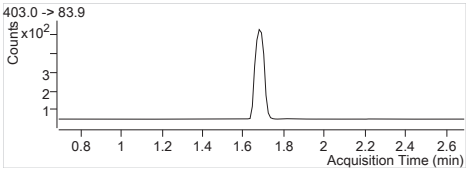
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8462	1.09	12.50	13.34 µg/L	106.73
PFHxA 1	30830	1.43	12.50	11.77 µg/L	94.18
PFHxS 1	8007	1.68	12.50	12.88 µg/L	103.04
PFHpA 1	41975	1.69	12.50	12.88 µg/L	103.03
PFOA 1	45630	1.88	12.50	11.46 µg/L	91.66
PFOS 1	8451	1.97	12.50	12.29 µg/L	98.29
PFNA 1	38345	2.03	12.50	12.18 µg/L	97.43
PFDA 1	42970	2.14	12.50	12.90 µg/L	103.23
PFUnA 1	46137	2.23	12.50	11.23 µg/L	89.80
PFDoA 1	58450	2.32	12.50	12.15 µg/L	97.17
PFTrDA 1	69208	2.40	12.50	12.33 µg/L	98.67
PFTeDA 1	55720	2.47	12.50	11.74 µg/L	93.95
13C2-PFHxA	6476	1.43	100.00	94.00 µg/L	94.00
18O2-PFHxS	1498	1.68	100.00	84.98 µg/L	84.98
13C4-PFHpA	8243	1.69	100.00	91.37 µg/L	91.37
13C4-PFOA	9595	1.88	100.00	100.81 µg/L	100.81
13C4-PFOS	1878	1.98	100.00	87.49 µg/L	87.49
13C5-PFNA	8581	2.02	100.00	90.33 µg/L	90.33
13C2-PFDA	6799	2.14	100.00	90.57 µg/L	90.57
13C2-PFUnA	8813	2.23	100.00	99.00 µg/L	99.00
13C2-PFDoA	11599	2.32	100.00	93.86 µg/L	93.86
13C2-PFTeDA	13838	2.47	100.00	98.16 µg/L	98.16
13C6-PFHxA	35453	1.43	100.00	111.76 µg/L	111.76
13C9-PFDA	44102	2.13	100.00	108.75 µg/L	108.75



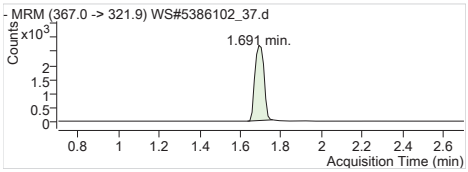


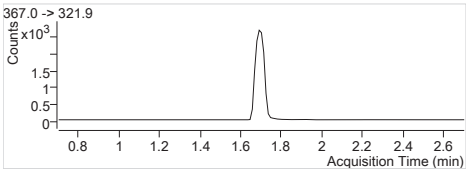
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	CC



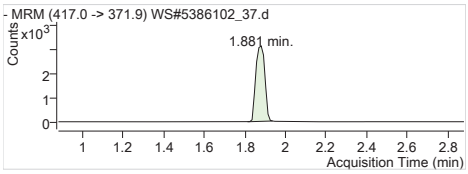


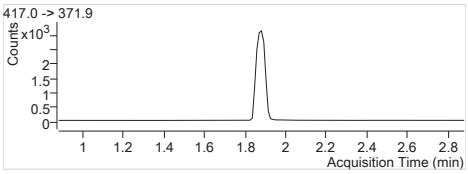
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.690)
Concentration: 1 µg/L
Sample type: CC



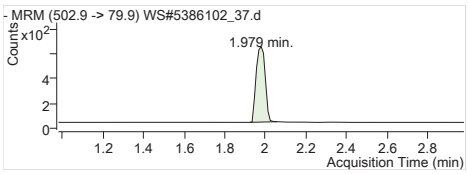


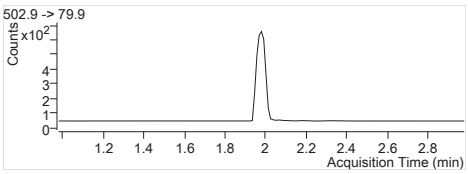
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.702)
Concentration: 1 µg/L
Sample type: CC



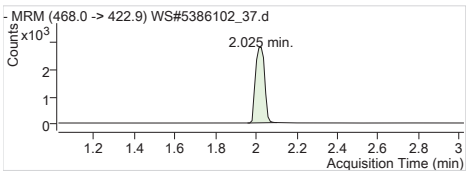


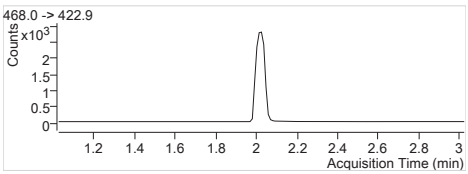
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



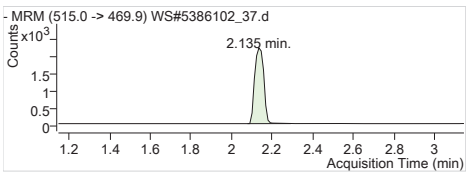


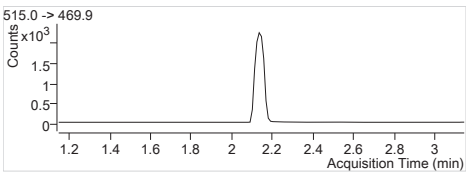
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



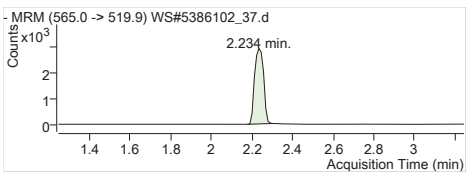


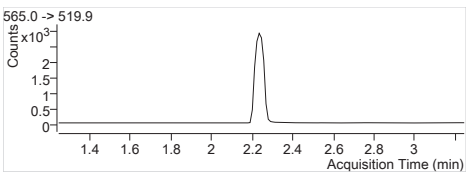
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: CC



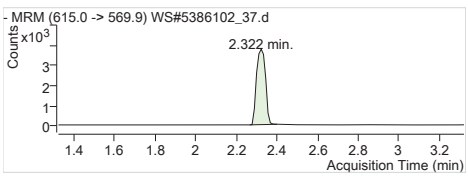


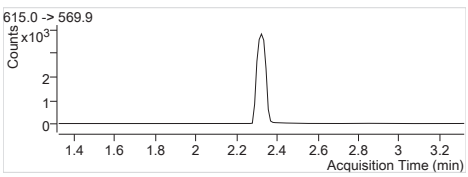
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: CC



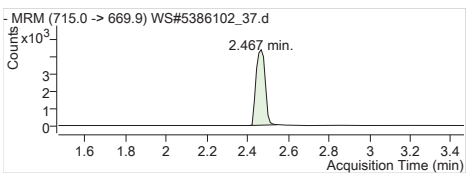


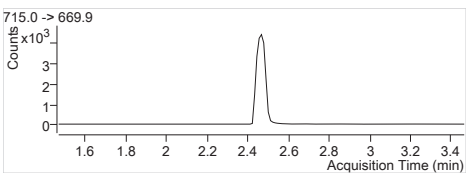
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.245)
Concentration: 1 µg/L
Sample type: CC



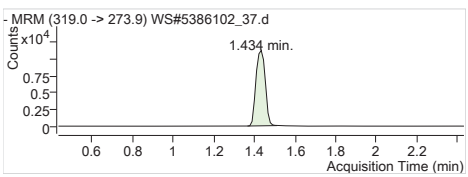


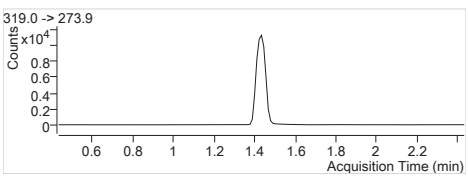
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



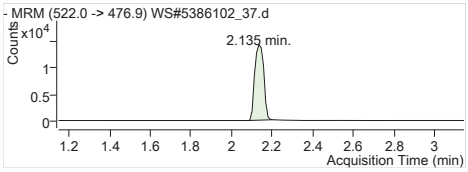


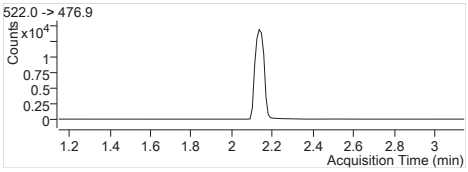
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



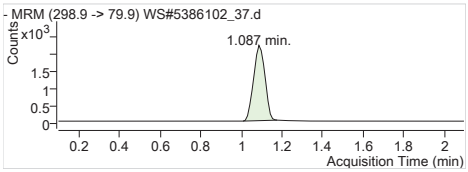


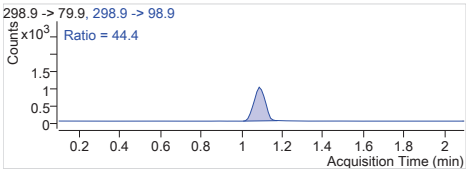
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



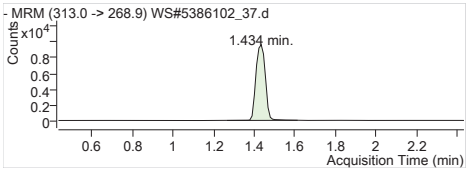


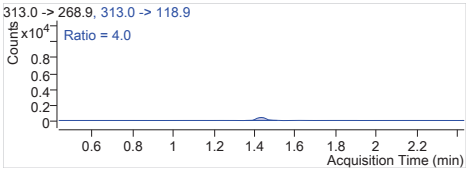
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.146)
Concentration: 1 µg/L
Sample type: CC



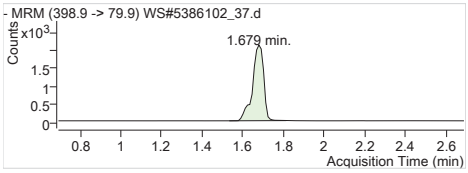


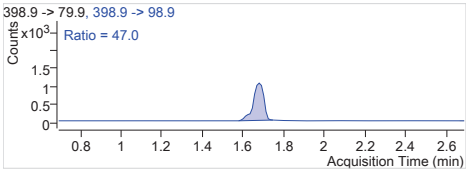
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.098)
Calc. conc. 13.34 µg/L
Area ratio: 5.64887
Sample type: CC



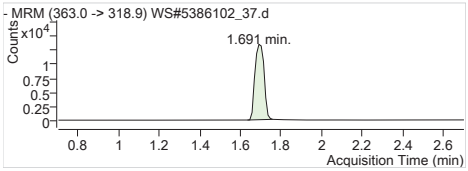


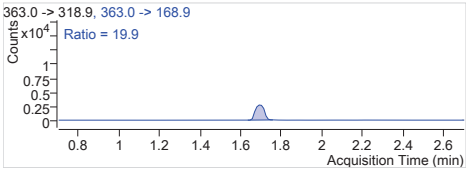
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 11.77 µg/L
Area ratio: 4.76065
Sample type: CC



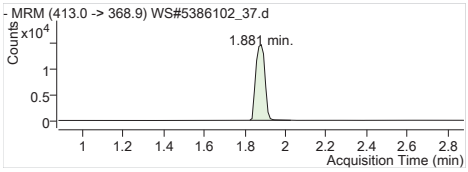


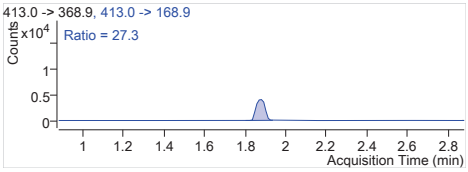
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 12.88 µg/L
Area ratio: 5.34513
Sample type: CC



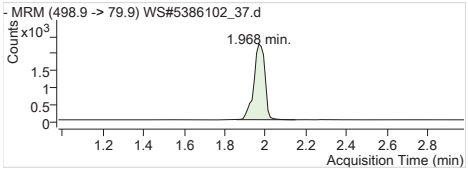


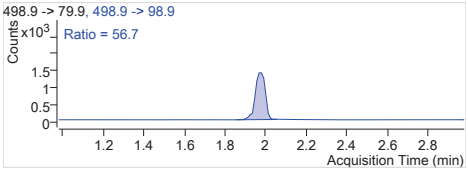
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.702)
Calc. conc. 12.88 µg/L
Area ratio: 5.09220
Sample type: CC



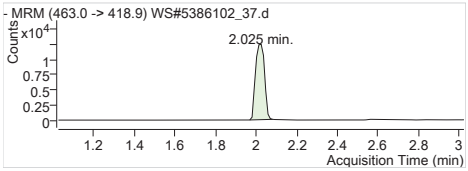


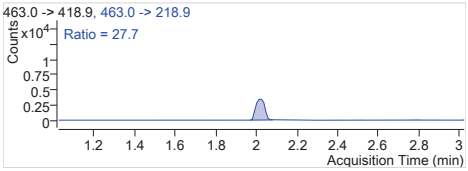
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 11.46 µg/L
Area ratio: 4.75560
Sample type: CC



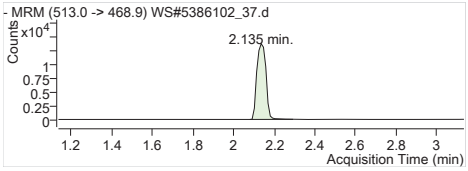


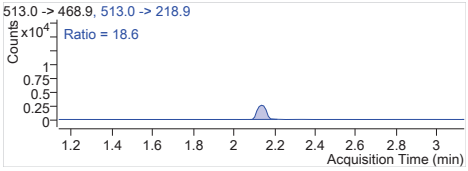
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.979)
Calc. conc. 12.29 µg/L
Area ratio: 4.50000
Sample type: CC



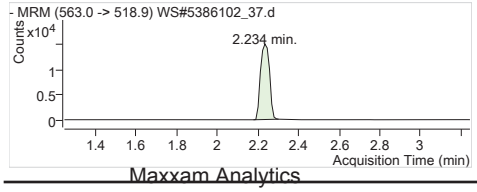


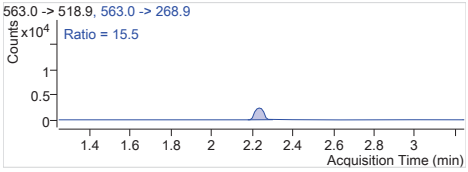
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 12.18 µg/L
Area ratio: 4.43962
Sample type: CC



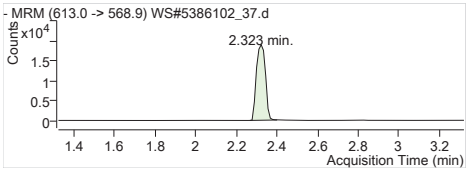


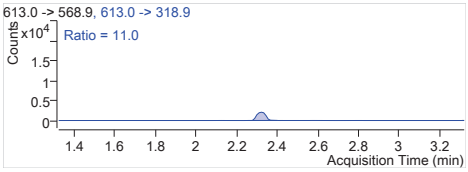
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 12.90 µg/L
Area ratio: 6.24564
Sample type: CC



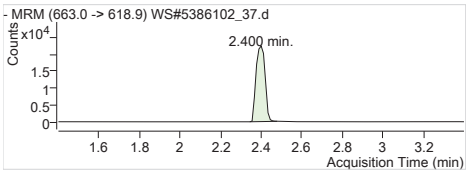


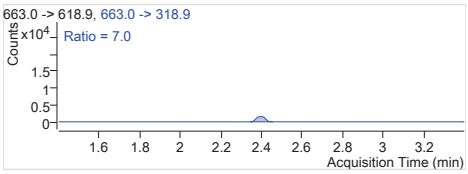
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.246)
Calc. conc. 11.23 µg/L
Area ratio: 5.23511
Sample type: CC



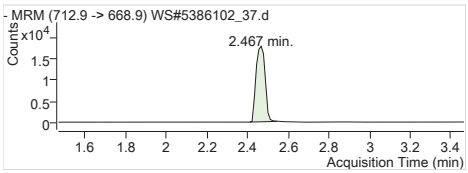


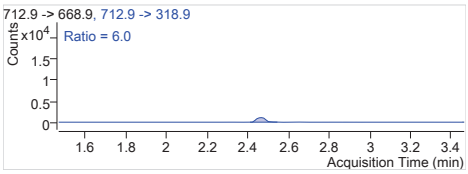
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 12.15 µg/L
Area ratio: 5.03923
Sample type: CC



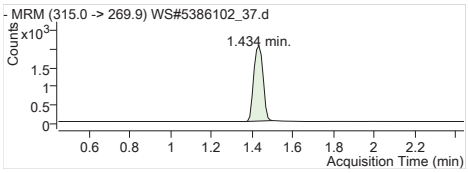


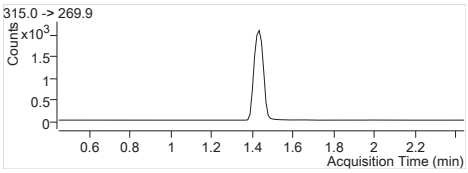
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 12.33 µg/L
Area ratio: 5.07874
Sample type: CC



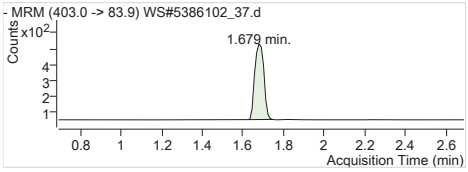


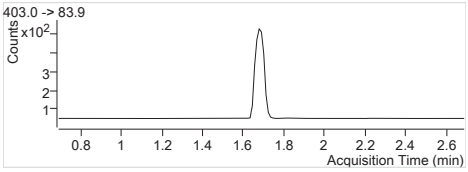
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 11.74 µg/L
Area ratio: 4.08894
Sample type: CC



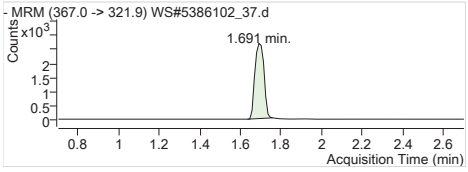


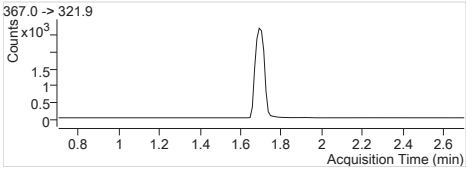
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.445)
Calc. conc. 94.00 µg/L
Area ratio: 0.18266
Sample type: CC



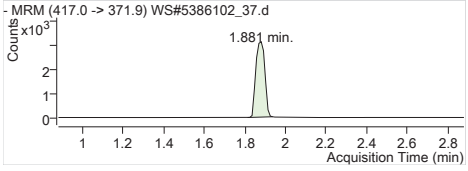


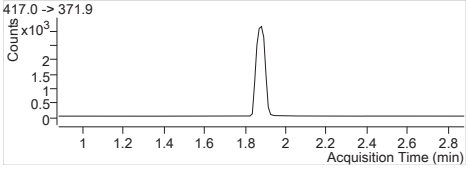
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.690)
Calc. conc. 84.98 µg/L
Area ratio: 0.04225
Sample type: CC



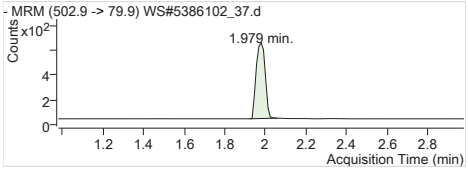


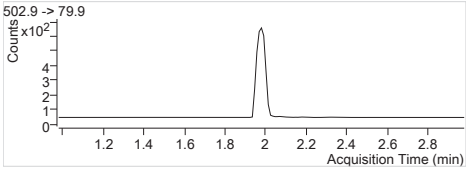
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.702)
Calc. conc. 91.37 µg/L
Area ratio: 0.23251
Sample type: CC



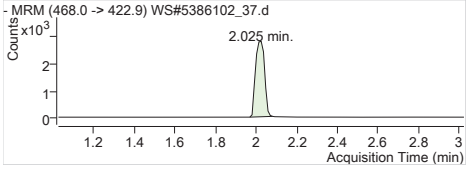


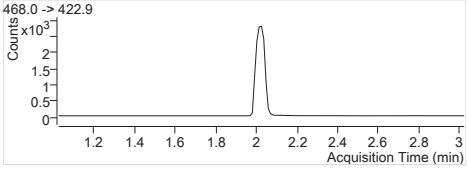
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 100.81 µg/L
Area ratio: 0.27064
Sample type: CC



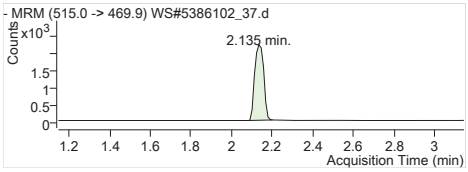


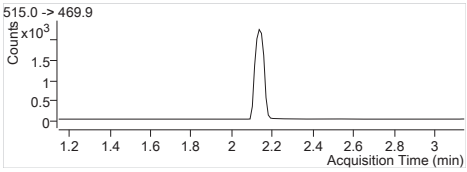
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 87.49 µg/L
Area ratio: 0.05297
Sample type: CC



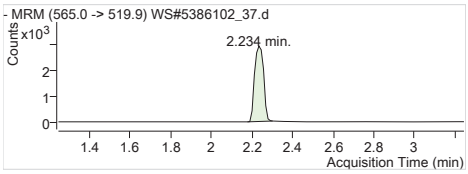


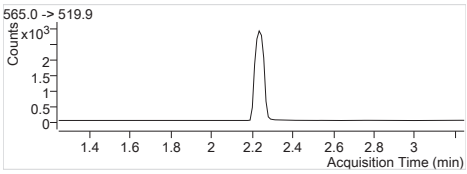
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 90.33 µg/L
Area ratio: 0.24204
Sample type: CC



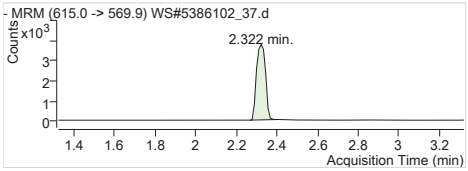


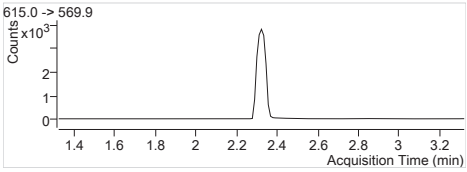
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 90.57 µg/L
Area ratio: 0.15417
Sample type: CC



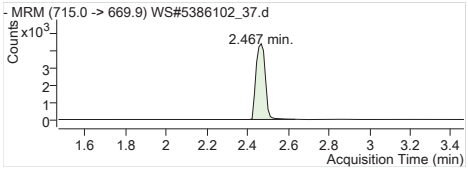


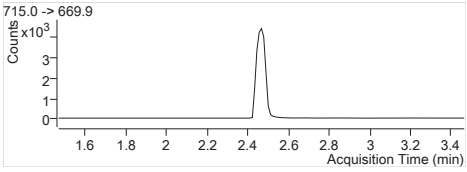
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.245)
Calc. conc. 99.00 µg/L
Area ratio: 0.19983
Sample type: CC



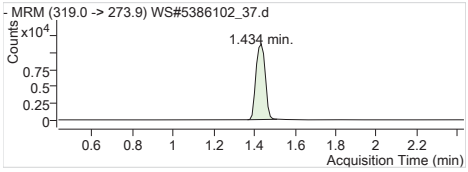


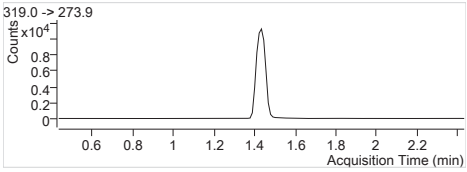
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 93.86 µg/L
Area ratio: 0.26300
Sample type: CC



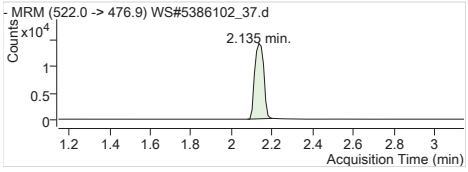


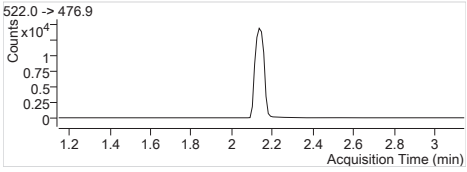
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 98.16 µg/L
Area ratio: 0.31377
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 111.76 µg/L
Area ratio: 0
Sample type: CC





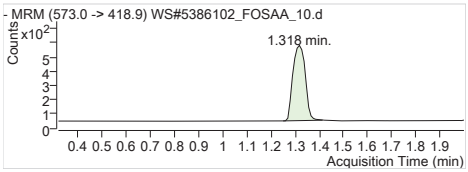
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.146)
Calc. conc. 108.75 µg/L
Area ratio: 0
Sample type: CC

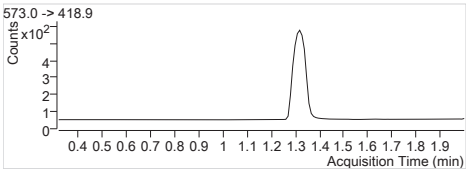
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C8
Acq. Date	2018/02/08 9:55:40 AM	**Injection Volume**	Per Method
Sample Annotation	-		

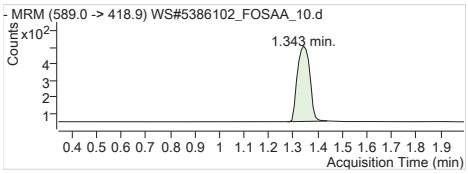
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1882	1.32	1 µg/L		
D5-EtFOSAA IS	1622	1.34	1 µg/L		
13C9-PFDA IS	35225	0.92	1 µg/L		

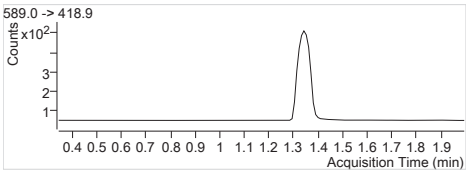
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	545	1.31	0.83	0.82 µg/L	98.35
EtFOSAA 1	551	1.34	0.83	0.87 µg/L	104.50
D3-MeFOSAA	1904	1.32	100.00	101.58 µg/L	101.58
D5-EtFOSAA	1633	1.34	100.00	100.41 µg/L	100.41
13C9-PFDA	34350	0.92	100.00	102.82 µg/L	102.82



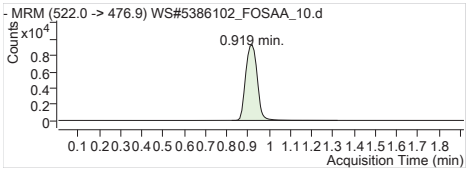


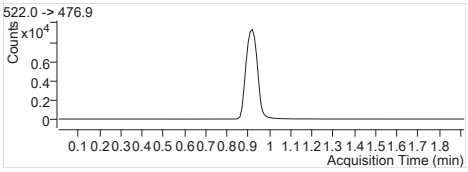
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



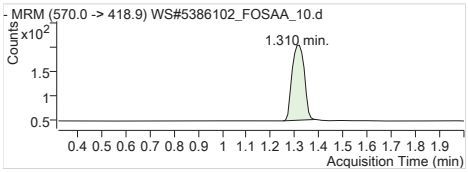


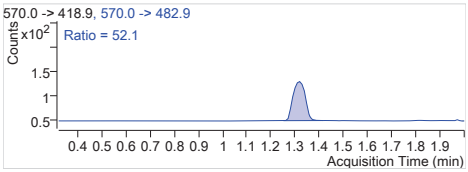
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



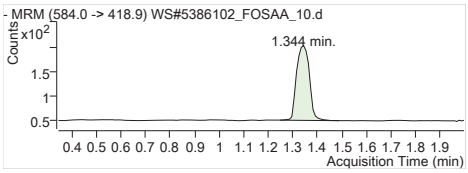


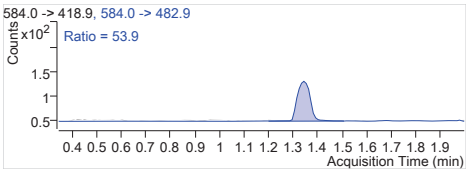
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: CC



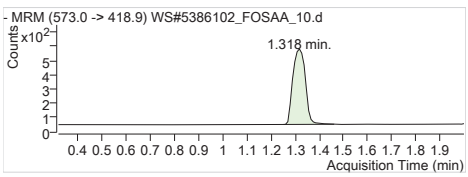


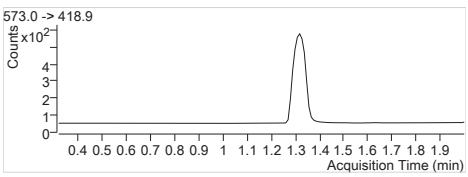
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.319)
Calc. conc. 0.82 µg/L
Area ratio: 0.28959
Sample type: CC



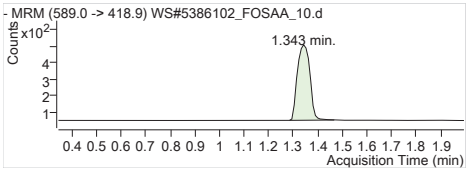


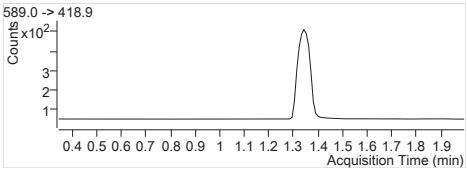
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.87 µg/L
Area ratio: 0.33970
Sample type: CC



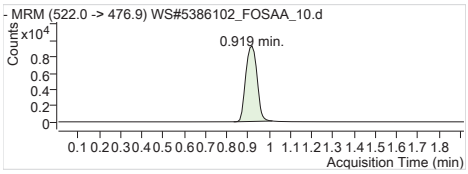


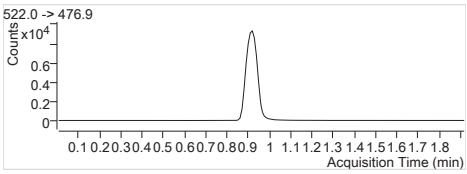
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 101.58 µg/L
Area ratio: 0.05405
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	100.41 µg/L
Area ratio:	0.04636
Sample type:	CC





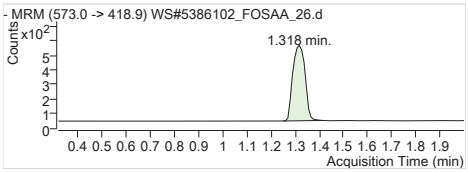
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	102.82 µg/L
Area ratio:	0
Sample type:	CC

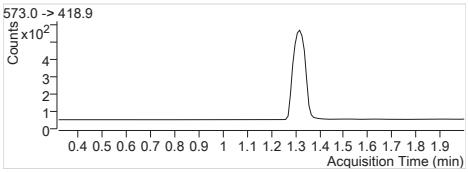
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_26.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D2
Acq. Date	2018/02/08 10:34:12 AM	**Injection Volume**	Per Method
Sample Annotation	-		

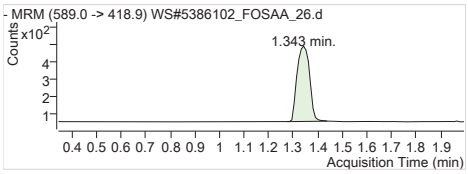
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1825	1.32	1 µg/L		
D5-EtFOSAA IS	1565	1.34	1 µg/L		
13C9-PFDA IS	35972	0.92	1 µg/L		

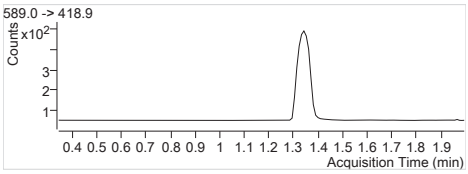
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7785	1.32	12.50	12.02 µg/L	96.18
EtFOSAA 1	7832	1.34	12.50	11.90 µg/L	95.17
D3-MeFOSAA	1835	1.32	100.00	95.87 µg/L	95.87
D5-EtFOSAA	1576	1.34	100.00	94.89 µg/L	94.89
13C9-PFDA	35131	0.92	100.00	105.16 µg/L	105.16



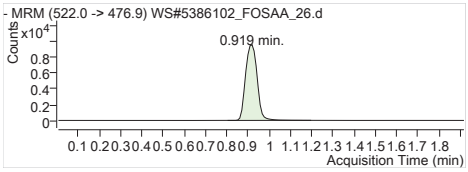


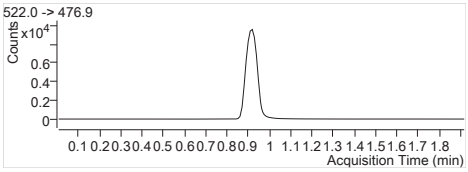
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



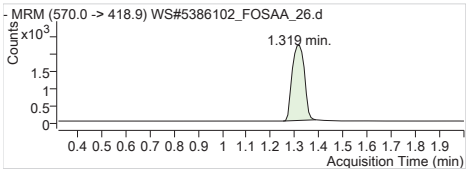


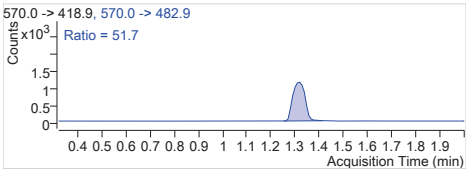
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



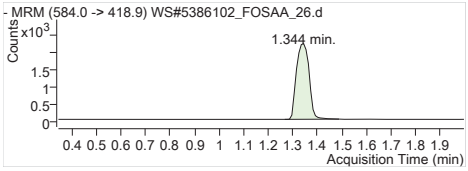


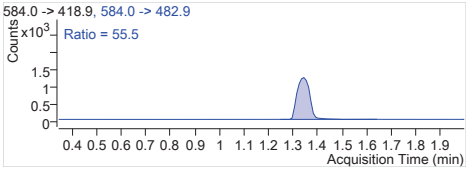
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: CC



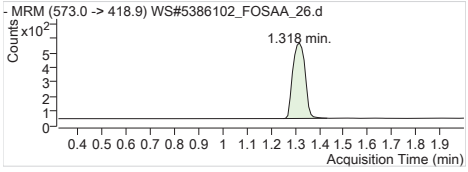


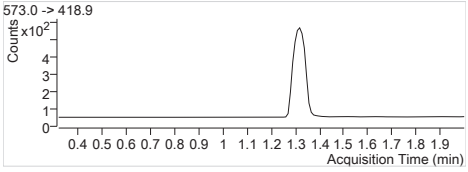
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 12.02 µg/L
Area ratio: 4.26575
Sample type: CC



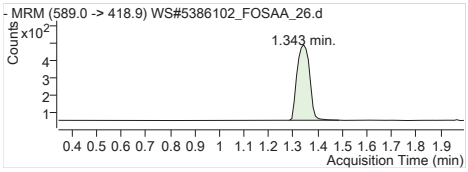


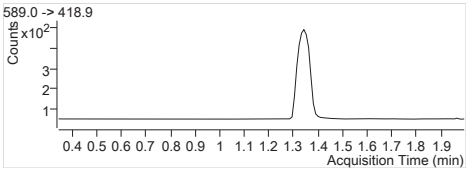
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 11.90 µg/L
Area ratio: 5.00447
Sample type: CC



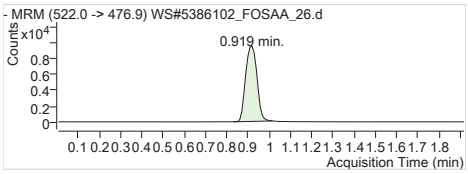


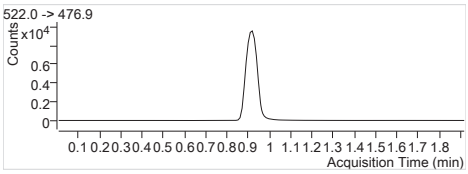
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 95.87 µg/L
Area ratio: 0.05101
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	94.89 µg/L
Area ratio:	0.04381
Sample type:	CC





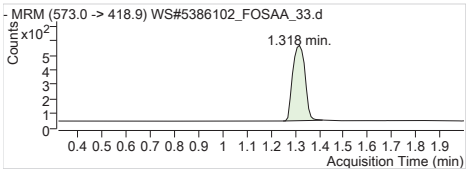
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	105.16 µg/L
Area ratio:	0
Sample type:	CC

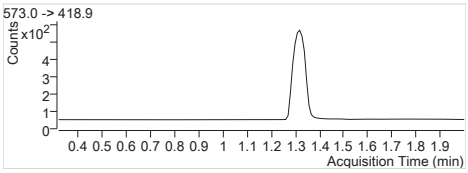
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_33.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D2
Acq. Date	2018/02/08 10:51:05 AM	**Injection Volume**	Per Method
Sample Annotation	-		

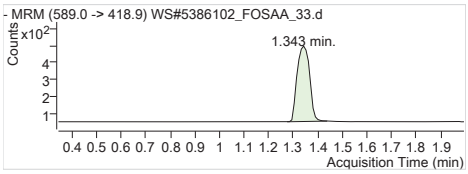
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1832	1.32	1 µg/L		
D5-EtFOSAA IS	1580	1.34	1 µg/L		
13C9-PFDA IS	35917	0.92	1 µg/L		

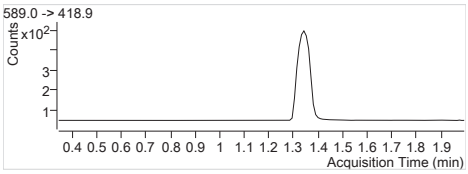
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7693	1.32	12.50	11.84 µg/L	94.69
EtFOSAA 1	7730	1.34	12.50	11.63 µg/L	93.05
D3-MeFOSAA	1846	1.32	100.00	96.59 µg/L	96.59
D5-EtFOSAA	1585	1.34	100.00	95.58 µg/L	95.58
13C9-PFDA	35154	0.92	100.00	105.23 µg/L	105.23



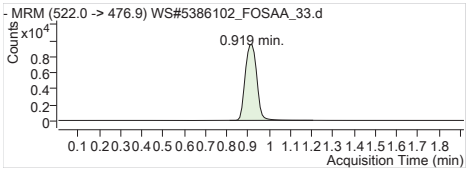


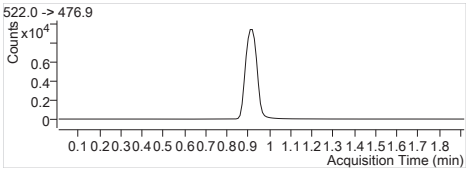
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



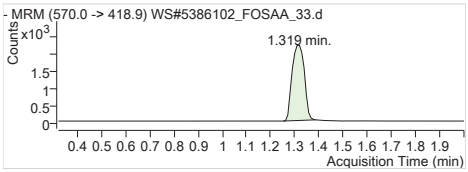


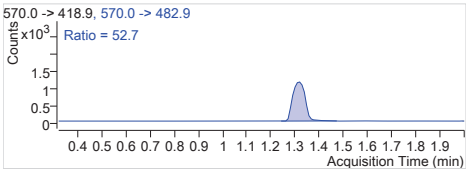
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



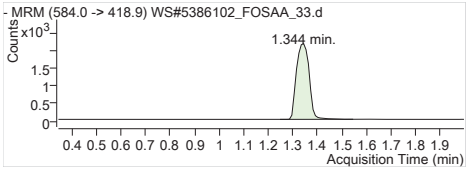


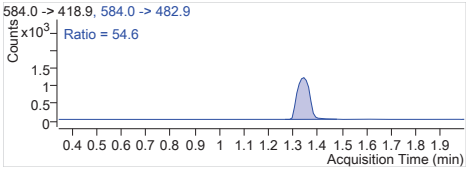
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: CC



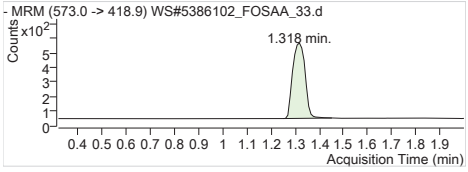


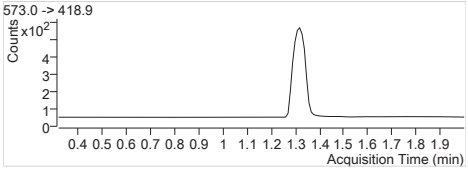
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 11.84 µg/L
Area ratio: 4.19924
Sample type: CC



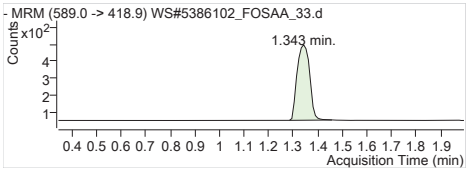


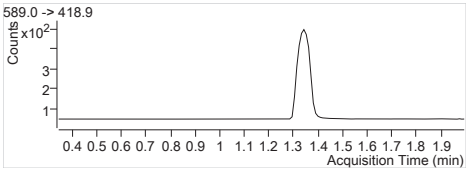
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 11.63 µg/L
Area ratio: 4.89241
Sample type: CC



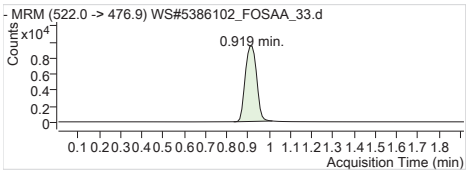


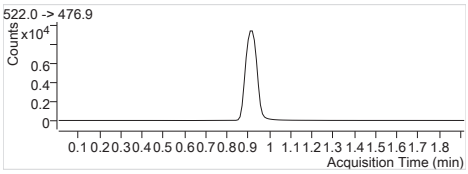
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 96.59 µg/L
Area ratio: 0.05140
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	95.58 µg/L
Area ratio:	0.04413
Sample type:	CC





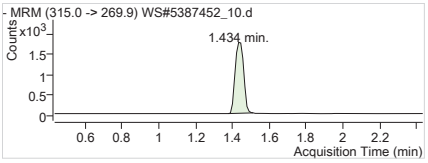
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	105.23 µg/L
Area ratio:	0
Sample type:	CC

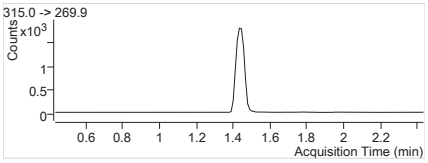
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5387452_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A2
Acq. Date	2018/02/08 1:13:25 AM	**Injection Volume**	Per Method
Sample Annotation	-		

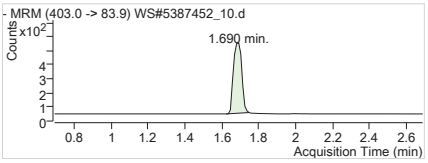
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5576	1.43	1 µg/L		
MPFHxS	1598	1.69	1 µg/L		
MPFHpA	7891	1.70	1 µg/L		
MPFOA	7963	1.88	1 µg/L		
MPFOS	2027	1.98	1 µg/L		
MPFNA	8305	2.02	1 µg/L		
MPFDA	7086	2.15	1 µg/L		
MPFUnA	8318	2.23	1 µg/L		
MPFDoA	11326	2.32	1 µg/L		
MPFTeDA	12993	2.47	1 µg/L		
13C6-PFHxA IS	29289	1.43	1 µg/L		
13C9-PFDA IS	39482	2.15	1 µg/L		

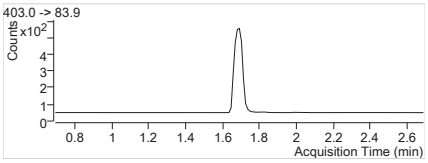
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	567	1.09	0.83	0.86 µg/L	103.89
PFHxA 1	2163	1.43	0.83	1.01 µg/L	121.63
PFHxS 1	575	1.68	0.83	0.81 µg/L	97.17
PFHpA 1	2803	1.70	0.83	0.85 µg/L	102.21
PFOA 1	3219	1.88	0.83	1.04 µg/L	124.94
PFOS 1	604	1.98	0.83	0.88 µg/L	106.56
PFNA 1	2806	2.03	0.83	0.94 µg/L	113.38
PFDA 1	2934	2.15	0.83	0.85 µg/L	102.93
PFUnA 1	3551	2.25	0.83	0.96 µg/L	115.83
PFDoA 1	4022	2.32	0.83	0.91 µg/L	109.28
PFTrDA 1	4756	2.40	0.83	0.83 µg/L	100.15
PFTeDA 1	3899	2.47	0.83	1.07 µg/L	129.26
13C2-PFHxA	5576	1.43	100.00	89.08 µg/L	89.08
18O2-PFHxS	1598	1.69	100.00	94.08 µg/L	94.08
13C4-PFHpA	7891	1.70	100.00	97.71 µg/L	97.71
13C4-PFOA	7963	1.88	100.00	91.64 µg/L	91.64
13C4-PFOS	2027	1.98	100.00	96.80 µg/L	96.80
13C5-PFNA	8306	2.02	100.00	93.54 µg/L	93.54
13C2-PFDA	6917	2.15	100.00	96.10 µg/L	96.10
13C2-PFUnA	8318	2.23	100.00	92.12 µg/L	92.12
13C2-PFDoA	11326	2.32	100.00	92.36 µg/L	92.36
13C2-PFTeDA	12995	2.47	100.00	89.68 µg/L	89.68
13C6-PFHxA	29289	1.43	100.00	125.65 µg/L	125.65
13C9-PFDA	39482	2.15	100.00	125.28 µg/L	125.28



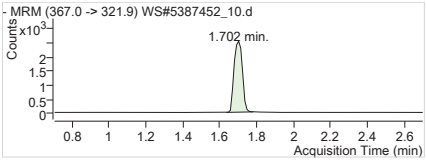


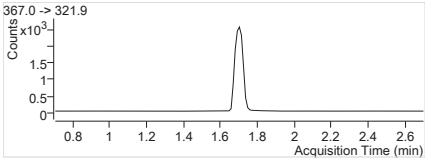
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



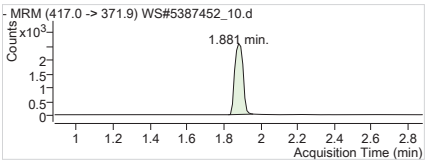


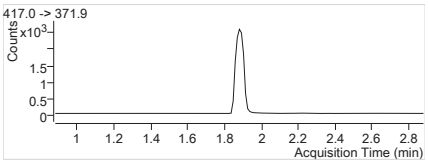
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



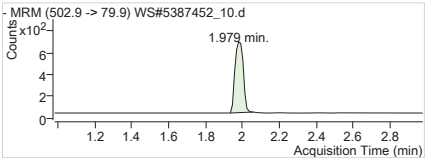


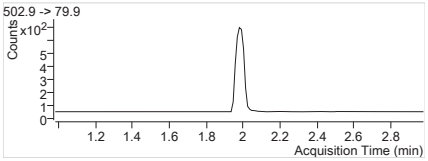
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: CC



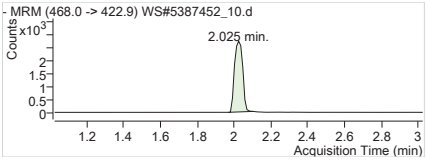


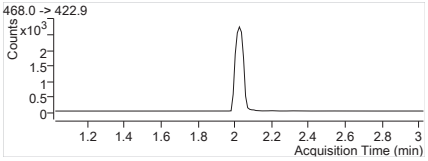
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



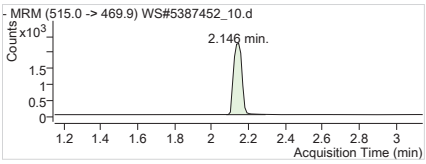


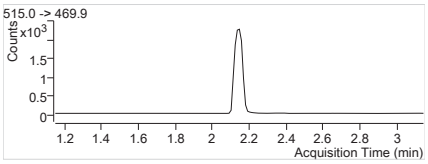
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



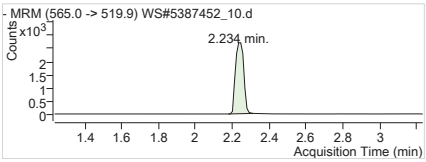


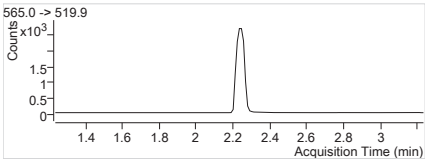
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: CC



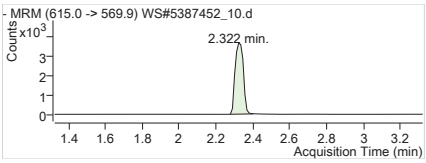


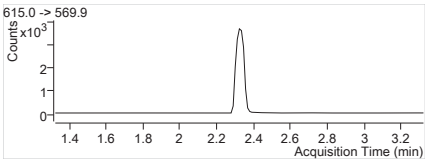
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



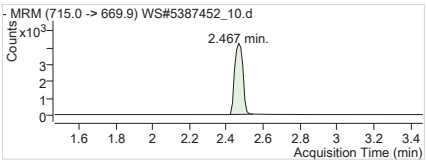


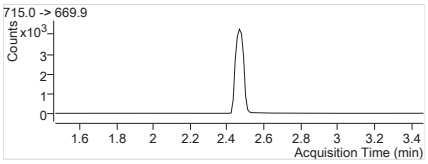
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



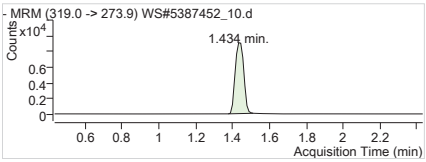


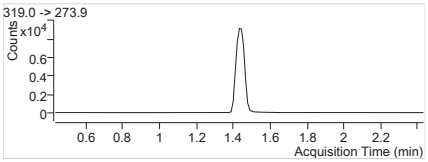
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



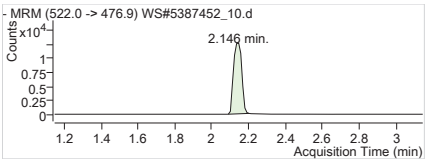


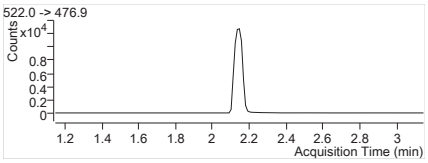
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



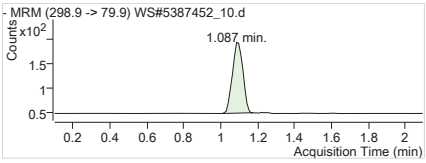


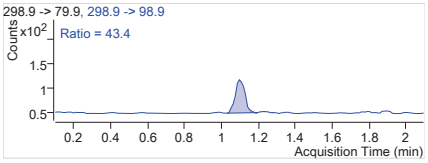
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



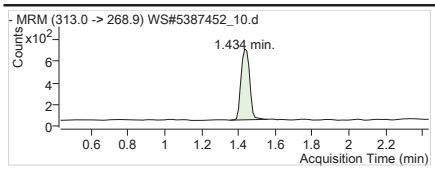


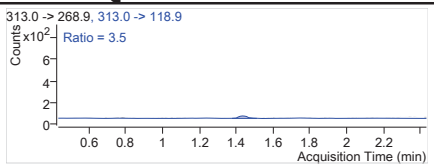
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



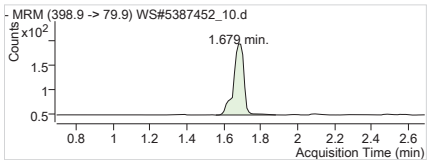


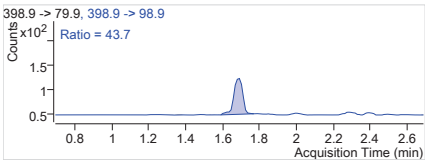
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.098)
Calc. conc. 0.86 µg/L
Area ratio: 0.35482
Sample type: CC



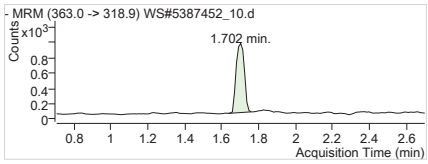


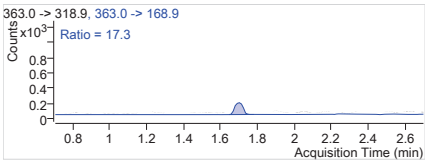
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 1.01 µg/L
Area ratio: 0.38791
Sample type: CC



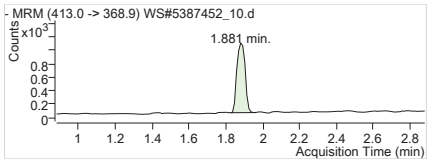


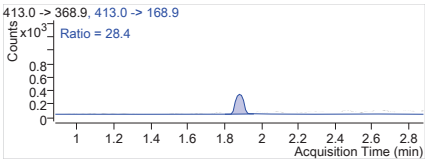
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 0.81 µg/L
Area ratio: 0.35982
Sample type: CC



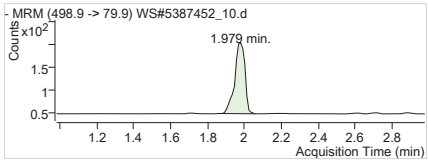


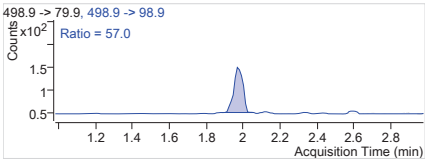
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 0.85 µg/L
Area ratio: 0.35521
Sample type: CC



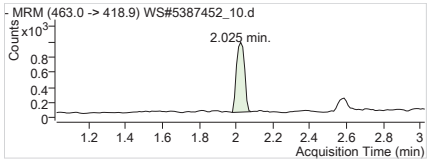


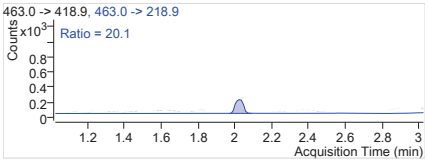
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 1.04 µg/L
Area ratio: 0.40424
Sample type: CC



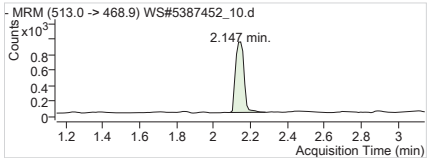


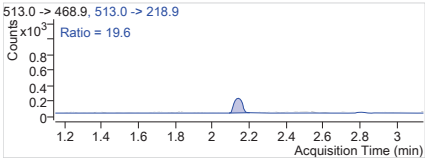
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 0.88 µg/L
Area ratio: 0.29798
Sample type: CC



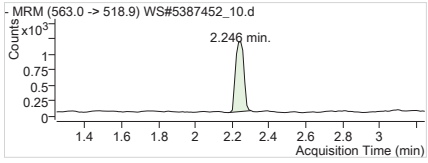


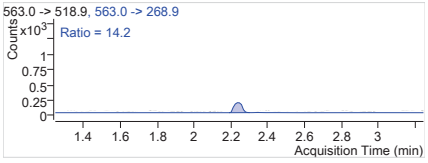
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 0.94 µg/L
Area ratio: 0.33787
Sample type: CC



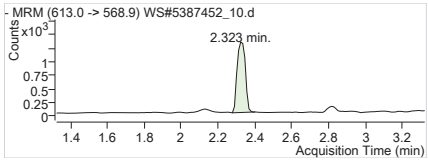


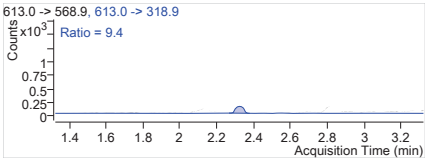
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 0.85 µg/L
Area ratio: 0.41406
Sample type: CC



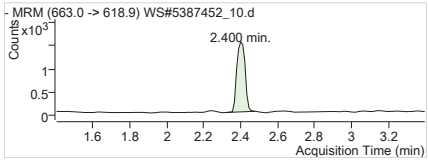


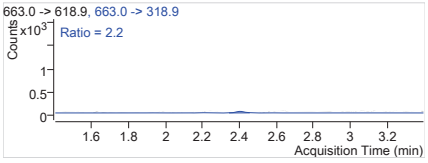
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 0.96 µg/L
Area ratio: 0.42691
Sample type: CC



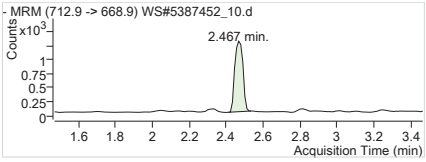


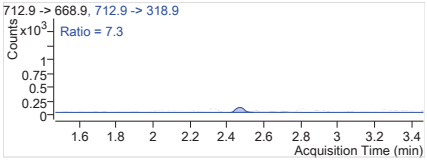
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.91 µg/L
Area ratio: 0.35511
Sample type: CC



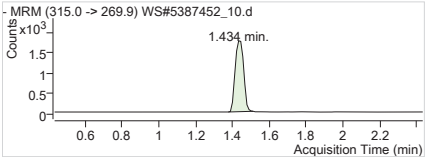


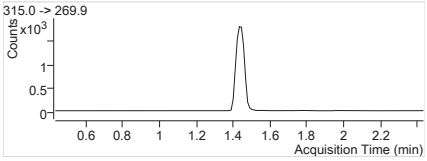
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.83 µg/L
Area ratio: 0.36604
Sample type: CC



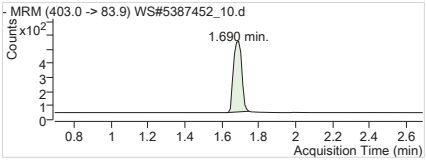


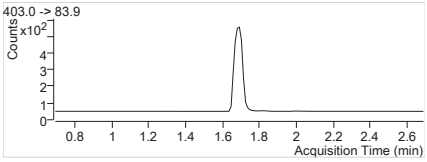
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 1.07 µg/L
Area ratio: 0.30008
Sample type: CC



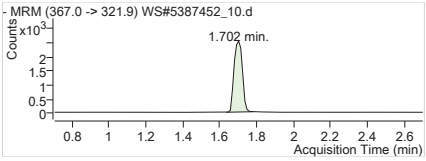


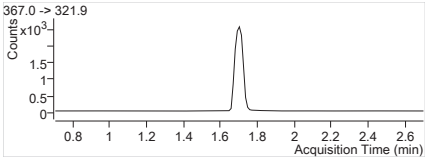
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 89.08 µg/L
Area ratio: 0.19038
Sample type: CC



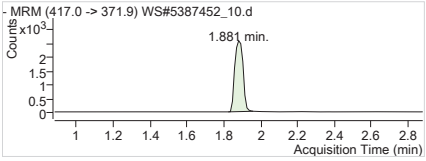


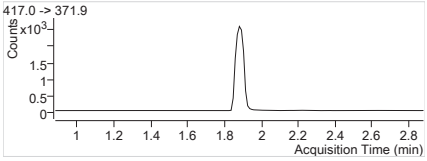
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 94.08 µg/L
Area ratio: 0.05456
Sample type: CC



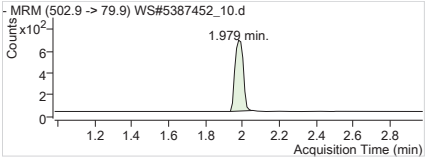


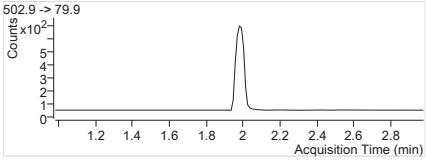
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 97.71 µg/L
Area ratio: 0.26942
Sample type: CC



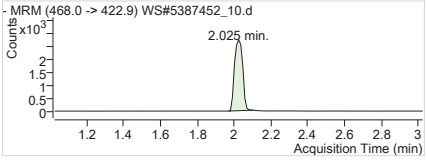


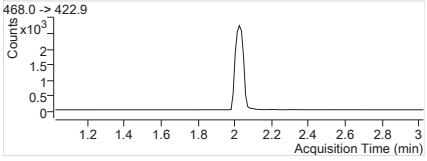
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 91.64 µg/L
Area ratio: 0.27188
Sample type: CC



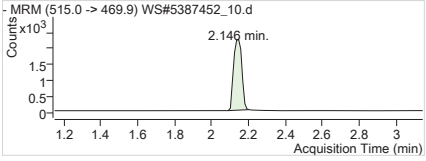


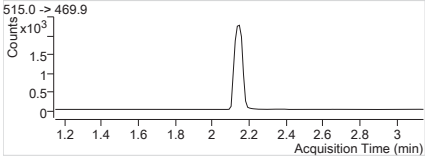
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 96.80 µg/L
Area ratio: 0.06921
Sample type: CC



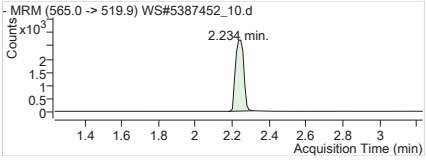


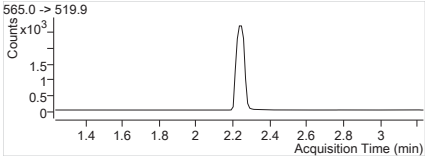
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 93.54 µg/L
Area ratio: 0.28359
Sample type: CC



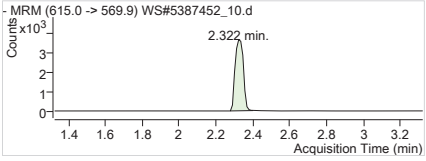


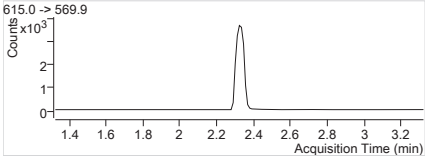
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 96.10 µg/L
Area ratio: 0.17519
Sample type: CC



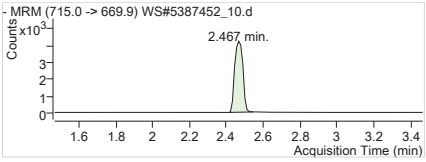


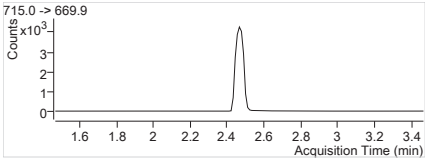
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 92.12 µg/L
Area ratio: 0.21068
Sample type: CC



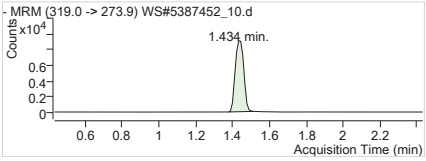


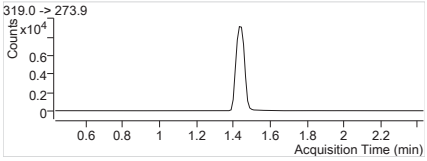
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 92.36 µg/L
Area ratio: 0.28686
Sample type: CC



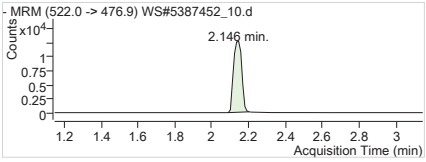


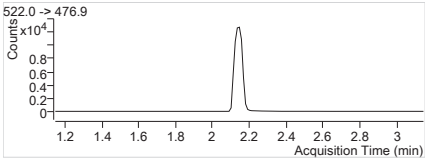
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	89.68 µg/L
Area ratio:	0.32914
Sample type:	CC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	125.65 µg/L
Area ratio:	0
Sample type:	CC





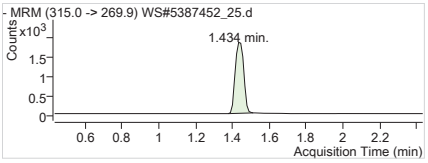
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	125.28 µg/L
Area ratio:	0
Sample type:	CC

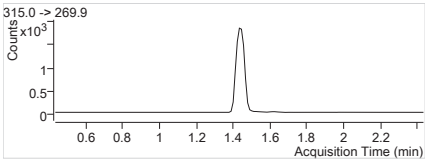
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5387452_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A5
Acq. Date	2018/02/08 2:27:25 AM	**Injection Volume**	Per Method
Sample Annotation	-		

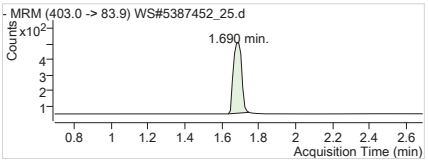
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5804	1.43	1 µg/L		
MPFHxS	1434	1.69	1 µg/L		
MPFHpA	8336	1.70	1 µg/L		
MPFOA	8092	1.88	1 µg/L		
MPFOS	1685	1.98	1 µg/L		
MPFNA	8110	2.02	1 µg/L		
MPFDA	6765	2.15	1 µg/L		
MPFUnA	7493	2.25	1 µg/L		
MPFDoA	10607	2.32	1 µg/L		
MPFTeDA	11802	2.47	1 µg/L		
13C6-PFHxA IS	27894	1.43	1 µg/L		
13C9-PFDA IS	36656	2.15	1 µg/L		

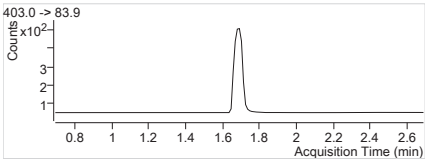
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8553	1.10	12.50	11.48 µg/L	91.87
PFHxA 1	32032	1.43	12.50	13.04 µg/L	104.35
PFHxS 1	8235	1.68	12.50	11.51 µg/L	92.06
PFHpA 1	39783	1.70	12.50	11.69 µg/L	93.49
PFOA 1	44702	1.88	12.50	12.59 µg/L	100.73
PFOS 1	9055	1.98	12.50	13.90 µg/L	111.21
PFNA 1	40737	2.03	12.50	12.75 µg/L	101.98
PFDA 1	44033	2.14	12.50	12.54 µg/L	100.33
PFUnA 1	47619	2.23	12.50	13.77 µg/L	110.16
PFDoA 1	58197	2.32	12.50	12.50 µg/L	100.02
PFTrDA 1	67570	2.40	12.50	12.97 µg/L	103.73
PFTeDA 1	59584	2.47	12.50	13.49 µg/L	107.90
13C2-PFHxA	5804	1.43	100.00	97.36 µg/L	97.36
18O2-PFHxS	1434	1.69	100.00	88.64 µg/L	88.64
13C4-PFHpA	8336	1.70	100.00	108.38 µg/L	108.38
13C4-PFOA	8092	1.88	100.00	97.79 µg/L	97.79
13C4-PFOS	1685	1.98	100.00	84.49 µg/L	84.49
13C5-PFNA	8111	2.02	100.00	95.91 µg/L	95.91
13C2-PFDA	6694	2.15	100.00	100.17 µg/L	100.17
13C2-PFUnA	7493	2.25	100.00	89.38 µg/L	89.38
13C2-PFDoA	10607	2.32	100.00	93.16 µg/L	93.16
13C2-PFTeDA	12017	2.47	100.00	89.33 µg/L	89.33
13C6-PFHxA	27894	1.43	100.00	119.66 µg/L	119.66
13C9-PFDA	36656	2.15	100.00	116.32 µg/L	116.32



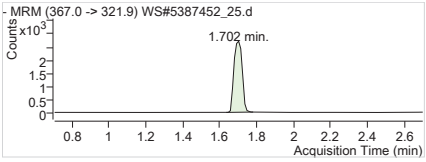


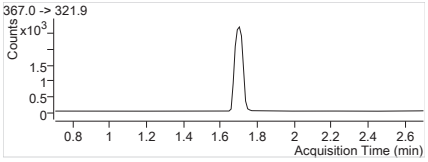
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



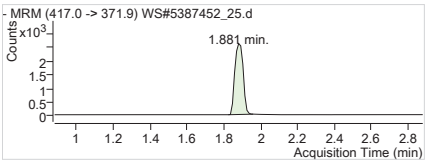


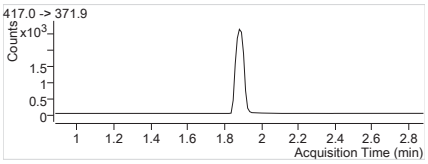
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



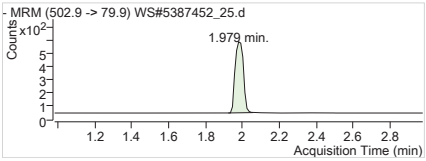


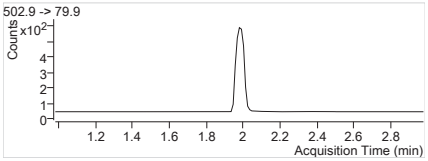
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: CC



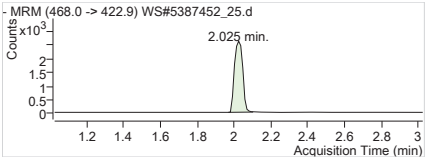


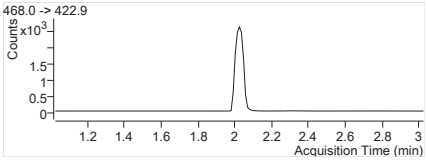
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



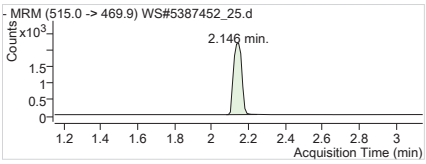


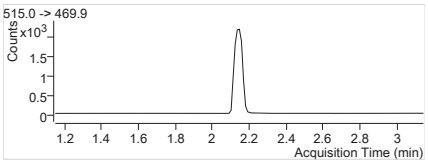
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



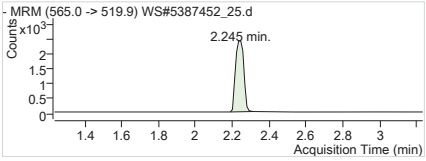


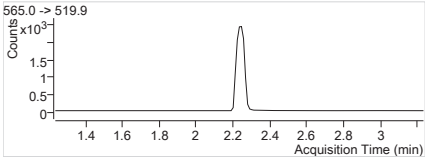
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: CC



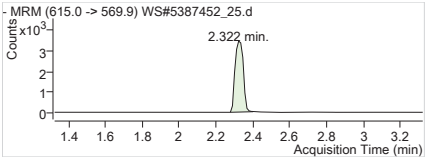


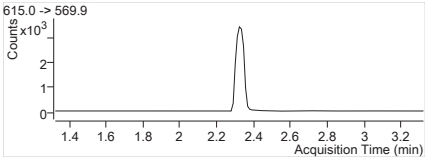
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



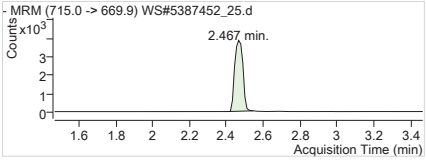


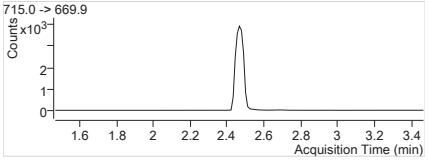
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: CC



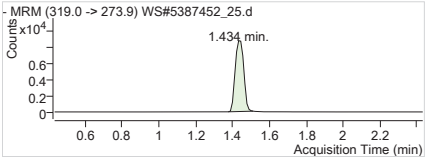


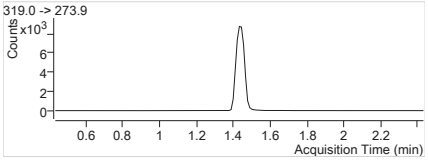
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



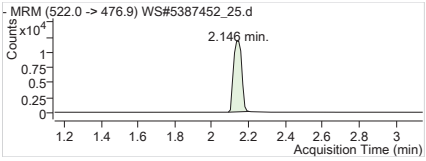


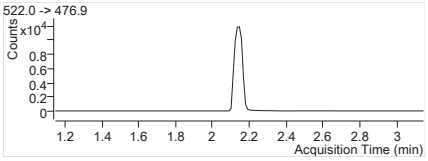
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



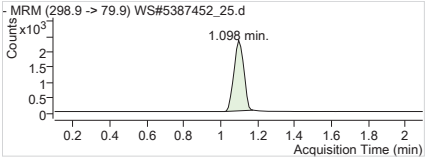


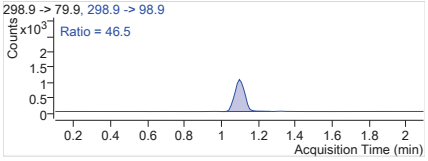
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



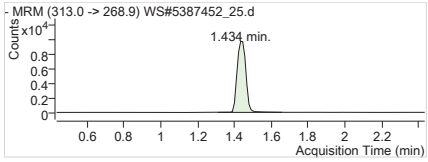


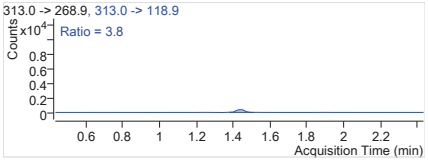
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



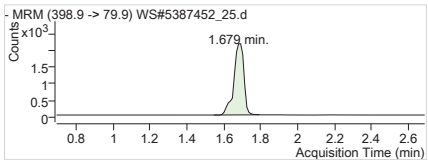


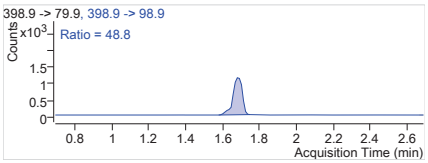
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 11.48 µg/L
Area ratio: 5.96444
Sample type: CC



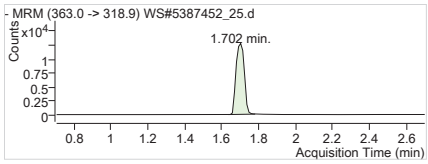


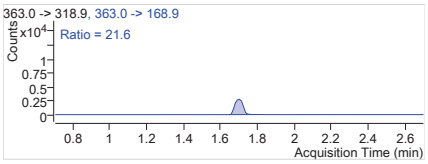
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 13.04 µg/L
Area ratio: 5.51895
Sample type: CC



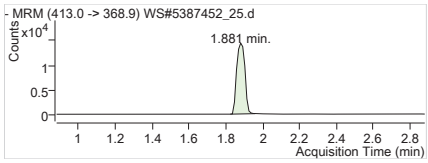


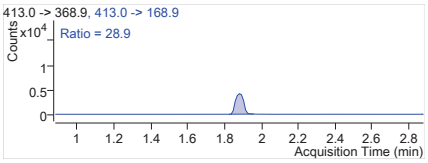
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.691)
Calc. conc. 11.51 µg/L
Area ratio: 5.74268
Sample type: CC



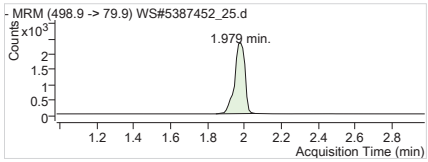


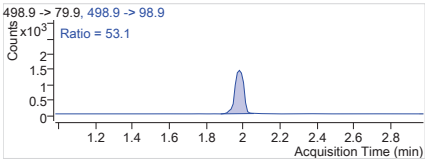
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 11.69 µg/L
Area ratio: 4.77243
Sample type: CC



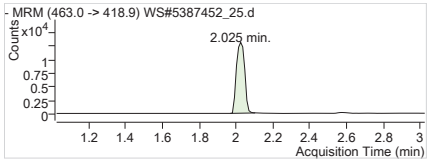


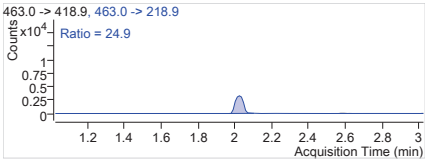
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 12.59 µg/L
Area ratio: 5.52422
Sample type: CC



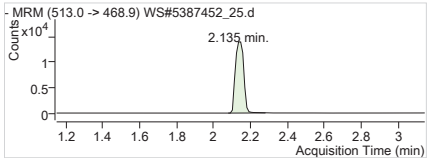


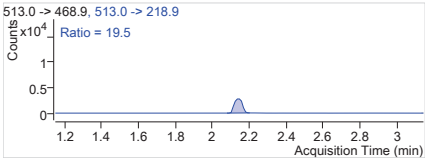
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 13.90 µg/L
Area ratio: 5.37389
Sample type: CC



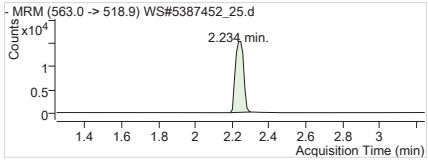


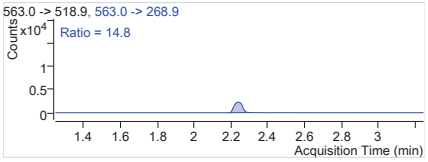
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 12.75 µg/L
Area ratio: 5.02306
Sample type: CC



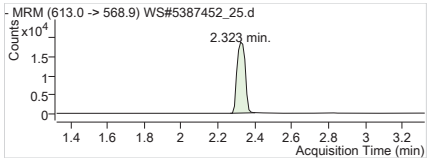


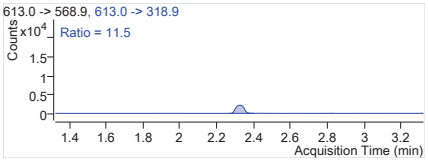
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.147)
Calc. conc. 12.54 µg/L
Area ratio: 6.50894
Sample type: CC



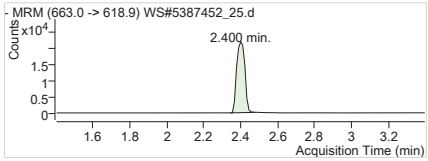


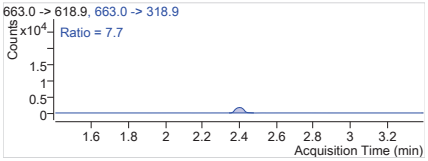
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.246)
Calc. conc. 13.77 µg/L
Area ratio: 6.35513
Sample type: CC



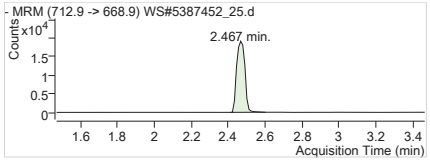


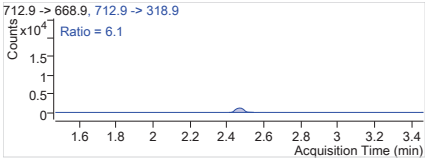
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 12.50 µg/L
Area ratio: 5.48666
Sample type: CC



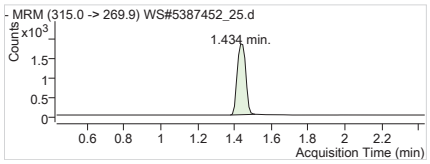


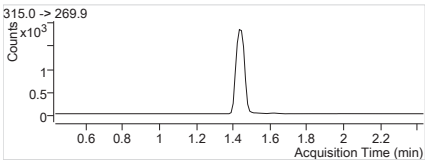
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 12.97 µg/L
Area ratio: 5.72530
Sample type: CC



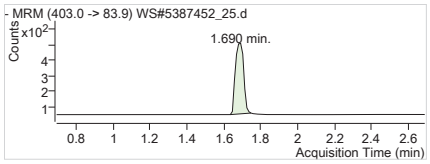


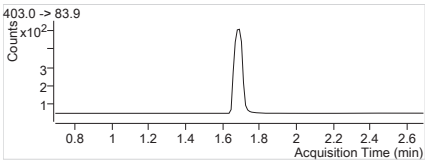
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 13.49 µg/L
Area ratio: 5.04864
Sample type: CC



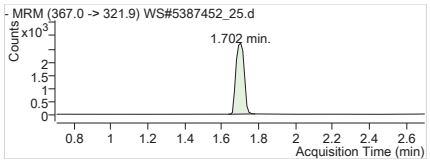


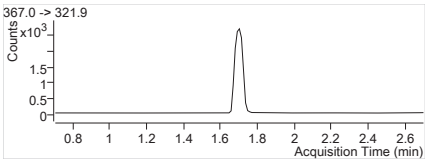
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 97.36 µg/L
Area ratio: 0.20807
Sample type: CC



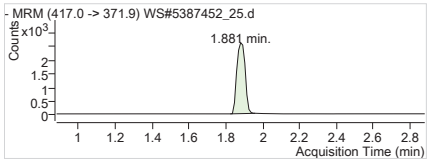


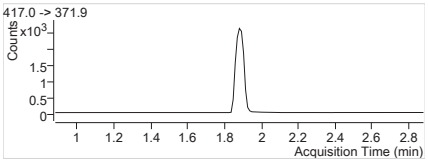
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 88.64 µg/L
Area ratio: 0.05141
Sample type: CC



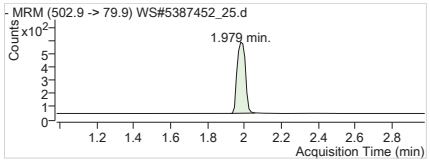


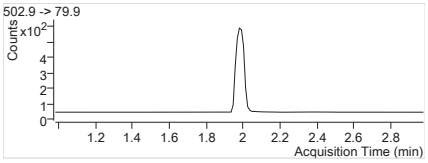
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 108.38 µg/L
Area ratio: 0.29885
Sample type: CC



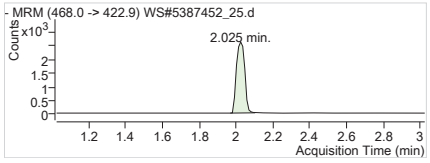


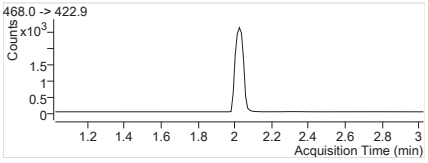
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 97.79 µg/L
Area ratio: 0.29010
Sample type: CC



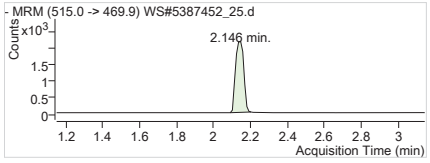


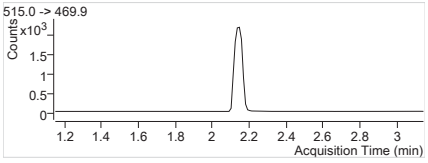
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 84.49 µg/L
Area ratio: 0.06041
Sample type: CC



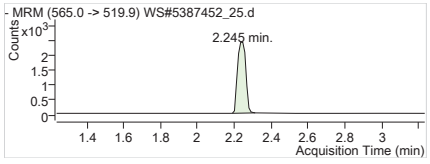


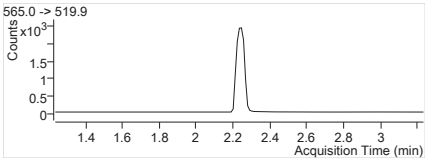
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 95.91 µg/L
Area ratio: 0.29078
Sample type: CC



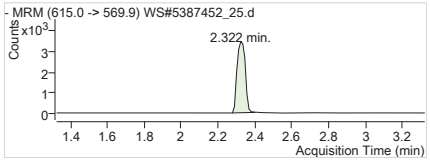


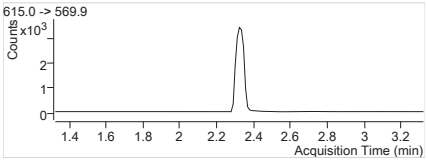
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 100.17 µg/L
Area ratio: 0.18262
Sample type: CC



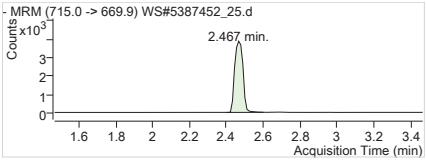


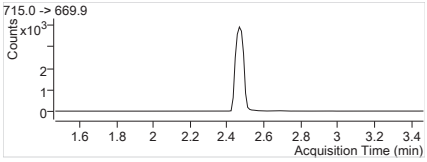
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 89.38 µg/L
Area ratio: 0.20441
Sample type: CC



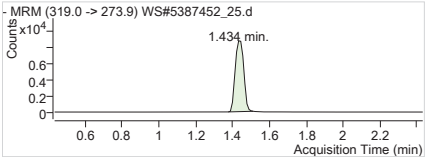


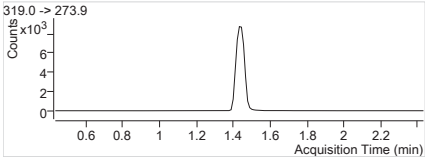
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 93.16 µg/L
Area ratio: 0.28937
Sample type: CC



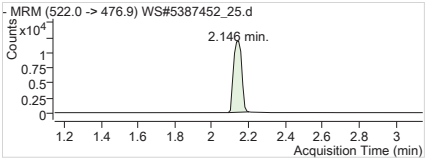


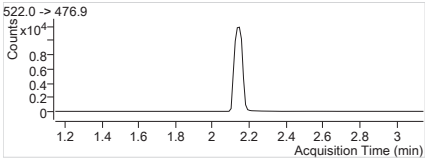
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	89.33 µg/L
Area ratio:	0.32783
Sample type:	CC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	119.66 µg/L
Area ratio:	0
Sample type:	CC





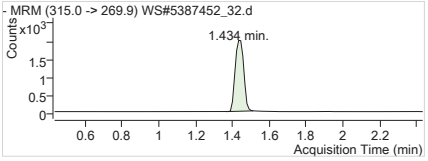
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	116.32 µg/L
Area ratio:	0
Sample type:	CC

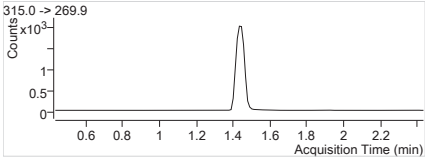
Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5387452_32.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A5
Acq. Date	2018/02/08 3:01:57 AM	**Injection Volume**	Per Method
Sample Annotation	-		

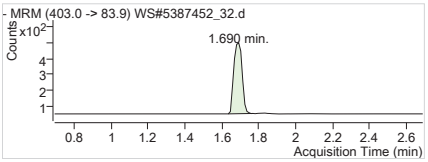
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6376	1.43	1 µg/L		
MPFHxS	1426	1.69	1 µg/L		
MPFHpA	7325	1.70	1 µg/L		
MPFOA	7898	1.88	1 µg/L		
MPFOS	1768	1.98	1 µg/L		
MPFNA	8397	2.02	1 µg/L		
MPFDA	6674	2.15	1 µg/L		
MPFUnA	7962	2.25	1 µg/L		
MPFDoA	10503	2.32	1 µg/L		
MPFTeDA	12098	2.47	1 µg/L		
13C6-PFHxA IS	29863	1.43	1 µg/L		
13C9-PFDA IS	38016	2.15	1 µg/L		

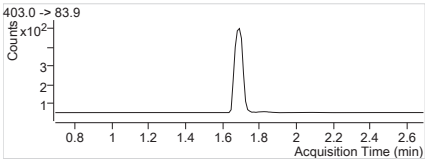
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8617	1.10	12.50	11.63 µg/L	93.05
PFHxA 1	32292	1.43	12.50	11.98 µg/L	95.82
PFHxS 1	8701	1.69	12.50	12.22 µg/L	97.77
PFHpA 1	42513	1.70	12.50	14.22 µg/L	113.74
PFOA 1	45728	1.88	12.50	13.19 µg/L	105.52
PFOS 1	8376	1.98	12.50	12.27 µg/L	98.15
PFNA 1	41010	2.03	12.50	12.40 µg/L	99.17
PFDA 1	46681	2.15	12.50	13.47 µg/L	107.78
PFUnA 1	48497	2.25	12.50	13.20 µg/L	105.59
PFDoA 1	62190	2.32	12.50	13.48 µg/L	107.87
PFTrDA 1	68405	2.40	12.50	12.81 µg/L	102.44
PFTeDA 1	57569	2.47	12.50	12.73 µg/L	101.83
13C2-PFHxA	6376	1.43	100.00	99.90 µg/L	99.90
18O2-PFHxS	1426	1.69	100.00	82.34 µg/L	82.34
13C4-PFHpA	7325	1.70	100.00	88.96 µg/L	88.96
13C4-PFOA	7898	1.88	100.00	89.15 µg/L	89.15
13C4-PFOS	1768	1.98	100.00	82.81 µg/L	82.81
13C5-PFNA	8396	2.02	100.00	92.73 µg/L	92.73
13C2-PFDA	6492	2.15	100.00	93.67 µg/L	93.67
13C2-PFUnA	7962	2.25	100.00	91.58 µg/L	91.58
13C2-PFDoA	10503	2.32	100.00	88.95 µg/L	88.95
13C2-PFTeDA	12275	2.47	100.00	87.98 µg/L	87.98
13C6-PFHxA	29863	1.43	100.00	128.11 µg/L	128.11
13C9-PFDA	38016	2.15	100.00	120.63 µg/L	120.63



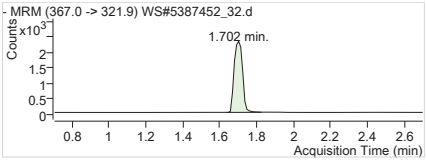


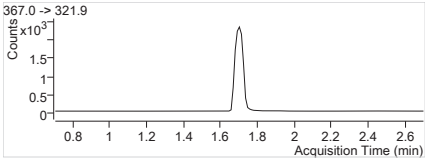
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



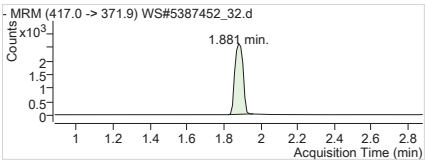


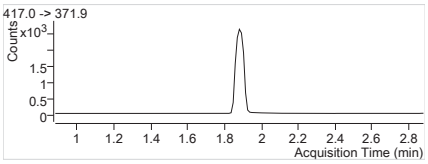
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC



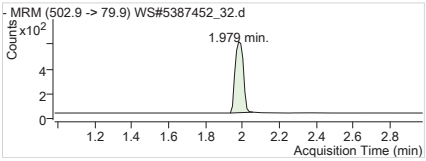


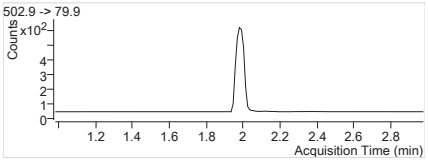
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: CC



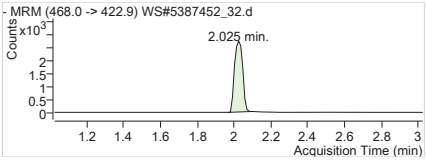


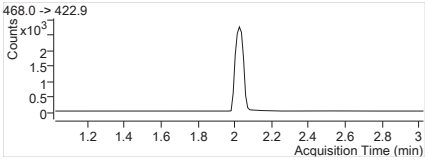
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



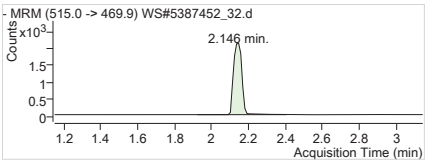


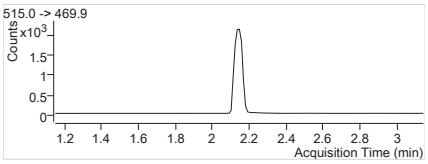
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



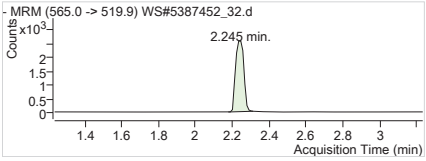


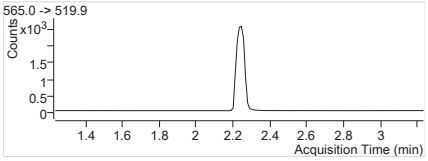
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: CC



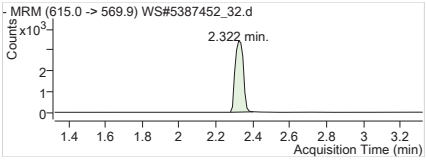


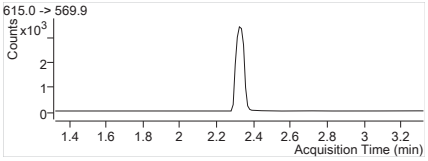
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



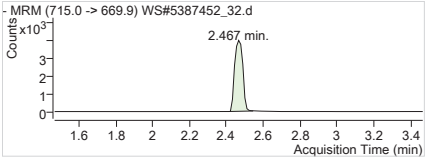


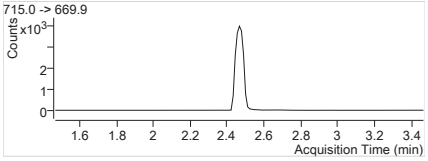
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: CC



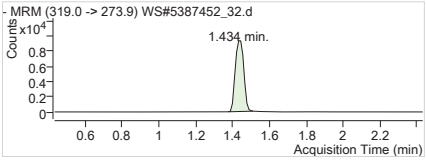


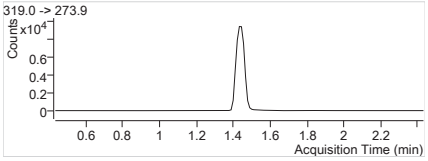
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



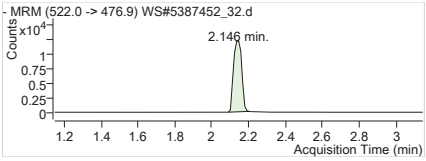


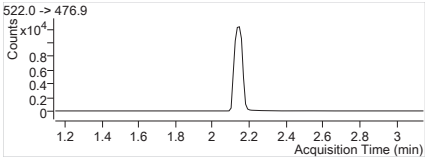
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



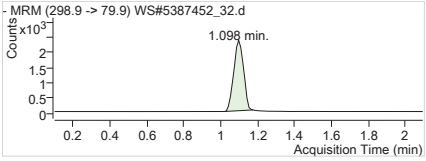


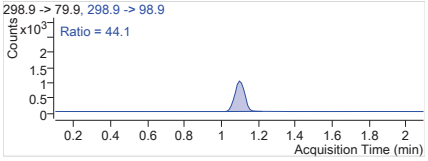
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



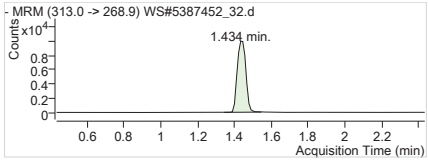


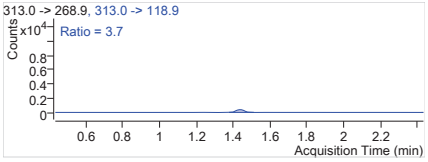
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: CC



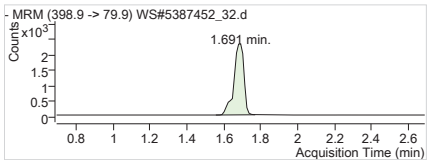


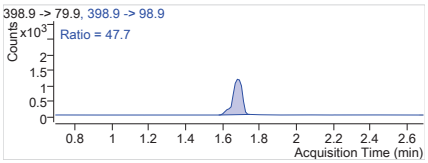
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.098 (1.098)
Calc. conc. 11.63 µg/L
Area ratio: 6.04278
Sample type: CC



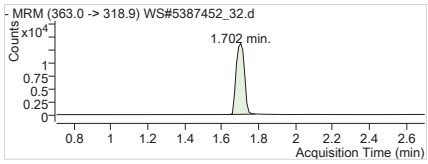


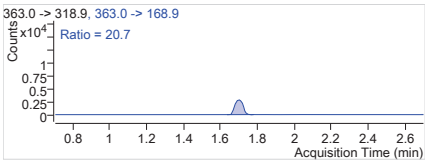
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 11.98 µg/L
Area ratio: 5.06462
Sample type: CC



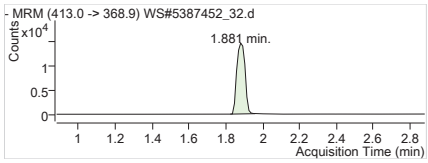


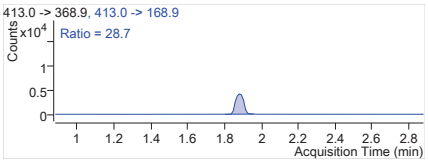
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.22 µg/L
Area ratio: 6.10168
Sample type: CC



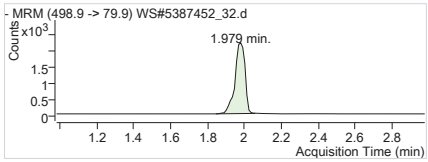


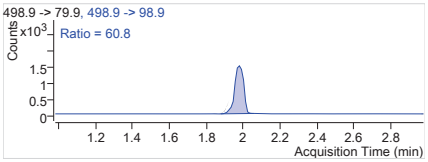
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 14.22 µg/L
Area ratio: 5.80382
Sample type: CC



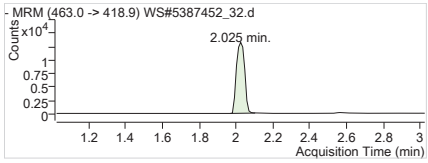


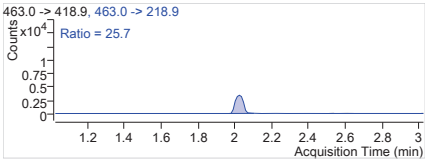
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 13.19 µg/L
Area ratio: 5.78982
Sample type: CC



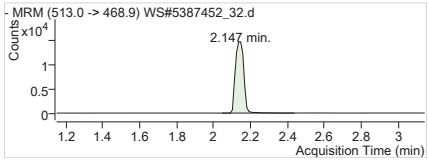


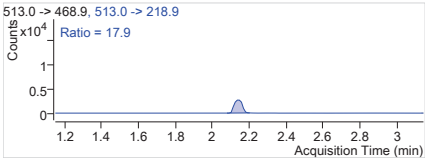
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 12.27 µg/L
Area ratio: 4.73756
Sample type: CC



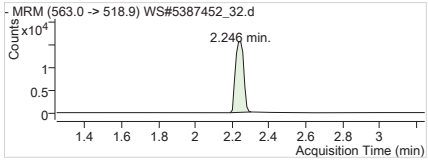


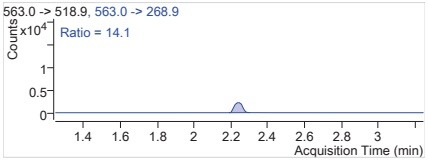
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 12.40 µg/L
Area ratio: 4.88389
Sample type: CC



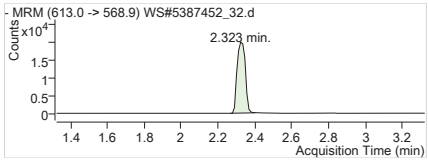


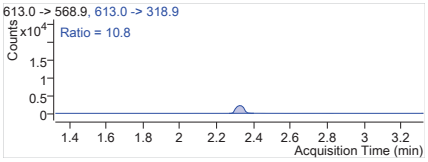
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.147 (2.147)
Calc. conc. 13.47 µg/L
Area ratio: 6.99446
Sample type: CC



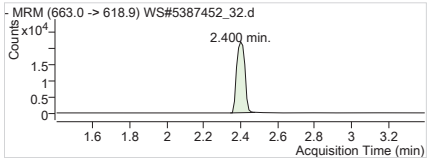


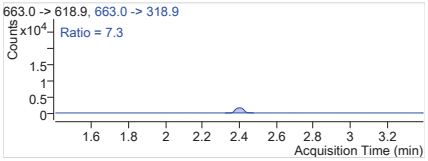
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.246 (2.246)
Calc. conc. 13.20 µg/L
Area ratio: 6.09106
Sample type: CC



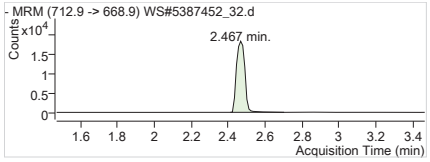


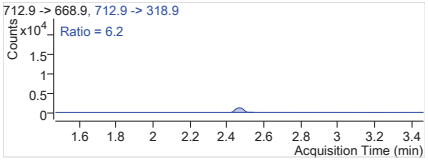
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 13.48 µg/L
Area ratio: 5.92117
Sample type: CC



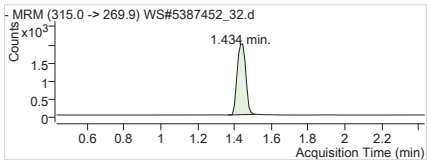


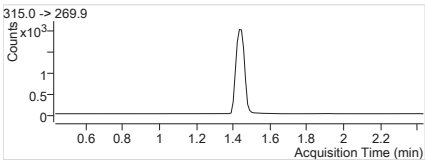
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 12.81 µg/L
Area ratio: 5.65424
Sample type: CC



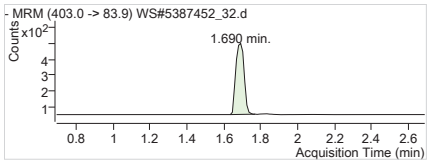


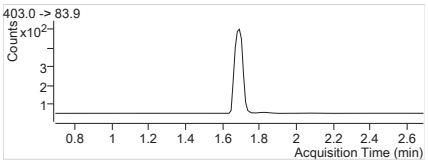
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 12.73 µg/L
Area ratio: 4.75856
Sample type: CC



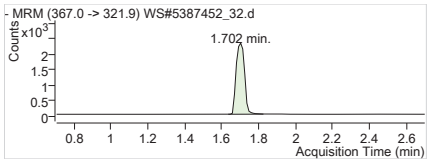


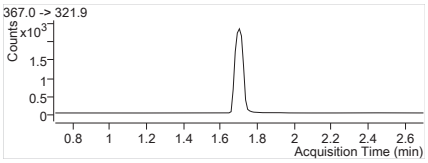
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 99.90 µg/L
Area ratio: 0.21351
Sample type: CC



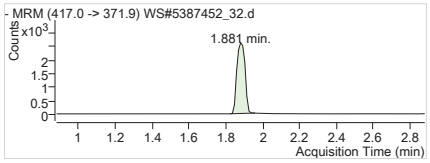


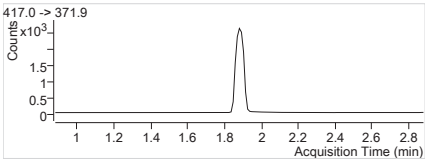
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 82.34 µg/L
Area ratio: 0.04775
Sample type: CC



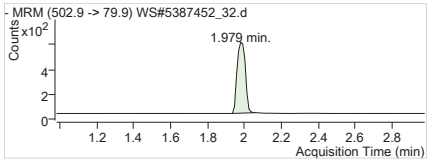


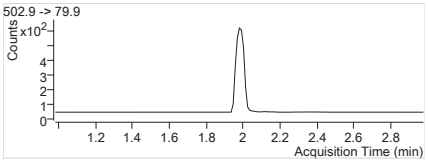
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 88.96 µg/L
Area ratio: 0.24529
Sample type: CC



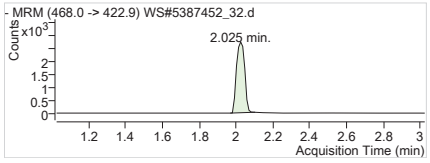


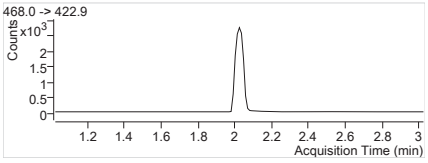
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 89.15 µg/L
Area ratio: 0.26447
Sample type: CC



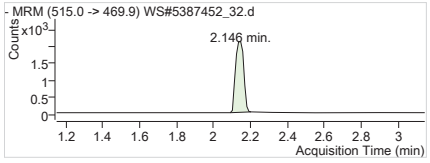


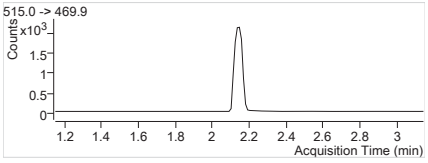
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 82.81 µg/L
Area ratio: 0.05920
Sample type: CC



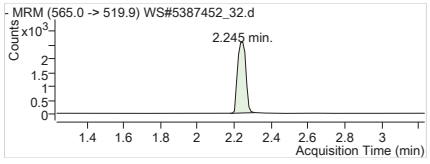


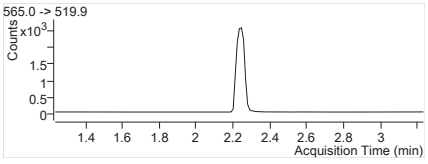
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 92.73 µg/L
Area ratio: 0.28115
Sample type: CC



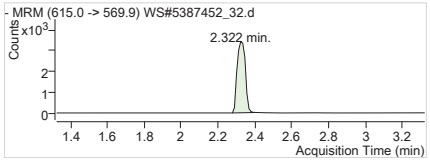


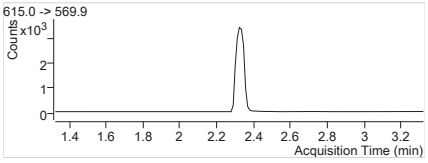
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 93.67 µg/L
Area ratio: 0.17077
Sample type: CC



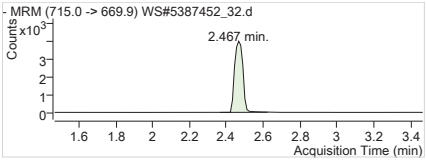


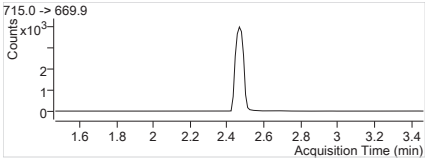
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 91.58 µg/L
Area ratio: 0.20944
Sample type: CC



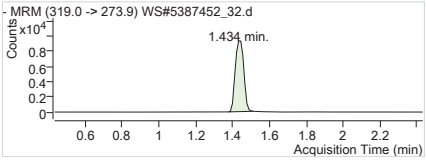


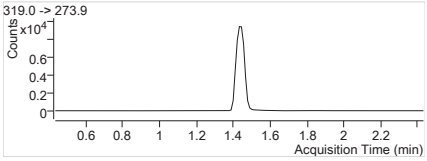
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 88.95 µg/L
Area ratio: 0.27628
Sample type: CC



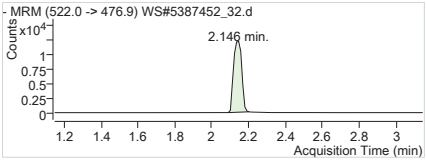


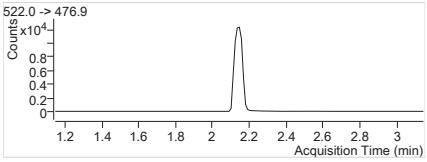
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	87.98 µg/L
Area ratio:	0.32289
Sample type:	CC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	128.11 µg/L
Area ratio:	0
Sample type:	CC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	120.63 µg/L
Area ratio:	0
Sample type:	CC

Quantitation Results

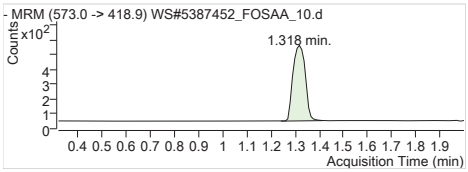
Agilent Technologies

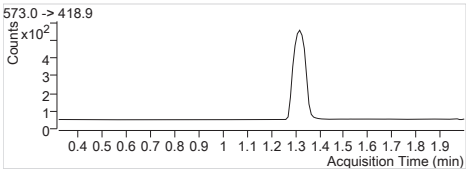
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A2
Acq. Date	2018/02/08 8:38:30 AM	**Injection Volume**	Per Method
Sample Annotation	-		

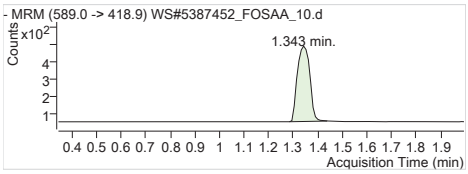
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1810	1.32	1 µg/L		
D5-EtFOSAA IS	1545	1.34	1 µg/L		
13C9-PFDA IS	33316	0.92	1 µg/L		

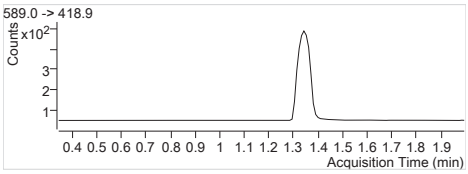
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	613	1.32	0.83	0.88 µg/L	105.92
EtFOSAA 1	607	1.34	0.83	0.94 µg/L	113.61
D3-MeFOSAA	1808	1.32	100.00	96.77 µg/L	96.77
D5-EtFOSAA	1555	1.34	100.00	97.21 µg/L	97.21
13C9-PFDA	32624	0.92	100.00	110.46 µg/L	110.46



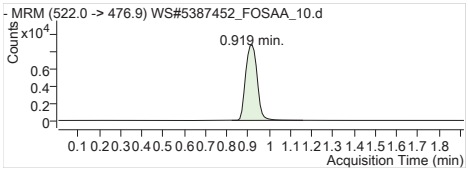


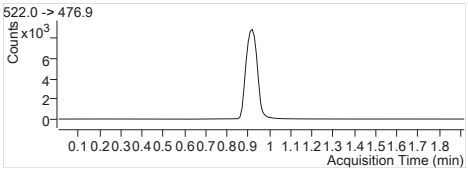
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



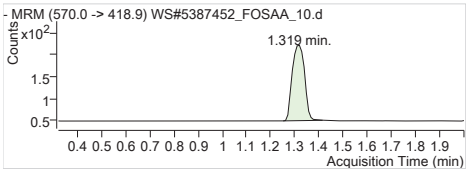


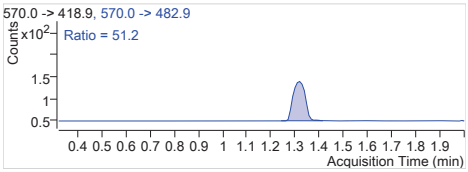
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



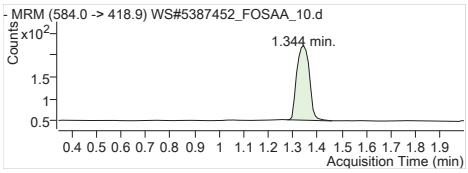


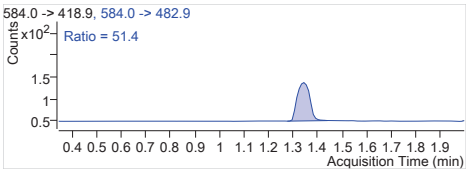
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: CC



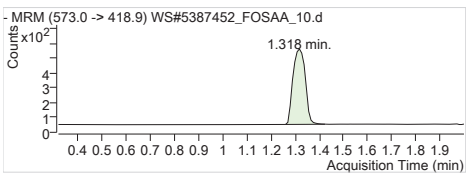


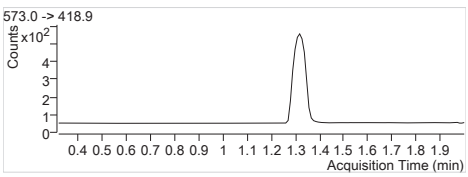
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 0.88 µg/L
Area ratio: 0.33867
Sample type: CC



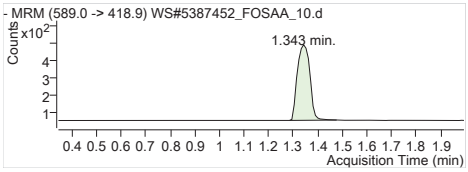


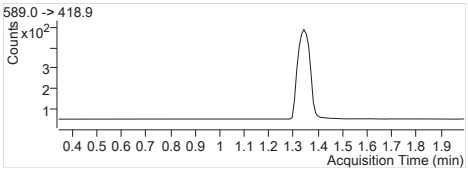
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.94 µg/L
Area ratio: 0.39288
Sample type: CC



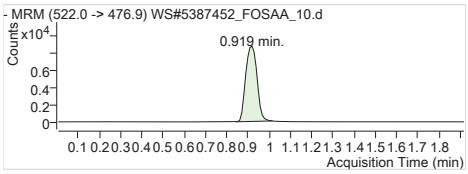


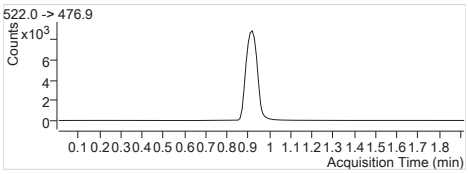
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 96.77 µg/L
Area ratio: 0.05427
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	97.21 µg/L
Area ratio:	0.04667
Sample type:	CC





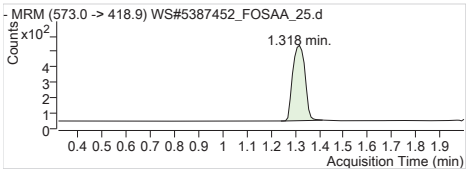
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	110.46 µg/L
Area ratio:	0
Sample type:	CC

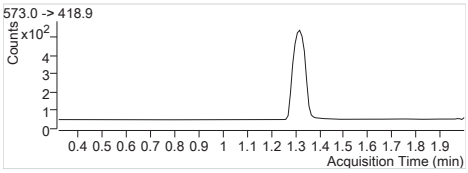
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A5
Acq. Date	2018/02/08 9:14:41 AM	**Injection Volume**	Per Method
Sample Annotation	-		

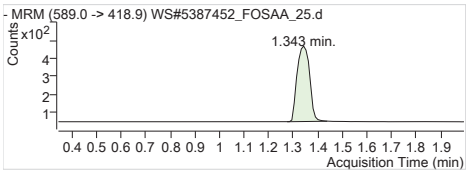
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1732	1.32	1 µg/L		
D5-EtFOSAA IS	1479	1.34	1 µg/L		
13C9-PFDA IS	30623	0.92	1 µg/L		

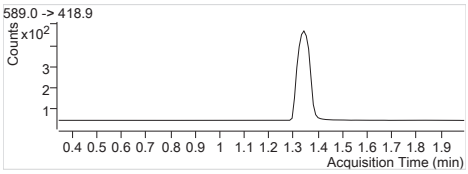
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8199	1.32	12.50	12.71 µg/L	101.65
EtFOSAA 1	8367	1.34	12.50	12.71 µg/L	101.72
D3-MeFOSAA	1753	1.32	100.00	102.08 µg/L	102.08
D5-EtFOSAA	1495	1.34	100.00	101.68 µg/L	101.68
13C9-PFDA	29985	0.92	100.00	101.52 µg/L	101.52



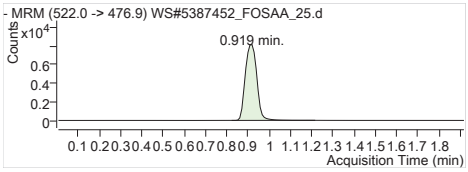


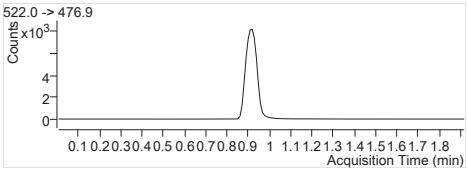
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



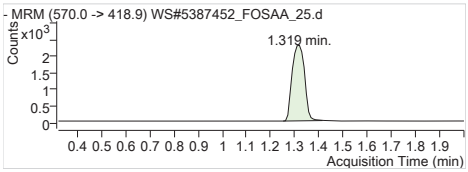


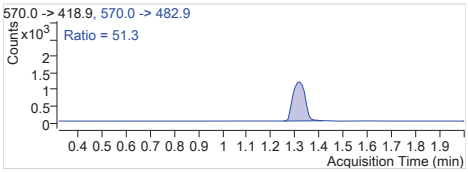
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



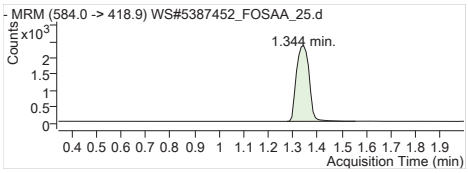


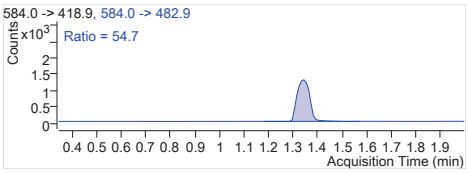
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: CC



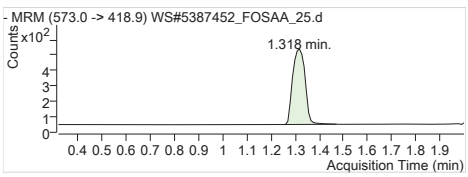


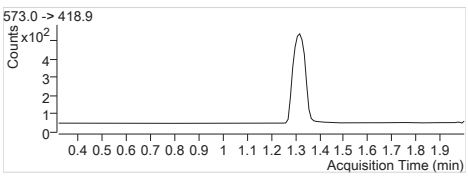
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 12.71 µg/L
Area ratio: 4.73383
Sample type: CC



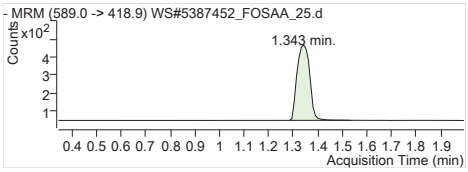


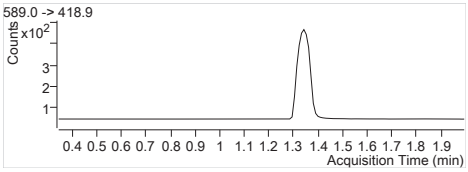
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 12.71 µg/L
Area ratio: 5.65720
Sample type: CC



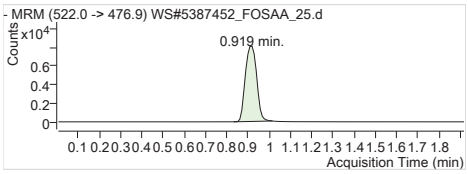


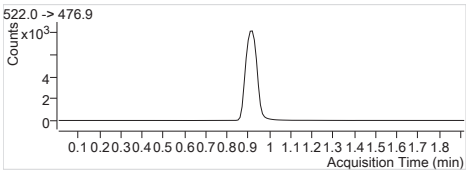
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 102.08 µg/L
Area ratio: 0.05724
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	101.68 µg/L
Area ratio:	0.04882
Sample type:	CC





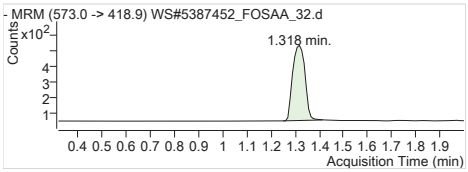
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.919 (0.919)
Calc. conc.	101.52 µg/L
Area ratio:	0
Sample type:	CC

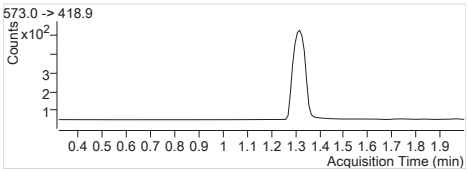
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_32.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A5
Acq. Date	2018/02/08 9:31:36 AM	**Injection Volume**	Per Method
Sample Annotation	-		

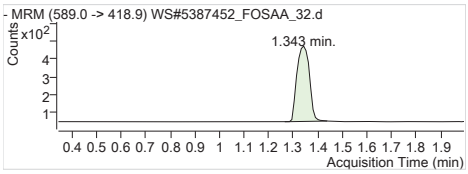
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1697	1.32	1 µg/L		
D5-EtFOSAA IS	1486	1.34	1 µg/L		
13C9-PFDA IS	30566	0.91	1 µg/L		

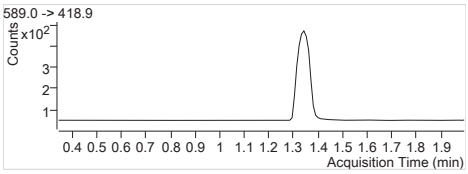
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8131	1.31	12.50	12.86 µg/L	102.89
EtFOSAA 1	8462	1.34	12.50	12.80 µg/L	102.39
D3-MeFOSAA	1717	1.32	100.00	100.17 µg/L	100.17
D5-EtFOSAA	1509	1.34	100.00	102.82 µg/L	102.82
13C9-PFDA	30756	0.91	100.00	104.13 µg/L	104.13



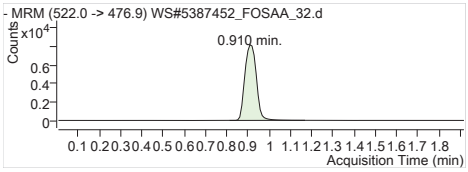


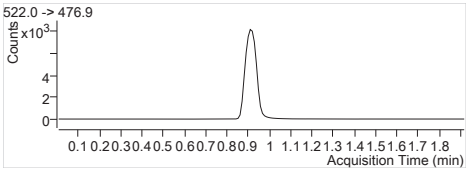
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



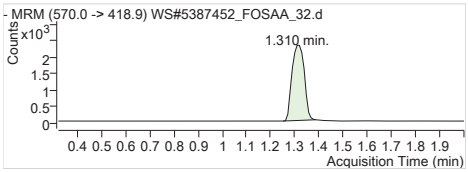


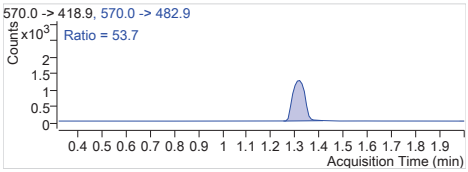
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



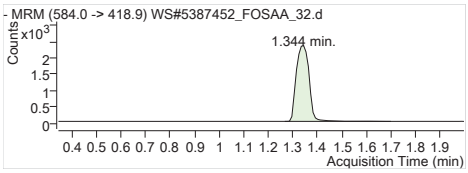


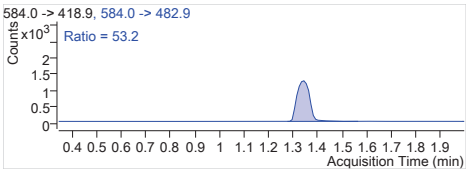
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.919)
Concentration: 1 µg/L
Sample type: CC



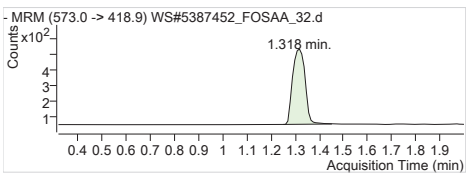


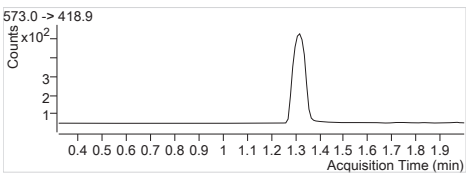
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.319)
Calc. conc. 12.86 µg/L
Area ratio: 4.79140
Sample type: CC



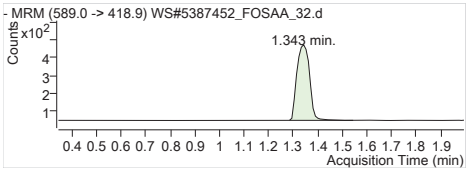


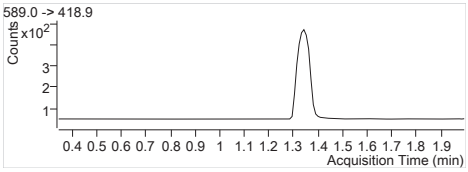
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 12.80 µg/L
Area ratio: 5.69448
Sample type: CC



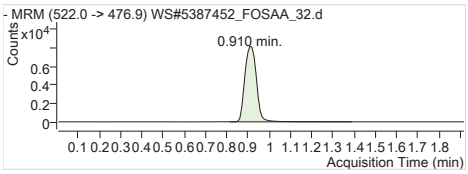


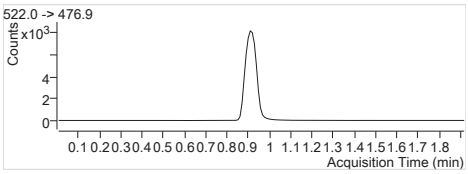
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 100.17 µg/L
Area ratio: 0.05617
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	102.82 µg/L
Area ratio:	0.04937
Sample type:	CC





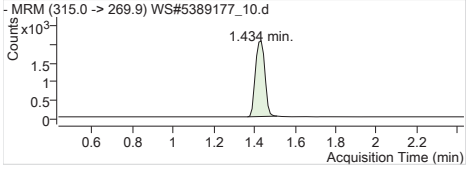
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.919)
Calc. conc.	104.13 µg/L
Area ratio:	0
Sample type:	CC

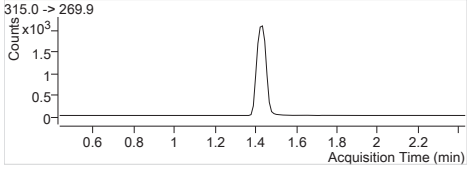
Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5389177_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A2
Acq. Date	2018/02/09 12:41:49 AM	**Injection Volume**	Per Method
Sample Annotation	-		

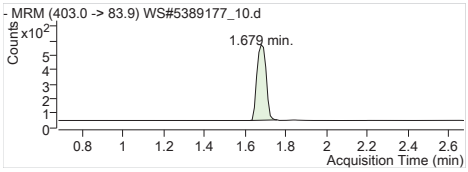
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6608	1.43	1 µg/L		
MPFHxS	1651	1.68	1 µg/L		
MPFHpA	8514	1.69	1 µg/L		
MPFOA	9098	1.88	1 µg/L		
MPFOS	1988	1.98	1 µg/L		
MPFNA	8860	2.01	1 µg/L		
MPFDA	7645	2.14	1 µg/L		
MPFUnA	9022	2.23	1 µg/L		
MPFDoA	12079	2.32	1 µg/L		
MPFTeDA	13175	2.47	1 µg/L		
13C6-PFHxA IS	24034	1.43	1 µg/L		
13C9-PFDA IS	32777	2.13	1 µg/L		

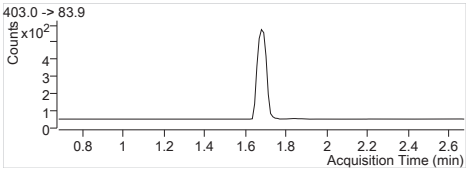
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	667	1.09	0.83	0.87 µg/L	105.33
PFHxA 1	2126	1.42	0.83	0.89 µg/L	106.90
PFHxS 1	697	1.68	0.83	1.06 µg/L	128.12
PFHpA 1	3018	1.69	0.83	0.95 µg/L	114.29
PFOA 1	3316	1.88	0.83	0.86 µg/L	104.18
PFOS 1	629	1.97	0.83	0.96 µg/L	116.14
PFNA 1	2806	2.01	0.83	0.90 µg/L	109.02
PFDA 1	3425	2.14	0.83	1.03 µg/L	124.46
PFUnA 1	3775	2.23	0.83	1.03 µg/L	124.11
PFDoA 1	4282	2.32	0.83	0.91 µg/L	109.33
PFTrDA 1	5201	2.40	0.83	0.95 µg/L	113.87
PFTeDA 1	4548	2.47	0.83	1.05 µg/L	126.55
13C2-PFHxA	6608	1.43	100.00	98.07 µg/L	98.07
18O2-PFHxS	1651	1.68	100.00	95.10 µg/L	95.10
13C4-PFHpA	8514	1.69	100.00	94.99 µg/L	94.99
13C4-PFOA	9098	1.88	100.00	94.87 µg/L	94.87
13C4-PFOS	1988	1.98	100.00	93.39 µg/L	93.39
13C5-PFNA	8861	2.01	100.00	91.66 µg/L	91.66
13C2-PFDA	7557	2.14	100.00	91.53 µg/L	91.53
13C2-PFUnA	9022	2.23	100.00	91.63 µg/L	91.63
13C2-PFDoA	12079	2.32	100.00	92.99 µg/L	92.99
13C2-PFTeDA	13518	2.47	100.00	86.95 µg/L	86.95
13C6-PFHxA	24034	1.43	100.00	112.26 µg/L	112.26
13C9-PFDA	32777	2.13	100.00	114.69 µg/L	114.69



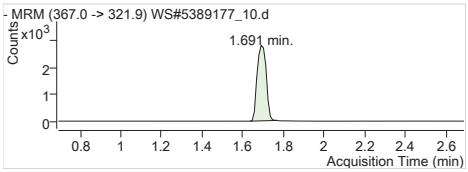


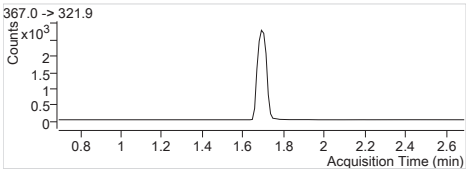
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	CC



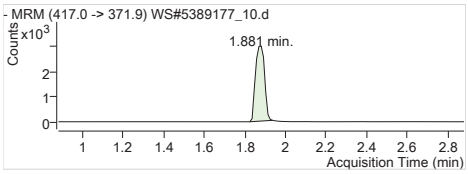


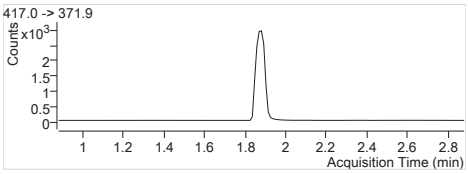
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



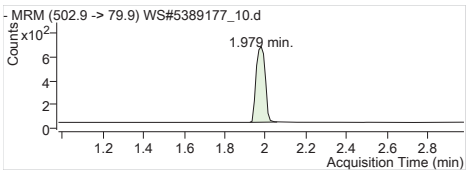


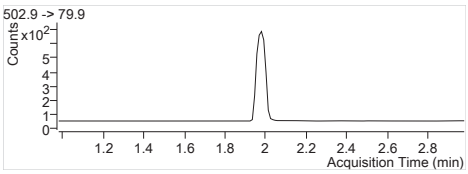
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



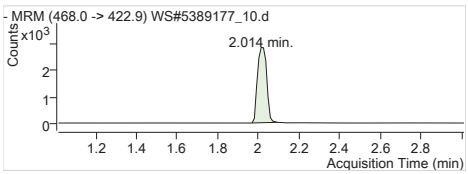


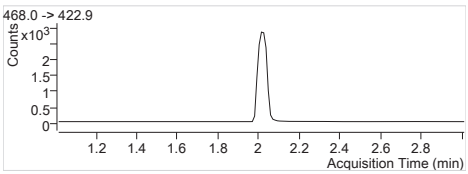
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



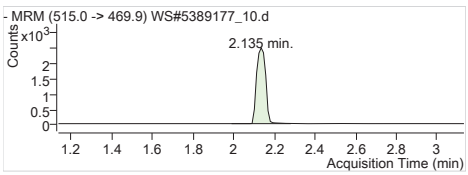


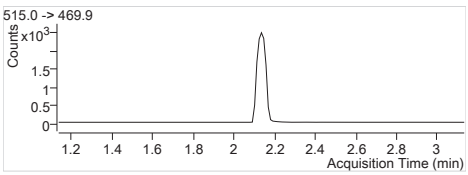
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



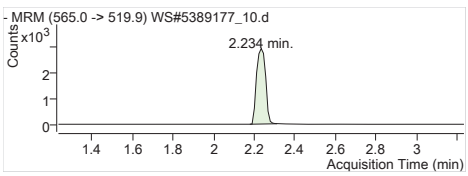


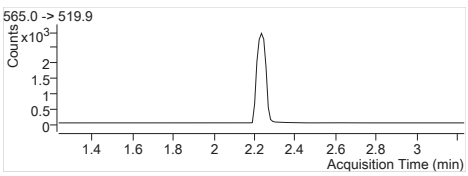
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



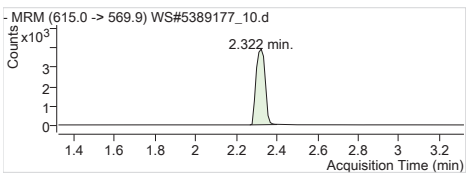


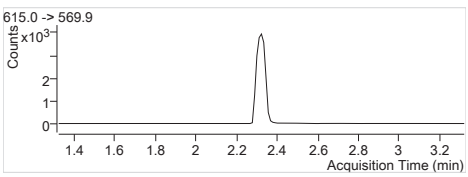
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



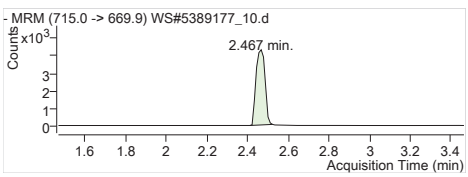


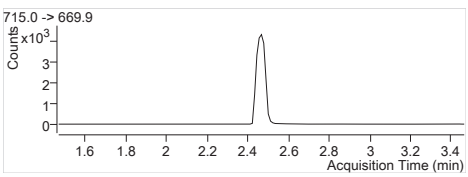
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



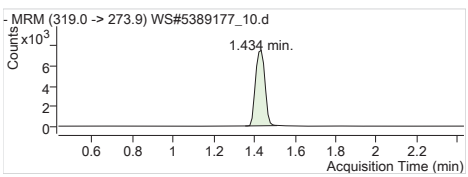


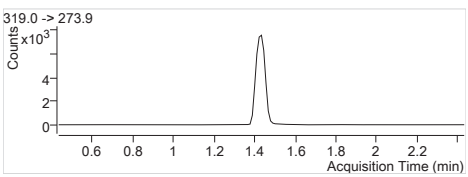
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



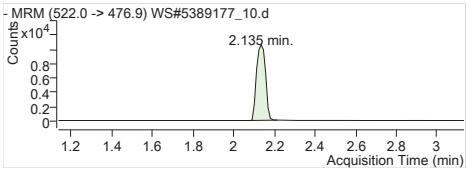


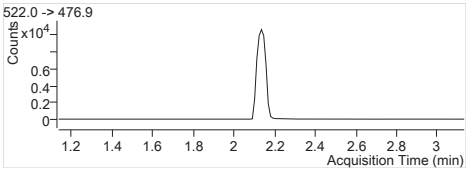
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



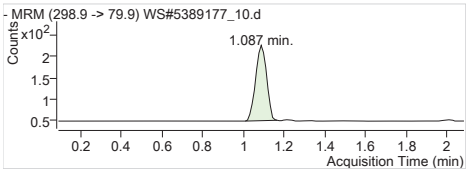


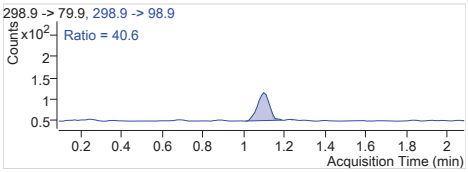
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



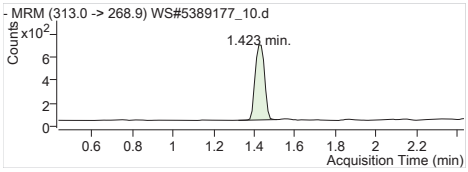


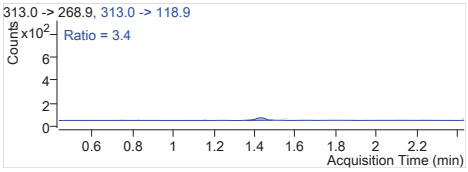
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



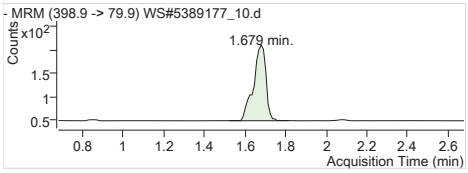


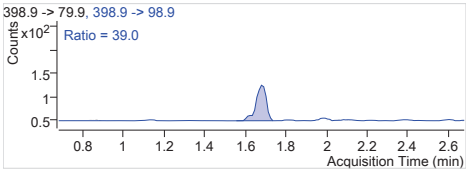
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.87 µg/L
Area ratio: 0.40400
Sample type: CC



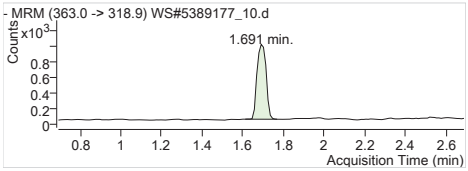


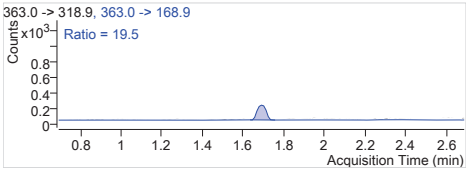
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.434)
Calc. conc. 0.89 µg/L
Area ratio: 0.32173
Sample type: CC



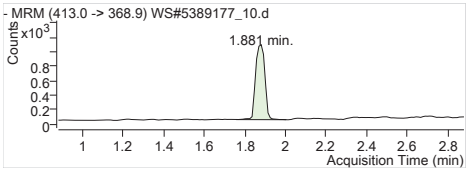


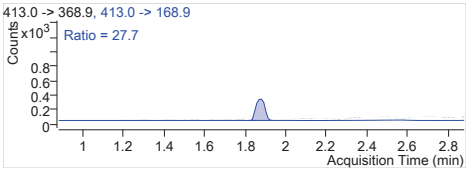
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 1.06 µg/L
Area ratio: 0.42217
Sample type: CC



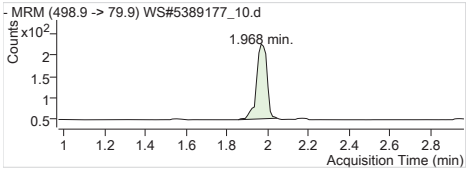


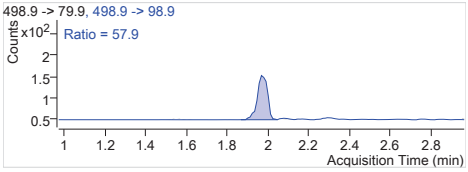
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.95 µg/L
Area ratio: 0.35447
Sample type: CC



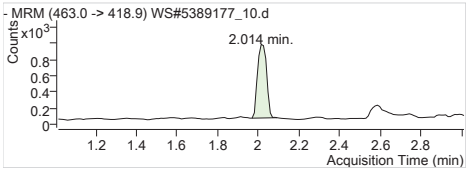


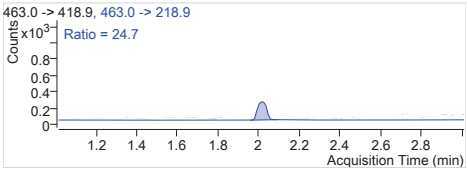
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 0.86 µg/L
Area ratio: 0.36448
Sample type: CC



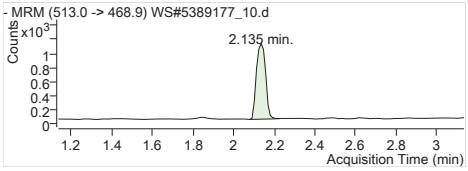


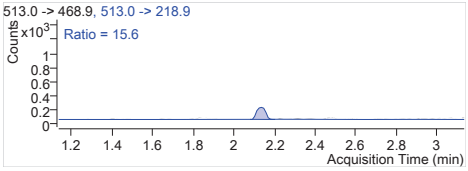
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 0.96 µg/L
Area ratio: 0.31640
Sample type: CC



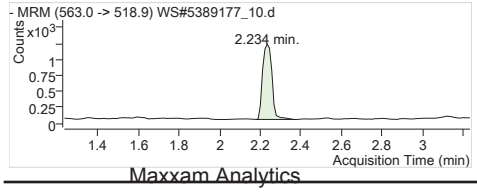


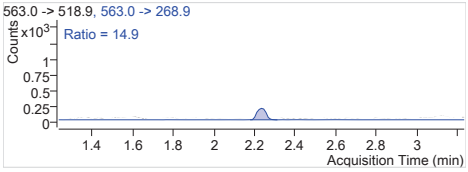
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.90 µg/L
Area ratio: 0.31670
Sample type: CC



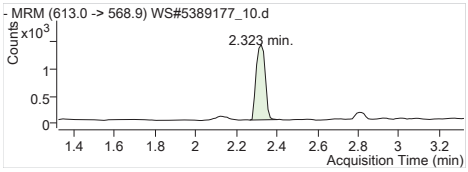


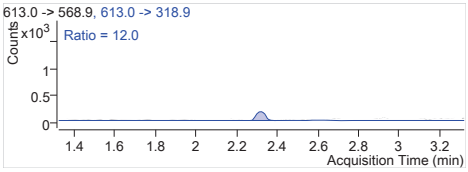
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 1.03 µg/L
Area ratio: 0.44801
Sample type: CC



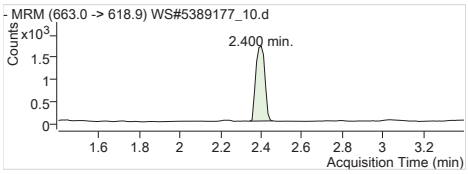


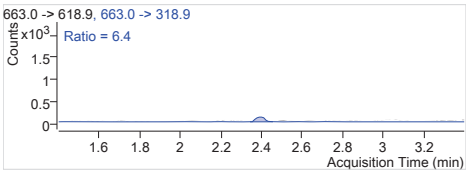
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 1.03 µg/L
Area ratio: 0.41842
Sample type: CC



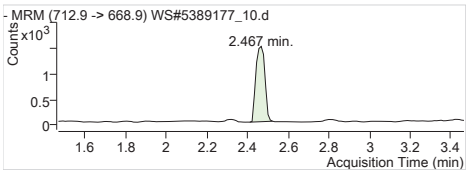


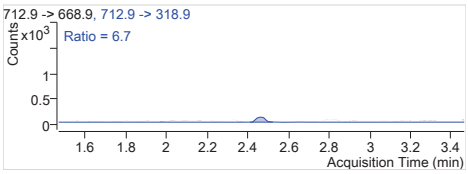
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.91 µg/L
Area ratio: 0.35450
Sample type: CC



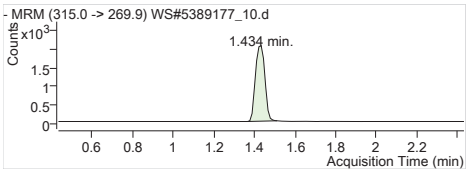


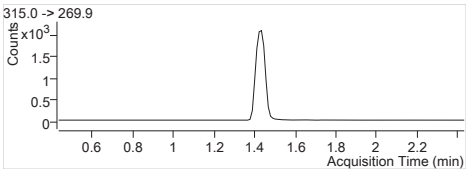
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.95 µg/L
Area ratio: 0.39476
Sample type: CC



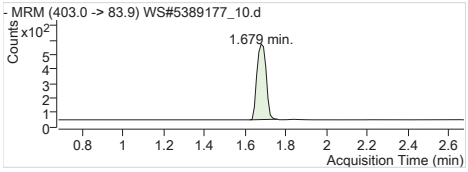


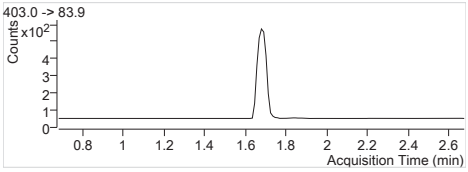
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 1.05 µg/L
Area ratio: 0.34520
Sample type: CC



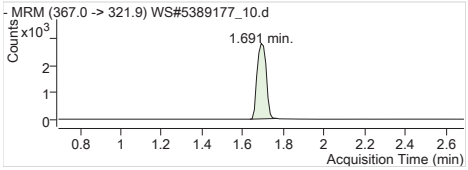


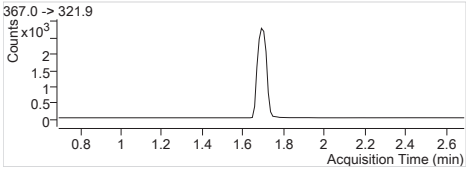
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 98.07 µg/L
Area ratio: 0.27494
Sample type: CC



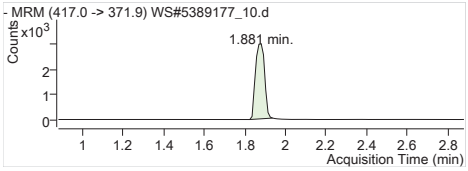


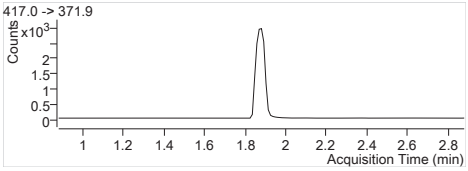
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 95.10 µg/L
Area ratio: 0.06869
Sample type: CC



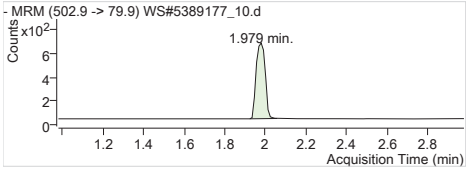


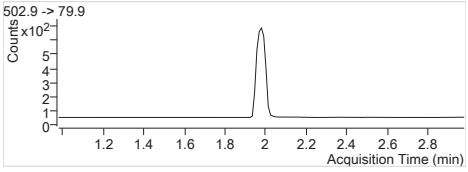
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 94.99 µg/L
Area ratio: 0.35425
Sample type: CC



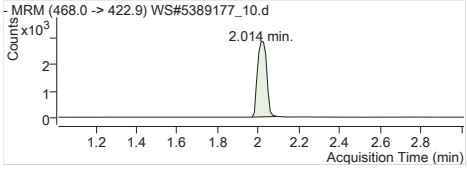


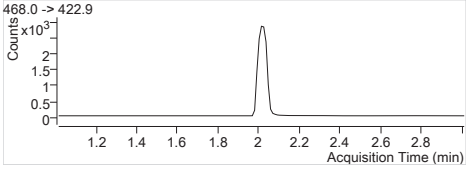
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 94.87 µg/L
Area ratio: 0.37855
Sample type: CC



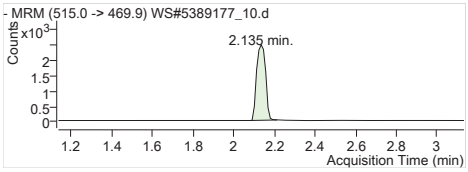


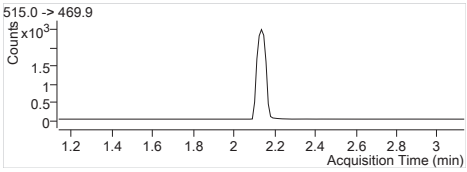
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 93.39 µg/L
Area ratio: 0.08272
Sample type: CC



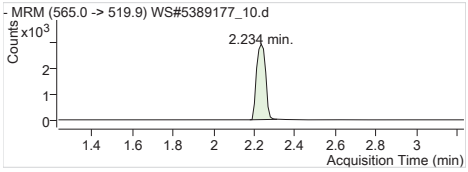


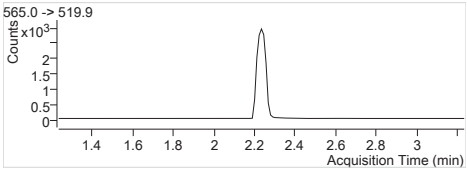
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 91.66 µg/L
Area ratio: 0.36869
Sample type: CC



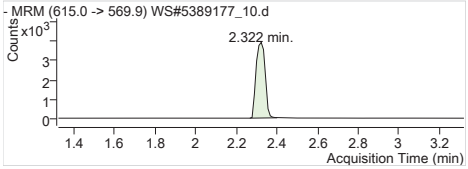


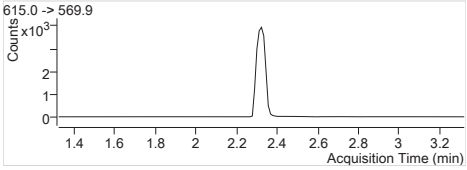
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 91.53 µg/L
Area ratio: 0.23056
Sample type: CC



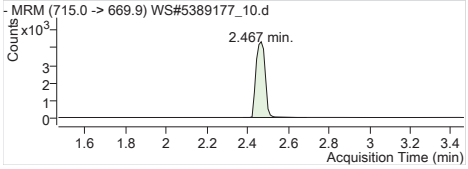


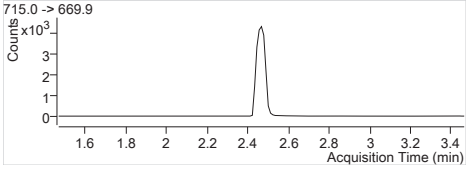
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 91.63 µg/L
Area ratio: 0.27525
Sample type: CC



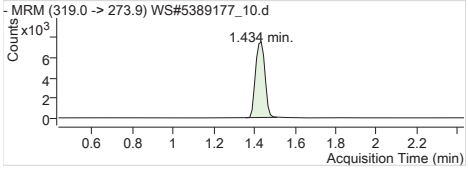


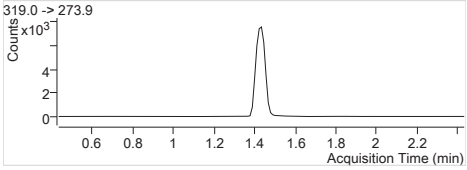
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 92.99 µg/L
Area ratio: 0.36852
Sample type: CC



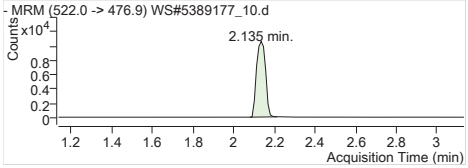


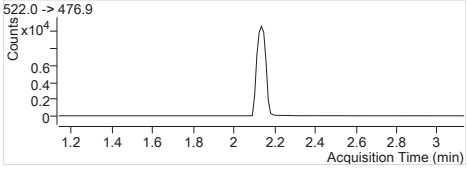
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 86.95 µg/L
Area ratio: 0.41242
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 112.26 µg/L
Area ratio: 0
Sample type: CC





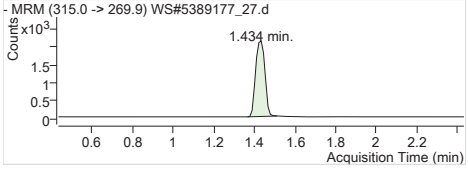
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 114.69 µg/L
Area ratio: 0
Sample type: CC

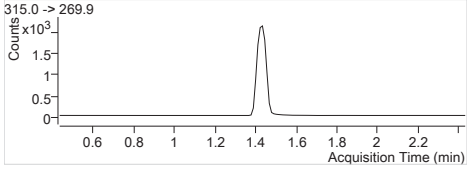
Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5389177_27.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A5
Acq. Date	2018/02/09 2:05:41 AM	**Injection Volume**	Per Method
Sample Annotation	-		

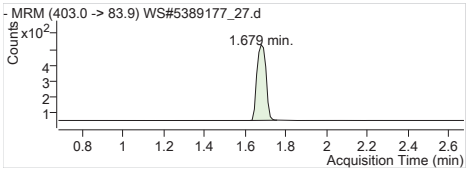
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6691	1.43	1 µg/L		
MPFHxS	1496	1.68	1 µg/L		
MPFHpA	8064	1.69	1 µg/L		
MPFOA	8652	1.88	1 µg/L		
MPFOS	1882	1.98	1 µg/L		
MPFNA	8928	2.01	1 µg/L		
MPFDA	7464	2.14	1 µg/L		
MPFUnA	8542	2.23	1 µg/L		
MPFDoA	11193	2.32	1 µg/L		
MPFTeDA	12706	2.47	1 µg/L		
13C6-PFHxA IS	22921	1.43	1 µg/L		
13C9-PFDA IS	30245	2.13	1 µg/L		

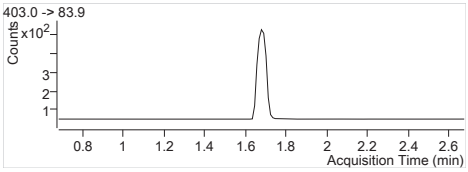
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	9306	1.09	12.50	13.51 µg/L	108.10
PFHxA 1	33244	1.43	12.50	12.03 µg/L	96.21
PFHxS 1	8576	1.68	12.50	12.82 µg/L	102.59
PFHpA 1	42668	1.69	12.50	12.83 µg/L	102.67
PFOA 1	46397	1.88	12.50	12.60 µg/L	100.83
PFOS 1	9274	1.97	12.50	13.04 µg/L	104.29
PFNA 1	41896	2.01	12.50	12.43 µg/L	99.40
PFDA 1	43455	2.14	12.50	12.14 µg/L	97.11
PFUnA 1	51071	2.23	12.50	13.52 µg/L	108.15
PFDoA 1	61193	2.32	12.50	12.55 µg/L	100.43
PFTrDA 1	70770	2.40	12.50	13.74 µg/L	109.91
PFTeDA 1	60793	2.47	12.50	13.55 µg/L	108.42
13C2-PFHxA	6691	1.43	100.00	104.12 µg/L	104.12
18O2-PFHxS	1496	1.68	100.00	90.36 µg/L	90.36
13C4-PFHpA	8064	1.69	100.00	94.34 µg/L	94.34
13C4-PFOA	8652	1.88	100.00	94.60 µg/L	94.60
13C4-PFOS	1882	1.98	100.00	92.70 µg/L	92.70
13C5-PFNA	8929	2.01	100.00	96.84 µg/L	96.84
13C2-PFDA	7396	2.14	100.00	97.08 µg/L	97.08
13C2-PFUnA	8542	2.23	100.00	94.01 µg/L	94.01
13C2-PFDoA	11193	2.32	100.00	93.38 µg/L	93.38
13C2-PFTeDA	12997	2.47	100.00	90.60 µg/L	90.60
13C6-PFHxA	22921	1.43	100.00	107.06 µg/L	107.06
13C9-PFDA	30245	2.13	100.00	105.83 µg/L	105.83



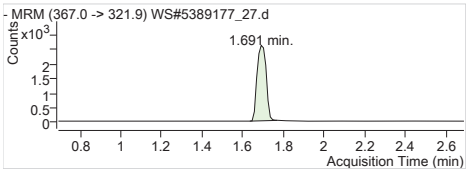


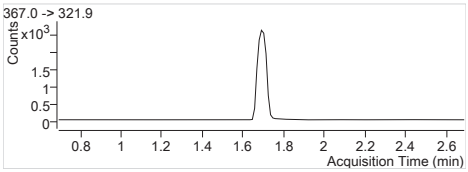
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



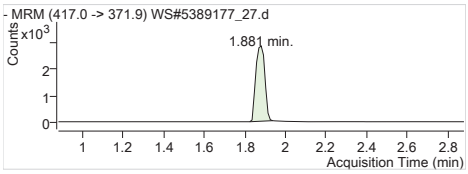


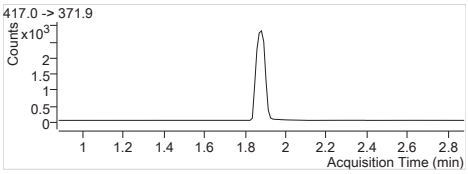
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



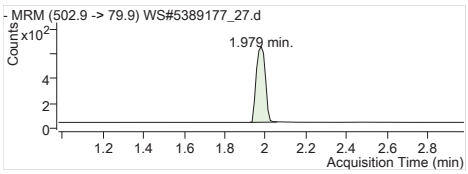


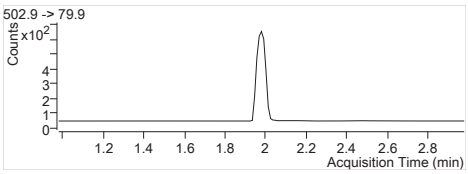
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



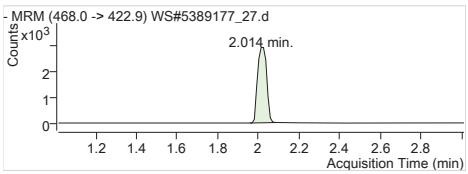


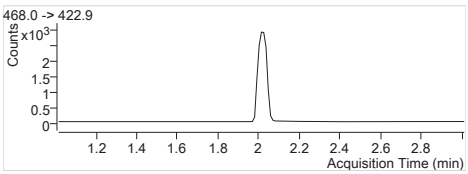
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



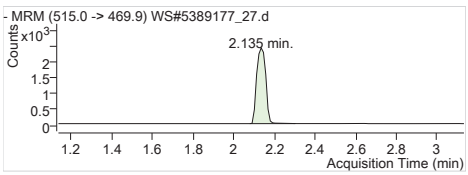


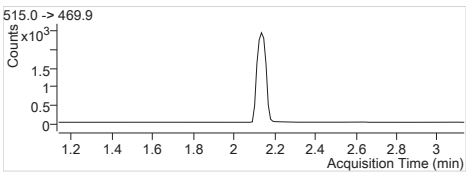
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



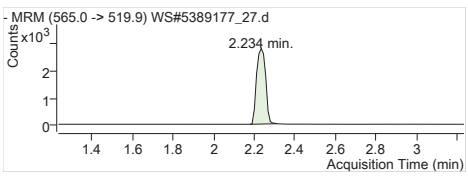


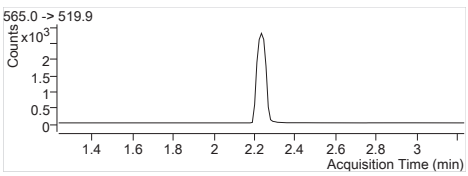
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



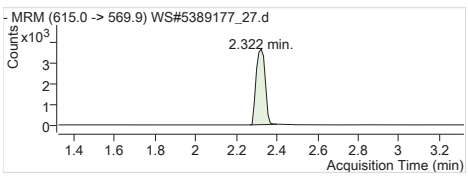


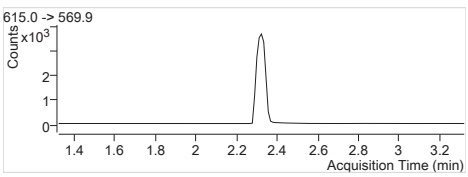
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



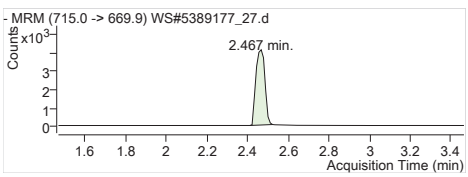


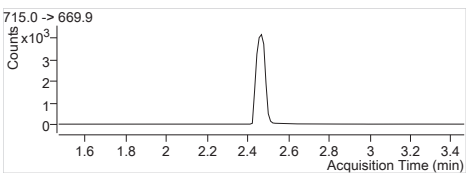
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



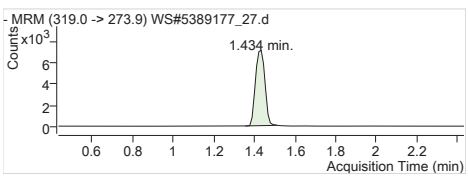


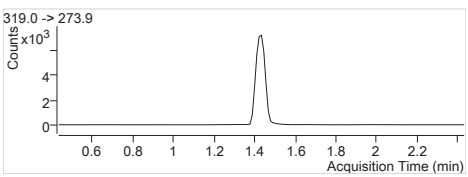
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



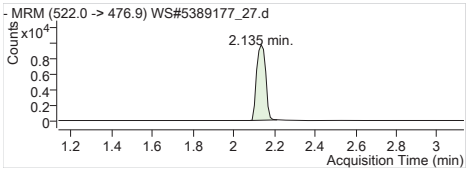


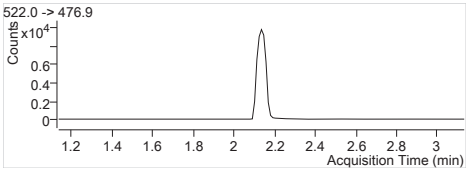
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



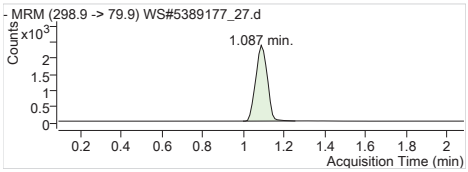


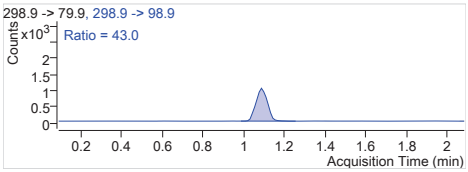
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



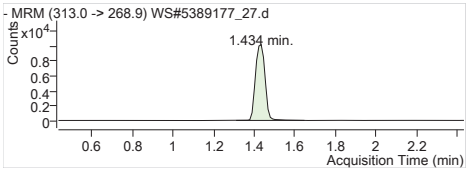


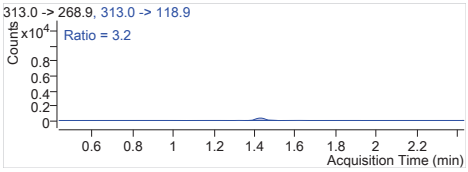
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



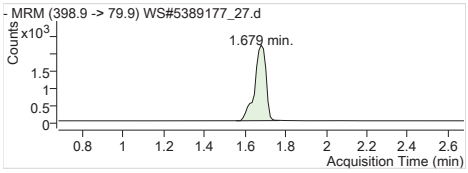


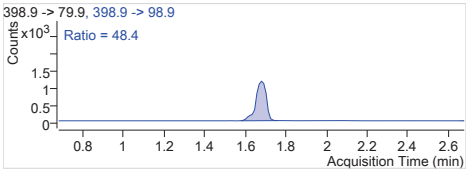
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 13.51 µg/L
Area ratio: 6.22059
Sample type: CC



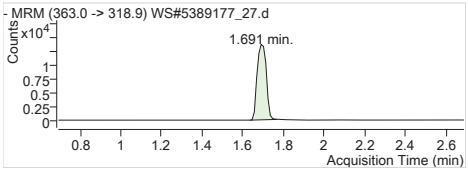


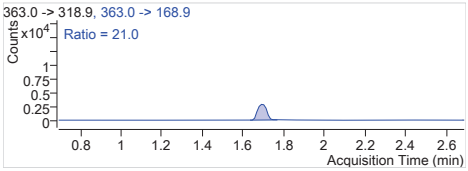
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 12.03 µg/L
Area ratio: 4.96847
Sample type: CC



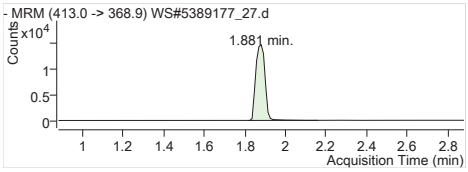


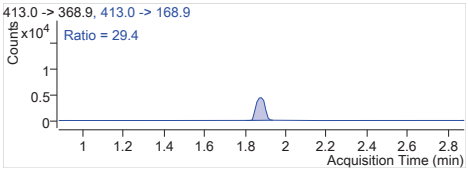
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 12.82 µg/L
Area ratio: 5.73262
Sample type: CC



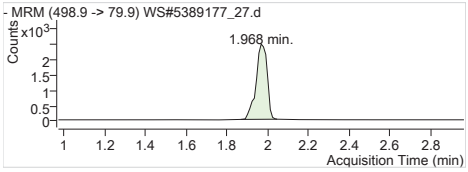


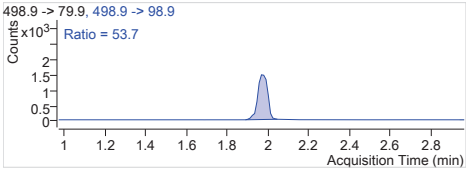
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.83 µg/L
Area ratio: 5.29117
Sample type: CC



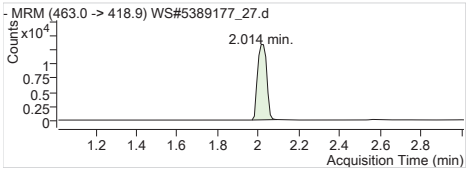


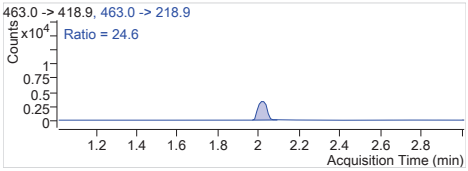
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 12.60 µg/L
Area ratio: 5.36258
Sample type: CC



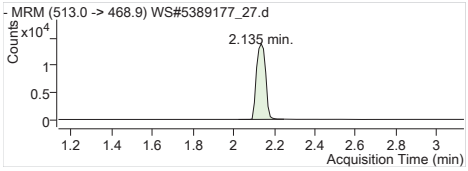


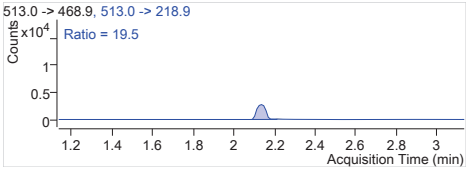
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 13.04 µg/L
Area ratio: 4.92774
Sample type: CC



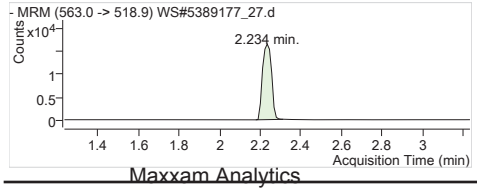


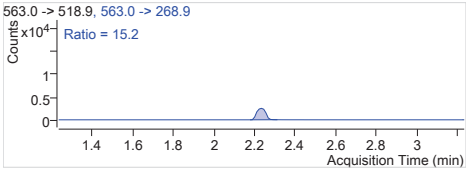
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 12.43 µg/L
Area ratio: 4.69265
Sample type: CC



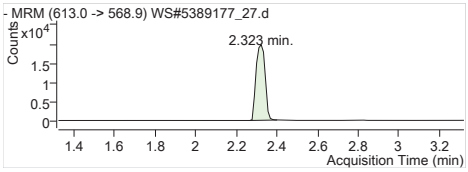


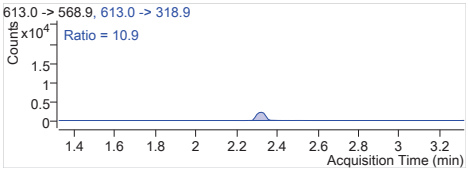
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 12.14 µg/L
Area ratio: 5.82195
Sample type: CC



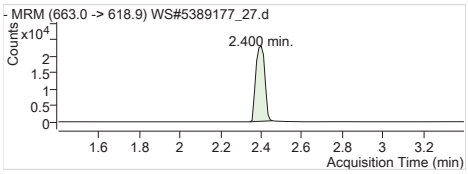


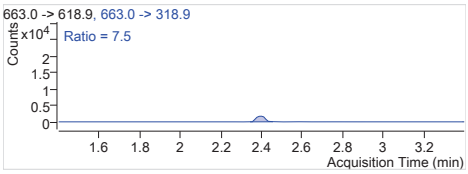
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 13.52 µg/L
Area ratio: 5.97881
Sample type: CC



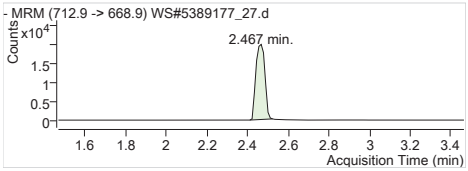


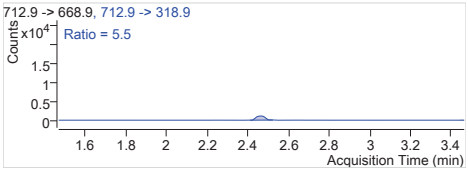
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 12.55 µg/L
Area ratio: 5.46708
Sample type: CC



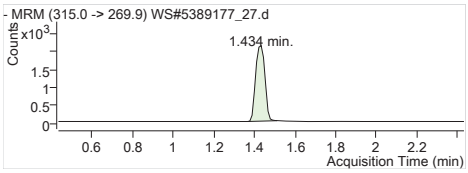


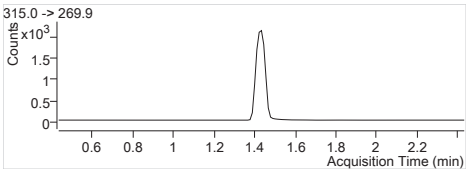
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 13.74 µg/L
Area ratio: 5.56981
Sample type: CC



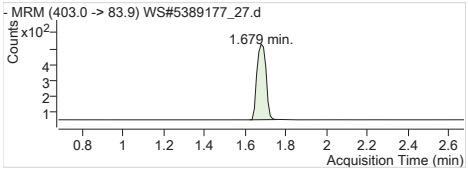


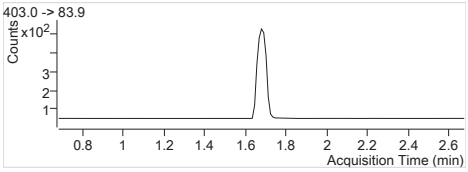
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 13.55 µg/L
Area ratio: 4.78459
Sample type: CC



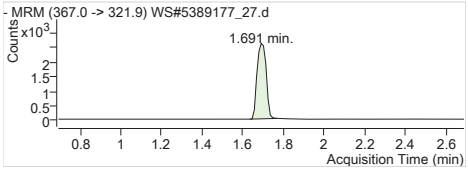


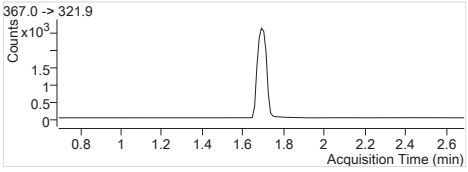
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 104.12 µg/L
Area ratio: 0.29192
Sample type: CC



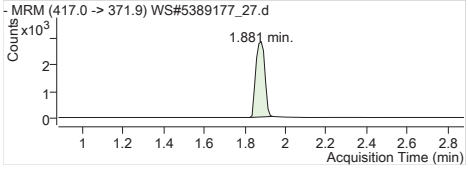


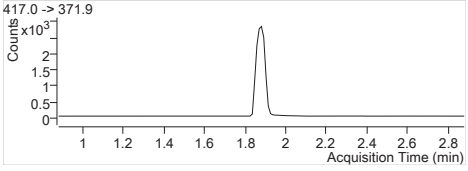
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 90.36 µg/L
Area ratio: 0.06527
Sample type: CC



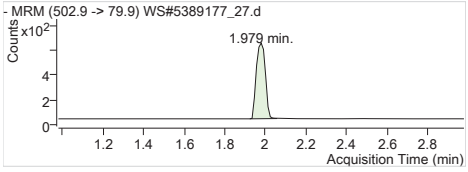


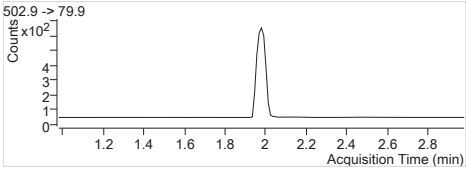
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 94.34 µg/L
Area ratio: 0.35182
Sample type: CC



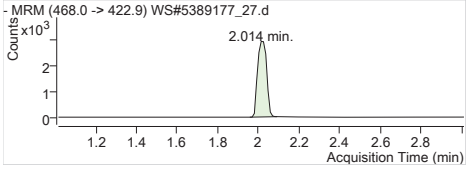


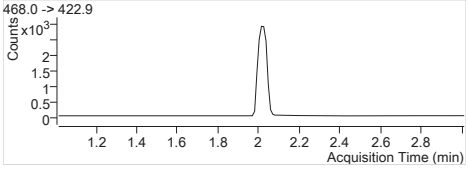
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 94.60 µg/L
Area ratio: 0.37747
Sample type: CC



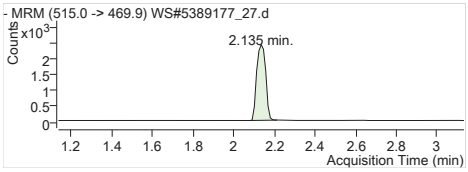


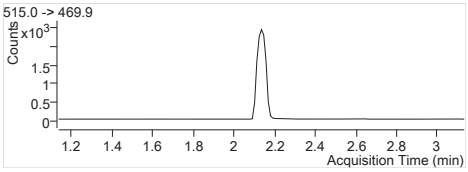
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 92.70 µg/L
Area ratio: 0.08211
Sample type: CC



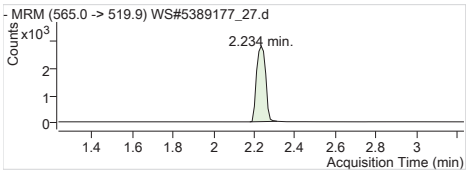


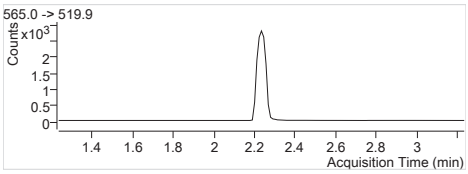
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 96.84 µg/L
Area ratio: 0.38956
Sample type: CC



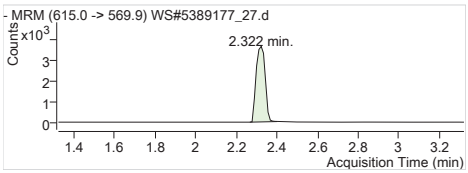


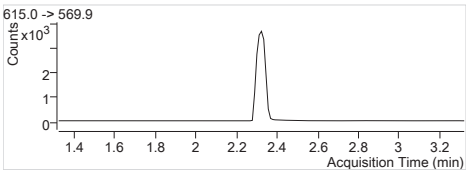
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 97.08 µg/L
Area ratio: 0.24454
Sample type: CC



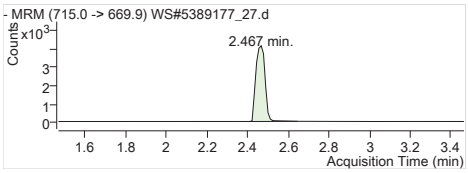


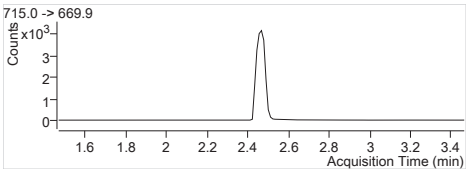
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 94.01 µg/L
Area ratio: 0.28243
Sample type: CC



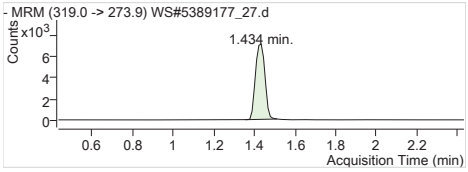


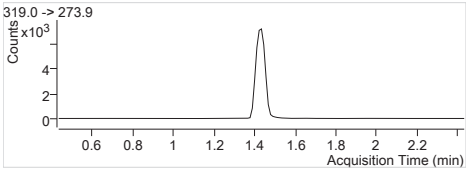
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 93.38 µg/L
Area ratio: 0.37008
Sample type: CC



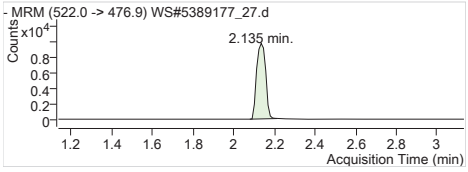


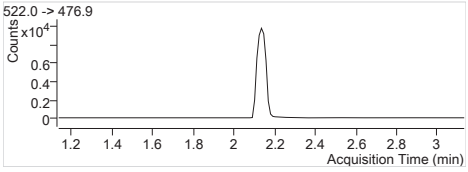
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 90.60 µg/L
Area ratio: 0.42972
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 107.06 µg/L
Area ratio: 0
Sample type: CC





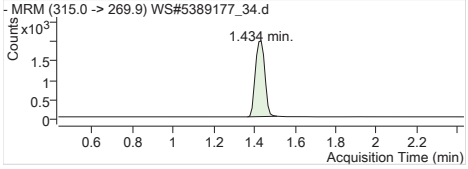
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 105.83 µg/L
Area ratio: 0
Sample type: CC

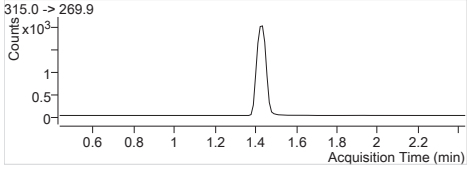
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5389177_34.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A5
Acq. Date	2018/02/09 2:40:13 AM	**Injection Volume**	Per Method
Sample Annotation	-		

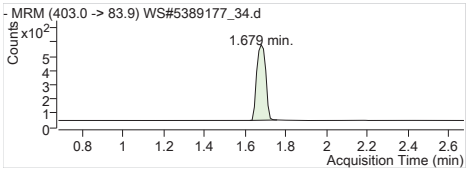
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6392	1.43	1 µg/L		
MPFHxS	1641	1.68	1 µg/L		
MPFHpA	8167	1.69	1 µg/L		
MPFOA	9017	1.88	1 µg/L		
MPFOS	1964	1.98	1 µg/L		
MPFNA	8662	2.02	1 µg/L		
MPFDA	6972	2.14	1 µg/L		
MPFUnA	8506	2.23	1 µg/L		
MPFDoA	11795	2.32	1 µg/L		
MPFTeDA	13090	2.47	1 µg/L		
13C6-PFHxA IS	23371	1.43	1 µg/L		
13C9-PFDA IS	30394	2.13	1 µg/L		

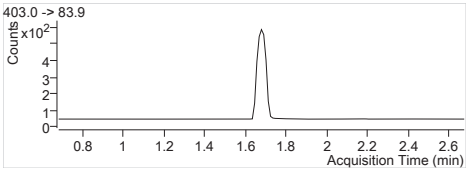
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8590	1.09	12.50	11.37 µg/L	90.96
PFHxA 1	33063	1.43	12.50	12.52 µg/L	100.13
PFHxS 1	8736	1.68	12.50	11.92 µg/L	95.34
PFHpA 1	43035	1.69	12.50	12.78 µg/L	102.25
PFOA 1	47570	1.88	12.50	12.40 µg/L	99.20
PFOS 1	9087	1.97	12.50	12.25 µg/L	97.99
PFNA 1	41263	2.01	12.50	12.61 µg/L	100.90
PFDA 1	45094	2.14	12.50	13.47 µg/L	107.79
PFUnA 1	49938	2.23	12.50	13.28 µg/L	106.21
PFDoA 1	64421	2.32	12.50	12.54 µg/L	100.33
PFTrDA 1	70006	2.40	12.50	13.19 µg/L	105.53
PFTeDA 1	60170	2.47	12.50	13.02 µg/L	104.18
13C2-PFHxA	6392	1.43	100.00	97.55 µg/L	97.55
18O2-PFHxS	1641	1.68	100.00	97.20 µg/L	97.20
13C4-PFHpA	8167	1.69	100.00	93.71 µg/L	93.71
13C4-PFOA	9017	1.88	100.00	96.70 µg/L	96.70
13C4-PFOS	1964	1.98	100.00	94.88 µg/L	94.88
13C5-PFNA	8662	2.02	100.00	92.14 µg/L	92.14
13C2-PFDA	6891	2.14	100.00	90.01 µg/L	90.01
13C2-PFUnA	8506	2.23	100.00	93.16 µg/L	93.16
13C2-PFDoA	11795	2.32	100.00	97.92 µg/L	97.92
13C2-PFTeDA	13281	2.47	100.00	92.13 µg/L	92.13
13C6-PFHxA	23371	1.43	100.00	109.17 µg/L	109.17
13C9-PFDA	30394	2.13	100.00	106.35 µg/L	106.35



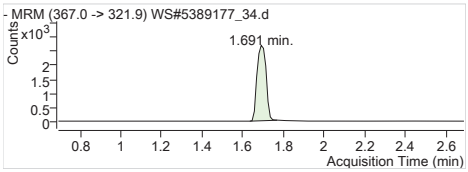


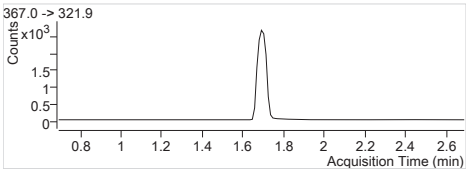
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	CC



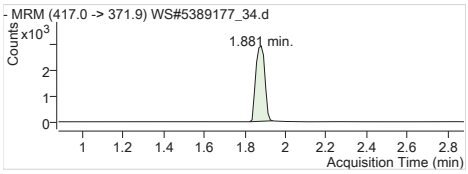


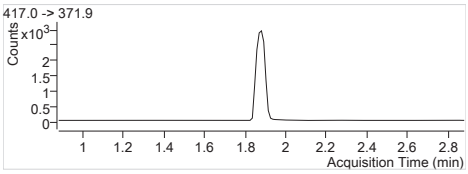
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



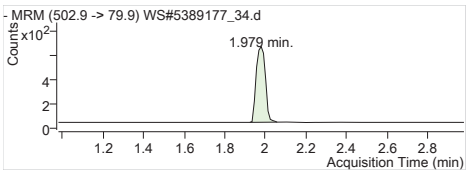


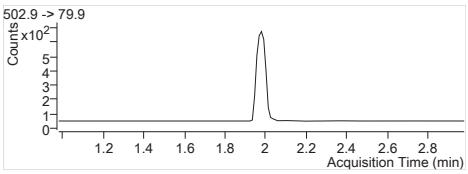
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



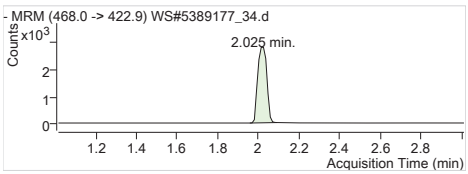


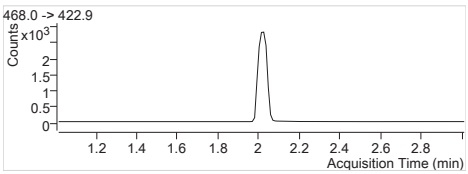
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



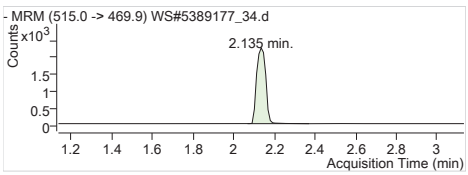


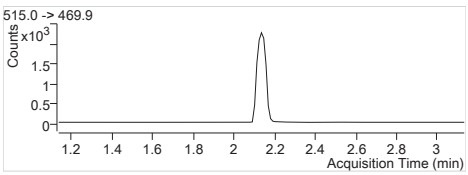
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



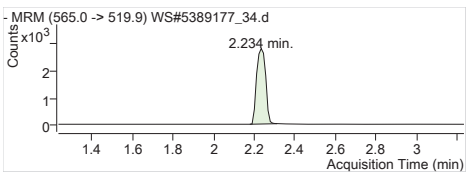


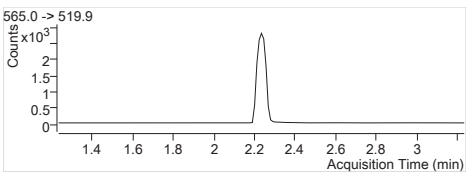
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.014)
Concentration: 1 µg/L
Sample type: CC



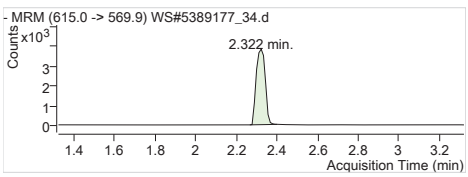


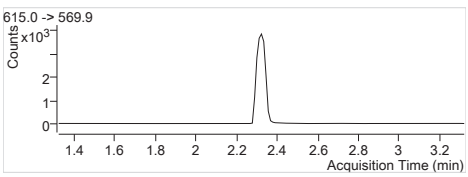
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



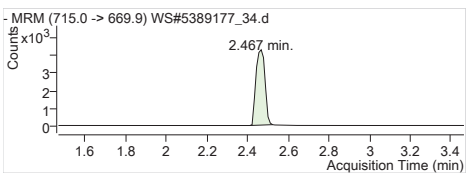


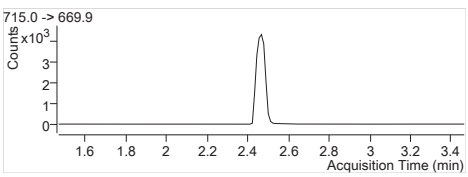
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



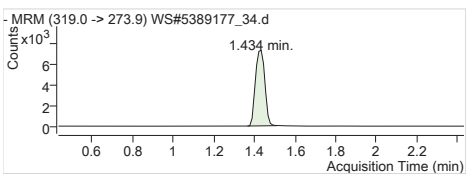


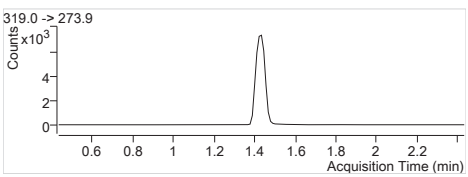
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



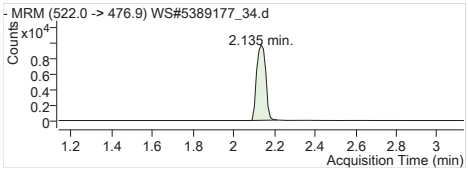


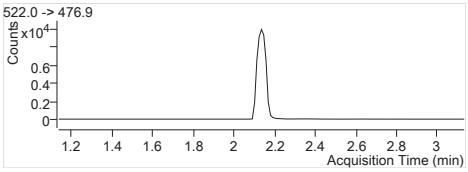
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



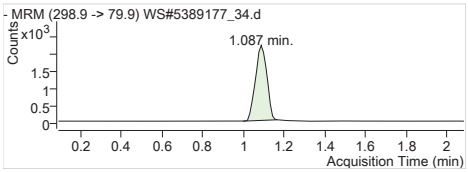


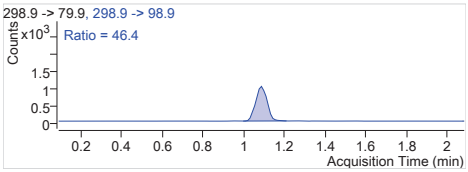
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC



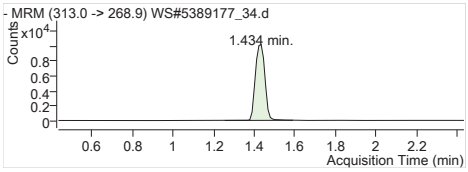


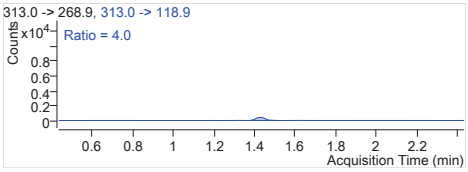
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



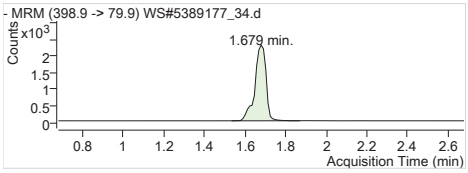


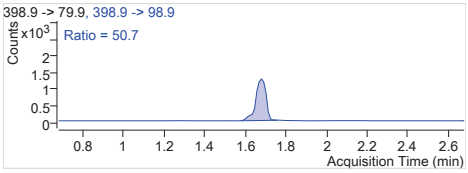
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 11.37 µg/L
Area ratio: 5.23461
Sample type: CC



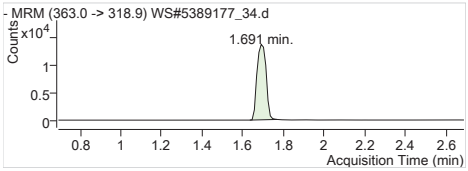


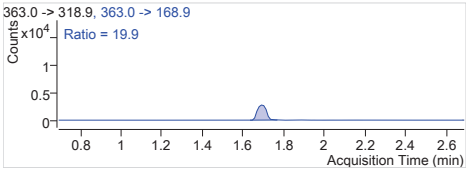
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 12.52 µg/L
Area ratio: 5.17256
Sample type: CC



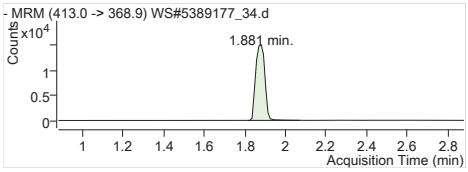


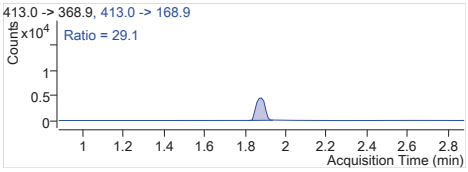
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 11.92 µg/L
Area ratio: 5.32358
Sample type: CC



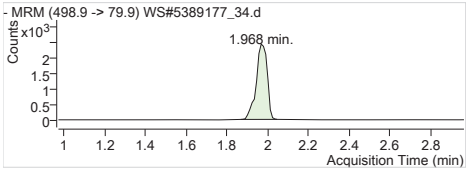


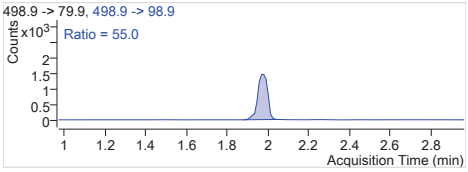
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.78 µg/L
Area ratio: 5.26938
Sample type: CC



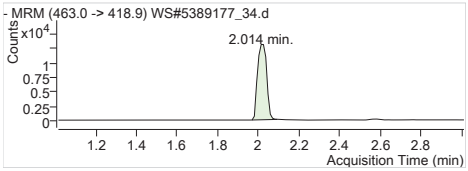


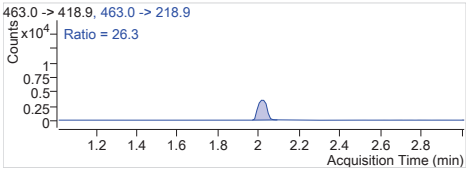
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 12.40 µg/L
Area ratio: 5.27559
Sample type: CC



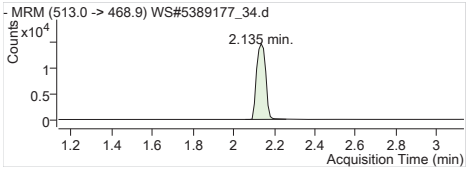


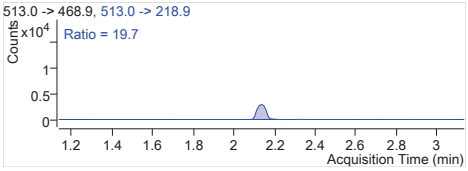
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 12.25 µg/L
Area ratio: 4.62678
Sample type: CC



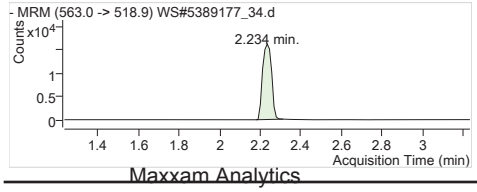


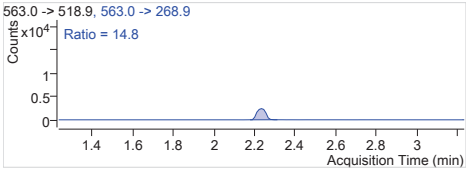
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 12.61 µg/L
Area ratio: 4.76368
Sample type: CC



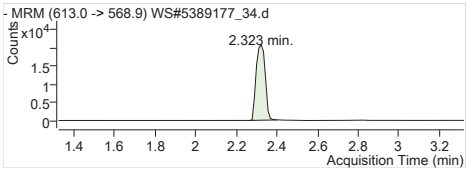


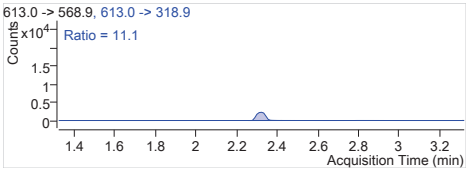
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 13.47 µg/L
Area ratio: 6.46787
Sample type: CC



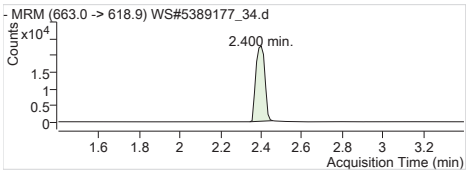


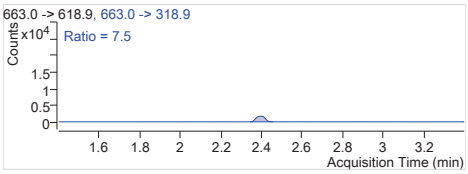
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 13.28 µg/L
Area ratio: 5.87091
Sample type: CC



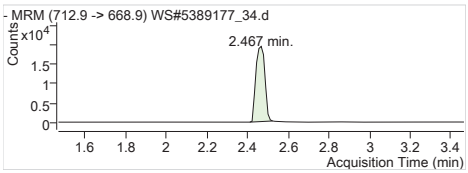


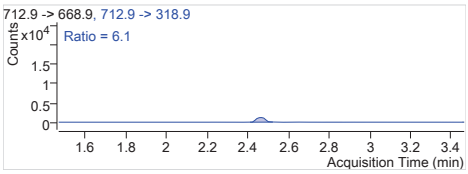
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 12.54 µg/L
Area ratio: 5.46172
Sample type: CC



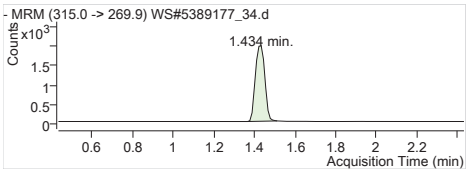


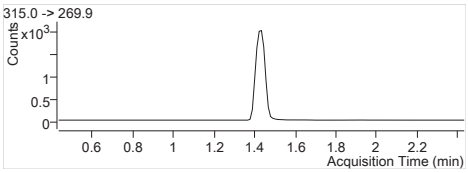
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 13.19 µg/L
Area ratio: 5.34805
Sample type: CC



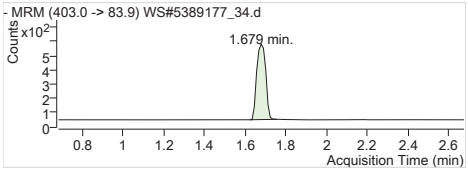


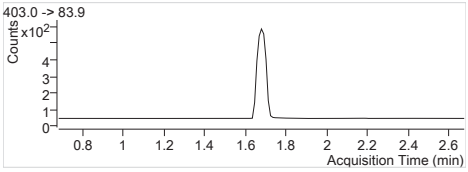
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 13.02 µg/L
Area ratio: 4.59664
Sample type: CC



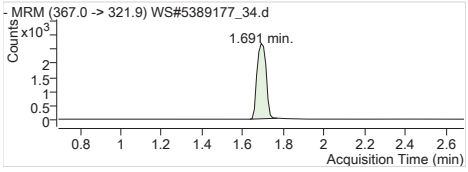


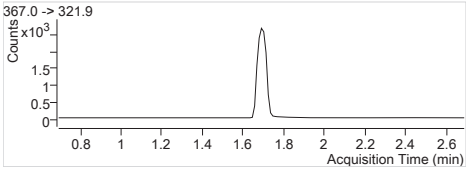
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 97.55 µg/L
Area ratio: 0.27350
Sample type: CC



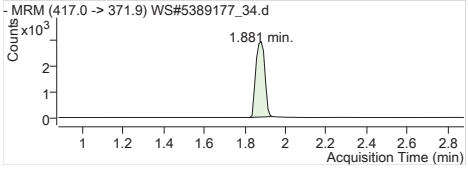


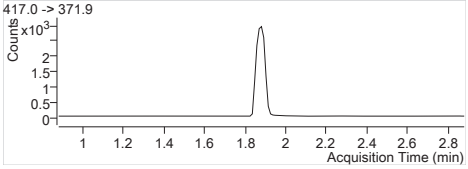
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 97.20 µg/L
Area ratio: 0.07022
Sample type: CC



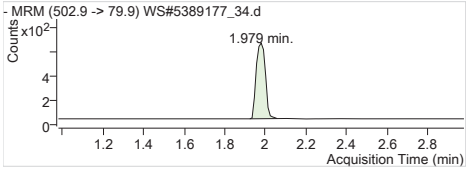


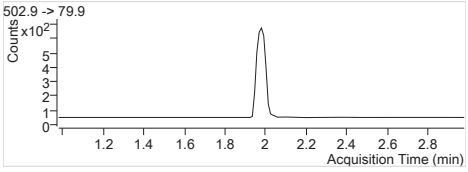
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 93.71 µg/L
Area ratio: 0.34945
Sample type: CC



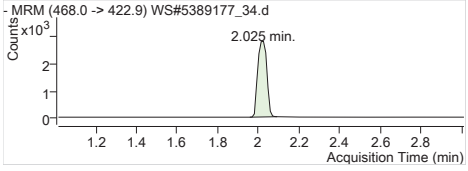


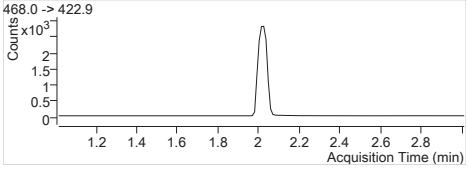
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 96.70 µg/L
Area ratio: 0.38582
Sample type: CC



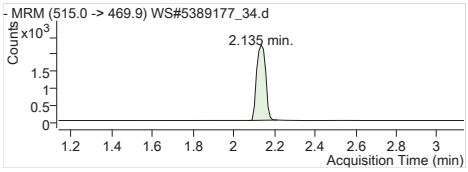


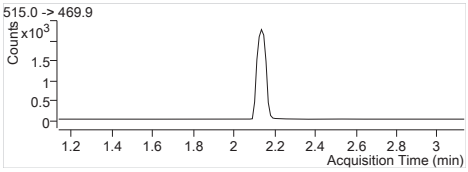
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 94.88 µg/L
Area ratio: 0.08404
Sample type: CC



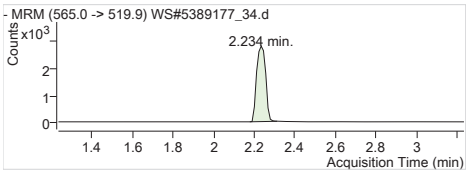


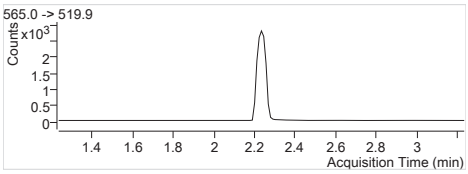
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.014)
Calc. conc. 92.14 µg/L
Area ratio: 0.37063
Sample type: CC



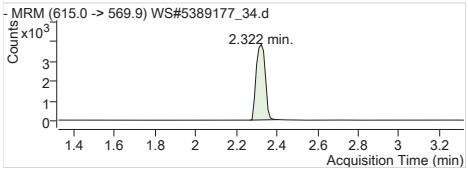


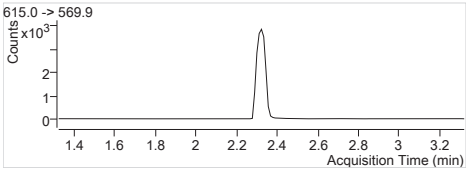
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 90.01 µg/L
Area ratio: 0.22672
Sample type: CC



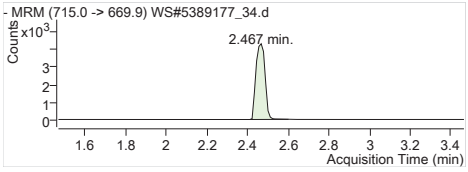


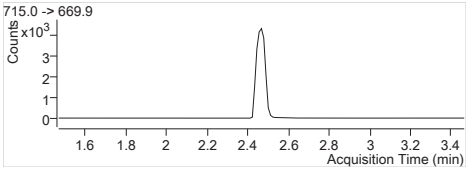
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 93.16 µg/L
Area ratio: 0.27986
Sample type: CC



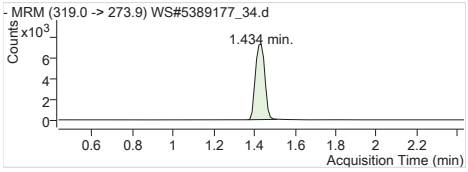


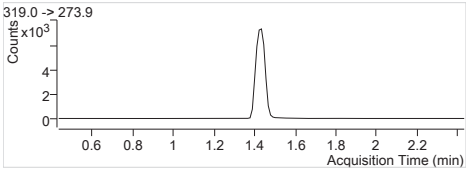
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 97.92 µg/L
Area ratio: 0.38807
Sample type: CC



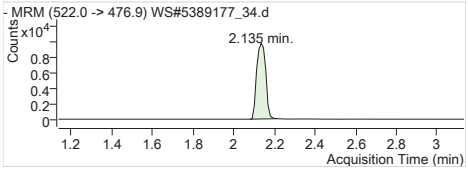


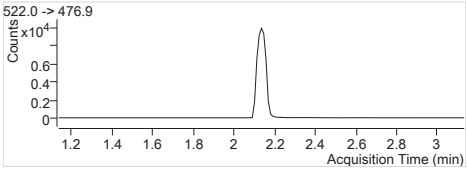
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 92.13 µg/L
Area ratio: 0.43696
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 109.17 µg/L
Area ratio: 0
Sample type: CC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 106.35 µg/L
Area ratio: 0
Sample type: CC

Quantitation Results

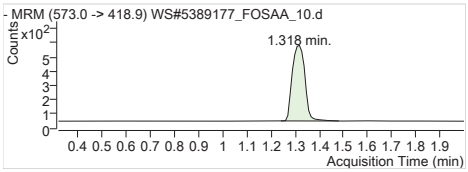
Agilent Technologies

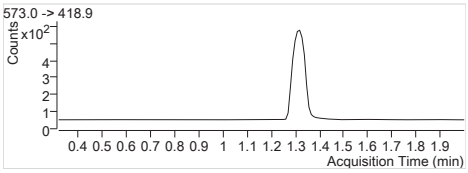
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A2
Acq. Date	2018/02/08 6:23:15 PM	**Injection Volume**	Per Method
Sample Annotation	-		

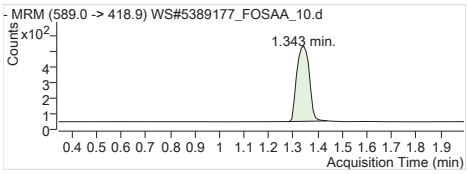
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1934	1.32	1 µg/L		
D5-EtFOSAA IS	1726	1.34	1 µg/L		
13C9-PFDA IS	24330	0.91	1 µg/L		

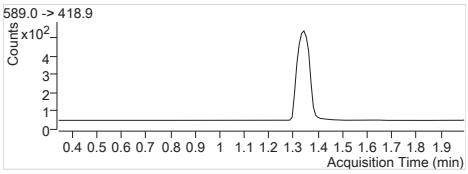
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	654	1.31	0.83	0.90 µg/L	108.39
EtFOSAA 1	657	1.34	0.83	0.87 µg/L	104.99
D3-MeFOSAA	1932	1.32	100.00	95.32 µg/L	95.32
D5-EtFOSAA	1750	1.34	100.00	94.78 µg/L	94.78
13C9-PFDA	23423	0.91	100.00	108.17 µg/L	108.17



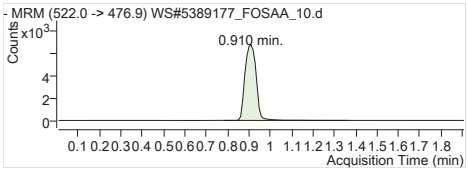


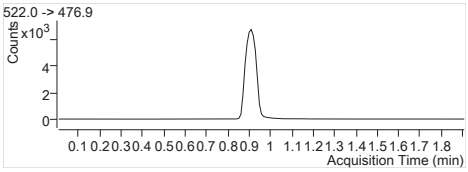
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



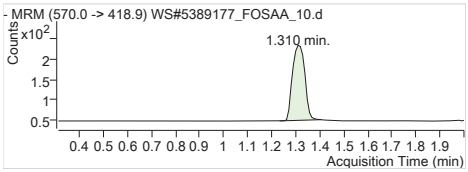


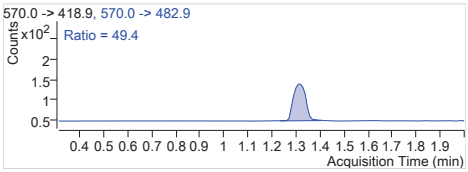
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



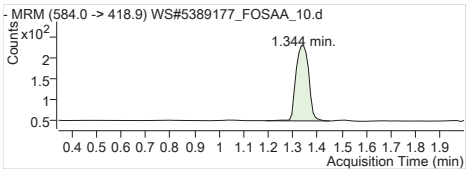


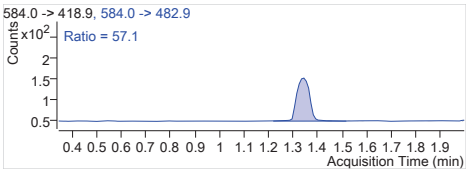
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: CC



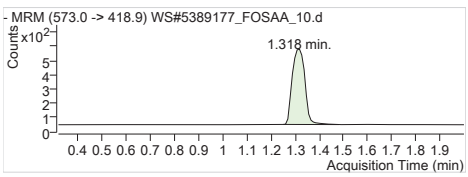


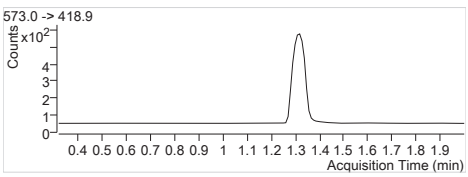
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.90 µg/L
Area ratio: 0.33816
Sample type: CC



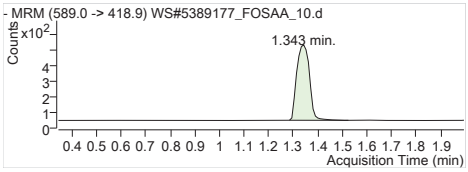


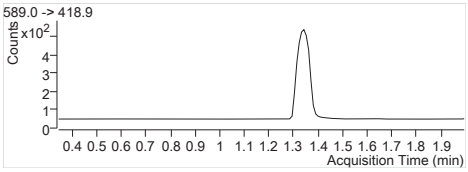
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.87 µg/L
Area ratio: 0.38065
Sample type: CC



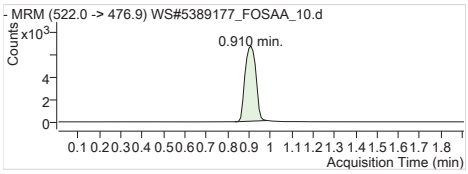


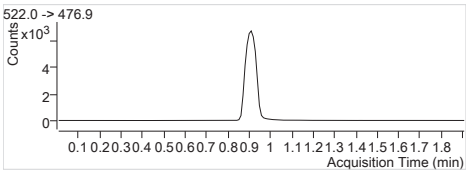
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 95.32 µg/L
Area ratio: 0.07941
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	94.78 µg/L
Area ratio:	0.07193
Sample type:	CC





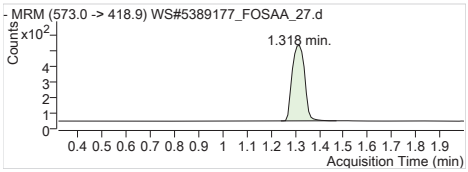
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	108.17 µg/L
Area ratio:	0
Sample type:	CC

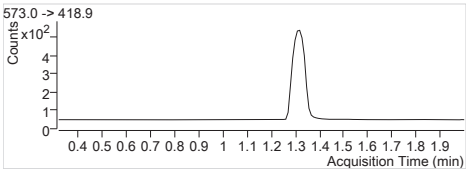
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_27.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A5
Acq. Date	2018/02/08 7:04:09 PM	**Injection Volume**	Per Method
Sample Annotation	-		

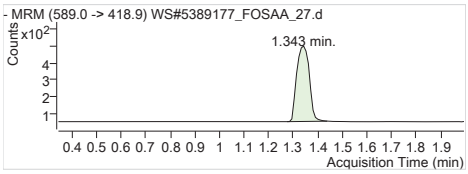
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1752	1.32	1 µg/L		
D5-EtFOSAA IS	1604	1.34	1 µg/L		
13C9-PFDA IS	22437	0.91	1 µg/L		

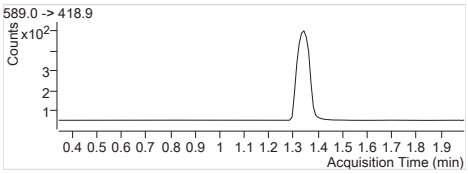
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8245	1.31	12.50	12.90 µg/L	103.20
EtFOSAA 1	8848	1.33	12.50	13.06 µg/L	104.45
D3-MeFOSAA	1754	1.32	100.00	93.84 µg/L	93.84
D5-EtFOSAA	1623	1.34	100.00	95.32 µg/L	95.32
13C9-PFDA	21696	0.91	100.00	100.20 µg/L	100.20



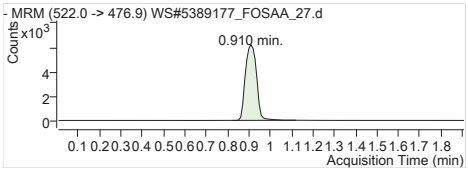


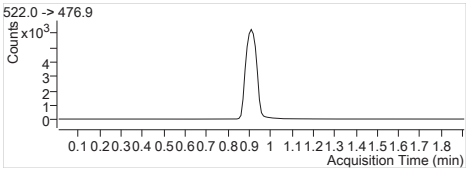
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



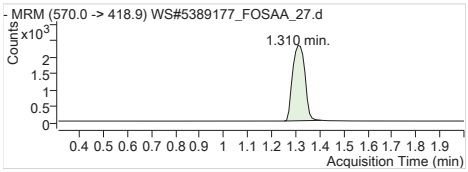


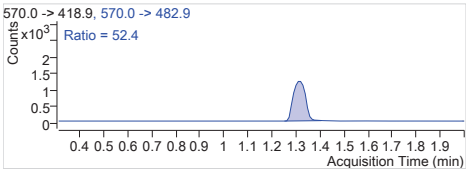
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



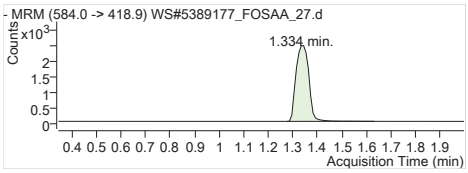


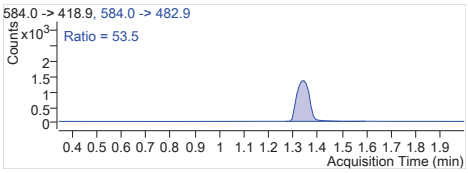
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: CC



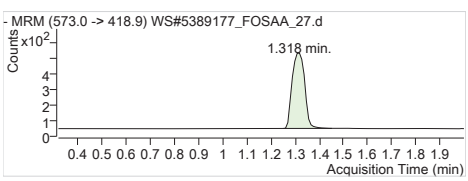


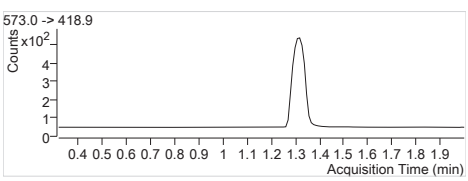
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 12.90 µg/L
Area ratio: 4.70605
Sample type: CC



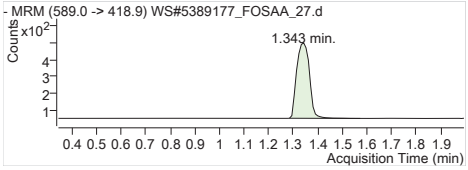


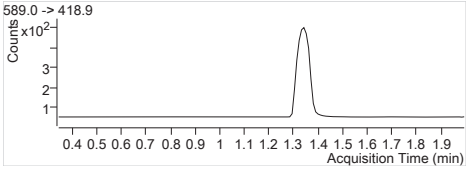
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.344)
Calc. conc. 13.06 µg/L
Area ratio: 5.51621
Sample type: CC



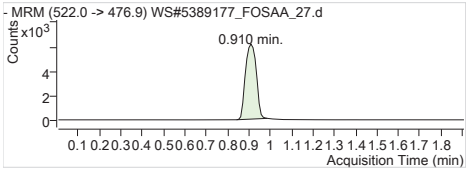


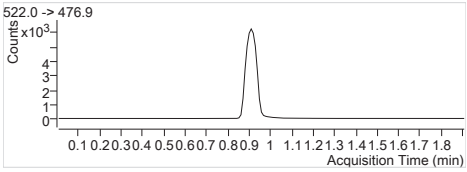
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 93.84 µg/L
Area ratio: 0.07817
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	95.32 µg/L
Area ratio:	0.07234
Sample type:	CC





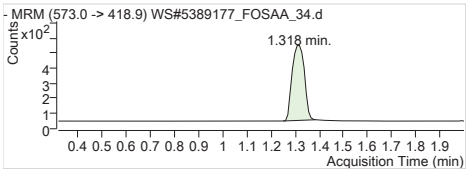
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	100.20 µg/L
Area ratio:	0
Sample type:	CC

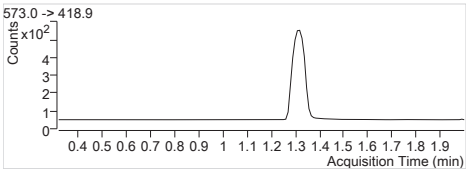
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_34.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A5
Acq. Date	2018/02/08 7:21:00 PM	**Injection Volume**	Per Method
Sample Annotation	-		

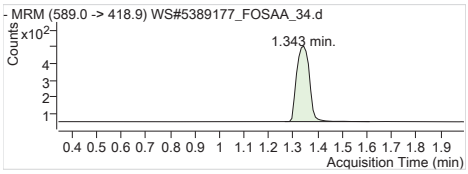
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1770	1.32	1 µg/L		
D5-EtFOSAA IS	1647	1.34	1 µg/L		
13C9-PFDA IS	22407	0.91	1 µg/L		

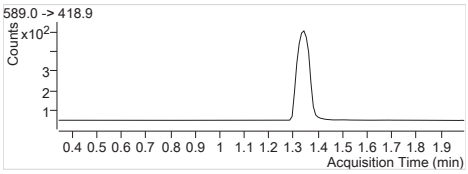
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8302	1.31	12.50	12.86 µg/L	102.85
EtFOSAA 1	8688	1.33	12.50	12.48 µg/L	99.87
D3-MeFOSAA	1815	1.32	100.00	97.23 µg/L	97.23
D5-EtFOSAA	1630	1.34	100.00	95.86 µg/L	95.86
13C9-PFDA	21686	0.91	100.00	100.15 µg/L	100.15



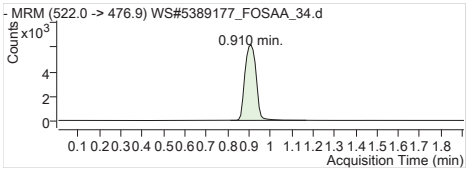


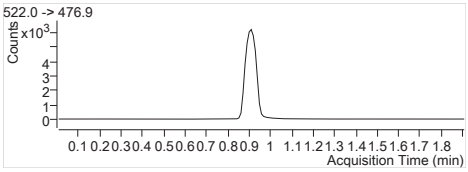
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



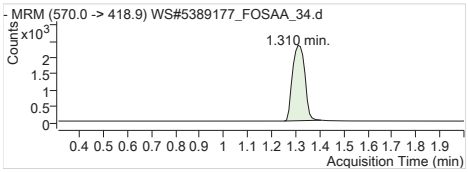


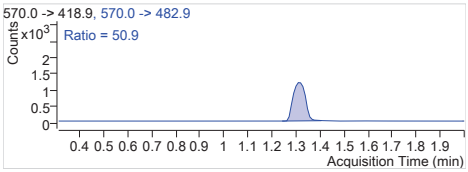
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



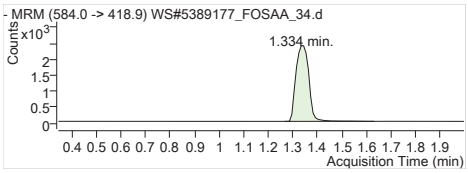


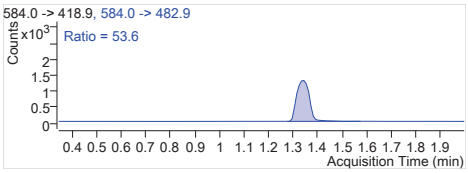
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: CC



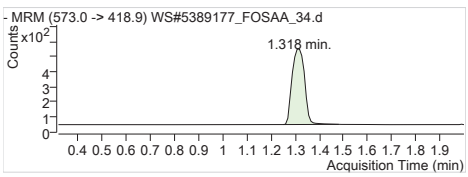


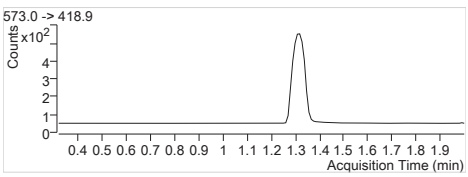
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 12.86 µg/L
Area ratio: 4.69040
Sample type: CC



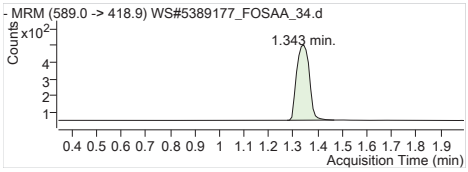


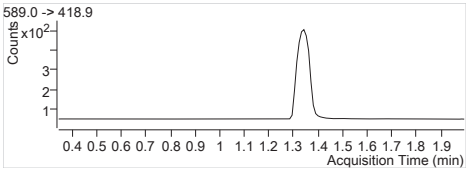
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.344)
Calc. conc. 12.48 µg/L
Area ratio: 5.27505
Sample type: CC



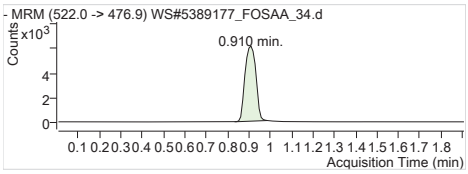


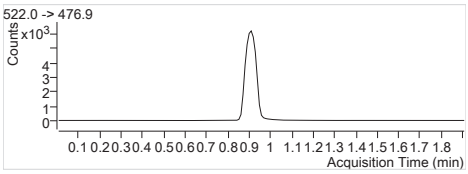
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 97.23 µg/L
Area ratio: 0.08100
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.343 (1.343)
Calc. conc.	95.86 µg/L
Area ratio:	0.07275
Sample type:	CC





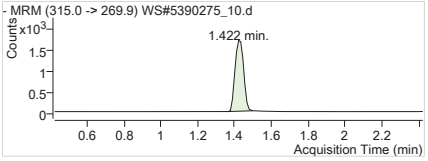
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.910 (0.910)
Calc. conc.	100.15 µg/L
Area ratio:	0
Sample type:	CC

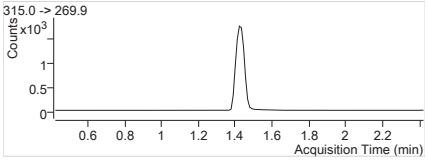
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5390275_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/09 5:18:37 PM	**Injection Volume**	Per Method
Sample Annotation	-		

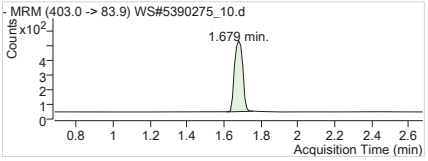
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5486	1.42	1 µg/L		
MPFHxS	1497	1.68	1 µg/L		
MPFHpA	7297	1.69	1 µg/L		
MPFOA	7985	1.87	1 µg/L		
MPFOS	1771	1.98	1 µg/L		
MPFNA	7879	2.01	1 µg/L		
MPFDA	6673	2.14	1 µg/L		
MPFUnA	8214	2.23	1 µg/L		
MPFDoA	10218	2.32	1 µg/L		
MPFTeDA	12294	2.47	1 µg/L		
13C6-PFHxA IS	23804	1.42	1 µg/L		
13C9-PFDA IS	32182	2.13	1 µg/L		

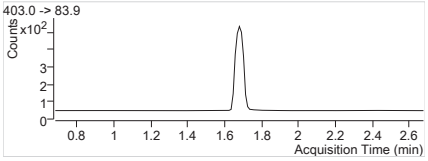
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	615	1.09	0.83	1.03 µg/L	124.00
PFHxA 1	1861	1.42	0.83	0.85 µg/L	101.86
PFHxS 1	505	1.68	0.83	0.86 µg/L	103.10
PFHpA 1	2492	1.69	0.83	1.04 µg/L	125.46
PFOA 1	2791	1.87	0.83	0.86 µg/L	103.66
PFOS 1	526	1.97	0.83	0.86 µg/L	104.18
PFNA 1	2605	2.01	0.83	0.94 µg/L	113.19
PFDA 1	2978	2.14	0.83	1.00 µg/L	120.15
PFUnA 1	2764	2.23	0.83	0.85 µg/L	101.97
PFDoA 1	3640	2.32	0.83	0.90 µg/L	108.44
PFTrDA 1	4076	2.40	0.83	0.92 µg/L	110.58
PFTeDA 1	3554	2.47	0.83	0.85 µg/L	102.03
13C2-PFHxA	5486	1.42	100.00	92.34 µg/L	92.34
18O2-PFHxS	1497	1.68	100.00	100.59 µg/L	100.59
13C4-PFHpA	7297	1.69	100.00	94.24 µg/L	94.24
13C4-PFOA	7985	1.87	100.00	97.23 µg/L	97.23
13C4-PFOS	1771	1.98	100.00	94.84 µg/L	94.84
13C5-PFNA	7880	2.01	100.00	97.08 µg/L	97.08
13C2-PFDA	6538	2.14	100.00	97.50 µg/L	97.50
13C2-PFUnA	8214	2.23	100.00	96.86 µg/L	96.86
13C2-PFDoA	10218	2.32	100.00	93.14 µg/L	93.14
13C2-PFTeDA	12560	2.47	100.00	98.68 µg/L	98.68
13C6-PFHxA	23804	1.42	100.00	101.65 µg/L	101.65
13C9-PFDA	32182	2.13	100.00	103.98 µg/L	103.98



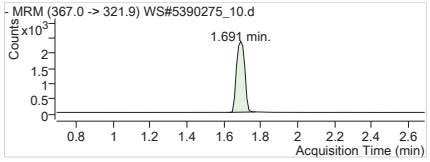


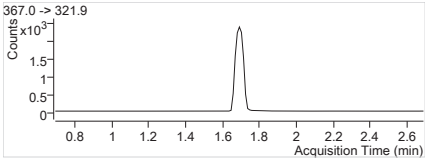
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



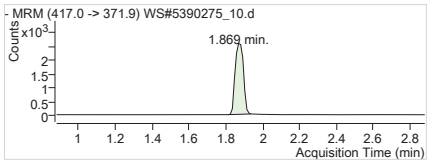


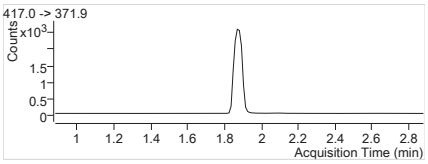
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



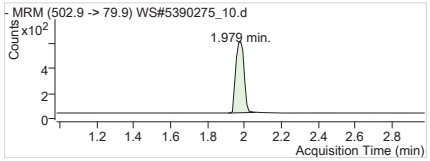


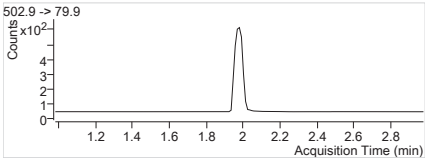
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



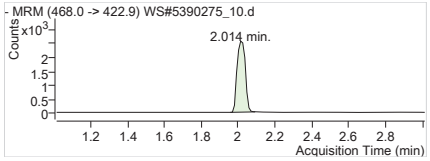


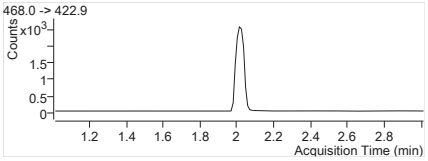
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: CC



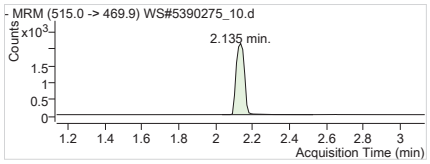


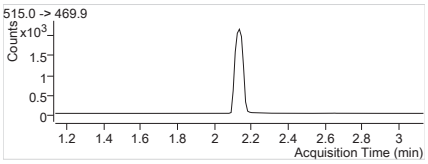
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



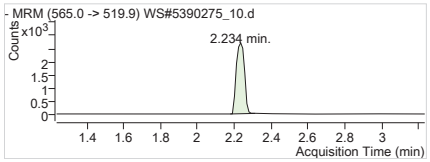


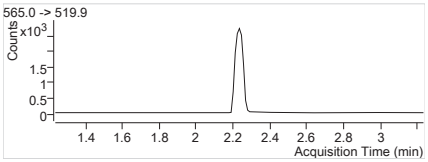
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



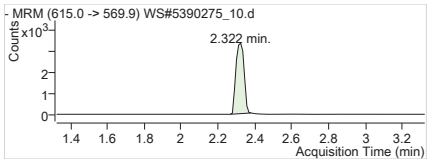


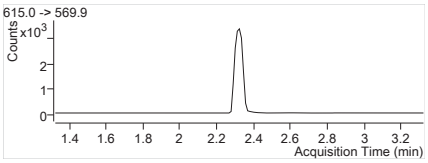
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



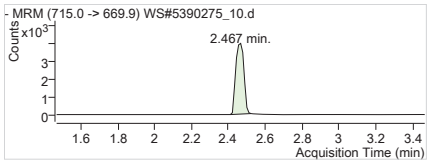


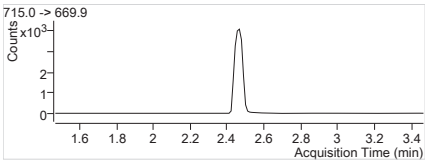
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



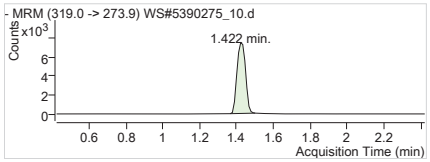


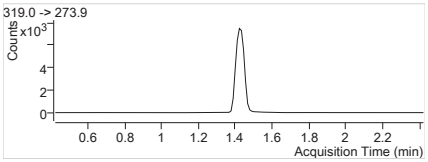
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



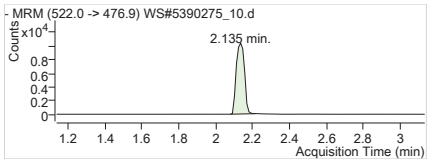


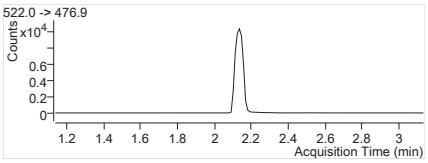
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



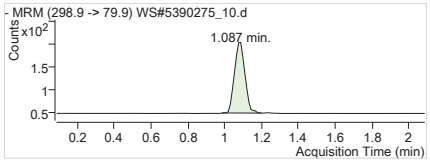


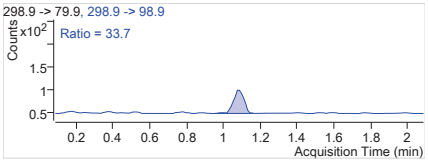
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



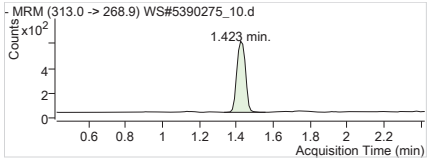


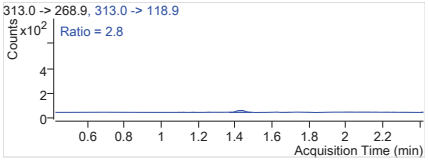
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



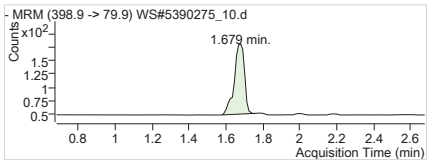


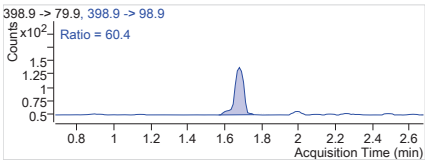
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 1.03 µg/L
Area ratio: 0.41082
Sample type: CC



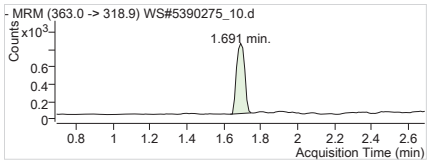


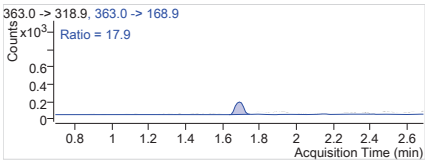
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.85 µg/L
Area ratio: 0.33923
Sample type: CC



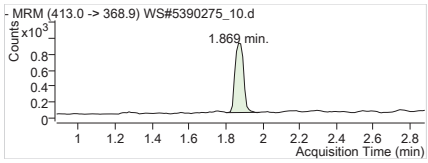


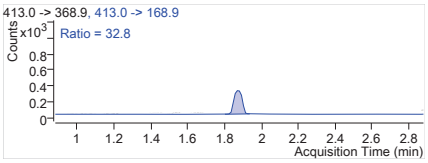
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.86 µg/L
Area ratio: 0.33734
Sample type: CC



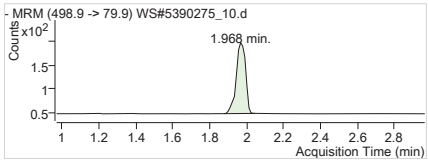


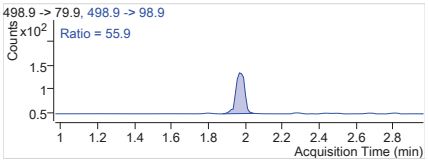
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 1.04 µg/L
Area ratio: 0.34151
Sample type: CC



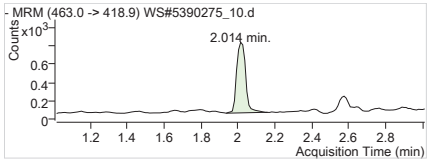


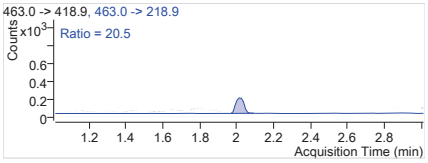
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 0.86 µg/L
Area ratio: 0.34953
Sample type: CC



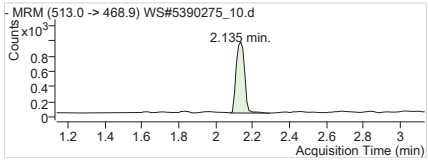


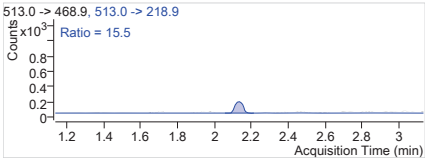
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 0.86 µg/L
Area ratio: 0.29701
Sample type: CC



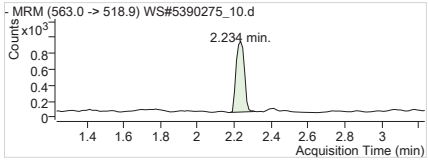


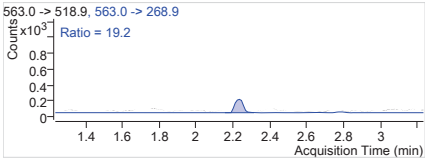
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.94 µg/L
Area ratio: 0.33063
Sample type: CC



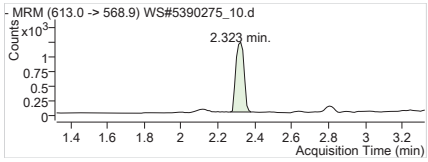


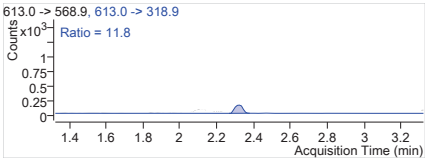
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 1.00 µg/L
Area ratio: 0.44628
Sample type: CC



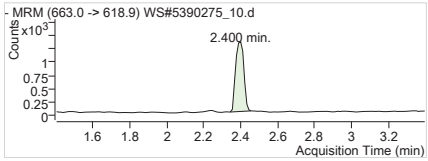


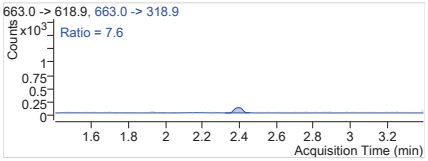
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.85 µg/L
Area ratio: 0.33650
Sample type: CC



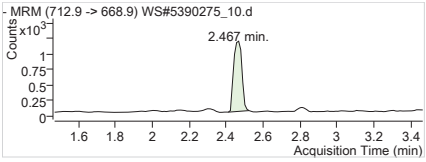


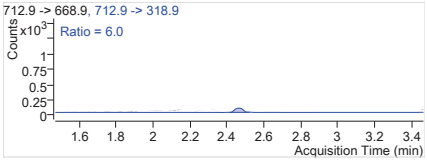
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.90 µg/L
Area ratio: 0.35623
Sample type: CC



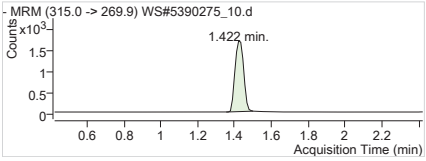


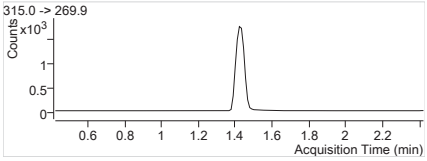
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.92 µg/L
Area ratio: 0.33154
Sample type: CC



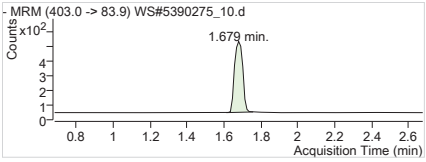


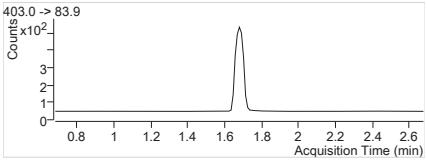
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.85 µg/L
Area ratio: 0.28908
Sample type: CC



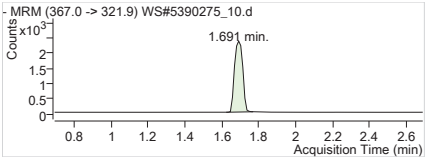


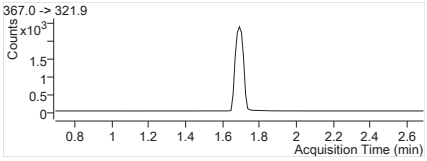
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 92.34 µg/L
Area ratio: 0.23047
Sample type: CC



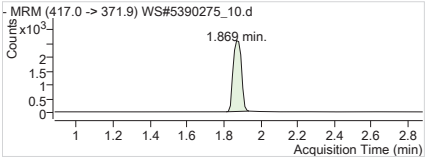


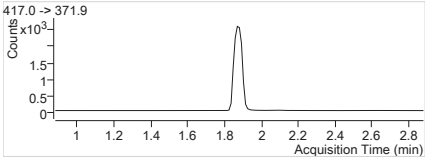
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 100.59 µg/L
Area ratio: 0.06289
Sample type: CC



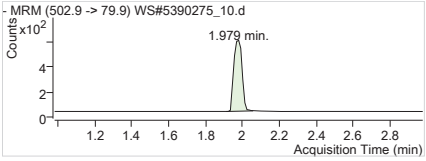


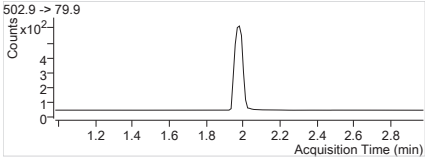
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 94.24 µg/L
Area ratio: 0.30655
Sample type: CC



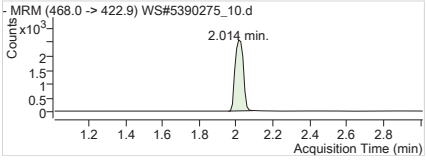


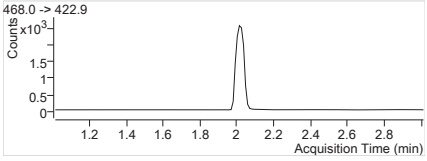
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 97.23 µg/L
Area ratio: 0.33545
Sample type: CC



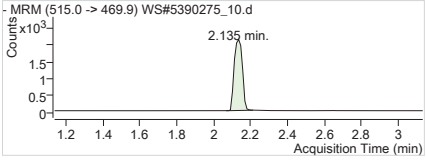


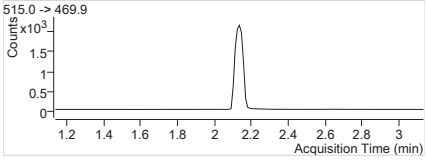
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 94.84 µg/L
Area ratio: 0.07440
Sample type: CC



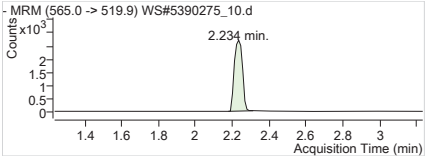


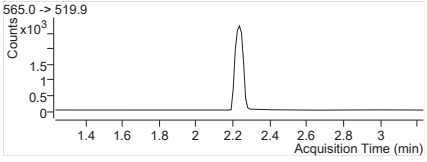
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 97.08 µg/L
Area ratio: 0.33104
Sample type: CC



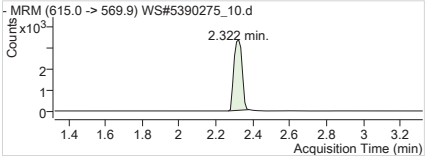


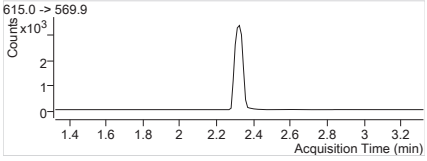
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 97.50 µg/L
Area ratio: 0.20316
Sample type: CC



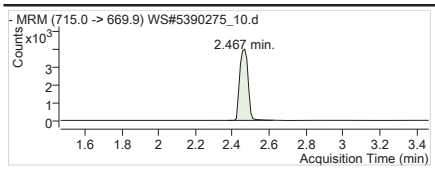


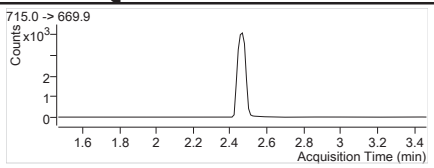
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 96.86 µg/L
Area ratio: 0.25524
Sample type: CC



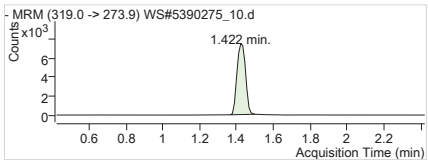


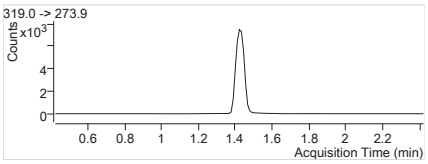
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 93.14 µg/L
Area ratio: 0.31751
Sample type: CC



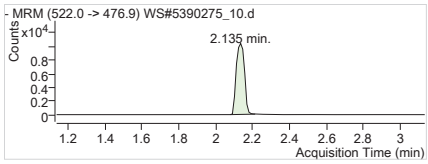


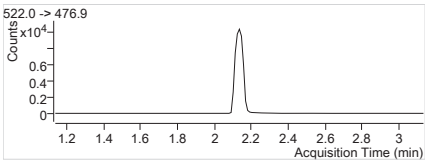
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	98.68 µg/L
Area ratio:	0.39028
Sample type:	CC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	101.65 µg/L
Area ratio:	0
Sample type:	CC





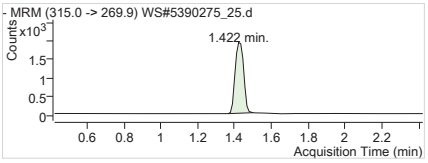
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	103.98 µg/L
Area ratio:	0
Sample type:	CC

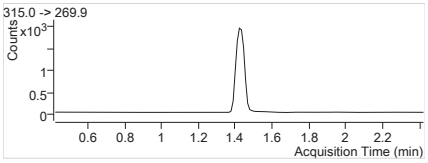
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5390275_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/09 6:32:37 PM	**Injection Volume**	Per Method
Sample Annotation	-		

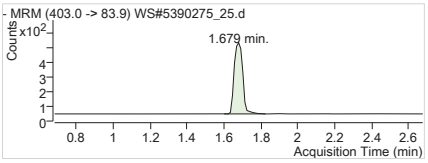
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6106	1.42	1 µg/L		
MPFHxS	1563	1.68	1 µg/L		
MPFHpA	7952	1.69	1 µg/L		
MPFOA	8125	1.87	1 µg/L		
MPFOS	1819	1.98	1 µg/L		
MPFNA	8226	2.01	1 µg/L		
MPFDA	6769	2.14	1 µg/L		
MPFUnA	7787	2.23	1 µg/L		
MPFDoA	11004	2.32	1 µg/L		
MPFTeDA	12407	2.47	1 µg/L		
13C6-PFHxA IS	24806	1.42	1 µg/L		
13C9-PFDA IS	32186	2.13	1 µg/L		

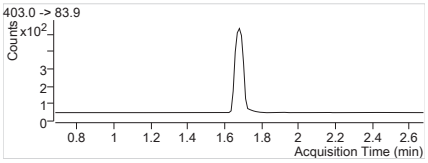
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8292	1.09	12.50	11.86 µg/L	94.85
PFHxA 1	31560	1.42	12.50	12.78 µg/L	102.27
PFHxS 1	8083	1.68	12.50	11.64 µg/L	93.08
PFHpA 1	39494	1.69	12.50	12.38 µg/L	99.06
PFOA 1	43665	1.87	12.50	13.03 µg/L	104.21
PFOS 1	8485	1.97	12.50	13.20 µg/L	105.57
PFNA 1	38502	2.01	12.50	12.59 µg/L	100.70
PFDA 1	41272	2.14	12.50	12.12 µg/L	96.94
PFUnA 1	46680	2.23	12.50	14.14 µg/L	113.10
PFDoA 1	57396	2.32	12.50	12.52 µg/L	100.19
PFTrDA 1	63873	2.40	12.50	12.46 µg/L	99.71
PFTeDA 1	54735	2.47	12.50	12.81 µg/L	102.52
13C2-PFHxA	6106	1.42	100.00	98.62 µg/L	98.62
18O2-PFHxS	1563	1.68	100.00	100.79 µg/L	100.79
13C4-PFHpA	7952	1.69	100.00	98.55 µg/L	98.55
13C4-PFOA	8125	1.87	100.00	94.93 µg/L	94.93
13C4-PFOS	1819	1.98	100.00	93.48 µg/L	93.48
13C5-PFNA	8225	2.01	100.00	97.24 µg/L	97.24
13C2-PFDA	6712	2.14	100.00	100.08 µg/L	100.08
13C2-PFUnA	7787	2.23	100.00	91.81 µg/L	91.81
13C2-PFDoA	11004	2.32	100.00	100.30 µg/L	100.30
13C2-PFTeDA	12642	2.47	100.00	99.32 µg/L	99.32
13C6-PFHxA	24806	1.42	100.00	105.93 µg/L	105.93
13C9-PFDA	32186	2.13	100.00	104.00 µg/L	104.00



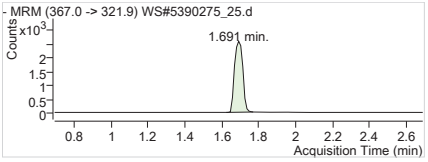


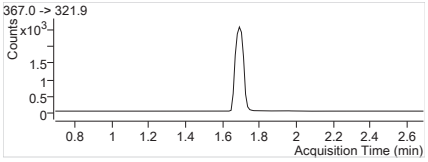
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



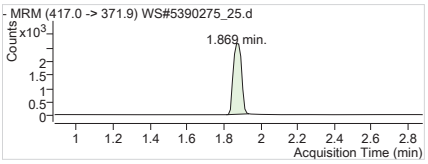


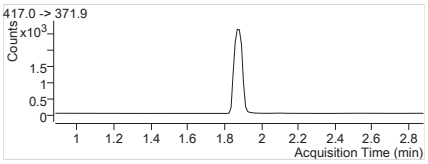
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



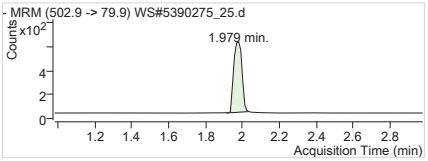


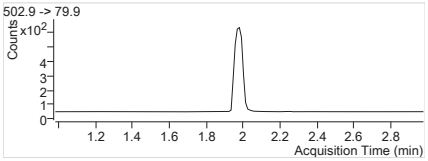
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



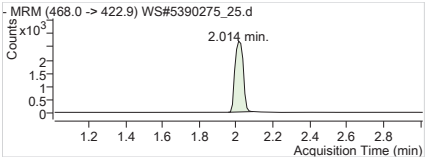


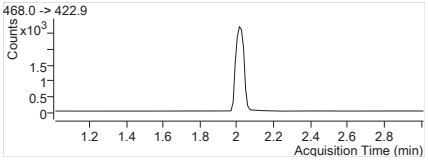
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: CC



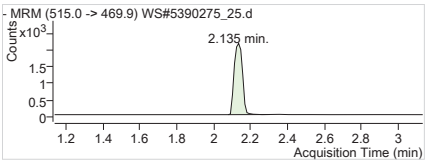


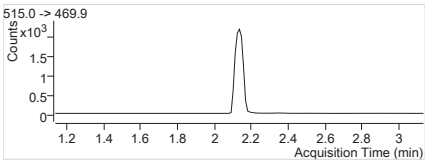
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



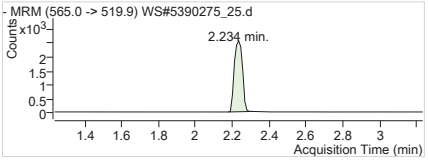


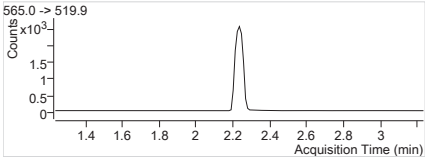
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



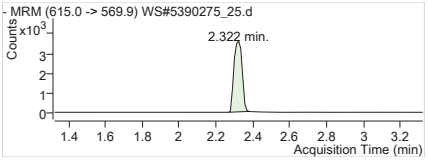


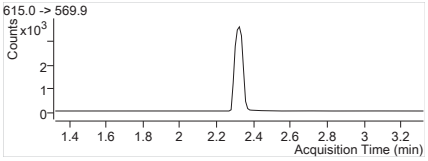
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



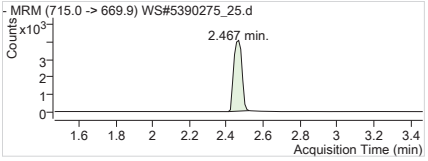


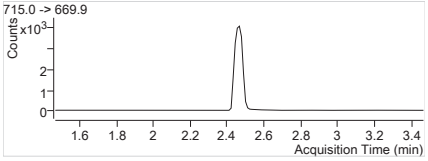
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



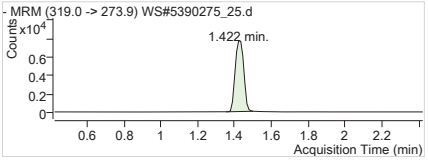


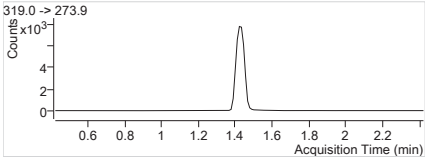
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



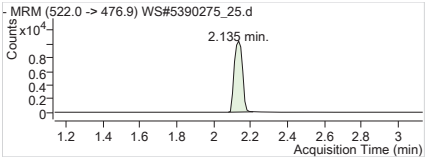


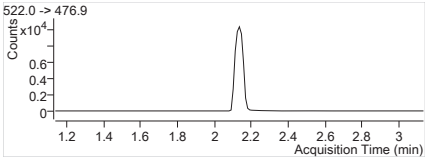
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



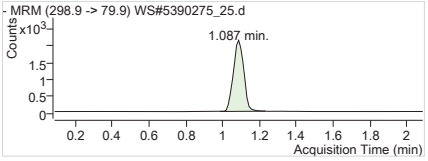


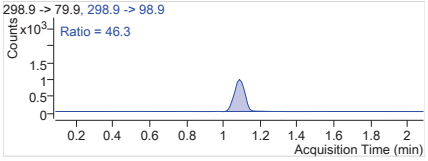
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



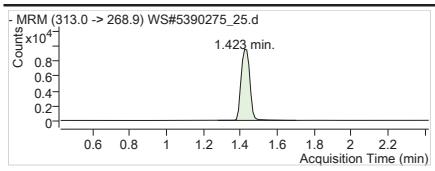


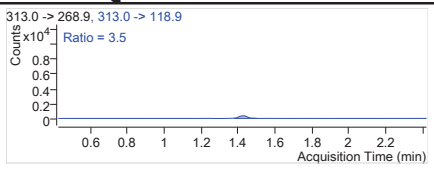
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC





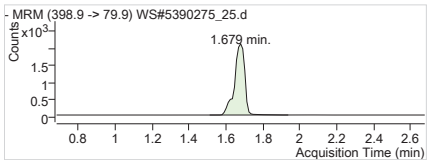
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 11.86 µg/L
Area ratio: 5.30518
Sample type: CC

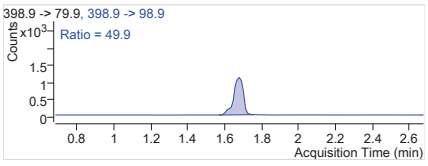




PFHxA 1

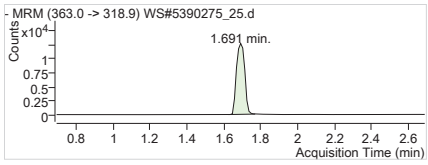
	313.0 -> 268.9
RT (Exp. RT):	1.423 (1.423)
Calc. conc.	12.78 µg/L
Area ratio:	5.16869
Sample type:	CC

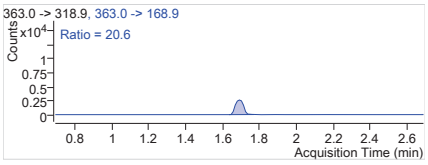




PFHxS 1

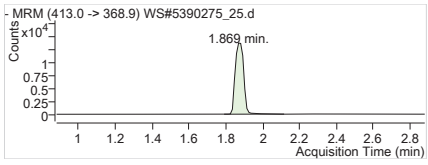
	398.9 -> 79.9
RT (Exp. RT):	1.679 (1.679)
Calc. conc.	11.64 µg/L
Area ratio:	5.17147
Sample type:	CC

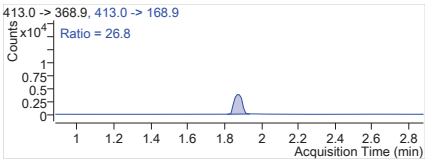




PFHpA 1

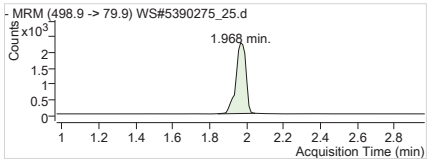
	363.0 -> 318.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	12.38 µg/L
Area ratio:	4.96655
Sample type:	CC

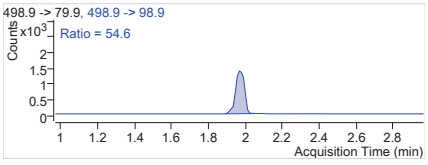




PFOA 1

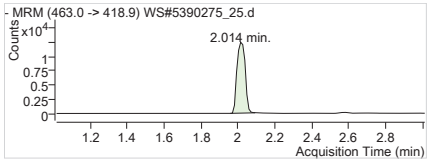
	413.0 -> 368.9
RT (Exp. RT):	1.869 (1.881)
Calc. conc.	13.03 µg/L
Area ratio:	5.37415
Sample type:	CC

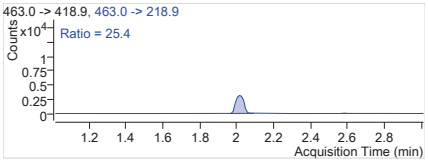




PFOS 1

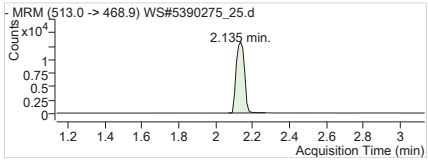
	498.9 -> 79.9
RT (Exp. RT):	1.968 (1.968)
Calc. conc.	13.20 µg/L
Area ratio:	4.66465
Sample type:	CC

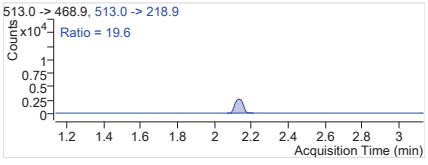




PFNA 1

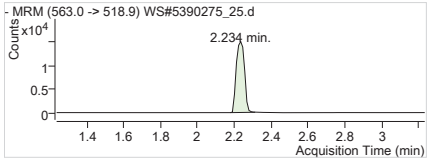
	463.0 -> 418.9
RT (Exp. RT):	2.014 (2.014)
Calc. conc.	12.59 µg/L
Area ratio:	4.68053
Sample type:	CC

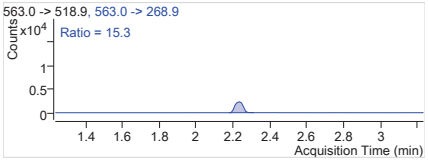




PFDA 1

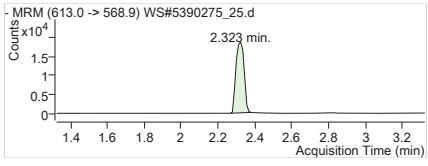
	513.0 -> 468.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	12.12 µg/L
Area ratio:	6.09721
Sample type:	CC

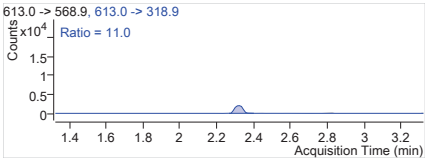




PFUnA 1

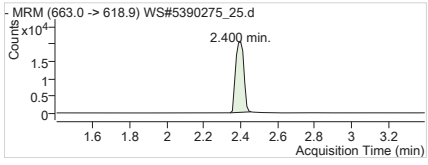
	563.0 -> 518.9
RT (Exp. RT):	2.234 (2.234)
Calc. conc.	14.14 µg/L
Area ratio:	5.99461
Sample type:	CC

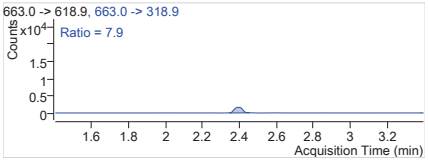




PFDoA 1

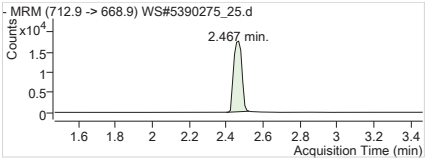
	613.0 -> 568.9
RT (Exp. RT):	2.323 (2.323)
Calc. conc.	12.52 µg/L
Area ratio:	5.21592
Sample type:	CC

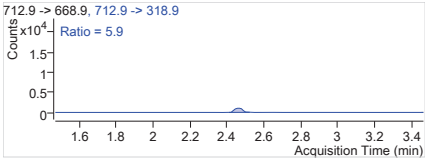




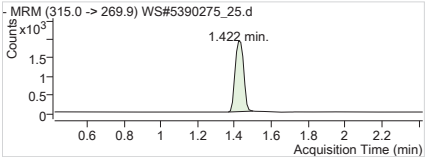
PFTrDA 1

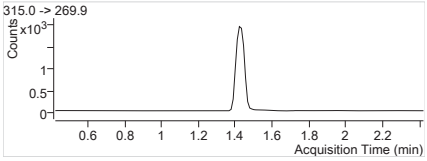
	663.0 -> 618.9
RT (Exp. RT):	2.400 (2.400)
Calc. conc.	12.46 µg/L
Area ratio:	5.14814
Sample type:	CC



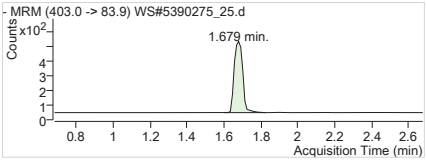


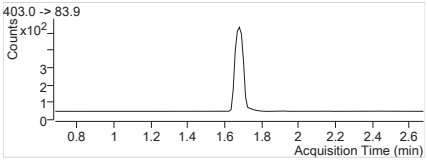
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 12.81 µg/L
Area ratio: 4.41162
Sample type: CC



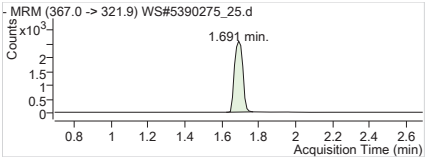


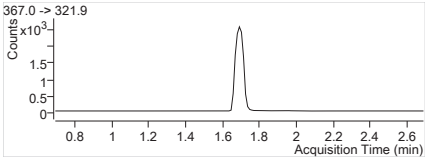
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 98.62 µg/L
Area ratio: 0.24615
Sample type: CC



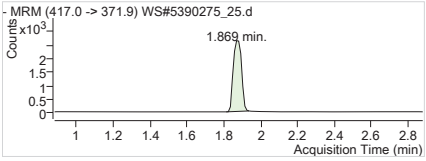


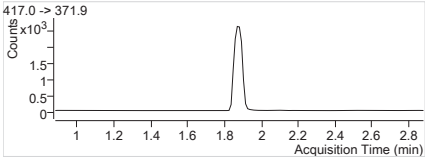
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 100.79 µg/L
Area ratio: 0.06301
Sample type: CC



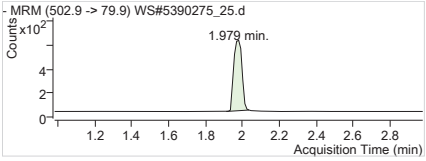


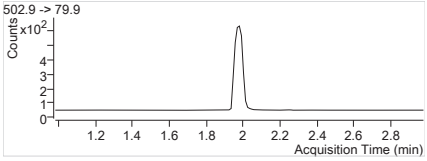
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 98.55 µg/L
Area ratio: 0.32057
Sample type: CC



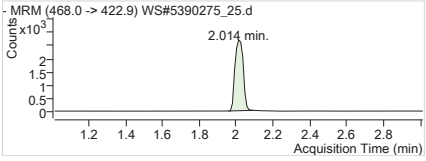


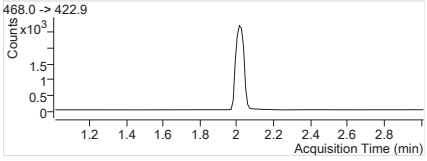
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 94.93 µg/L
Area ratio: 0.32754
Sample type: CC



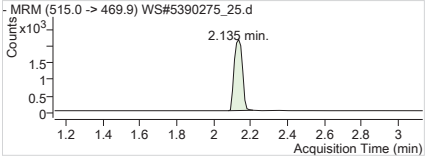


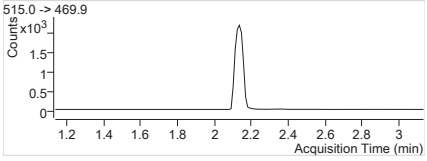
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 93.48 µg/L
Area ratio: 0.07333
Sample type: CC



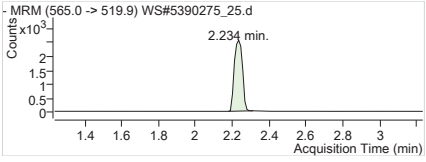


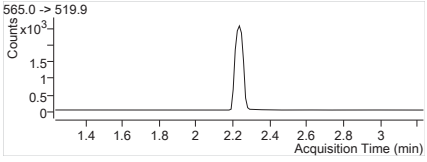
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 97.24 µg/L
Area ratio: 0.33157
Sample type: CC



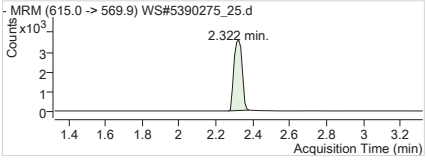


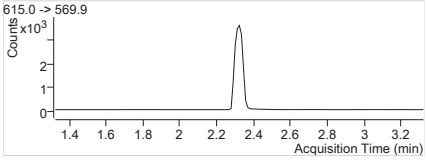
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 100.08 µg/L
Area ratio: 0.20854
Sample type: CC



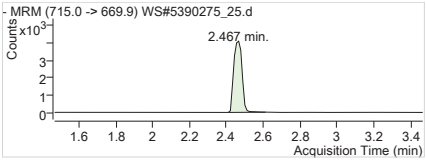


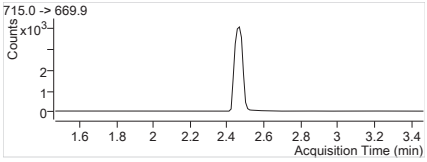
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 91.81 µg/L
Area ratio: 0.24194
Sample type: CC



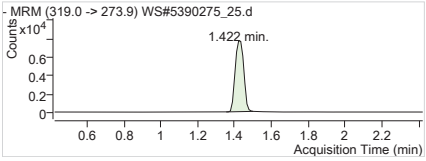


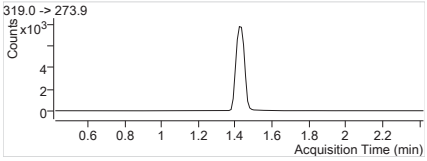
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 100.30 µg/L
Area ratio: 0.34189
Sample type: CC



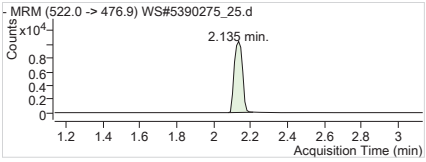


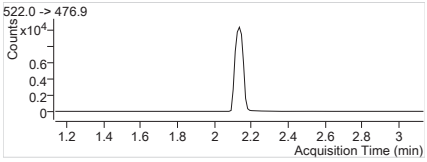
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	99.32 µg/L
Area ratio:	0.39278
Sample type:	CC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	105.93 µg/L
Area ratio:	0
Sample type:	CC





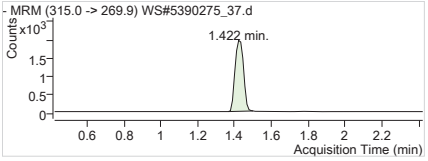
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	104.00 µg/L
Area ratio:	0
Sample type:	CC

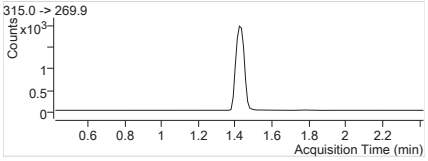
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5390275_37.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/09 7:31:50 PM	**Injection Volume**	Per Method
Sample Annotation	-		

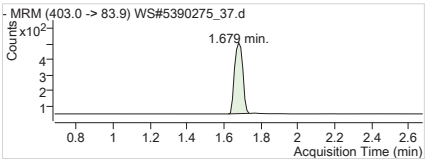
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6167	1.42	1 µg/L		
MPFHxS	1420	1.68	1 µg/L		
MPFHpA	7953	1.69	1 µg/L		
MPFOA	8588	1.88	1 µg/L		
MPFOS	1772	1.98	1 µg/L		
MPFNA	8159	2.01	1 µg/L		
MPFDA	6721	2.14	1 µg/L		
MPFUnA	8037	2.23	1 µg/L		
MPFDoA	10877	2.32	1 µg/L		
MPFTeDA	11979	2.47	1 µg/L		
13C6-PFHxA IS	24204	1.42	1 µg/L		
13C9-PFDA IS	32789	2.13	1 µg/L		

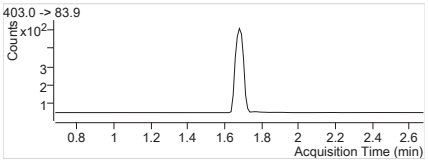
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8447	1.09	12.50	13.28 µg/L	106.24
PFHxA 1	30714	1.42	12.50	12.32 µg/L	98.54
PFHxS 1	8101	1.68	12.50	12.82 µg/L	102.60
PFHpA 1	39324	1.69	12.50	12.33 µg/L	98.63
PFOA 1	44189	1.88	12.50	12.47 µg/L	99.78
PFOS 1	8034	1.97	12.50	12.83 µg/L	102.61
PFNA 1	37403	2.01	12.50	12.33 µg/L	98.64
PFDA 1	41383	2.14	12.50	12.24 µg/L	97.88
PFUnA 1	44635	2.23	12.50	13.10 µg/L	104.82
PFDoA 1	55933	2.32	12.50	12.35 µg/L	98.78
PFTrDA 1	66477	2.40	12.50	13.43 µg/L	107.41
PFTeDA 1	52273	2.47	12.50	12.68 µg/L	101.40
13C2-PFHxA	6167	1.42	100.00	102.09 µg/L	102.09
18O2-PFHxS	1420	1.68	100.00	93.84 µg/L	93.84
13C4-PFHpA	7953	1.69	100.00	101.02 µg/L	101.02
13C4-PFOA	8588	1.88	100.00	102.84 µg/L	102.84
13C4-PFOS	1772	1.98	100.00	93.33 µg/L	93.33
13C5-PFNA	8158	2.01	100.00	98.84 µg/L	98.84
13C2-PFDA	6586	2.14	100.00	96.40 µg/L	96.40
13C2-PFUnA	8037	2.23	100.00	93.02 µg/L	93.02
13C2-PFDoA	10877	2.32	100.00	97.32 µg/L	97.32
13C2-PFTeDA	12223	2.47	100.00	94.26 µg/L	94.26
13C6-PFHxA	24204	1.42	100.00	103.36 µg/L	103.36
13C9-PFDA	32789	2.13	100.00	105.95 µg/L	105.95



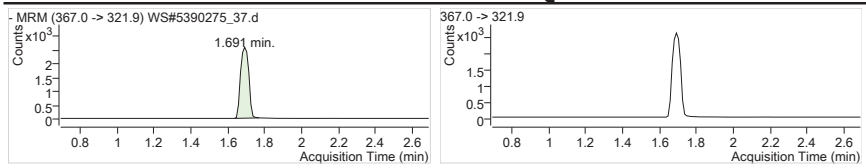


MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC

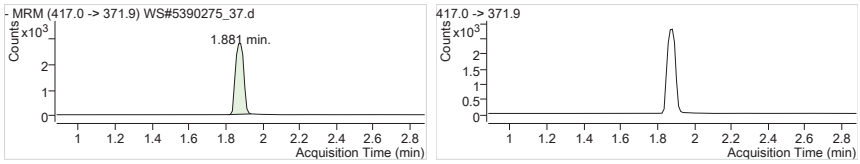




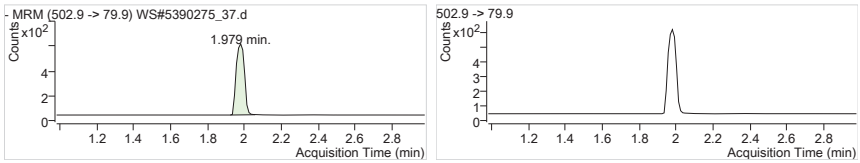
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



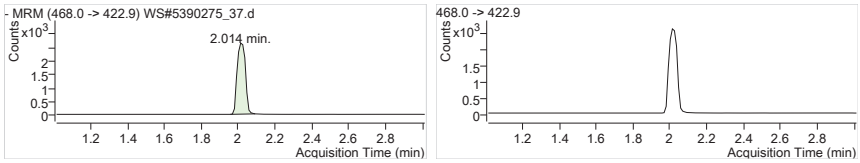
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



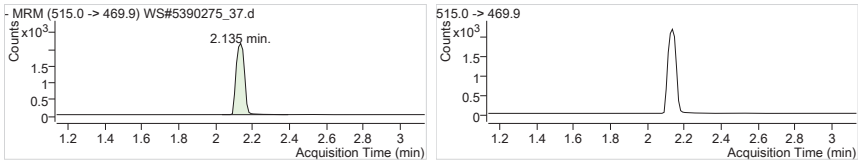
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



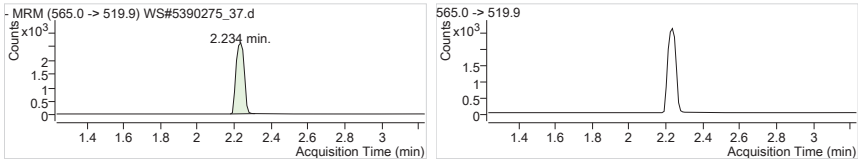
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



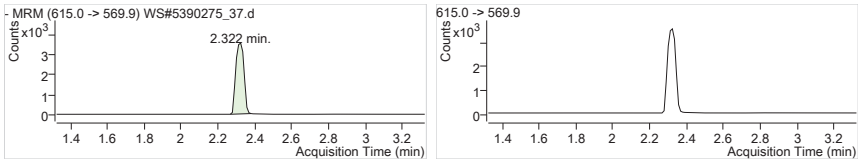
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



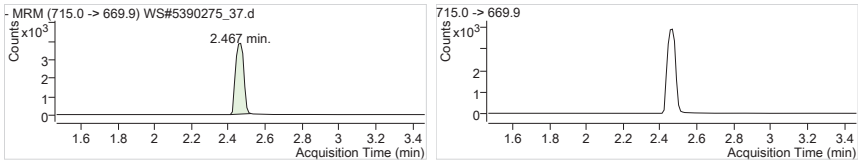
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



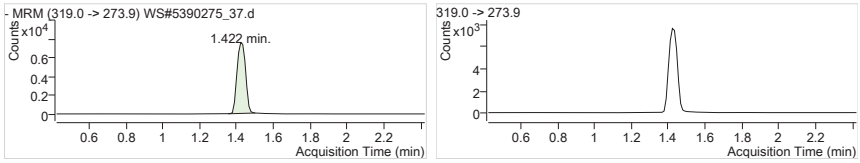
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



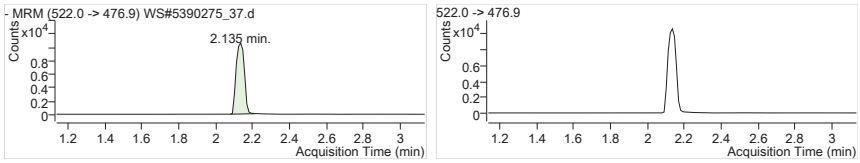
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



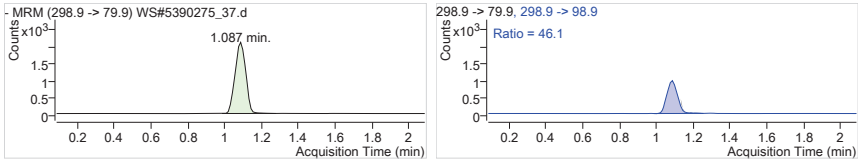
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



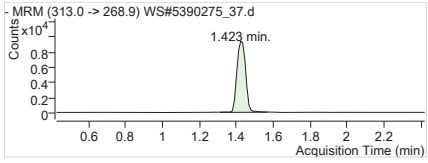
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC

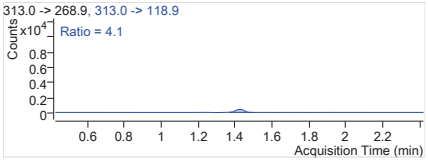


13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC

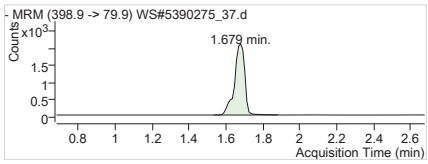


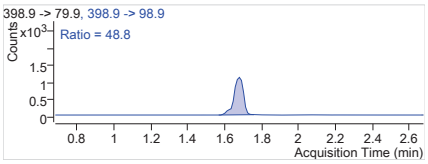
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 13.28 µg/L
Area ratio: 5.94859
Sample type: CC



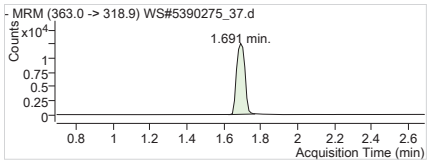


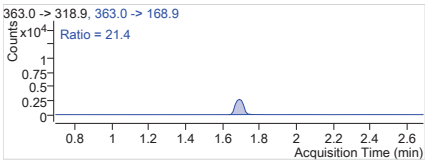
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 12.32 µg/L
Area ratio: 4.98038
Sample type: CC



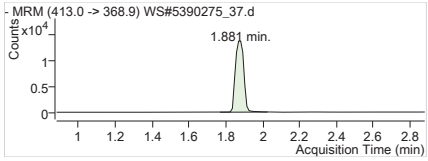


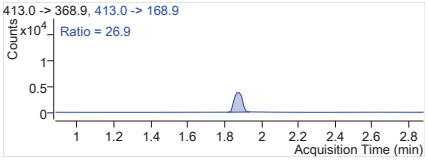
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 12.82 µg/L
Area ratio: 5.70493
Sample type: CC



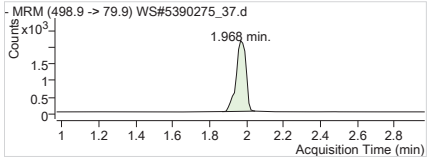


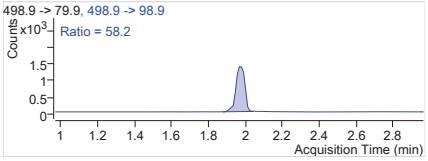
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.33 µg/L
Area ratio: 4.94455
Sample type: CC



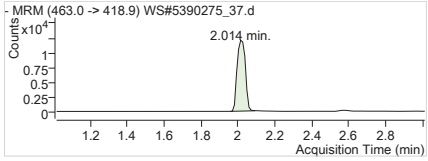


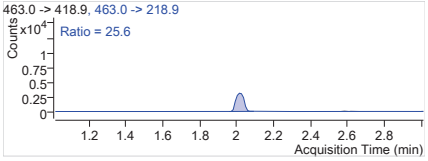
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 12.47 µg/L
Area ratio: 5.14544
Sample type: CC



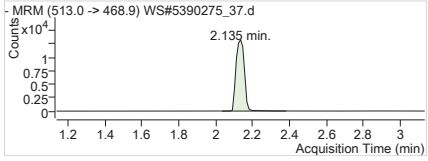


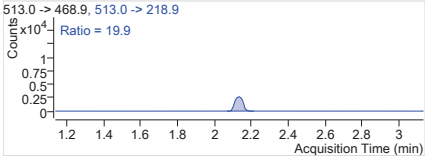
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 12.83 µg/L
Area ratio: 4.53386
Sample type: CC



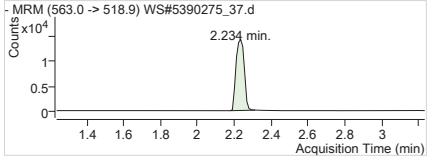


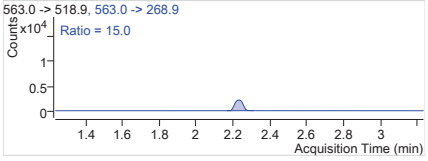
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 12.33 µg/L
Area ratio: 4.58426
Sample type: CC



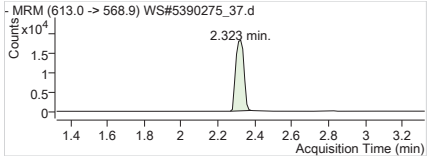


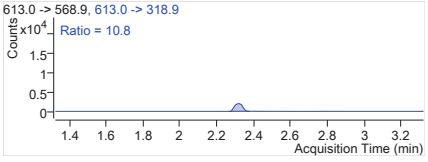
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 12.24 µg/L
Area ratio: 6.15727
Sample type: CC



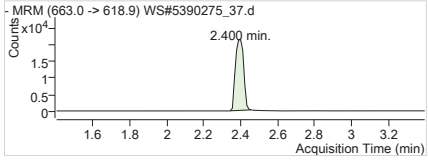


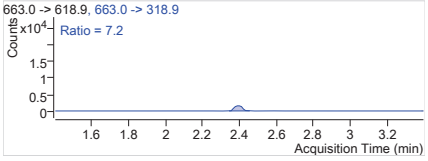
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 13.10 µg/L
Area ratio: 5.55369
Sample type: CC



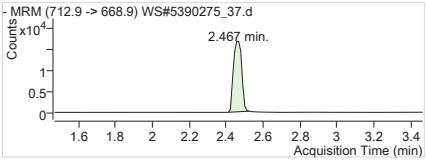


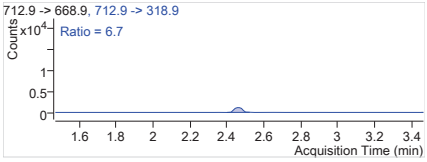
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 12.35 µg/L
Area ratio: 5.14232
Sample type: CC



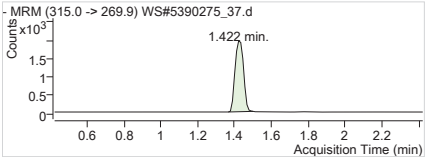


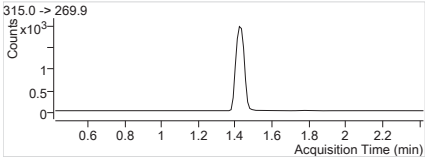
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 13.43 µg/L
Area ratio: 5.54946
Sample type: CC



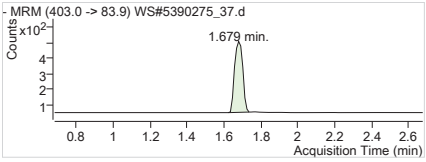


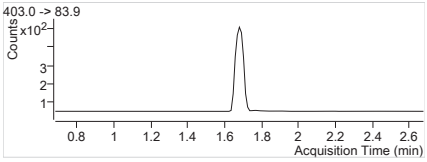
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 12.68 µg/L
Area ratio: 4.36372
Sample type: CC



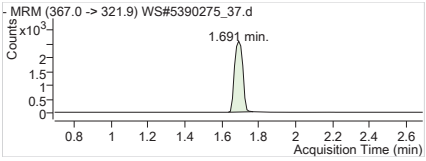


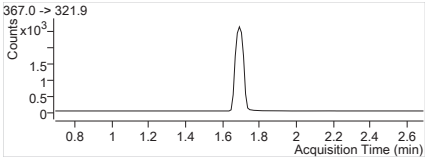
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 102.09 µg/L
Area ratio: 0.25479
Sample type: CC



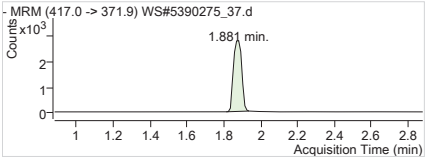


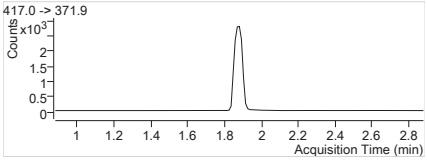
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 93.84 µg/L
Area ratio: 0.05867
Sample type: CC



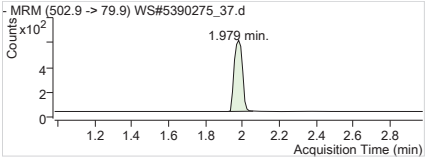


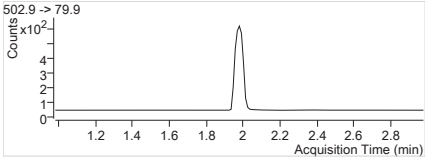
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 101.02 µg/L
Area ratio: 0.32858
Sample type: CC



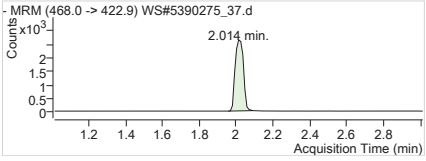


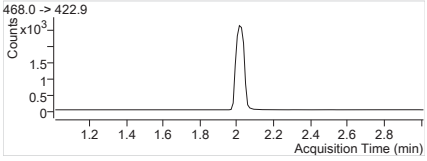
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 102.84 µg/L
Area ratio: 0.35482
Sample type: CC



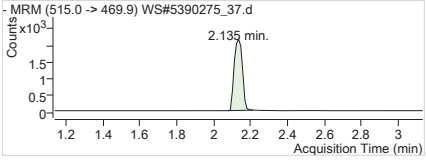


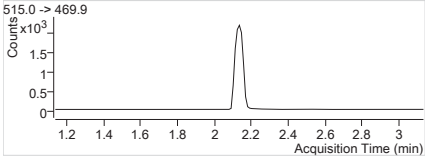
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 93.33 µg/L
Area ratio: 0.07321
Sample type: CC



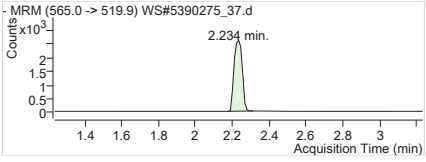


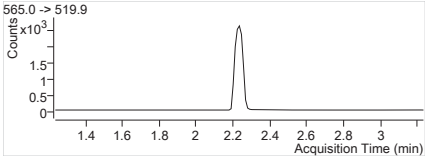
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 98.84 µg/L
Area ratio: 0.33705
Sample type: CC



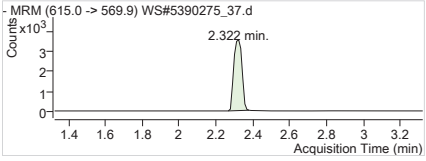


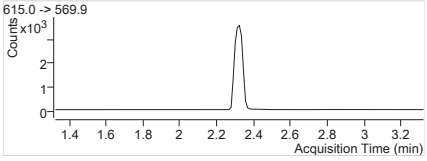
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 96.40 µg/L
Area ratio: 0.20086
Sample type: CC



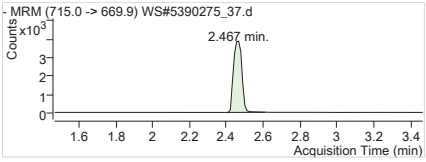


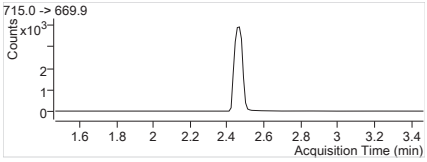
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 93.02 µg/L
Area ratio: 0.24511
Sample type: CC



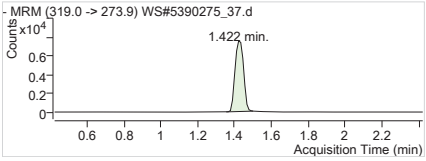


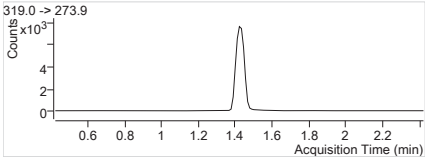
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 97.32 µg/L
Area ratio: 0.33173
Sample type: CC



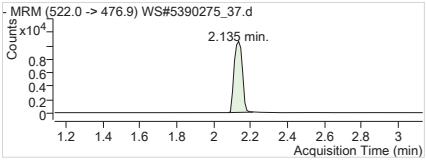


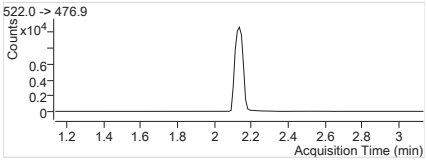
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	94.26 µg/L
Area ratio:	0.37278
Sample type:	CC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	103.36 µg/L
Area ratio:	0
Sample type:	CC





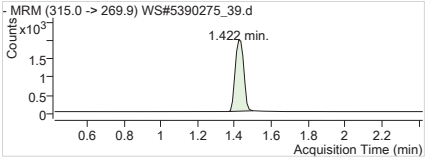
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	105.95 µg/L
Area ratio:	0
Sample type:	CC

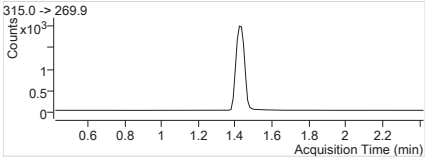
Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5390275_39.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/09 7:41:41 PM	**Injection Volume**	Per Method
Sample Annotation	-		

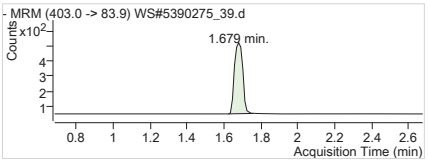
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6281	1.42	1 µg/L		
MPFHxS	1480	1.68	1 µg/L		
MPFHpA	8013	1.69	1 µg/L		
MPFOA	8179	1.87	1 µg/L		
MPFOS	1782	1.98	1 µg/L		
MPFNA	8557	2.01	1 µg/L		
MPFDA	7058	2.14	1 µg/L		
MPFUnA	8042	2.23	1 µg/L		
MPFDoA	10771	2.32	1 µg/L		
MPFTeDA	12470	2.47	1 µg/L		
13C6-PFHxA IS	24535	1.42	1 µg/L		
13C9-PFDA IS	32723	2.13	1 µg/L		

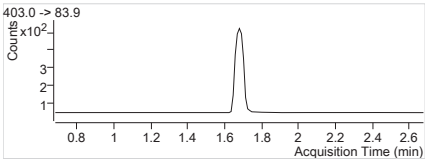
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8507	1.09	12.50	12.84 µg/L	102.69
PFHxA 1	31206	1.42	12.50	12.29 µg/L	98.30
PFHxS 1	7842	1.68	12.50	11.92 µg/L	95.35
PFHpA 1	40071	1.69	12.50	12.47 µg/L	99.73
PFOA 1	44844	1.87	12.50	13.29 µg/L	106.32
PFOS 1	8191	1.97	12.50	13.00 µg/L	104.03
PFNA 1	38957	2.01	12.50	12.25 µg/L	97.96
PFDA 1	42848	2.14	12.50	12.07 µg/L	96.52
PFUnA 1	45949	2.23	12.50	13.48 µg/L	107.82
PFDoA 1	58582	2.32	12.50	13.06 µg/L	104.45
PFTrDA 1	63959	2.40	12.50	12.42 µg/L	99.35
PFTeDA 1	54825	2.47	12.50	12.77 µg/L	102.17
13C2-PFHxA	6281	1.42	100.00	102.57 µg/L	102.57
18O2-PFHxS	1480	1.68	100.00	96.49 µg/L	96.49
13C4-PFHpA	8013	1.69	100.00	100.40 µg/L	100.40
13C4-PFOA	8179	1.87	100.00	96.62 µg/L	96.62
13C4-PFOS	1782	1.98	100.00	92.59 µg/L	92.59
13C5-PFNA	8558	2.01	100.00	102.29 µg/L	102.29
13C2-PFDA	7014	2.14	100.00	102.87 µg/L	102.87
13C2-PFUnA	8042	2.23	100.00	93.26 µg/L	93.26
13C2-PFDoA	10771	2.32	100.00	96.56 µg/L	96.56
13C2-PFTeDA	12715	2.47	100.00	98.25 µg/L	98.25
13C6-PFHxA	24535	1.42	100.00	104.77 µg/L	104.77
13C9-PFDA	32723	2.13	100.00	105.73 µg/L	105.73



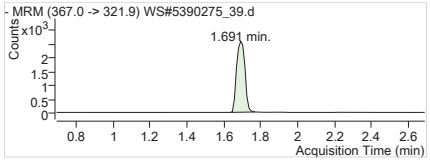


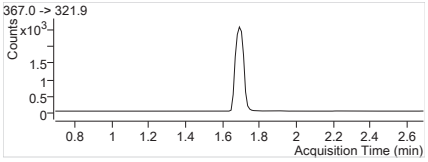
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



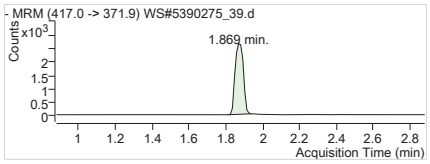


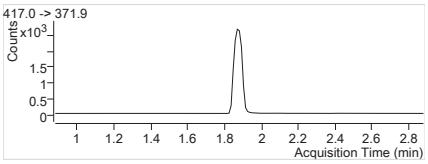
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



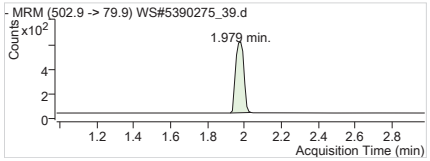


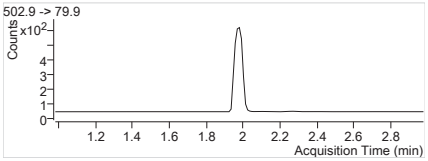
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



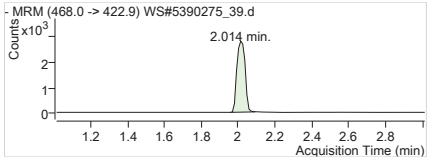


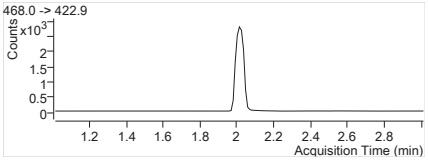
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: CC



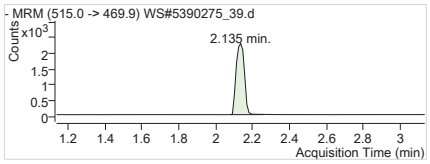


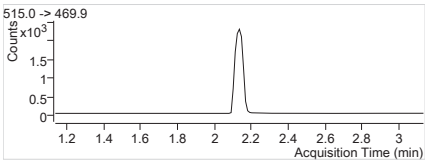
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



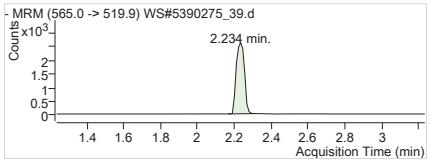


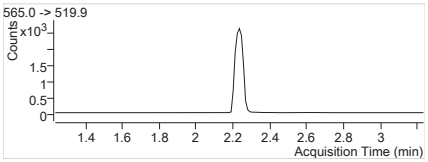
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



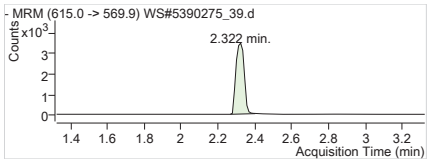


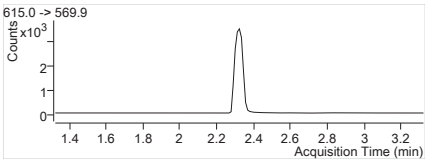
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



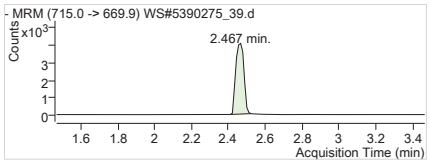


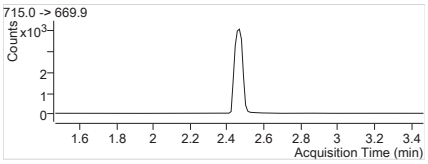
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



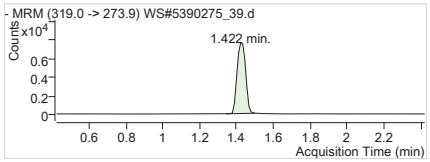


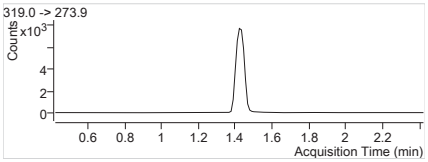
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



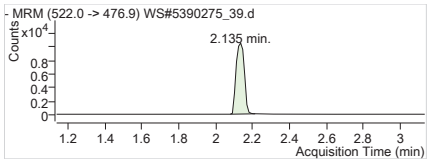


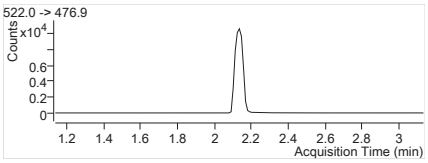
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



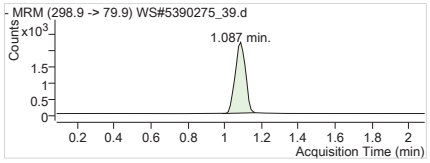


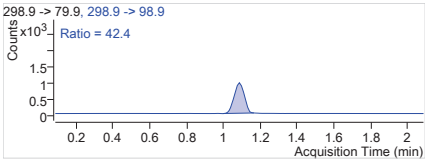
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



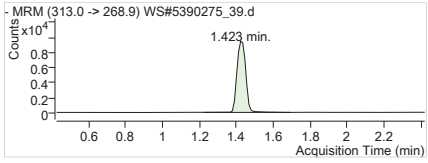


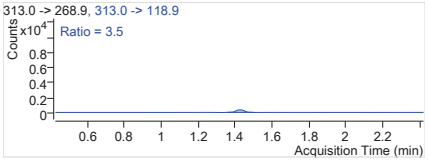
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



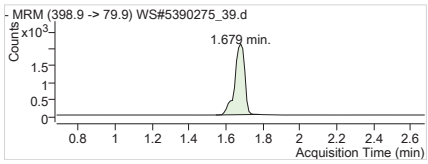


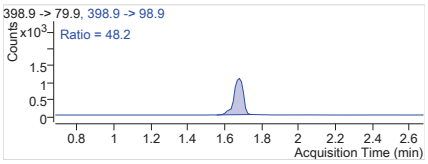
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 12.84 µg/L
Area ratio: 5.74797
Sample type: CC



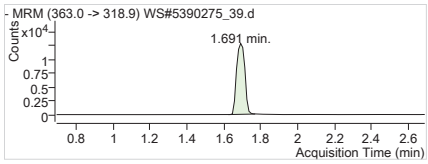


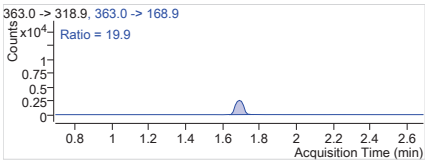
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 12.29 µg/L
Area ratio: 4.96832
Sample type: CC



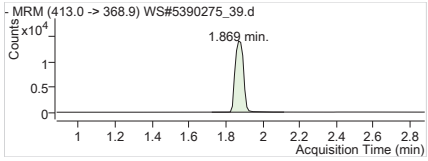


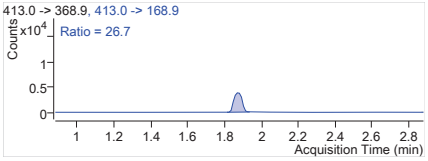
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 11.92 µg/L
Area ratio: 5.29865
Sample type: CC



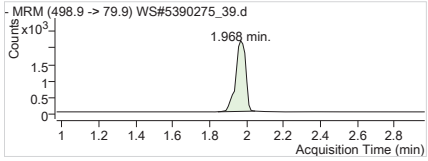


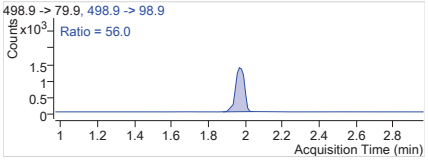
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.47 µg/L
Area ratio: 5.00075
Sample type: CC



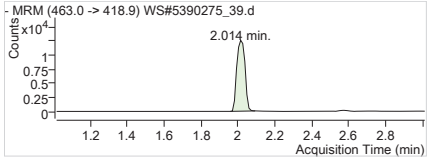


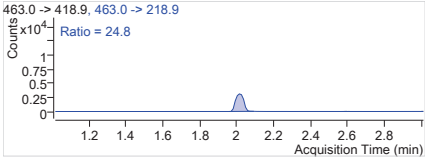
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 13.29 µg/L
Area ratio: 5.48282
Sample type: CC



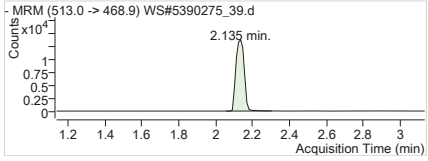


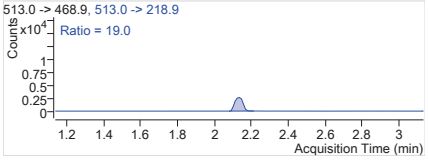
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 13.00 µg/L
Area ratio: 4.59652
Sample type: CC



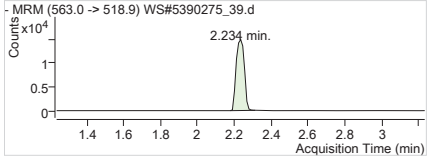


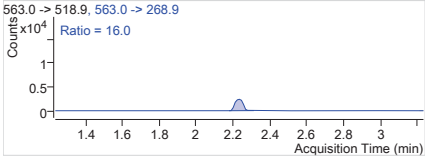
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 12.25 µg/L
Area ratio: 4.55265
Sample type: CC



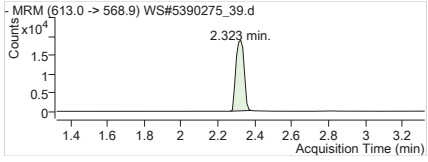


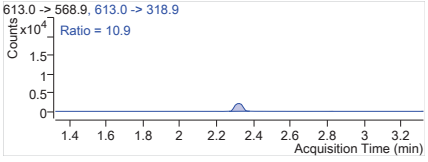
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 12.07 µg/L
Area ratio: 6.07084
Sample type: CC



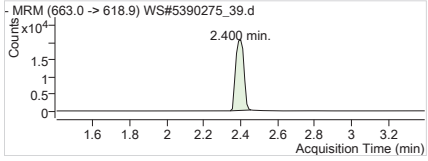


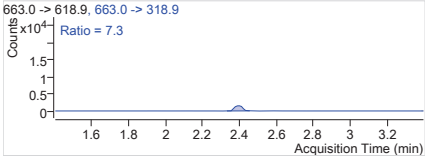
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 13.48 µg/L
Area ratio: 5.71363
Sample type: CC



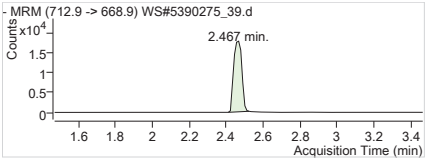


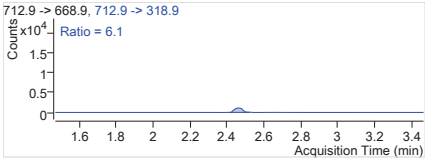
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 13.06 µg/L
Area ratio: 5.43886
Sample type: CC



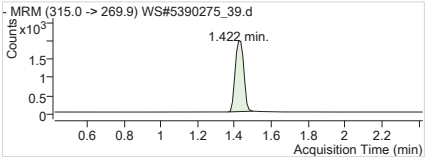


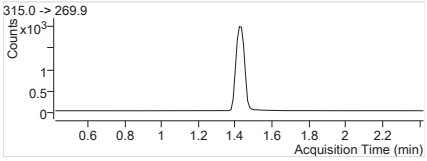
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 12.42 µg/L
Area ratio: 5.12903
Sample type: CC



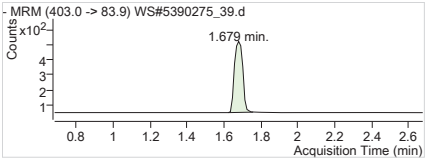


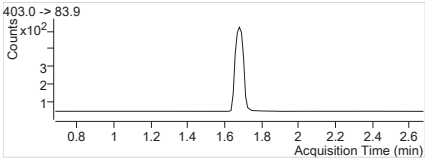
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 12.77 µg/L
Area ratio: 4.39655
Sample type: CC



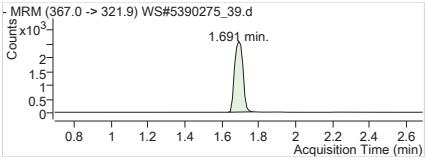


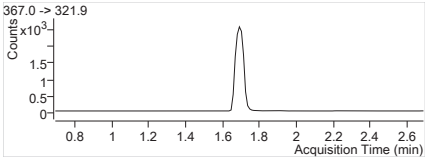
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 102.57 µg/L
Area ratio: 0.25600
Sample type: CC



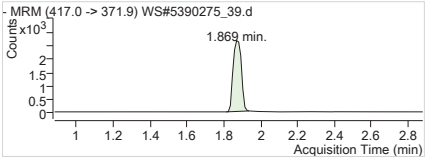


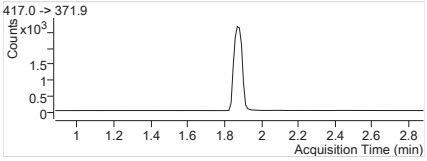
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 96.49 µg/L
Area ratio: 0.06032
Sample type: CC



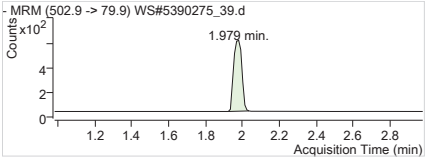


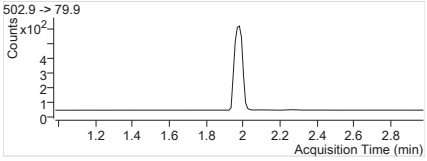
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 100.40 µg/L
Area ratio: 0.32659
Sample type: CC



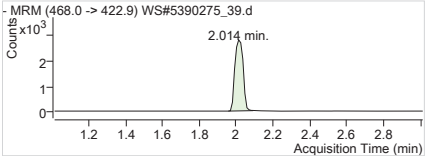


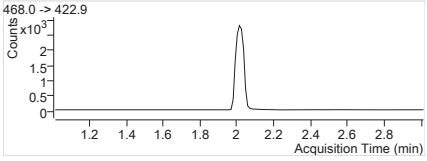
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 96.62 µg/L
Area ratio: 0.33336
Sample type: CC



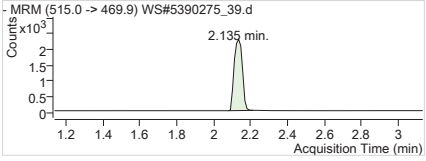


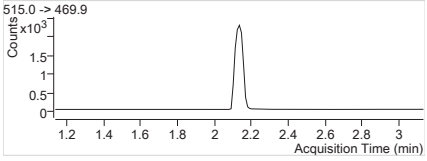
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 92.59 µg/L
Area ratio: 0.07263
Sample type: CC



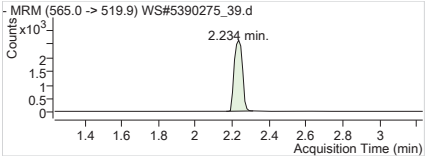


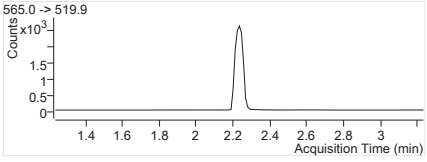
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 102.29 µg/L
Area ratio: 0.34881
Sample type: CC



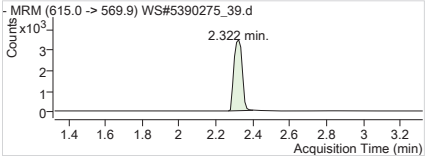


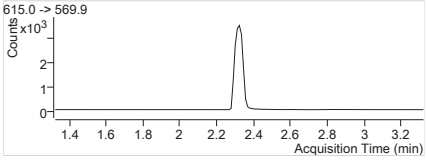
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 102.87 µg/L
Area ratio: 0.21434
Sample type: CC



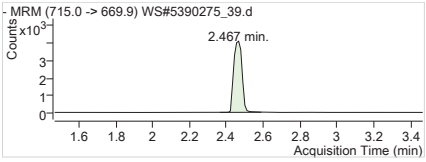


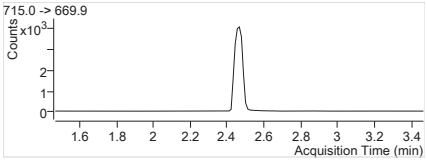
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 93.26 µg/L
Area ratio: 0.24576
Sample type: CC



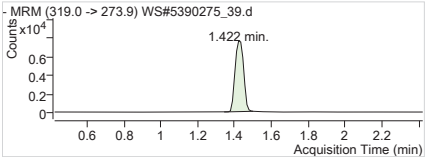


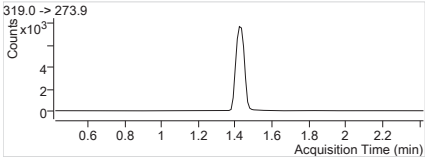
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 96.56 µg/L
Area ratio: 0.32916
Sample type: CC



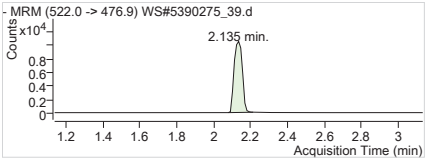


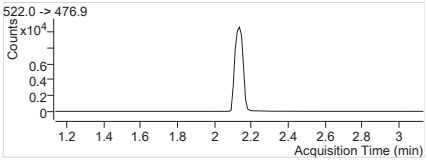
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	98.25 µg/L
Area ratio:	0.38856
Sample type:	CC





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.422 (1.422)
Calc. conc.	104.77 µg/L
Area ratio:	0
Sample type:	CC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.135 (2.135)
Calc. conc.	105.73 µg/L
Area ratio:	0
Sample type:	CC

Quantitation Results

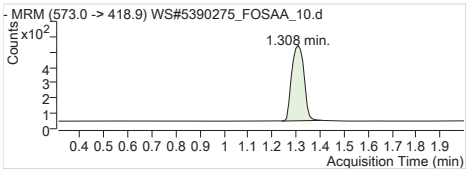
Agilent Technologies

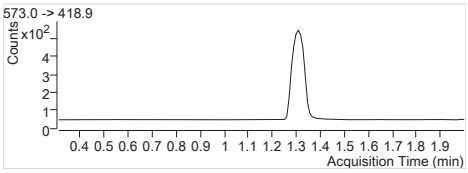
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/10 12:49:37 AM	**Injection Volume**	Per Method
Sample Annotation	-		

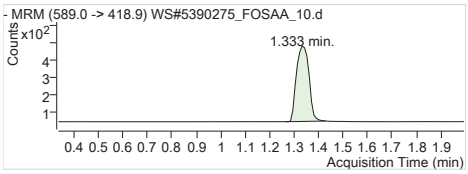
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1754	1.31	1 µg/L		
D5-EtFOSAA IS	1544	1.33	1 µg/L		
13C9-PFDA IS	24430	0.90	1 µg/L		

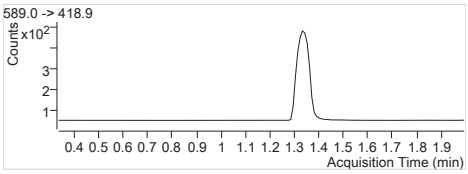
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	543	1.31	0.83	0.83 µg/L	100.56
EtFOSAA 1	560	1.33	0.83	0.89 µg/L	107.61
D3-MeFOSAA	1789	1.31	100.00	99.86 µg/L	99.86
D5-EtFOSAA	1555	1.33	100.00	97.61 µg/L	97.61
13C9-PFDA	23540	0.90	100.00	99.28 µg/L	99.28



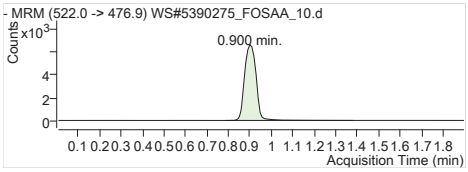


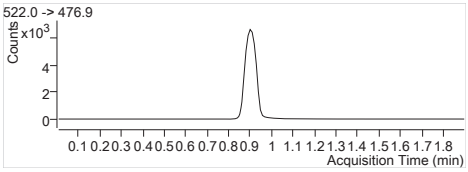
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



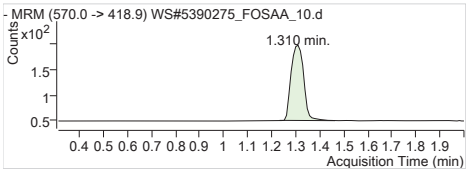


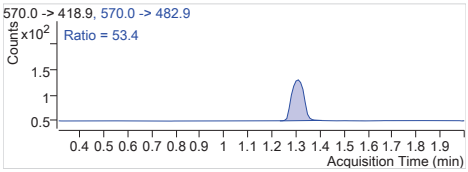
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



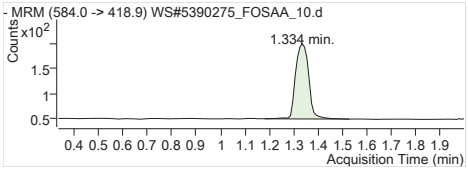


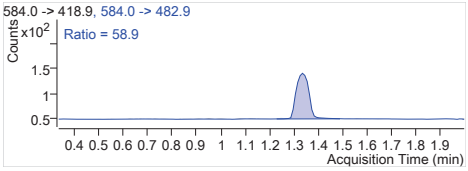
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



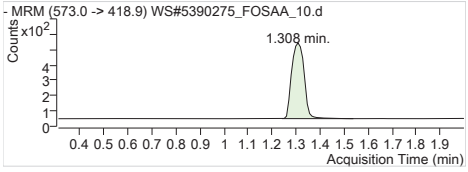


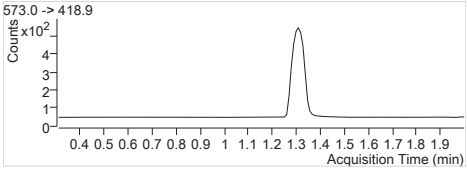
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.83 µg/L
Area ratio: 0.30958
Sample type: CC



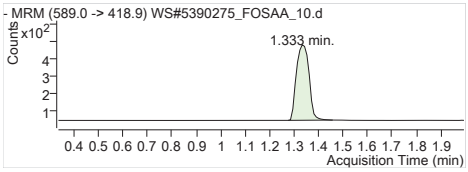


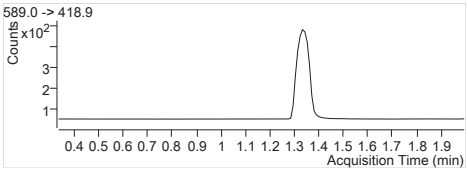
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 0.89 µg/L
Area ratio: 0.36269
Sample type: CC



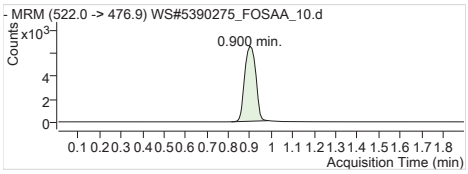


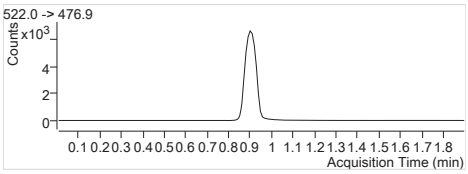
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 99.86 µg/L
Area ratio: 0.07323
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	97.61 µg/L
Area ratio:	0.06365
Sample type:	CC





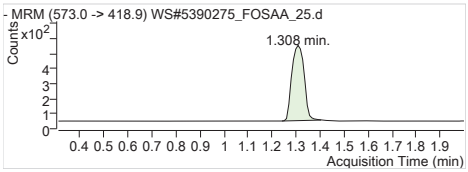
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	99.28 µg/L
Area ratio:	0
Sample type:	CC

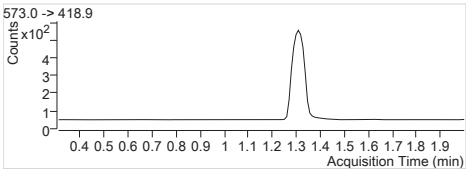
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/10 1:25:49 AM	**Injection Volume**	Per Method
Sample Annotation	-		

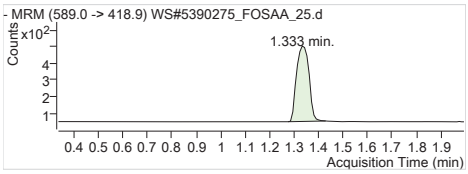
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1794	1.31	1 µg/L		
D5-EtFOSAA IS	1605	1.33	1 µg/L		
13C9-PFDA IS	25073	0.90	1 µg/L		

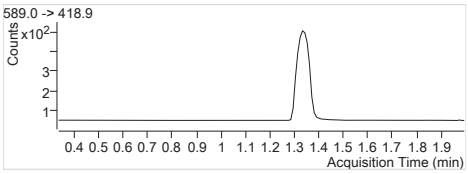
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8076	1.31	12.50	12.95 µg/L	103.59
EtFOSAA 1	8502	1.33	12.50	12.81 µg/L	102.44
D3-MeFOSAA	1832	1.31	100.00	99.64 µg/L	99.64
D5-EtFOSAA	1629	1.33	100.00	99.63 µg/L	99.63
13C9-PFDA	24170	0.90	100.00	101.94 µg/L	101.94



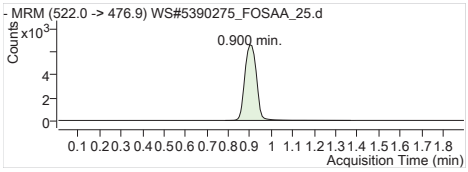


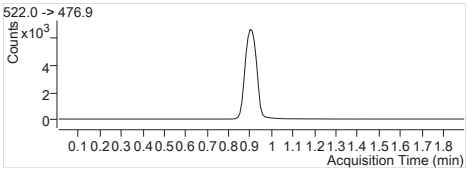
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



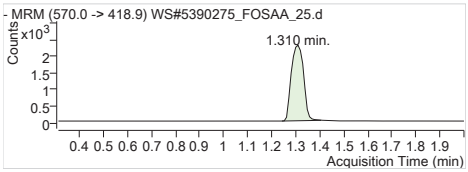


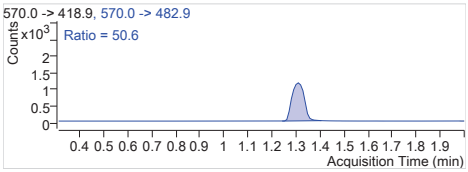
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



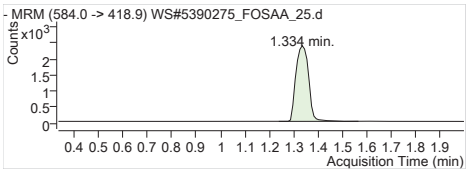


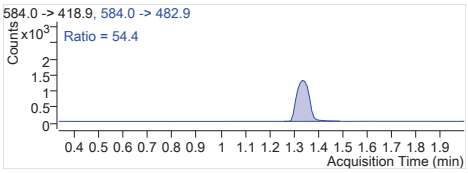
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



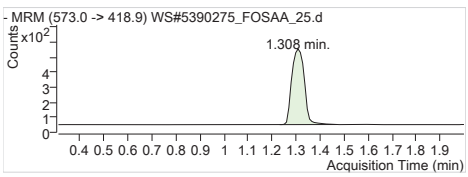


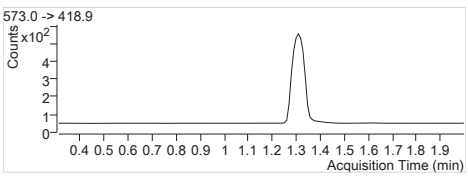
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 12.95 µg/L
Area ratio: 4.50167
Sample type: CC



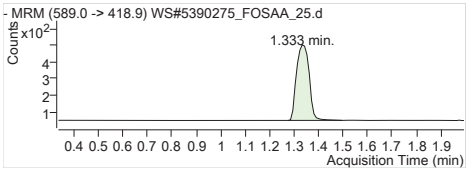


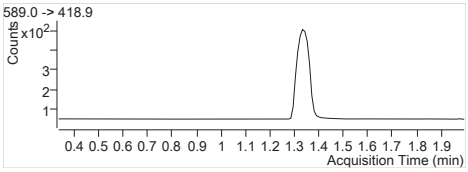
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 12.81 µg/L
Area ratio: 5.29720
Sample type: CC



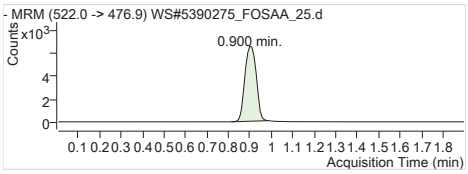


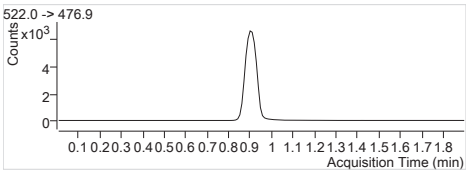
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 99.64 µg/L
Area ratio: 0.07307
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	99.63 µg/L
Area ratio:	0.06497
Sample type:	CC





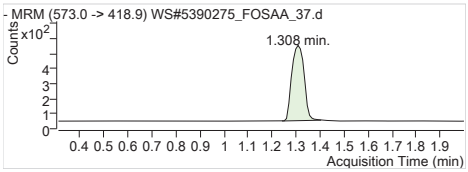
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	101.94 µg/L
Area ratio:	0
Sample type:	CC

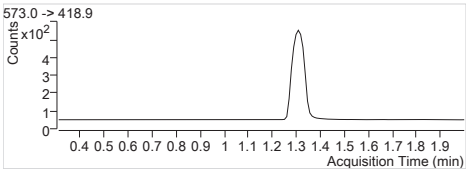
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_37.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/10 1:54:47 AM	**Injection Volume**	Per Method
Sample Annotation	-		

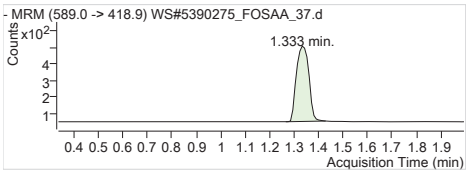
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1793	1.31	1 µg/L		
D5-EtFOSAA IS	1621	1.33	1 µg/L		
13C9-PFDA IS	25106	0.90	1 µg/L		

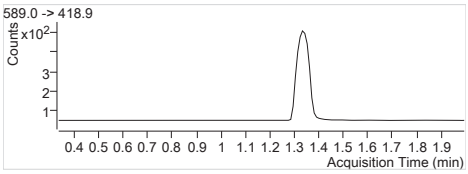
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8128	1.31	12.50	13.04 µg/L	104.32
EtFOSAA 1	8602	1.33	12.50	12.83 µg/L	102.63
D3-MeFOSAA	1826	1.31	100.00	99.18 µg/L	99.18
D5-EtFOSAA	1648	1.33	100.00	100.66 µg/L	100.66
13C9-PFDA	24363	0.90	100.00	102.75 µg/L	102.75



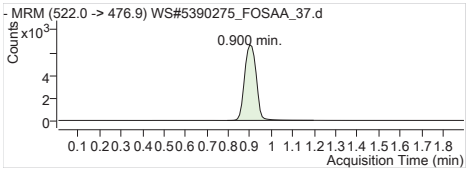


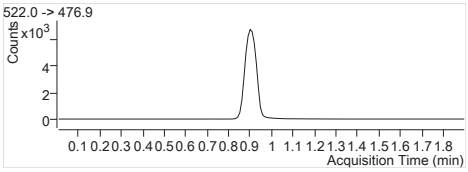
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



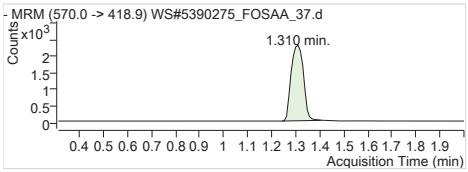


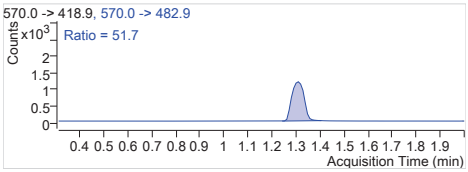
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



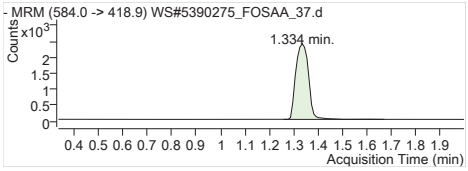


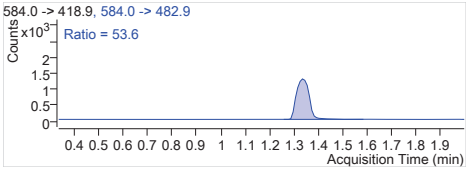
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



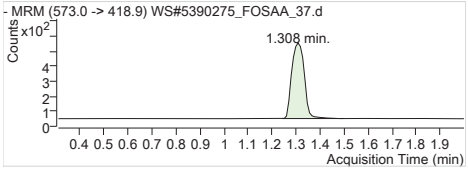


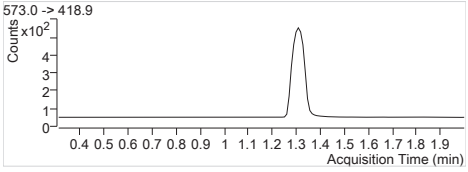
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 13.04 µg/L
Area ratio: 4.53318
Sample type: CC



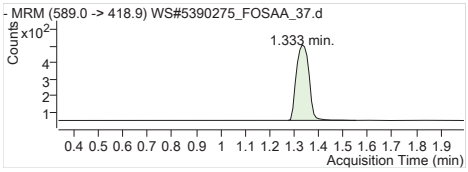


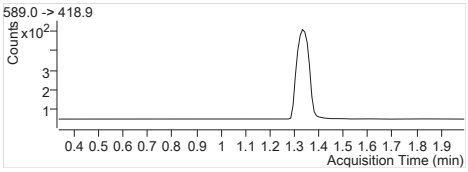
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 12.83 µg/L
Area ratio: 5.30660
Sample type: CC



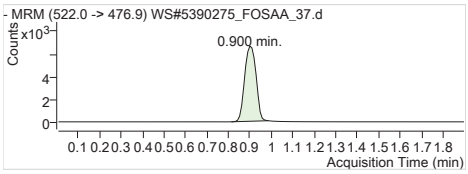


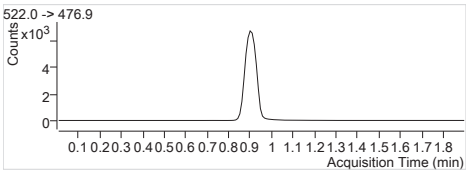
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 99.18 µg/L
Area ratio: 0.07273
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	100.66 µg/L
Area ratio:	0.06564
Sample type:	CC





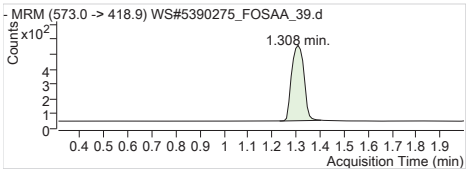
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	102.75 µg/L
Area ratio:	0
Sample type:	CC

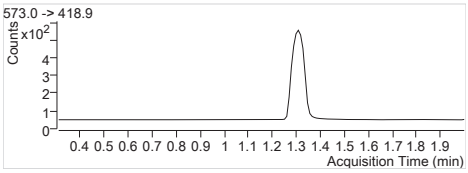
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_39.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/10 1:59:37 AM	**Injection Volume**	Per Method
Sample Annotation	-		

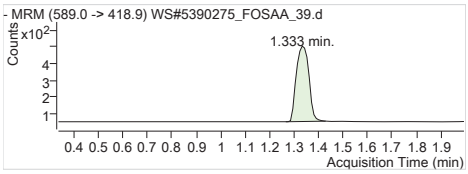
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1812	1.31	1 µg/L		
D5-EtFOSAA IS	1626	1.33	1 µg/L		
13C9-PFDA IS	25357	0.90	1 µg/L		

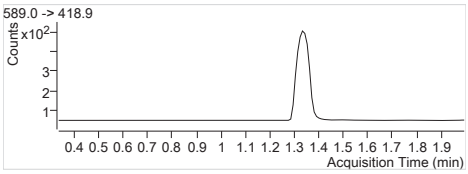
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8338	1.31	12.50	13.24 µg/L	105.90
EtFOSAA 1	8572	1.33	12.50	12.74 µg/L	101.96
D3-MeFOSAA	1840	1.31	100.00	98.95 µg/L	98.95
D5-EtFOSAA	1635	1.33	100.00	98.88 µg/L	98.88
13C9-PFDA	24641	0.90	100.00	103.92 µg/L	103.92



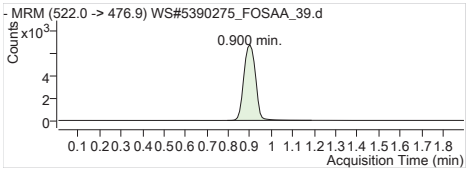


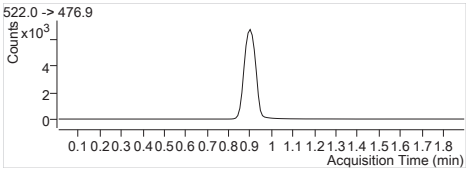
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



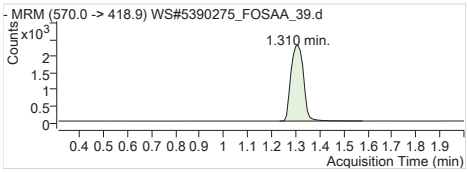


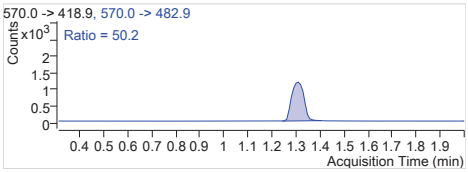
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



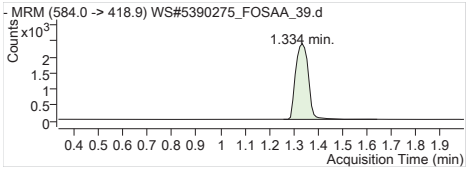


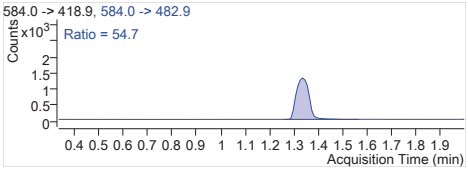
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



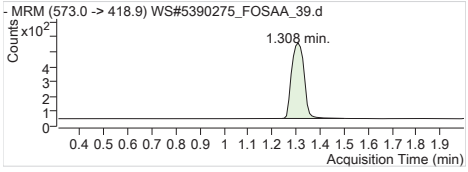


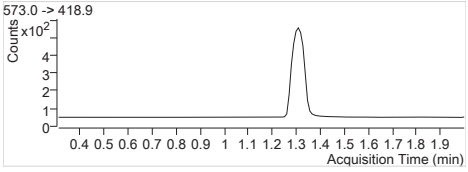
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 13.24 µg/L
Area ratio: 4.60155
Sample type: CC



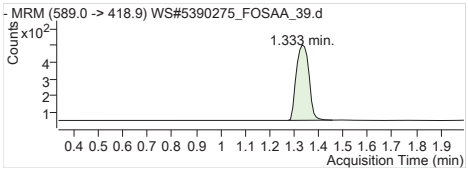


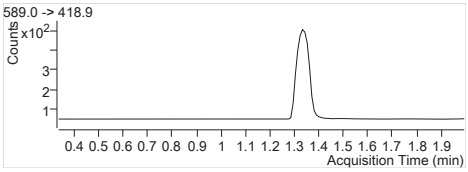
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 12.74 µg/L
Area ratio: 5.27183
Sample type: CC



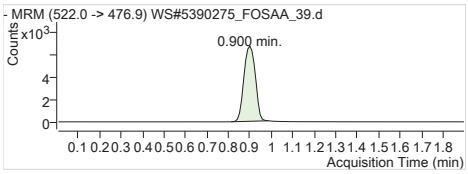


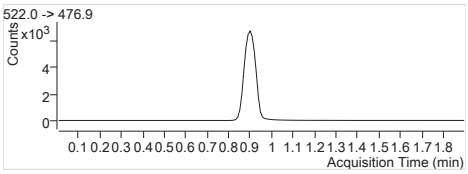
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 98.95 µg/L
Area ratio: 0.07256
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	98.88 µg/L
Area ratio:	0.06448
Sample type:	CC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	103.92 µg/L
Area ratio:	0
Sample type:	CC

Quantitation Results

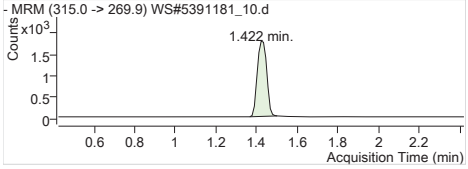
Agilent Technologies

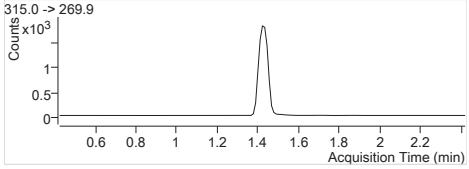
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5391181_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A2
Acq. Date	2018/02/09 1:11:42 PM	**Injection Volume**	Per Method
Sample Annotation	-		

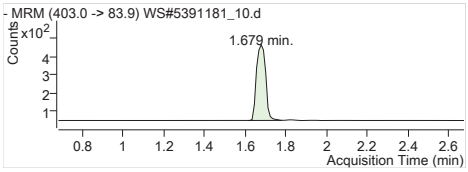
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5669	1.42	1 µg/L		
MPFHxS	1311	1.68	1 µg/L		
MPFHpA	7610	1.69	1 µg/L		
MPFOA	8252	1.87	1 µg/L		
MPFOS	1828	1.98	1 µg/L		
MPFNA	7355	2.01	1 µg/L		
MPFDA	6720	2.14	1 µg/L		
MPFUnA	7866	2.23	1 µg/L		
MPFDoA	10899	2.32	1 µg/L		
MPFTeDA	12095	2.47	1 µg/L		
13C6-PFHxA IS	23329	1.42	1 µg/L		
13C9-PFDA IS	30557	2.13	1 µg/L		

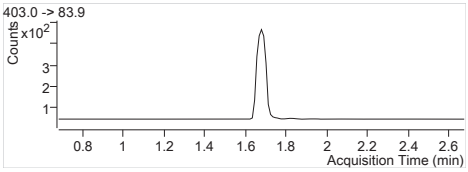
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	574	1.09	0.83	0.97 µg/L	117.08
PFHxA 1	1833	1.42	0.83	0.91 µg/L	109.83
PFHxS 1	516	1.68	0.83	0.93 µg/L	111.52
PFHpA 1	2684	1.69	0.83	0.88 µg/L	105.78
PFOA 1	2790	1.87	0.83	0.76 µg/L	91.87
PFOS 1	601	1.97	0.83	0.84 µg/L	101.77
PFNA 1	2550	2.01	0.83	0.95 µg/L	114.00
PFDA 1	2883	2.14	0.83	0.95 µg/L	113.94
PFUnA 1	2992	2.23	0.83	0.87 µg/L	104.81
PFDoA 1	3774	2.32	0.83	0.87 µg/L	104.61
PFTrDA 1	4642	2.40	0.83	0.94 µg/L	113.38
PFTeDA 1	3850	2.47	0.83	0.92 µg/L	111.23
13C2-PFHxA	5669	1.42	100.00	93.32 µg/L	93.32
18O2-PFHxS	1311	1.68	100.00	86.44 µg/L	86.44
13C4-PFHpA	7610	1.69	100.00	98.09 µg/L	98.09
13C4-PFOA	8252	1.87	100.00	100.95 µg/L	100.95
13C4-PFOS	1828	1.98	100.00	100.50 µg/L	100.50
13C5-PFNA	7356	2.01	100.00	89.12 µg/L	89.12
13C2-PFDA	6652	2.14	100.00	100.13 µg/L	100.13
13C2-PFUnA	7866	2.23	100.00	98.52 µg/L	98.52
13C2-PFDoA	10899	2.32	100.00	99.73 µg/L	99.73
13C2-PFTeDA	12409	2.47	100.00	96.42 µg/L	96.42
13C6-PFHxA	23329	1.42	100.00	108.68 µg/L	108.68
13C9-PFDA	30557	2.13	100.00	108.70 µg/L	108.70



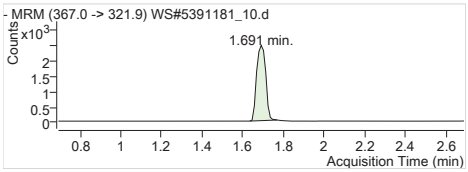


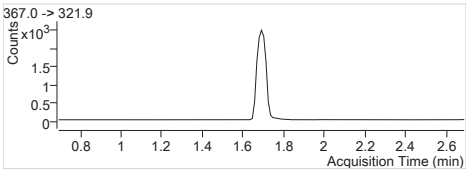
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	CC



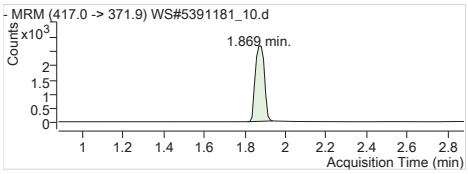


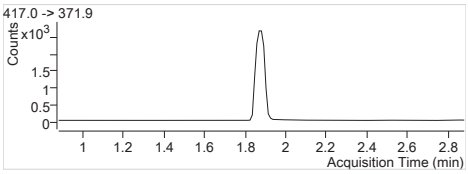
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



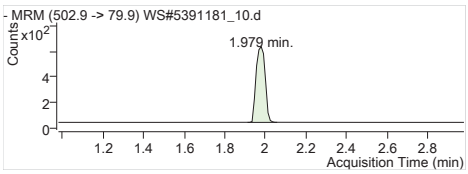


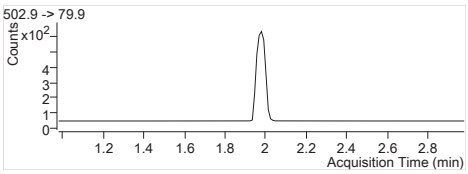
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



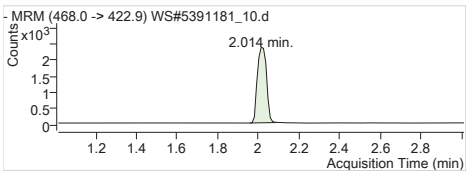


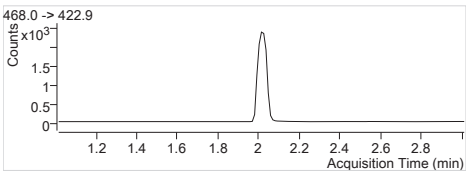
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: CC



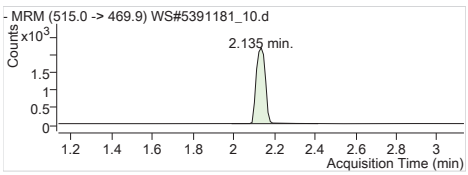


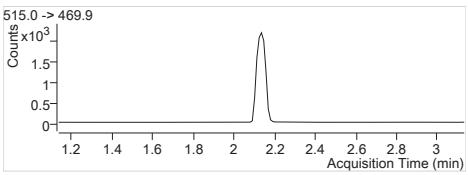
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



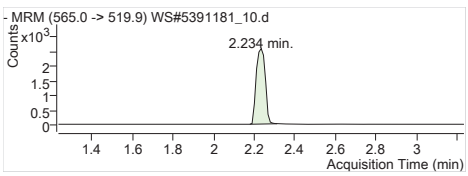


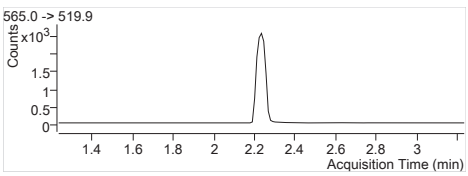
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



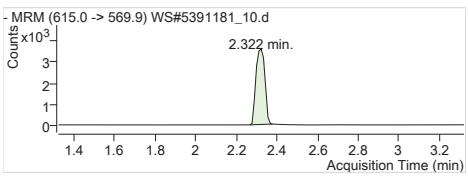


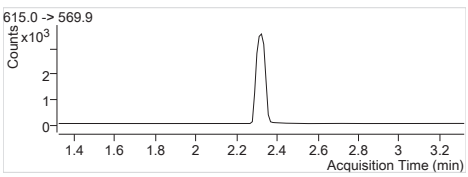
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



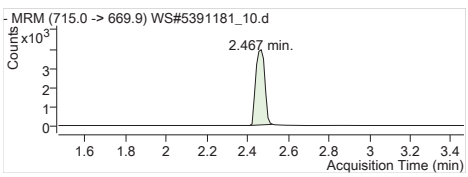


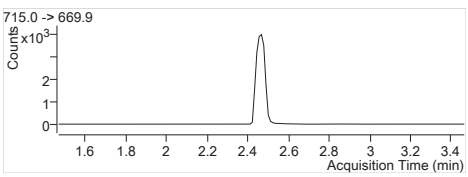
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



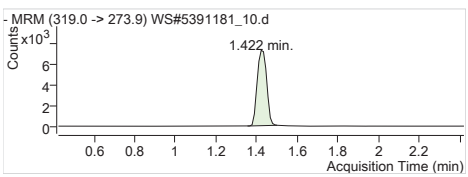


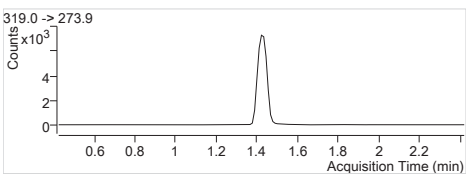
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



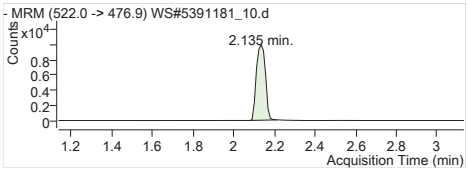


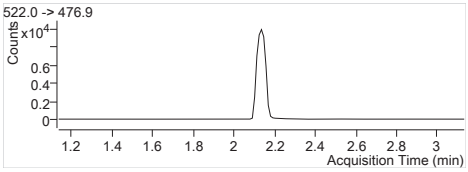
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



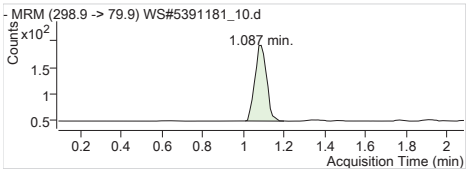


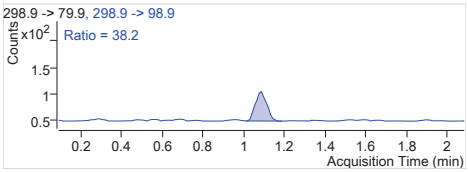
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



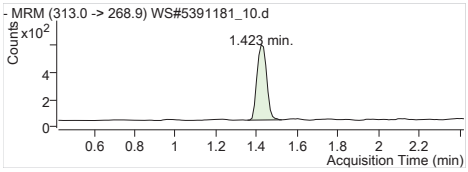


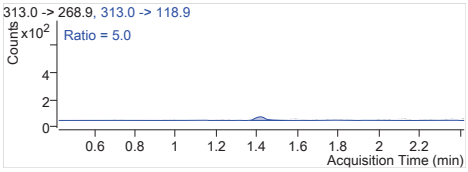
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



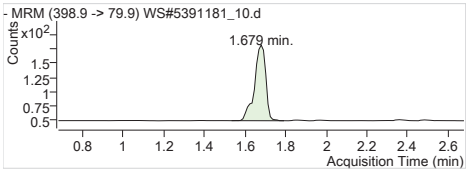


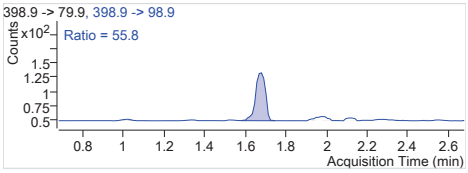
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 0.97 µg/L
Area ratio: 0.43783
Sample type: CC



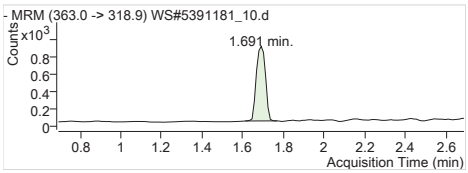


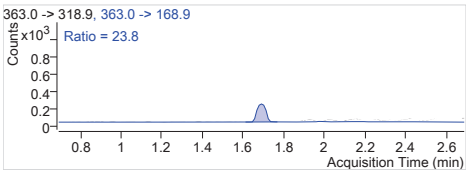
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.91 µg/L
Area ratio: 0.32334
Sample type: CC



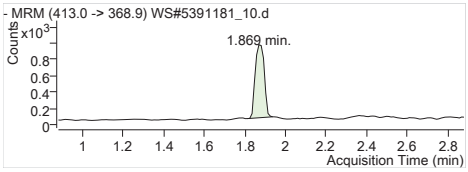


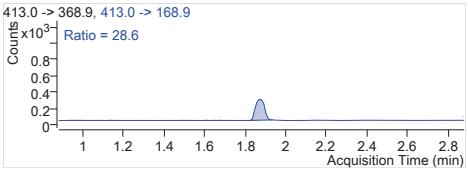
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 0.93 µg/L
Area ratio: 0.39359
Sample type: CC



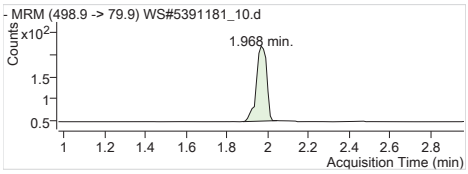


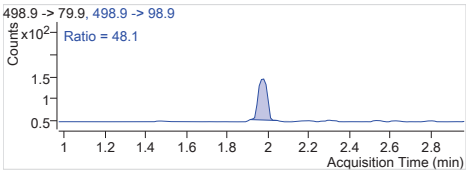
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.88 µg/L
Area ratio: 0.35269
Sample type: CC



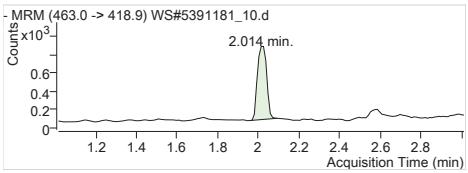


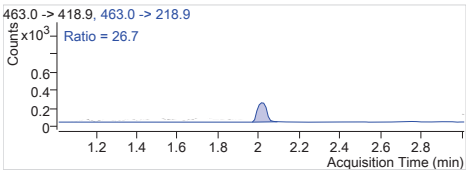
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 0.76 µg/L
Area ratio: 0.33810
Sample type: CC



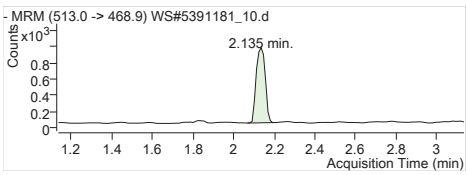


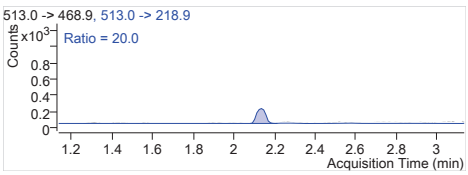
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 0.84 µg/L
Area ratio: 0.32877
Sample type: CC



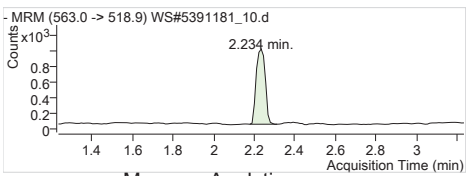


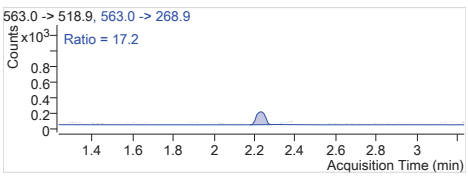
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.95 µg/L
Area ratio: 0.34670
Sample type: CC



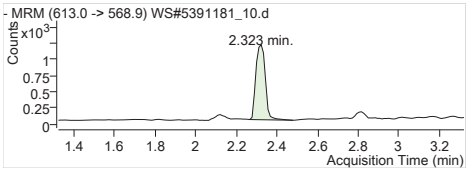


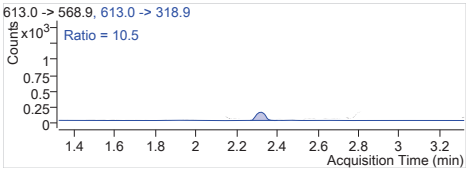
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 0.95 µg/L
Area ratio: 0.42902
Sample type: CC



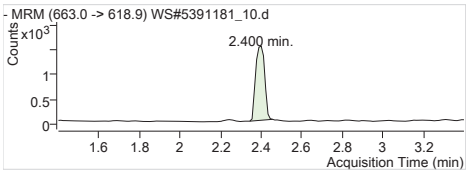


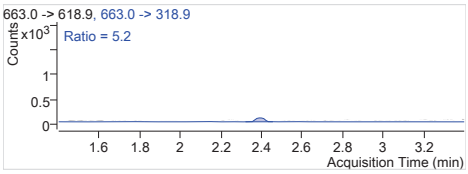
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 0.87 µg/L
Area ratio: 0.38037
Sample type: CC



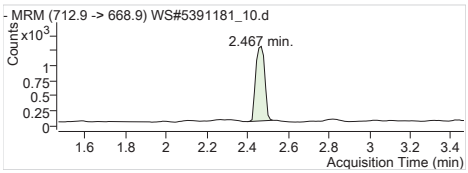


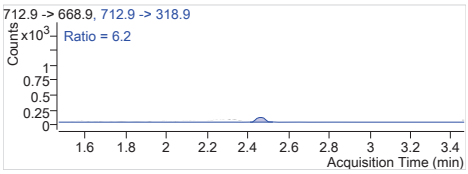
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 0.87 µg/L
Area ratio: 0.34627
Sample type: CC



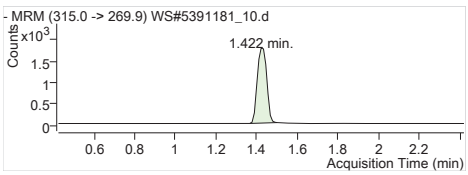


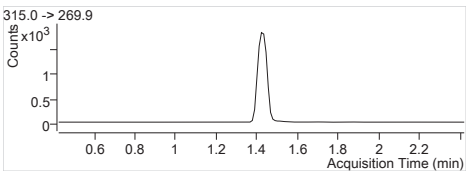
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 0.94 µg/L
Area ratio: 0.38379
Sample type: CC



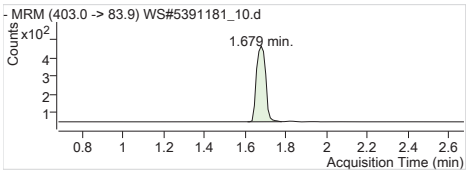


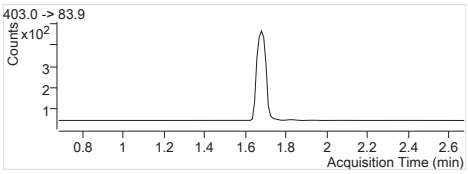
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 0.92 µg/L
Area ratio: 0.31831
Sample type: CC



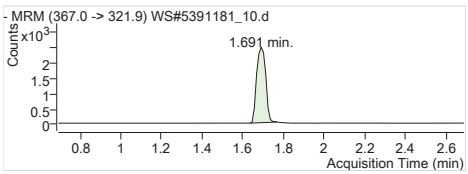


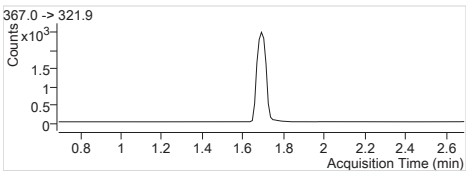
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 93.32 µg/L
Area ratio: 0.24300
Sample type: CC



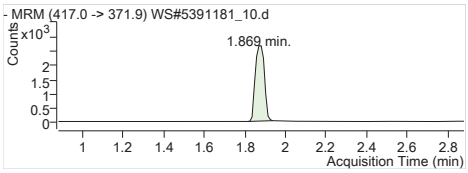


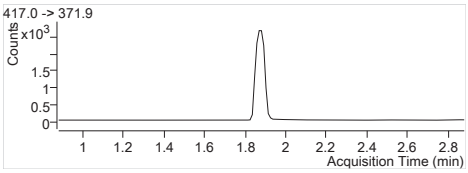
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 86.44 µg/L
Area ratio: 0.05620
Sample type: CC



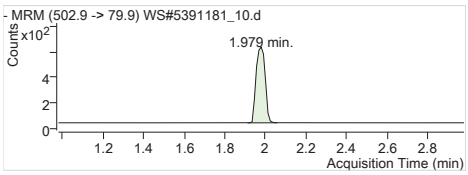


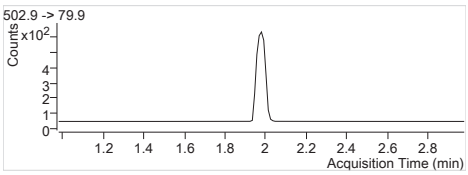
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 98.09 µg/L
Area ratio: 0.32620
Sample type: CC



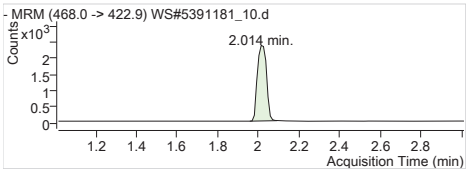


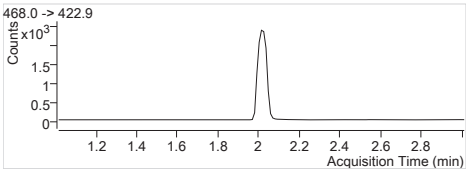
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 100.95 µg/L
Area ratio: 0.35372
Sample type: CC



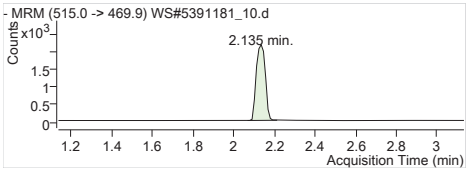


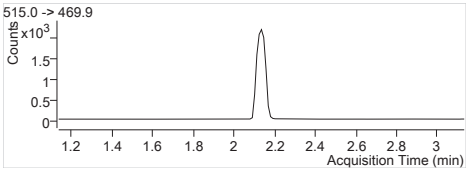
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 100.50 µg/L
Area ratio: 0.07836
Sample type: CC



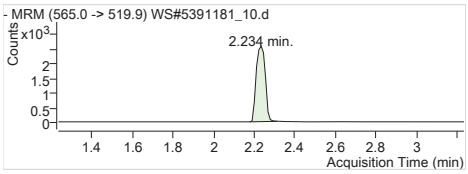


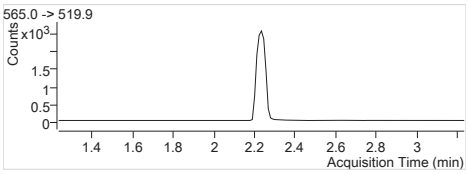
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 89.12 µg/L
Area ratio: 0.31532
Sample type: CC



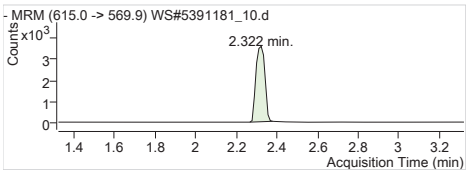


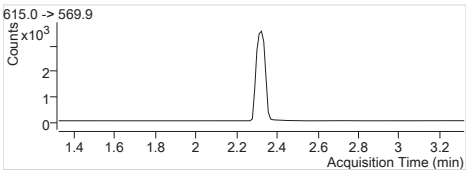
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 100.13 µg/L
Area ratio: 0.21769
Sample type: CC



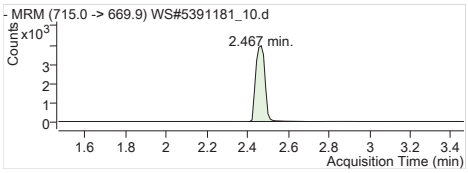


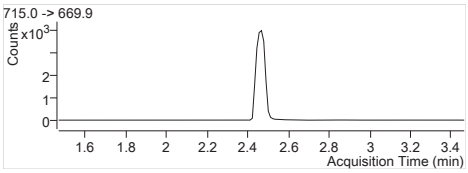
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 98.52 µg/L
Area ratio: 0.25742
Sample type: CC



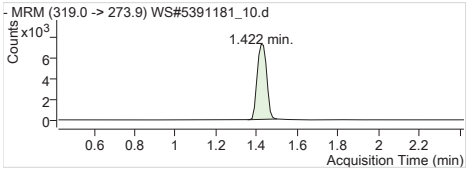


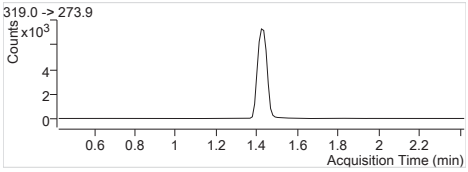
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 99.73 µg/L
Area ratio: 0.35668
Sample type: CC



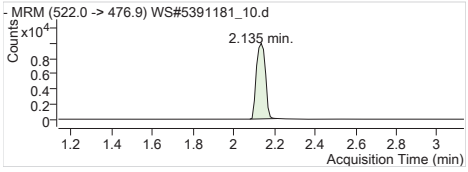


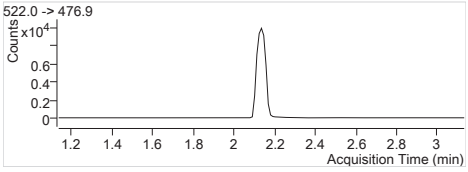
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 96.42 µg/L
Area ratio: 0.40609
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 108.68 µg/L
Area ratio: 0
Sample type: CC





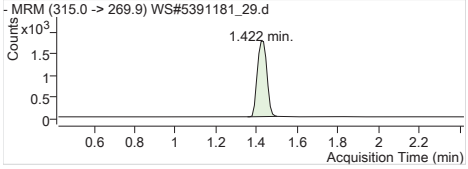
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 108.70 µg/L
Area ratio: 0
Sample type: CC

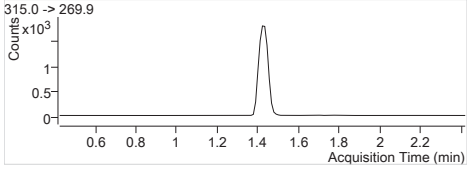
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_29.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A5
Acq. Date	2018/02/09 2:45:26 PM	**Injection Volume**	Per Method
Sample Annotation	-		

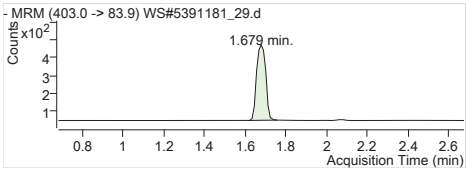
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5680	1.42	1 µg/L		
MPFHxS	1319	1.68	1 µg/L		
MPFHpA	7214	1.69	1 µg/L		
MPFOA	7460	1.88	1 µg/L		
MPFOS	1658	1.98	1 µg/L		
MPFNA	7731	2.01	1 µg/L		
MPFDA	6361	2.14	1 µg/L		
MPFUnA	7563	2.23	1 µg/L		
MPFDoA	9926	2.32	1 µg/L		
MPFTeDA	11269	2.47	1 µg/L		
13C6-PFHxA IS	20920	1.42	1 µg/L		
13C9-PFDA IS	27348	2.13	1 µg/L		

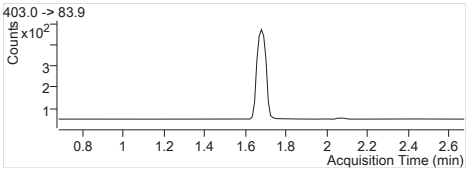
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8491	1.09	12.50	13.35 µg/L	106.80
PFHxA 1	31864	1.42	12.50	12.56 µg/L	100.46
PFHxS 1	7786	1.68	12.50	12.72 µg/L	101.73
PFHpA 1	40314	1.69	12.50	12.89 µg/L	103.13
PFOA 1	45250	1.87	12.50	13.87 µg/L	110.97
PFOS 1	8717	1.97	12.50	13.33 µg/L	106.67
PFNA 1	39898	2.01	12.50	12.94 µg/L	103.52
PFDA 1	41892	2.14	12.50	12.36 µg/L	98.89
PFUnA 1	46344	2.23	12.50	12.57 µg/L	100.59
PFDoA 1	59636	2.32	12.50	13.16 µg/L	105.26
PFTrDA 1	64225	2.40	12.50	12.99 µg/L	103.92
PFTeDA 1	57183	2.47	12.50	13.62 µg/L	108.94
13C2-PFHxA	5680	1.42	100.00	104.26 µg/L	104.26
18O2-PFHxS	1319	1.68	100.00	96.98 µg/L	96.98
13C4-PFHpA	7214	1.69	100.00	103.69 µg/L	103.69
13C4-PFOA	7460	1.88	100.00	101.77 µg/L	101.77
13C4-PFOS	1658	1.98	100.00	101.65 µg/L	101.65
13C5-PFNA	7730	2.01	100.00	104.43 µg/L	104.43
13C2-PFDA	6276	2.14	100.00	105.55 µg/L	105.55
13C2-PFUnA	7563	2.23	100.00	105.84 µg/L	105.84
13C2-PFDoA	9926	2.32	100.00	101.48 µg/L	101.48
13C2-PFTeDA	11471	2.47	100.00	99.59 µg/L	99.59
13C6-PFHxA	20920	1.42	100.00	97.46 µg/L	97.46
13C9-PFDA	27348	2.13	100.00	97.28 µg/L	97.28



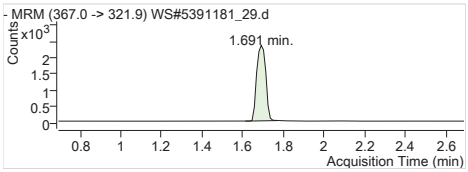


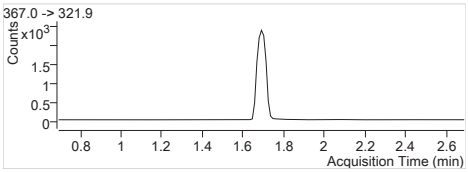
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



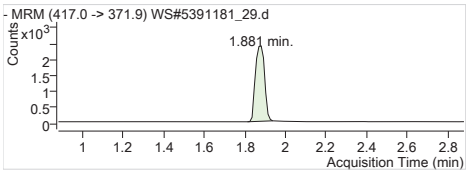


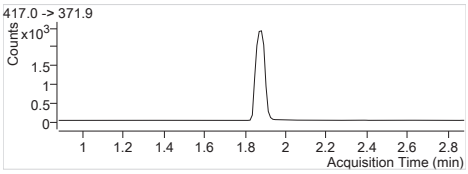
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



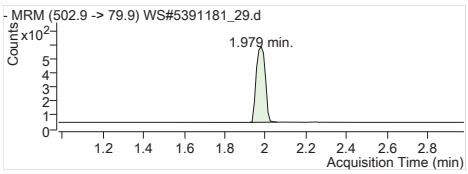


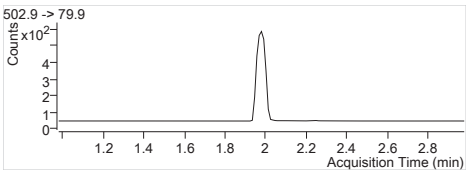
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



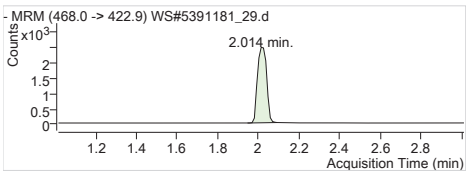


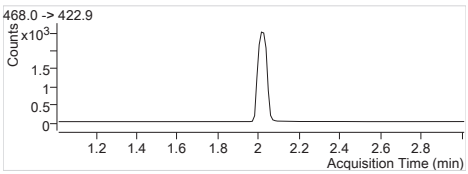
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



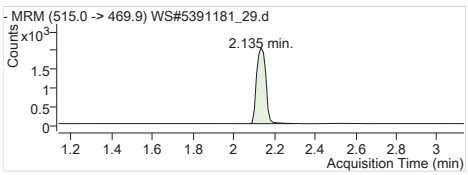


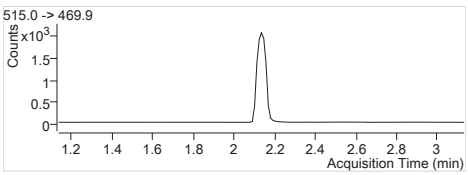
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



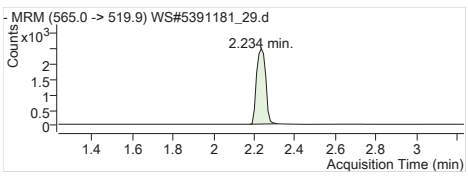


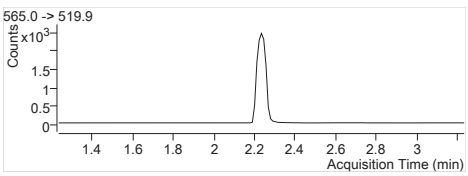
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



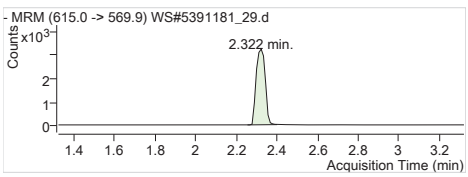


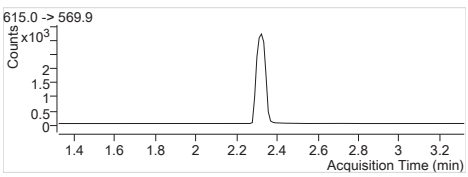
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



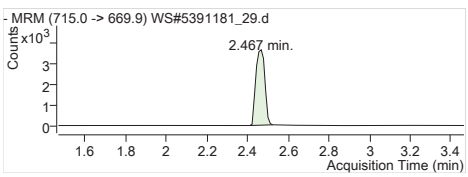


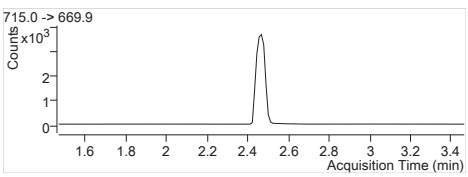
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



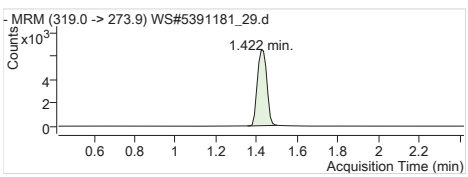


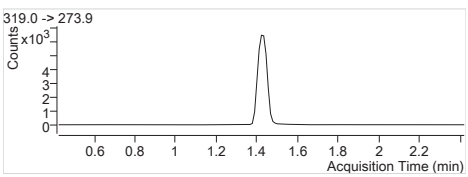
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



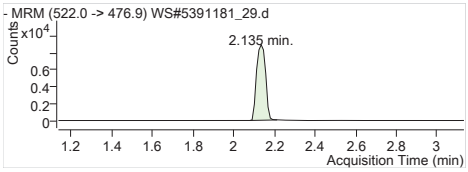


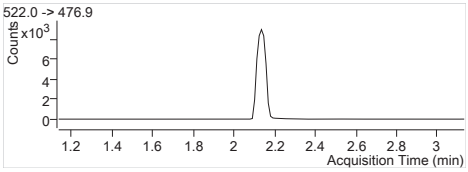
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



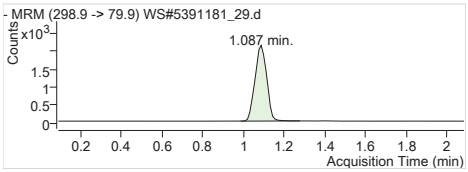


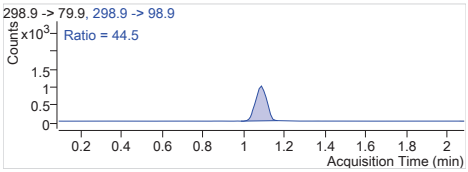
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



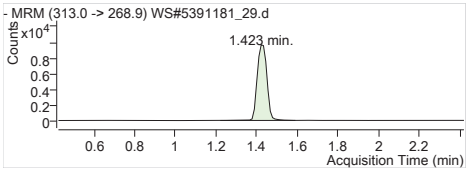


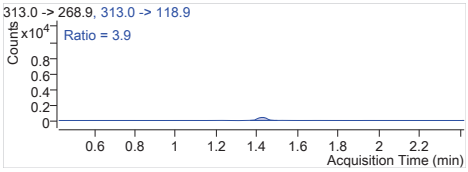
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



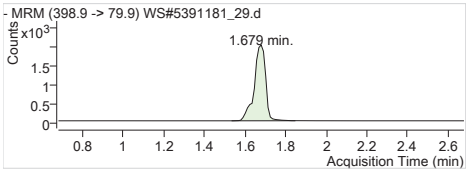


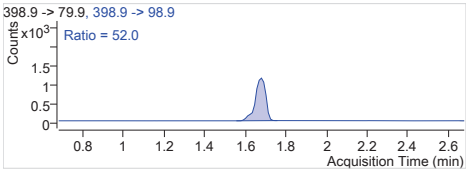
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 13.35 µg/L
Area ratio: 6.43745
Sample type: CC



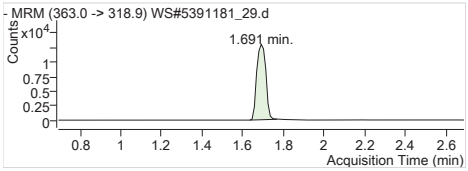


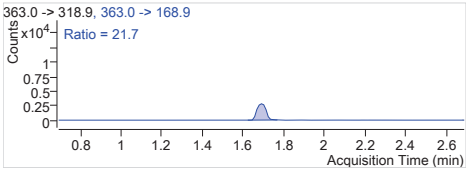
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 12.56 µg/L
Area ratio: 5.60986
Sample type: CC



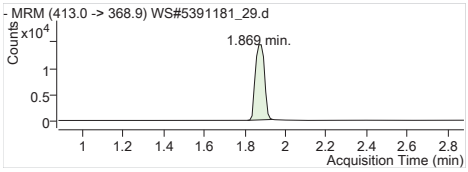


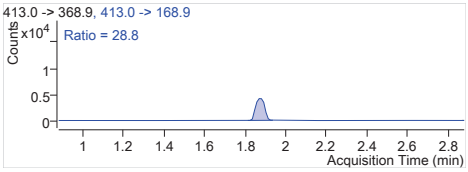
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 12.72 µg/L
Area ratio: 5.90296
Sample type: CC



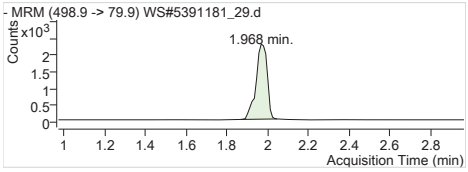


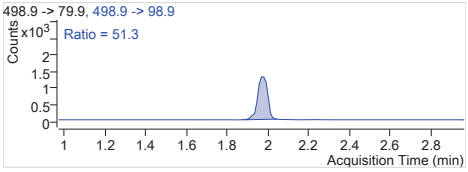
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.89 µg/L
Area ratio: 5.58830
Sample type: CC



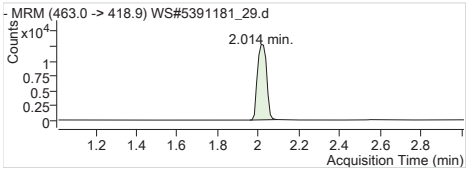


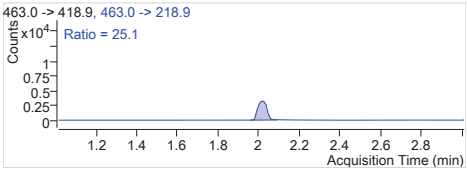
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 13.87 µg/L
Area ratio: 6.06568
Sample type: CC



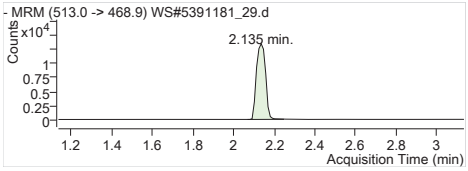


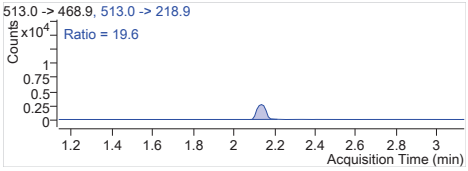
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 13.33 µg/L
Area ratio: 5.25754
Sample type: CC



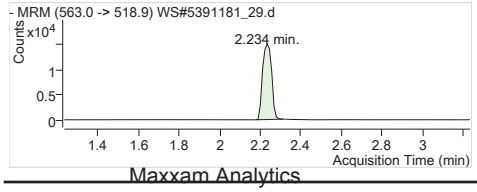


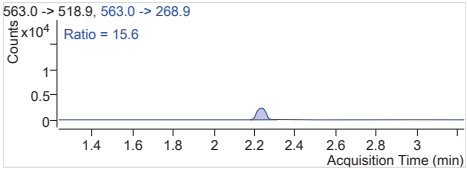
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 12.94 µg/L
Area ratio: 5.16078
Sample type: CC



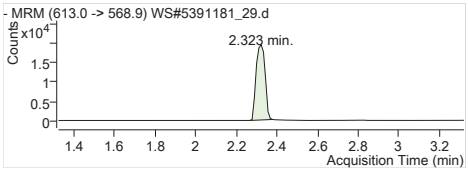


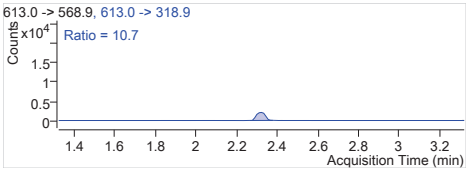
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 12.36 µg/L
Area ratio: 6.58576
Sample type: CC



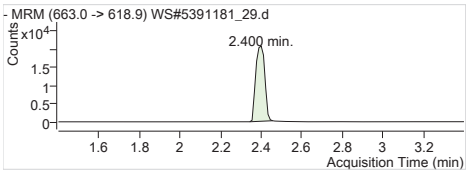


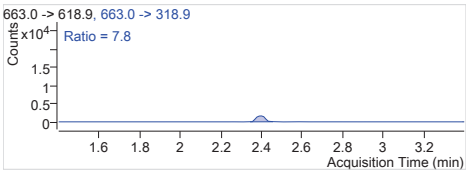
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 12.57 µg/L
Area ratio: 6.12773
Sample type: CC



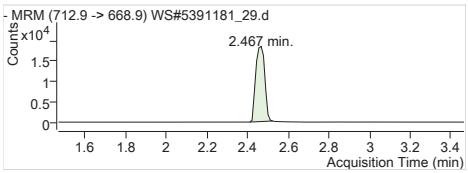


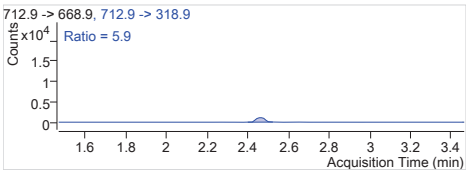
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 13.16 µg/L
Area ratio: 6.00806
Sample type: CC



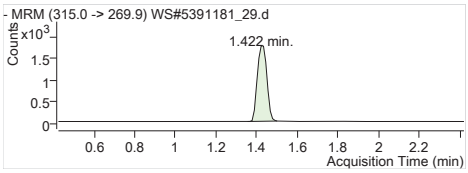


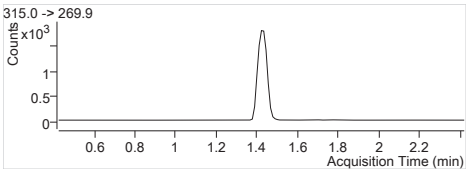
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 12.99 µg/L
Area ratio: 5.69926
Sample type: CC



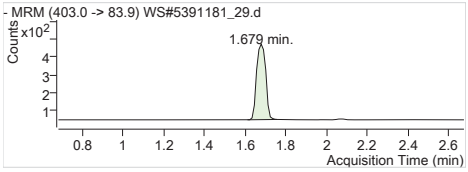


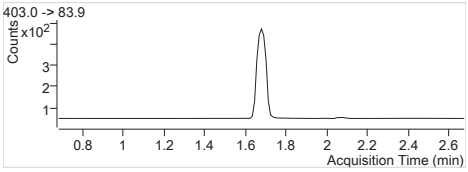
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 13.62 µg/L
Area ratio: 5.07436
Sample type: CC



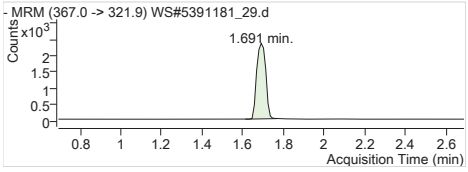


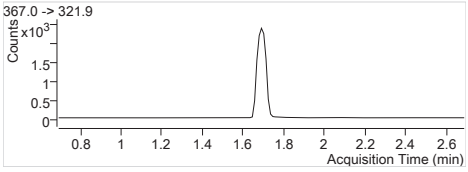
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 104.26 µg/L
Area ratio: 0.27151
Sample type: CC



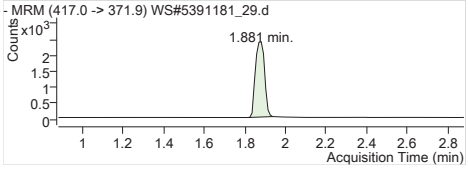


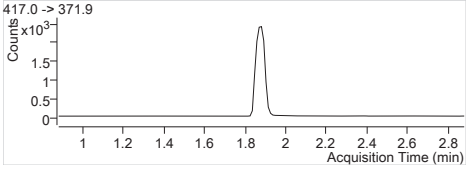
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 96.98 µg/L
Area ratio: 0.06305
Sample type: CC



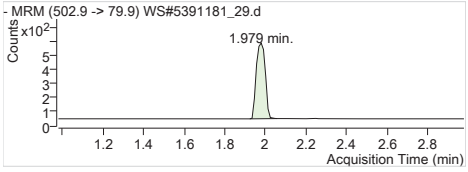


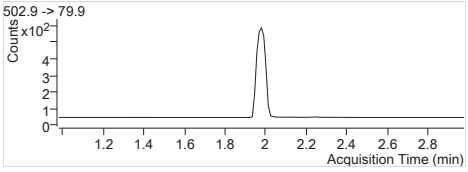
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 103.69 µg/L
Area ratio: 0.34484
Sample type: CC



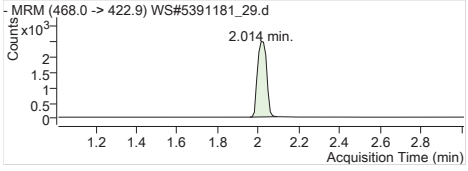


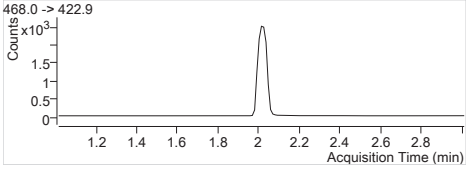
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 101.77 µg/L
Area ratio: 0.35660
Sample type: CC



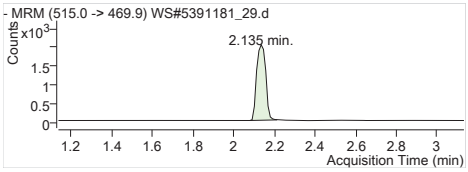


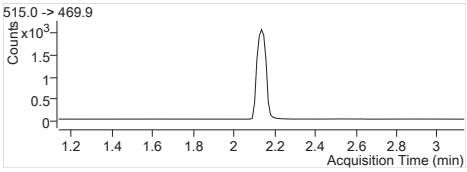
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 101.65 µg/L
Area ratio: 0.07925
Sample type: CC



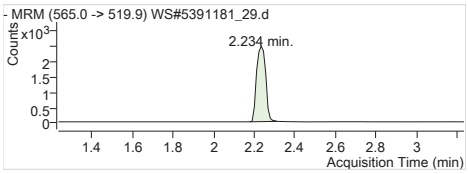


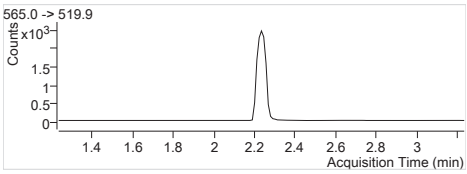
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 104.43 µg/L
Area ratio: 0.36950
Sample type: CC



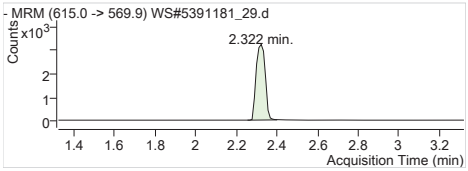


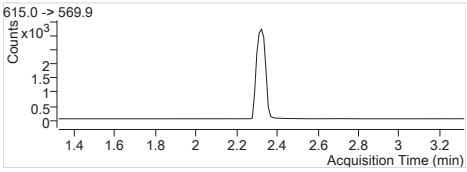
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 105.55 µg/L
Area ratio: 0.22949
Sample type: CC



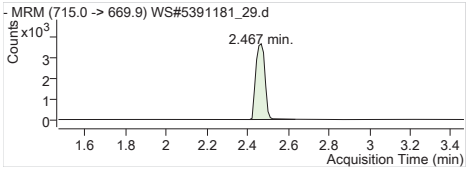


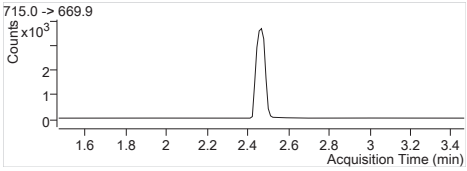
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 105.84 µg/L
Area ratio: 0.27655
Sample type: CC



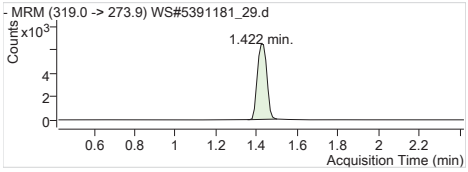


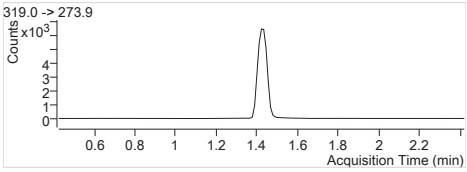
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 101.48 µg/L
Area ratio: 0.36295
Sample type: CC



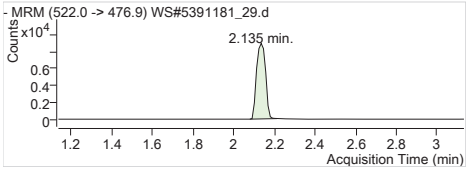


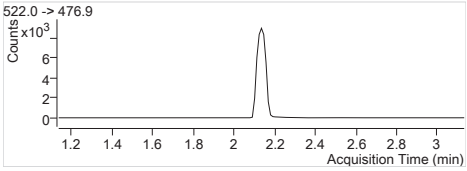
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 99.59 µg/L
Area ratio: 0.41945
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 97.46 µg/L
Area ratio: 0
Sample type: CC





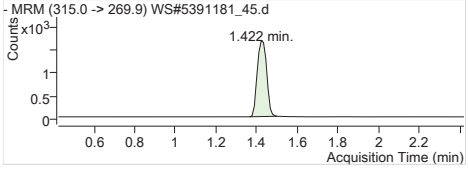
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 97.28 µg/L
Area ratio: 0
Sample type: CC

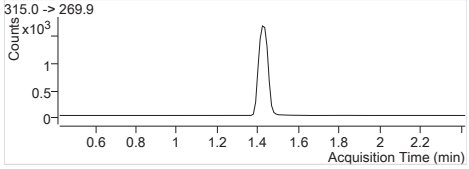
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_45.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A5
Acq. Date	2018/02/09 4:04:22 PM	**Injection Volume**	Per Method
Sample Annotation	-		

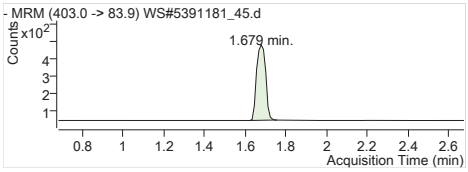
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5285	1.42	1 µg/L		
MPFHxS	1345	1.68	1 µg/L		
MPFHpA	7141	1.69	1 µg/L		
MPFOA	7180	1.87	1 µg/L		
MPFOS	1729	1.98	1 µg/L		
MPFNA	7596	2.01	1 µg/L		
MPFDA	6345	2.14	1 µg/L		
MPFUnA	7619	2.23	1 µg/L		
MPFDoA	9971	2.32	1 µg/L		
MPFTeDA	11415	2.47	1 µg/L		
13C6-PFHxA IS	21506	1.42	1 µg/L		
13C9-PFDA IS	27920	2.13	1 µg/L		

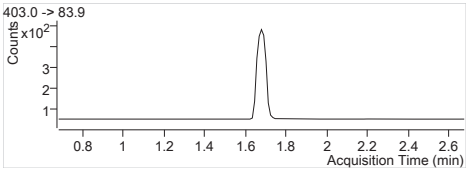
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8174	1.09	12.50	12.61 µg/L	100.85
PFHxA 1	30794	1.42	12.50	13.04 µg/L	104.29
PFHxS 1	7793	1.68	12.50	12.48 µg/L	99.87
PFHpA 1	39792	1.69	12.50	12.85 µg/L	102.84
PFOA 1	42761	1.87	12.50	13.62 µg/L	108.96
PFOS 1	8435	1.97	12.50	12.37 µg/L	98.98
PFNA 1	39665	2.01	12.50	13.09 µg/L	104.73
PFDA 1	43314	2.14	12.50	12.81 µg/L	102.46
PFUnA 1	46702	2.23	12.50	12.58 µg/L	100.63
PFDoA 1	58066	2.32	12.50	12.76 µg/L	102.05
PFTrDA 1	65883	2.40	12.50	13.15 µg/L	105.23
PFTeDA 1	57498	2.47	12.50	13.52 µg/L	108.15
13C2-PFHxA	5285	1.42	100.00	94.37 µg/L	94.37
18O2-PFHxS	1345	1.68	100.00	96.20 µg/L	96.20
13C4-PFHpA	7141	1.69	100.00	99.84 µg/L	99.84
13C4-PFOA	7180	1.87	100.00	95.28 µg/L	95.28
13C4-PFOS	1729	1.98	100.00	103.12 µg/L	103.12
13C5-PFNA	7597	2.01	100.00	99.84 µg/L	99.84
13C2-PFDA	6245	2.14	100.00	102.88 µg/L	102.88
13C2-PFUnA	7619	2.23	100.00	104.44 µg/L	104.44
13C2-PFDoA	9971	2.32	100.00	99.85 µg/L	99.85
13C2-PFTeDA	11693	2.47	100.00	99.44 µg/L	99.44
13C6-PFHxA	21506	1.42	100.00	100.19 µg/L	100.19
13C9-PFDA	27920	2.13	100.00	99.32 µg/L	99.32



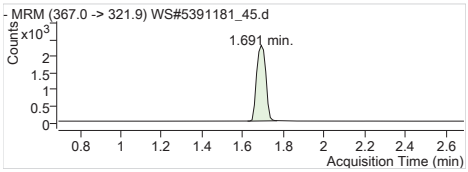


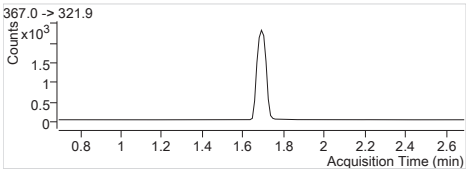
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



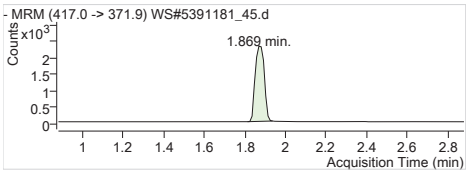


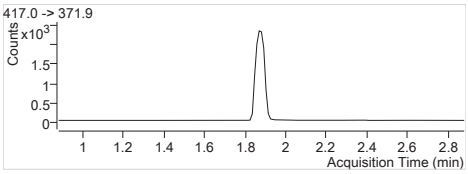
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



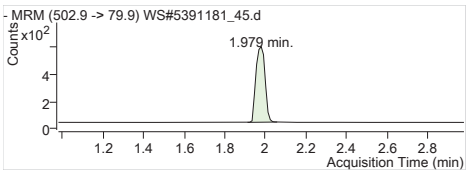


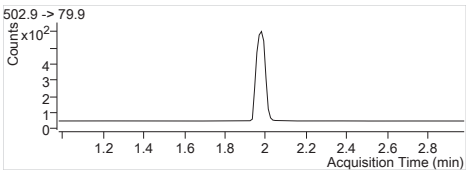
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



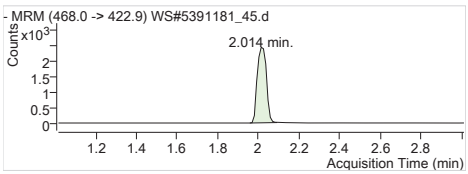


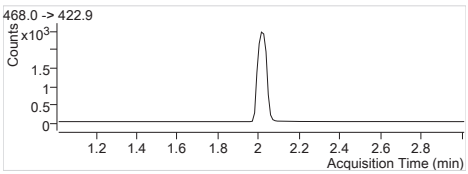
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: CC



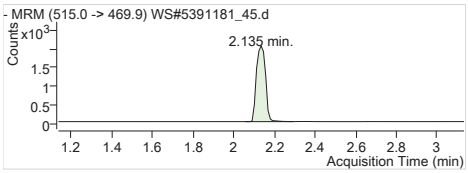


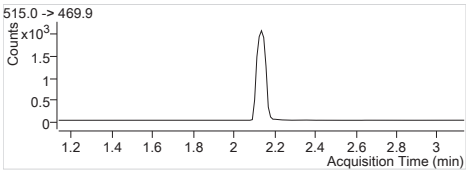
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



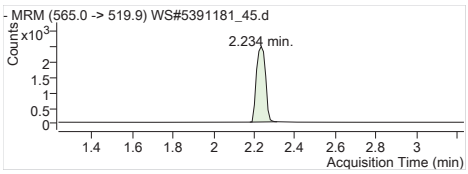


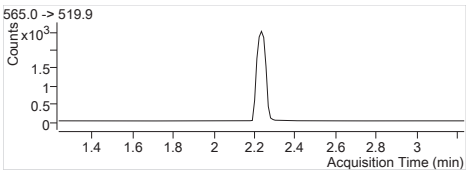
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



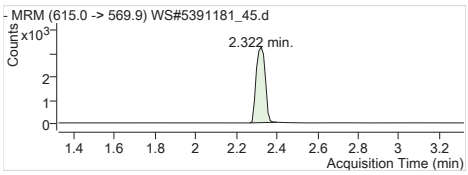


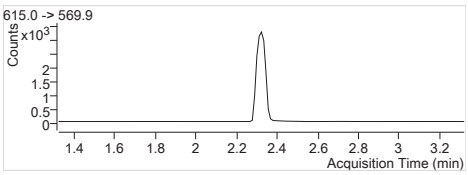
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



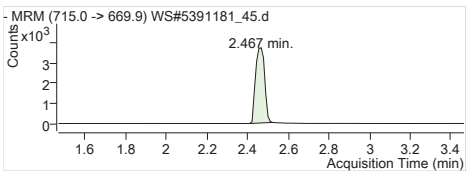


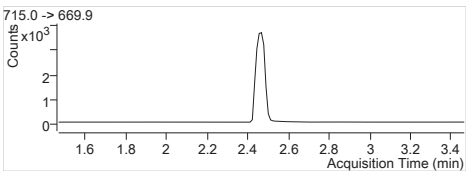
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



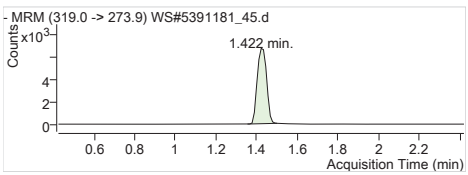


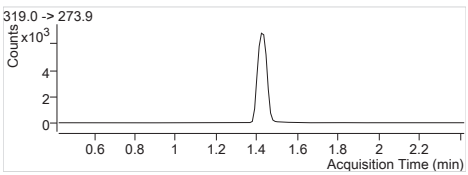
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



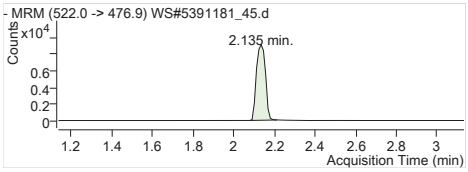


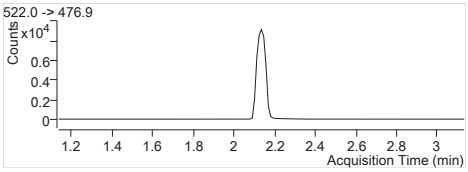
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



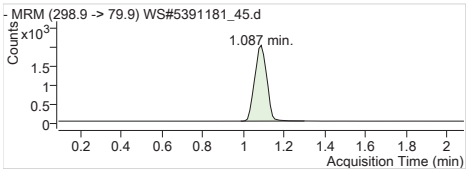


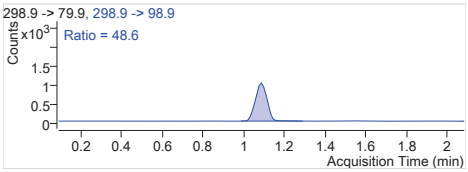
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



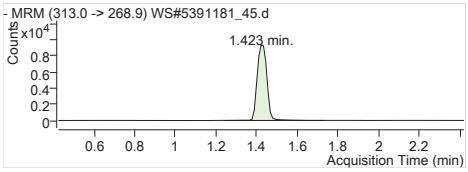


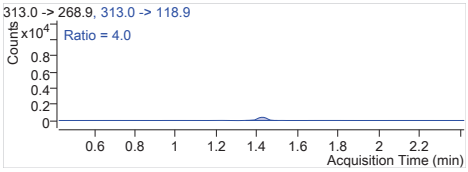
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



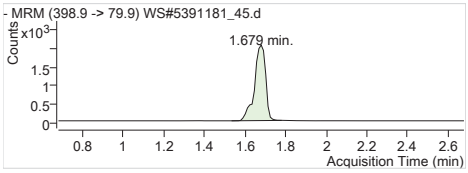


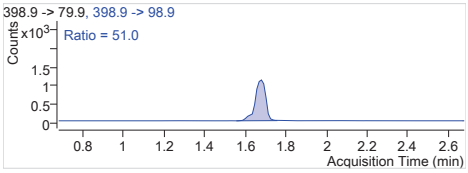
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 12.61 µg/L
Area ratio: 6.07732
Sample type: CC



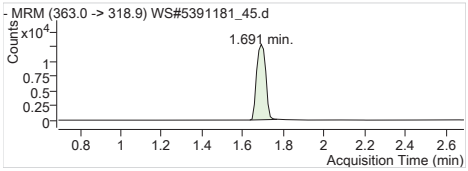


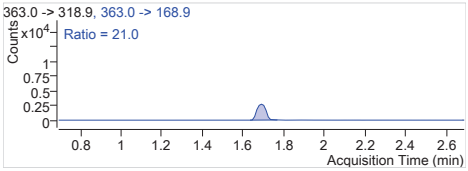
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 13.04 µg/L
Area ratio: 5.82668
Sample type: CC



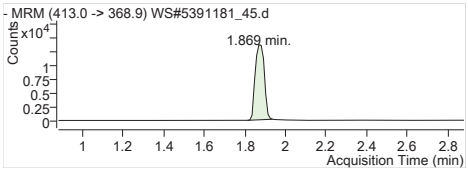


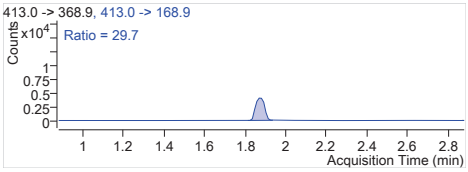
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 12.48 µg/L
Area ratio: 5.79405
Sample type: CC



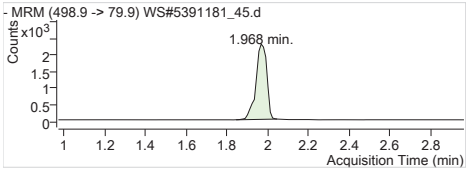


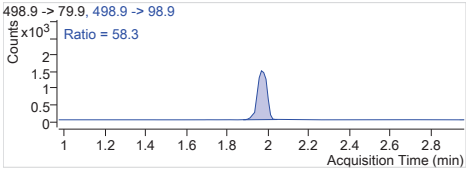
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.85 µg/L
Area ratio: 5.57233
Sample type: CC



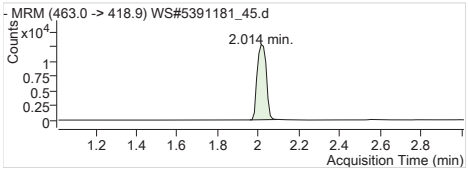


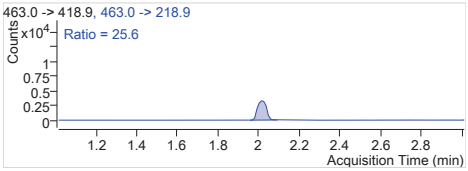
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 13.62 µg/L
Area ratio: 5.95557
Sample type: CC



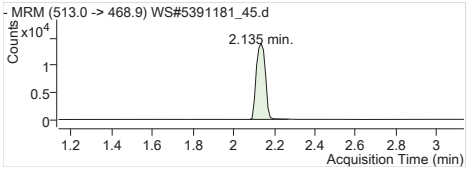


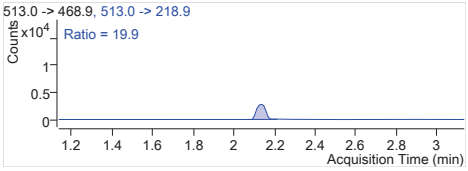
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 12.37 µg/L
Area ratio: 4.87854
Sample type: CC



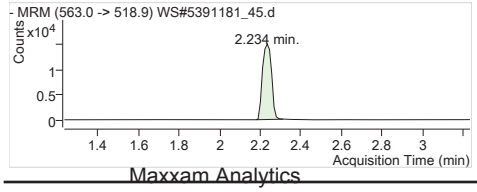


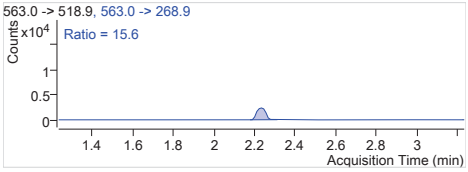
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 13.09 µg/L
Area ratio: 5.22183
Sample type: CC



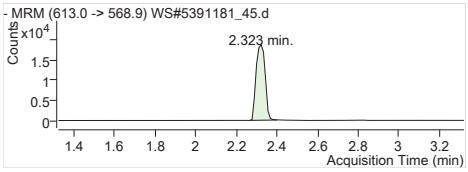


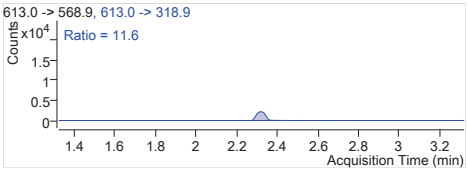
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 12.81 µg/L
Area ratio: 6.82648
Sample type: CC



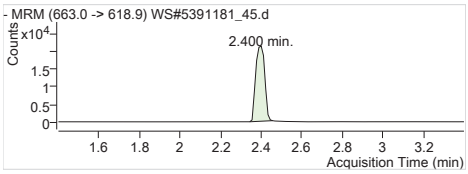


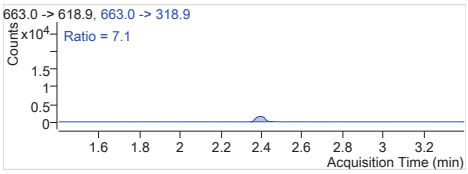
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 12.58 µg/L
Area ratio: 6.12968
Sample type: CC



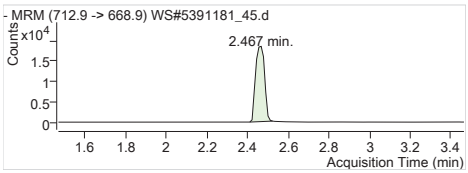


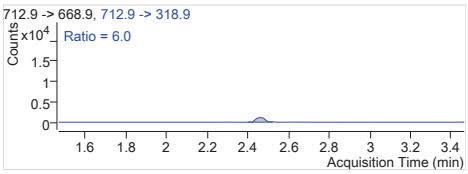
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 12.76 µg/L
Area ratio: 5.82349
Sample type: CC



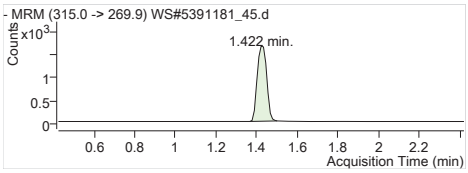


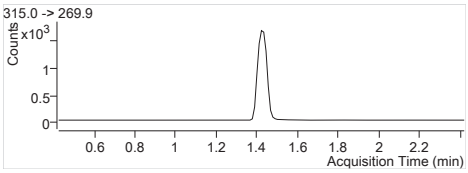
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 13.15 µg/L
Area ratio: 5.77162
Sample type: CC



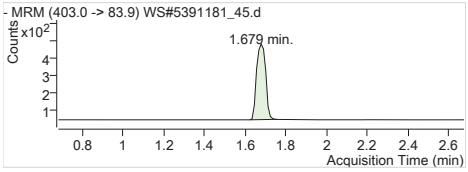


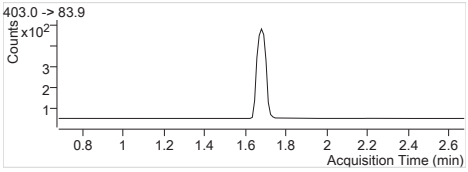
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 13.52 µg/L
Area ratio: 5.03706
Sample type: CC



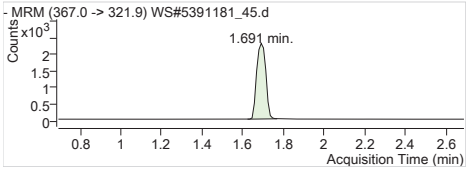


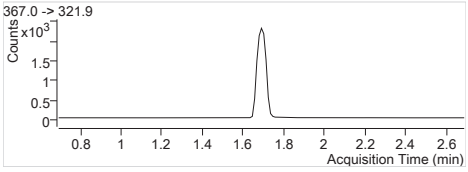
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 94.37 µg/L
Area ratio: 0.24575
Sample type: CC



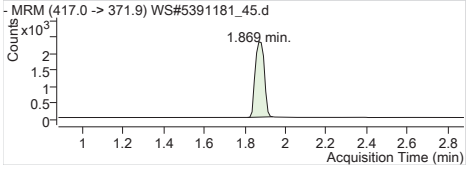


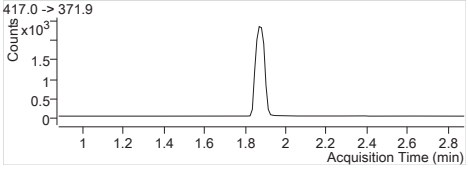
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 96.20 µg/L
Area ratio: 0.06254
Sample type: CC



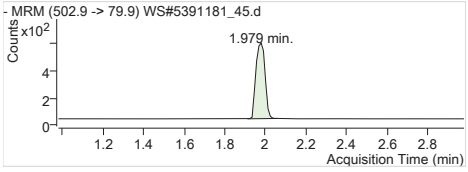


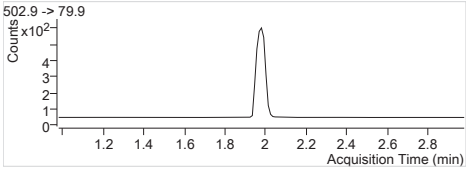
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 99.84 µg/L
Area ratio: 0.33205
Sample type: CC



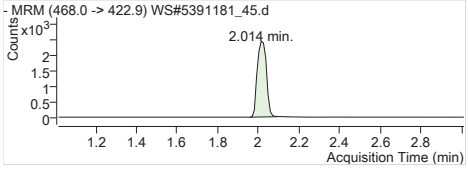


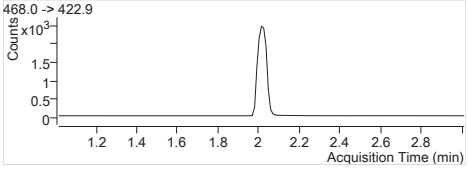
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 95.28 µg/L
Area ratio: 0.33386
Sample type: CC



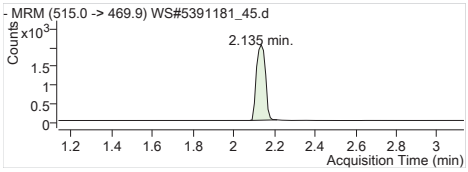


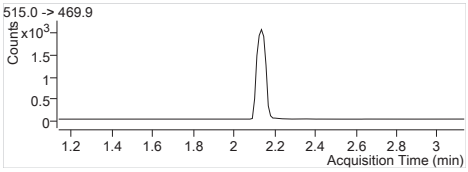
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 103.12 µg/L
Area ratio: 0.08040
Sample type: CC



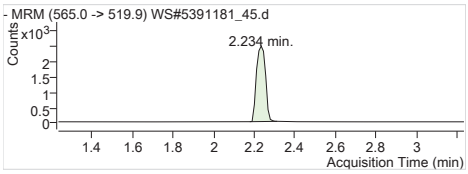


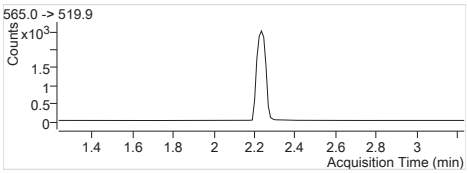
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 99.84 µg/L
Area ratio: 0.35325
Sample type: CC



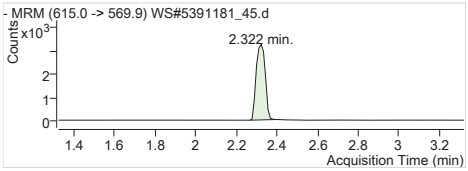


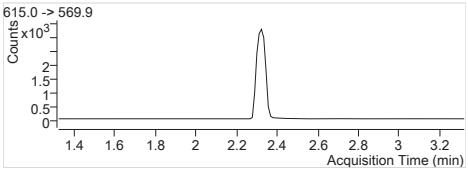
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 102.88 µg/L
Area ratio: 0.22367
Sample type: CC



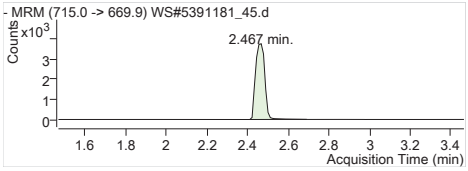


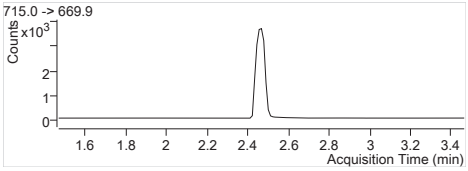
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 104.44 µg/L
Area ratio: 0.27289
Sample type: CC



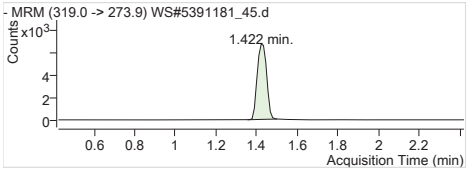


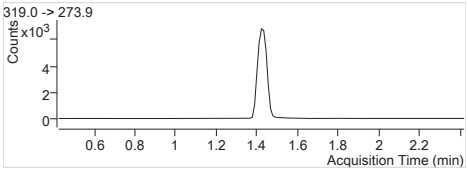
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 99.85 µg/L
Area ratio: 0.35713
Sample type: CC



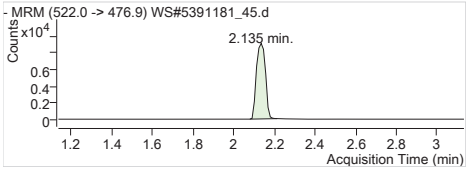


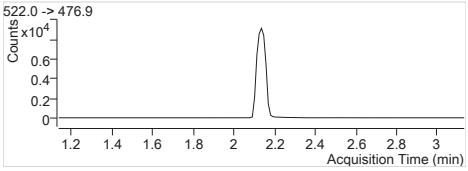
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 99.44 µg/L
Area ratio: 0.41880
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 100.19 µg/L
Area ratio: 0
Sample type: CC





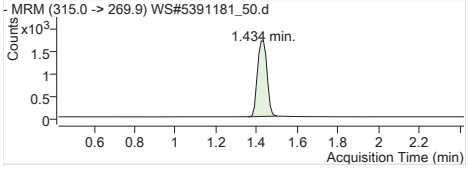
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 99.32 µg/L
Area ratio: 0
Sample type: CC

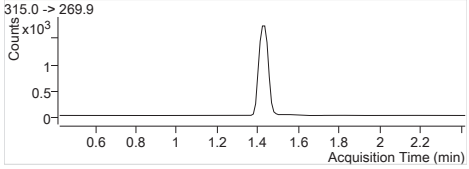
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_50.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A5
Acq. Date	2018/02/09 4:29:02 PM	**Injection Volume**	Per Method
Sample Annotation	-		

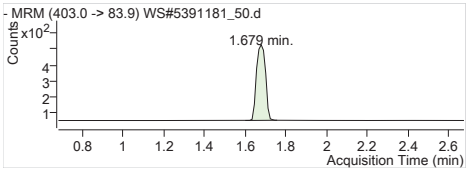
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5477	1.43	1 µg/L		
MPFHxS	1483	1.68	1 µg/L		
MPFHpA	7425	1.69	1 µg/L		
MPFOA	7964	1.88	1 µg/L		
MPFOS	1609	1.98	1 µg/L		
MPFNA	8150	2.01	1 µg/L		
MPFDA	6503	2.14	1 µg/L		
MPFUnA	7060	2.23	1 µg/L		
MPFDoA	10193	2.32	1 µg/L		
MPFTeDA	10471	2.47	1 µg/L		
13C6-PFHxA IS	22098	1.42	1 µg/L		
13C9-PFDA IS	28298	2.13	1 µg/L		

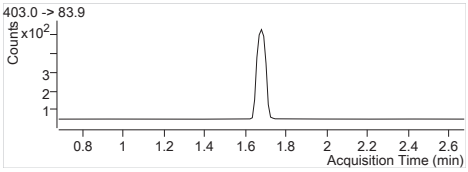
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8719	1.09	12.50	12.20 µg/L	97.58
PFHxA 1	32593	1.42	12.50	13.31 µg/L	106.47
PFHxS 1	8463	1.68	12.50	12.30 µg/L	98.37
PFHpA 1	41488	1.69	12.50	12.89 µg/L	103.12
PFOA 1	44247	1.87	12.50	12.70 µg/L	101.64
PFOS 1	8589	1.97	12.50	13.54 µg/L	108.30
PFNA 1	39360	2.01	12.50	12.11 µg/L	96.91
PFDA 1	44435	2.14	12.50	12.82 µg/L	102.55
PFUnA 1	48391	2.23	12.50	14.05 µg/L	112.43
PFDoA 1	60627	2.32	12.50	13.03 µg/L	104.21
PFTrDA 1	67237	2.40	12.50	14.63 µg/L	117.01
PFTeDA 1	53561	2.47	12.50	13.73 µg/L	109.81
13C2-PFHxA	5477	1.43	100.00	95.18 µg/L	95.18
18O2-PFHxS	1483	1.68	100.00	103.23 µg/L	103.23
13C4-PFHpA	7425	1.69	100.00	101.03 µg/L	101.03
13C4-PFOA	7964	1.88	100.00	102.85 µg/L	102.85
13C4-PFOS	1609	1.98	100.00	93.39 µg/L	93.39
13C5-PFNA	8150	2.01	100.00	104.24 µg/L	104.24
13C2-PFDA	6283	2.14	100.00	102.12 µg/L	102.12
13C2-PFUnA	7060	2.23	100.00	95.48 µg/L	95.48
13C2-PFDoA	10193	2.32	100.00	100.71 µg/L	100.71
13C2-PFTeDA	10661	2.47	100.00	89.45 µg/L	89.45
13C6-PFHxA	22098	1.42	100.00	102.94 µg/L	102.94
13C9-PFDA	28298	2.13	100.00	100.66 µg/L	100.66



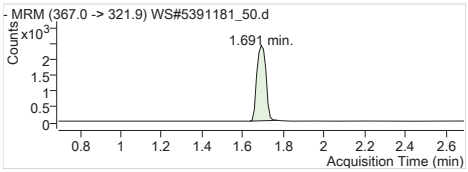


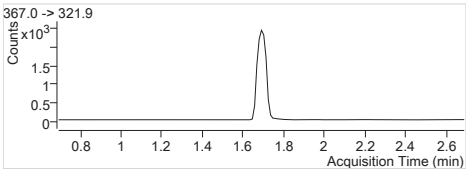
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.422)
Concentration: 1 µg/L
Sample type: CC



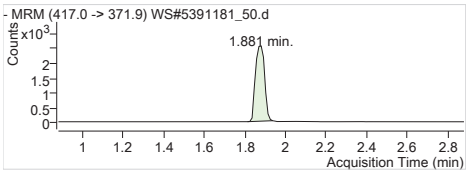


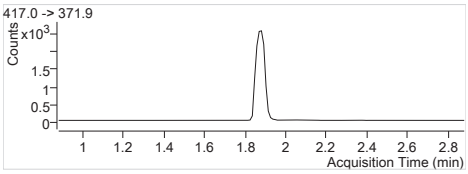
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



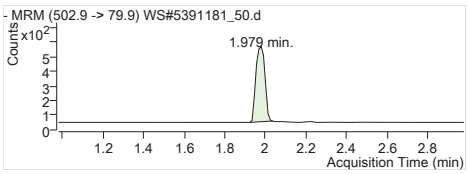


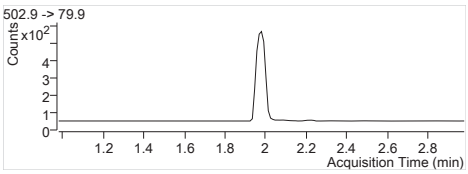
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



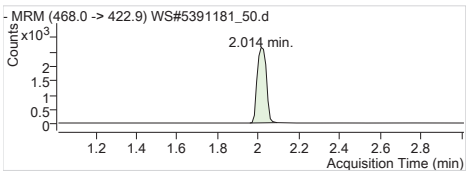


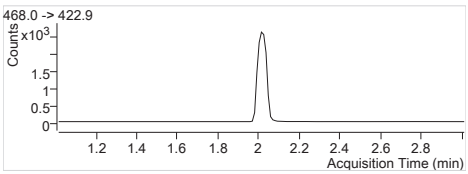
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: CC



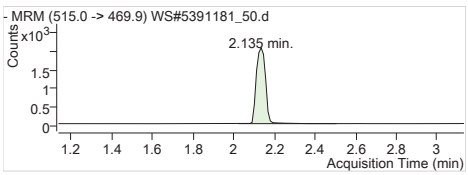


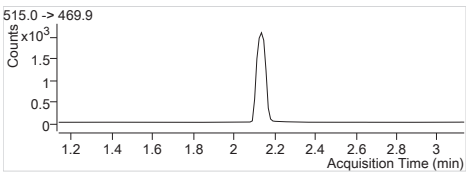
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



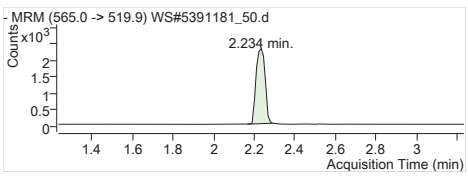


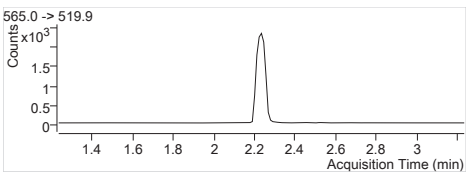
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



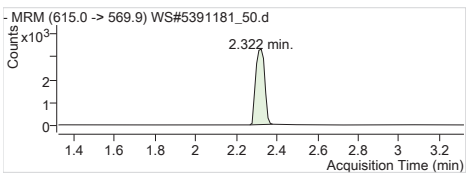


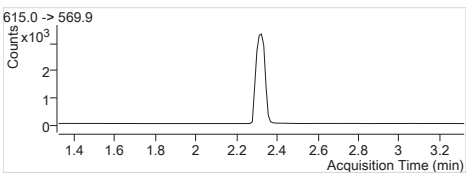
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



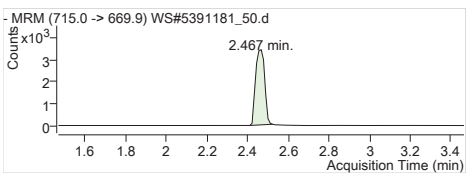


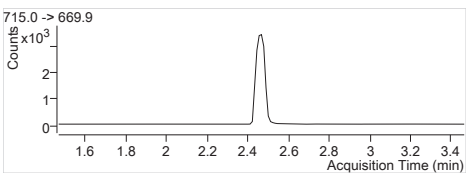
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



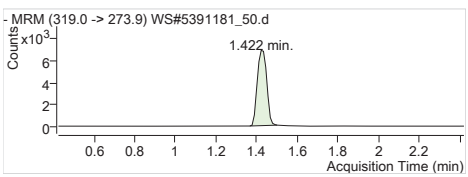


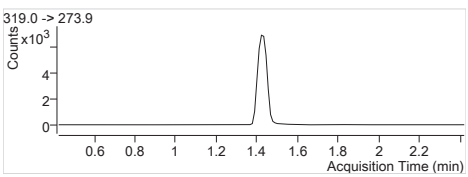
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: CC



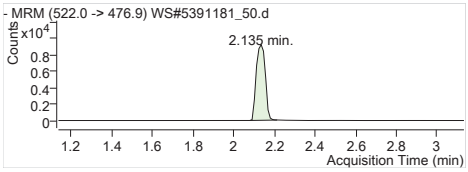


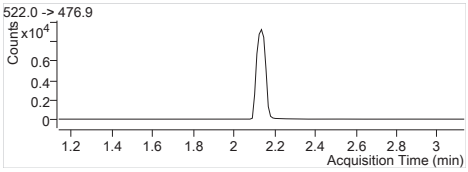
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: CC



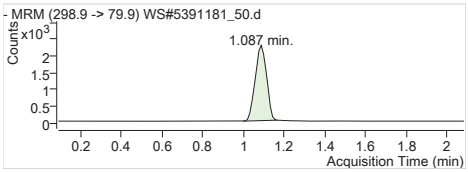


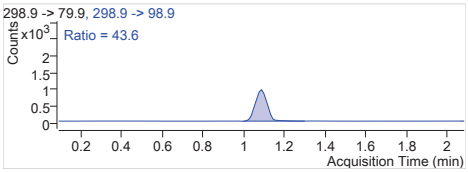
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



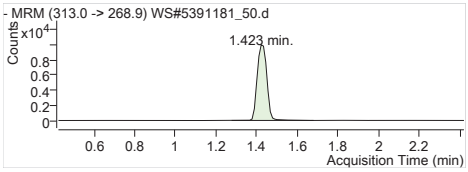


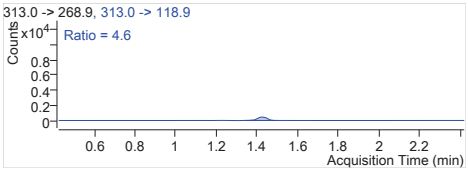
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



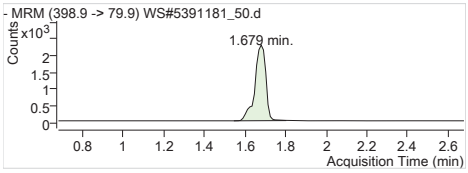


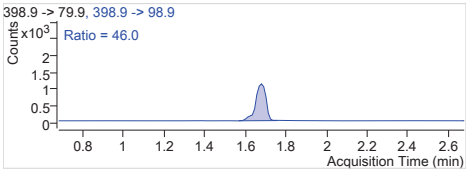
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.087 (1.087)
Calc. conc. 12.20 µg/L
Area ratio: 5.87930
Sample type: CC



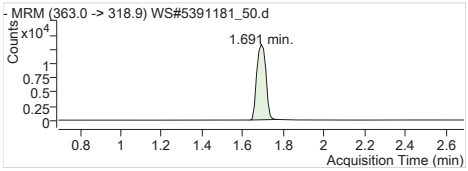


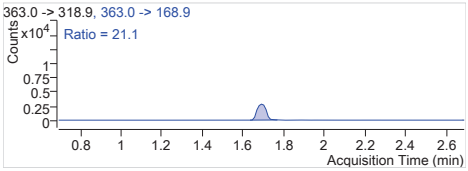
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 13.31 µg/L
Area ratio: 5.95089
Sample type: CC



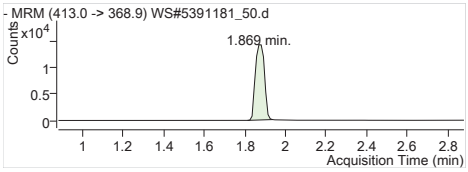


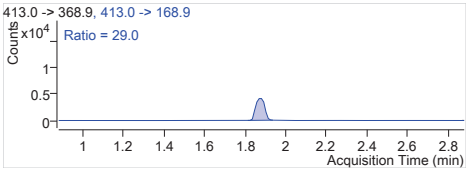
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 12.30 µg/L
Area ratio: 5.70668
Sample type: CC



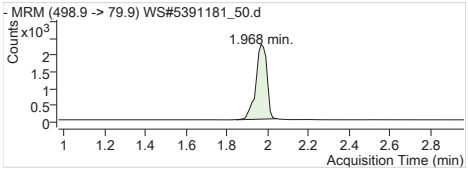


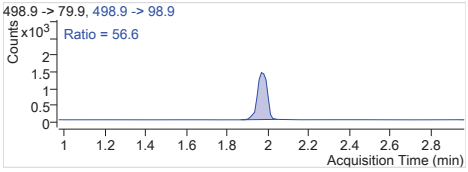
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 12.89 µg/L
Area ratio: 5.58761
Sample type: CC



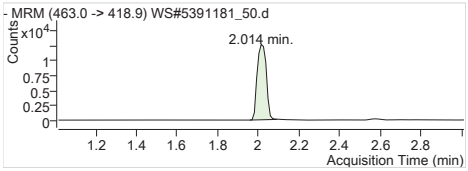


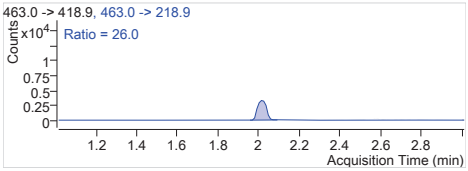
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 12.70 µg/L
Area ratio: 5.55588
Sample type: CC



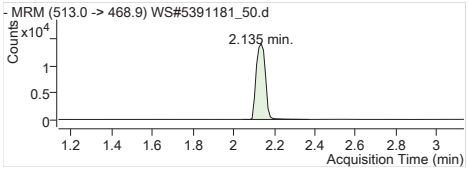


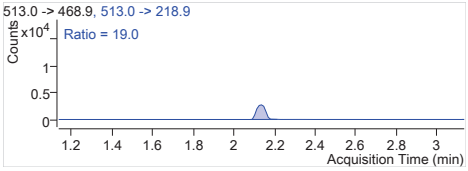
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 13.54 µg/L
Area ratio: 5.33810
Sample type: CC



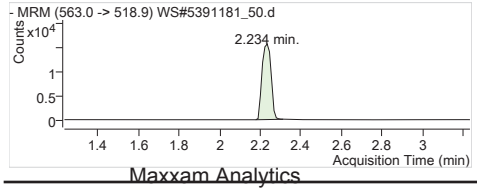


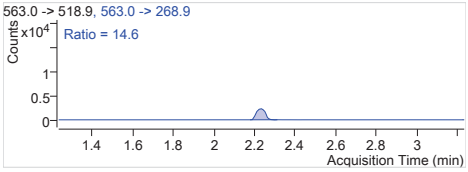
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 12.11 µg/L
Area ratio: 4.82945
Sample type: CC



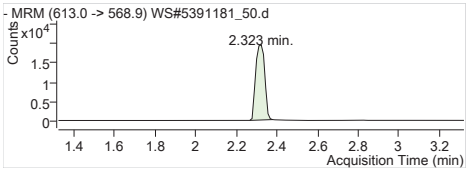


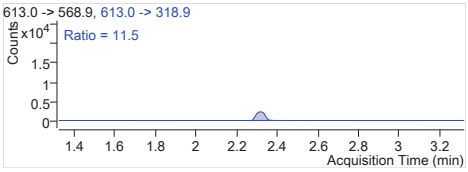
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 12.82 µg/L
Area ratio: 6.83300
Sample type: CC



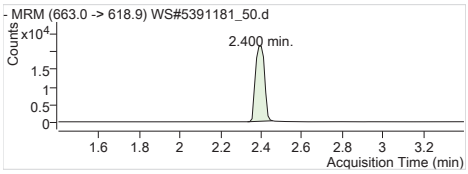


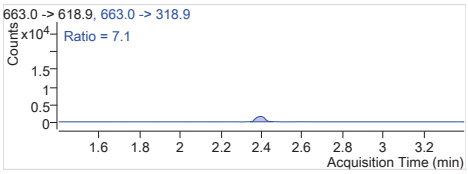
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 14.05 µg/L
Area ratio: 6.85425
Sample type: CC



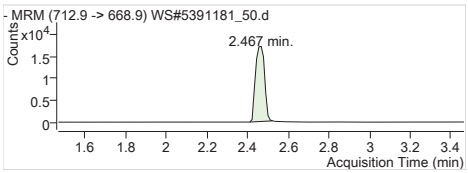


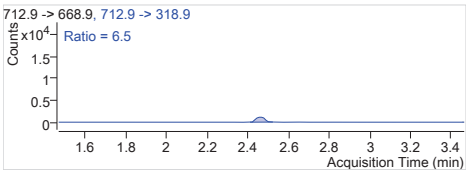
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.323 (2.323)
Calc. conc. 13.03 µg/L
Area ratio: 5.94791
Sample type: CC



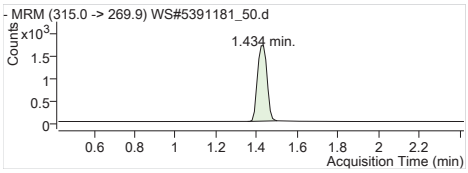


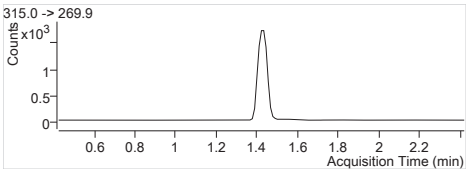
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.400 (2.400)
Calc. conc. 14.63 µg/L
Area ratio: 6.42126
Sample type: CC



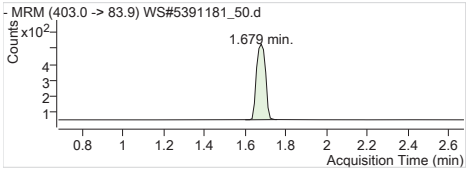


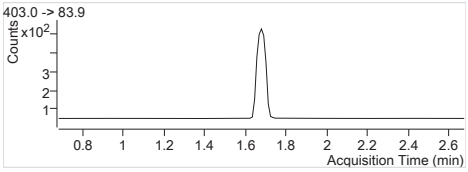
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 13.73 µg/L
Area ratio: 5.11518
Sample type: CC



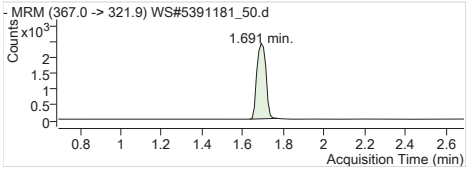


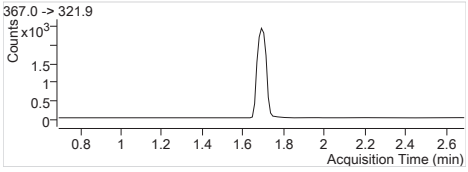
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.422)
Calc. conc. 95.18 µg/L
Area ratio: 0.24785
Sample type: CC



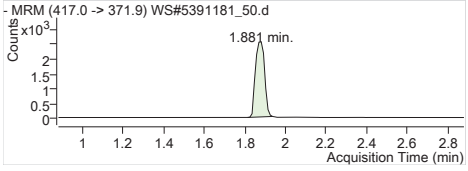


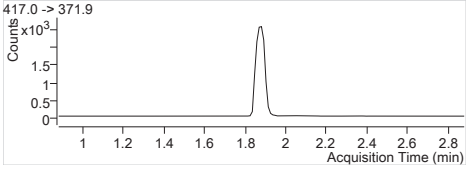
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 103.23 µg/L
Area ratio: 0.06711
Sample type: CC



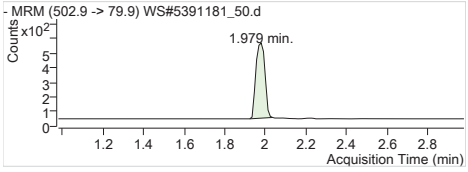


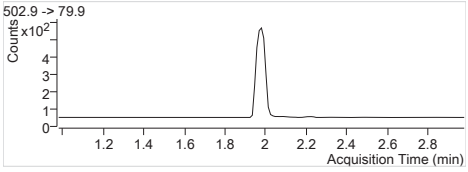
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 101.03 µg/L
Area ratio: 0.33600
Sample type: CC



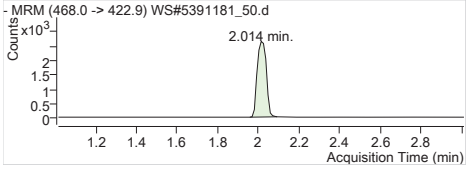


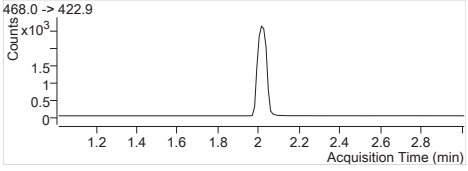
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 102.85 µg/L
Area ratio: 0.36039
Sample type: CC



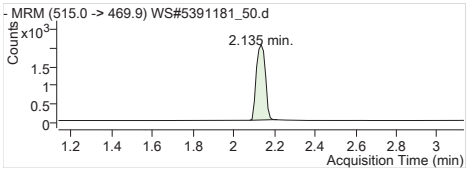


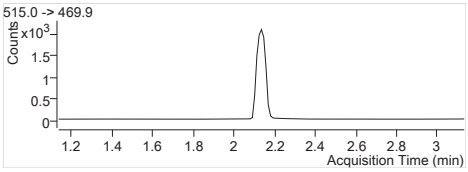
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 93.39 µg/L
Area ratio: 0.07281
Sample type: CC



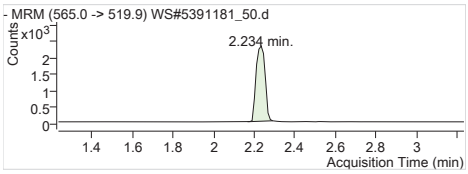


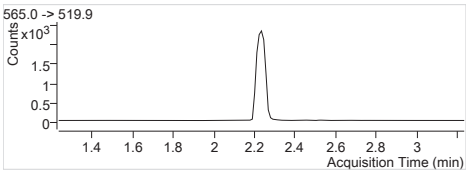
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 104.24 µg/L
Area ratio: 0.36881
Sample type: CC



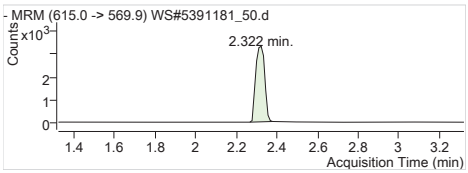


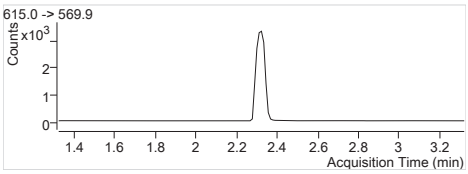
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 102.12 µg/L
Area ratio: 0.22203
Sample type: CC



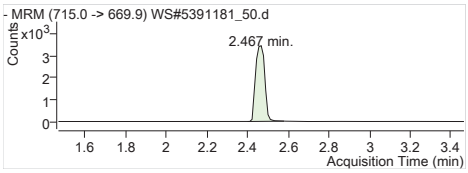


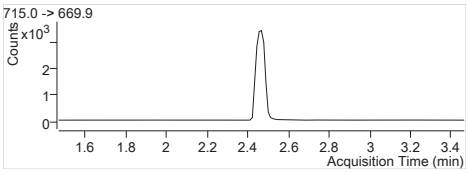
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 95.48 µg/L
Area ratio: 0.24949
Sample type: CC



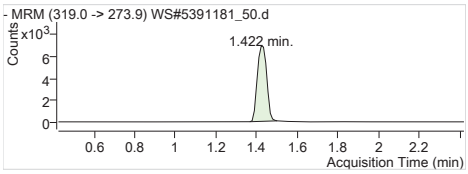


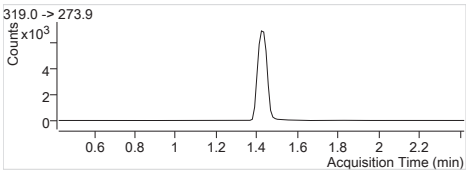
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 100.71 µg/L
Area ratio: 0.36020
Sample type: CC



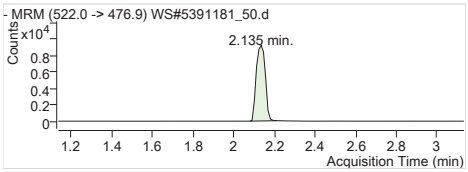


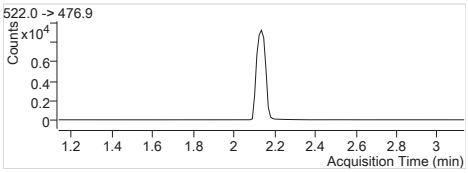
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.467 (2.467)
Calc. conc. 89.45 µg/L
Area ratio: 0.37674
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 102.94 µg/L
Area ratio: 0
Sample type: CC





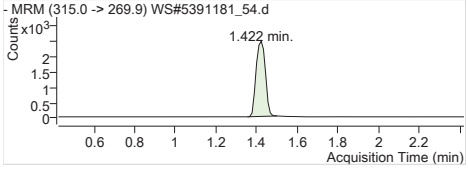
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 100.66 µg/L
Area ratio: 0
Sample type: CC

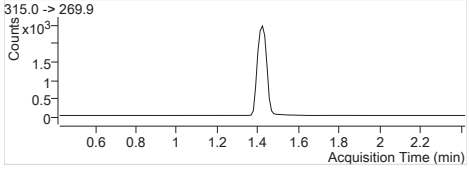
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5391181_54.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-F7
Acq. Date	2018/02/12 1:55:38 PM	**Injection Volume**	Per Method
Sample Annotation	-		

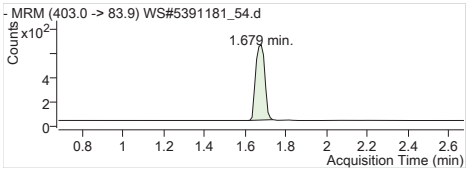
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7688	1.42	1 µg/L		
MPFHxS	1939	1.68	1 µg/L		
MPFHpA	9746	1.69	1 µg/L		
MPFOA	10568	1.87	1 µg/L		
MPFOS	2237	1.97	1 µg/L		
MPFNA	10378	2.01	1 µg/L		
MPFDA	8752	2.12	1 µg/L		
MPFUnA	10304	2.23	1 µg/L		
MPFDoA	13186	2.31	1 µg/L		
MPFTeDA	15768	2.46	1 µg/L		
13C6-PFHxA IS	25620	1.42	1 µg/L		
13C9-PFDA IS	34132	2.13	1 µg/L		

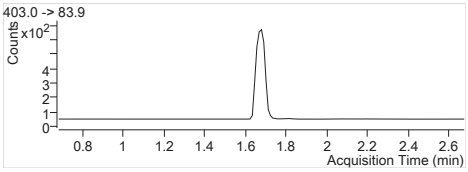
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	772	1.08	0.83	0.89 µg/L	107.21
PFHxA 1	2500	1.42	0.83	0.92 µg/L	110.32
PFHxS 1	752	1.67	0.83	0.91 µg/L	110.03
PFHpA 1	3515	1.69	0.83	0.90 µg/L	107.98
PFOA 1	3732	1.87	0.83	0.80 µg/L	96.02
PFOS 1	734	1.97	0.83	0.84 µg/L	101.57
PFNA 1	3424	2.01	0.83	0.90 µg/L	108.96
PFDA 1	4226	2.12	0.83	1.05 µg/L	125.97
PFUnA 1	3827	2.22	0.83	0.85 µg/L	102.61
PFDoA 1	4732	2.31	0.83	0.90 µg/L	107.91
PFTrDA 1	5229	2.39	0.83	0.82 µg/L	99.13
PFTeDA 1	4981	2.46	0.83	0.92 µg/L	110.45
13C2-PFHxA	7688	1.42	100.00	115.23 µg/L	115.23
18O2-PFHxS	1939	1.68	100.00	116.41 µg/L	116.41
13C4-PFHpA	9746	1.69	100.00	114.39 µg/L	114.39
13C4-PFOA	10568	1.87	100.00	117.72 µg/L	117.72
13C4-PFOS	2237	1.97	100.00	111.99 µg/L	111.99
13C5-PFNA	10378	2.01	100.00	114.49 µg/L	114.49
13C2-PFDA	8621	2.12	100.00	116.18 µg/L	116.18
13C2-PFUnA	10304	2.23	100.00	115.53 µg/L	115.53
13C2-PFDoA	13186	2.31	100.00	108.01 µg/L	108.01
13C2-PFTeDA	16228	2.46	100.00	112.89 µg/L	112.89
13C6-PFHxA	25620	1.42	100.00	119.35 µg/L	119.35
13C9-PFDA	34132	2.13	100.00	121.41 µg/L	121.41



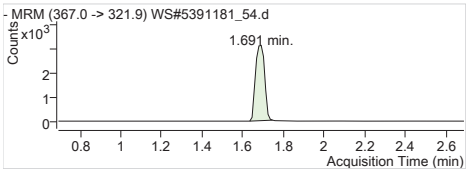


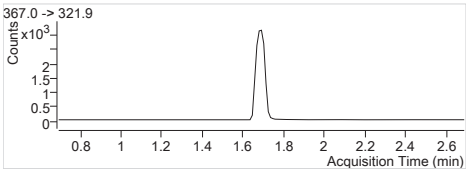
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	CC



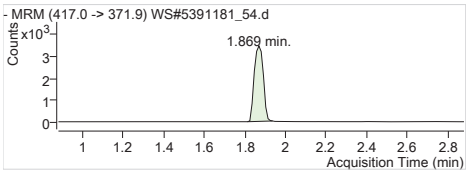


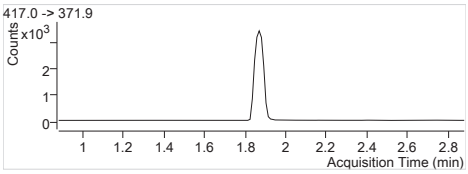
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



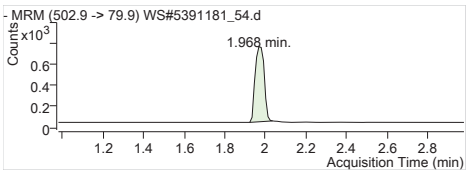


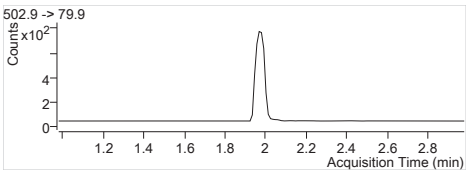
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



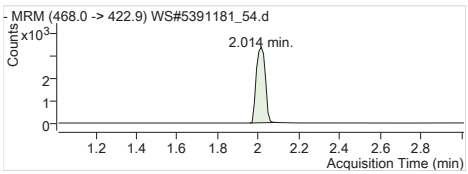


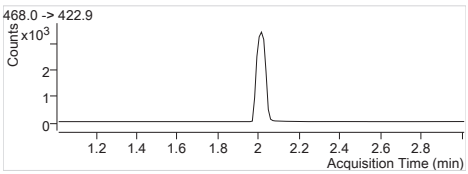
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: CC



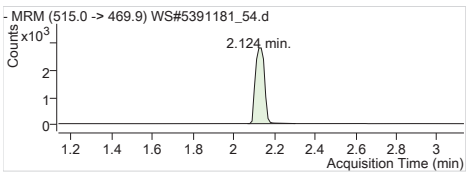


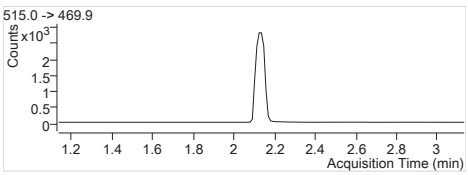
MPFOS Internal Standard
RT (Exp. RT): 1.968 (1.979)
Concentration: 1 µg/L
Sample type: CC



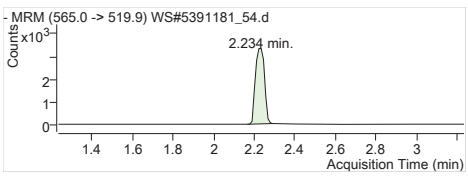


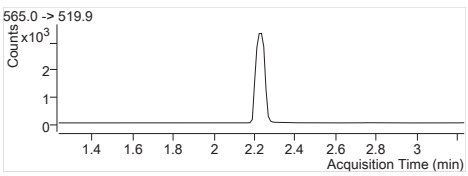
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



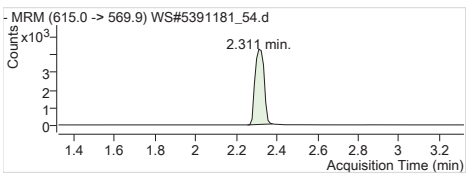


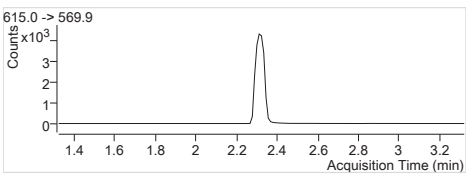
MPFDA Internal Standard
RT (Exp. RT): 2.124 (2.135)
Concentration: 1 µg/L
Sample type: CC



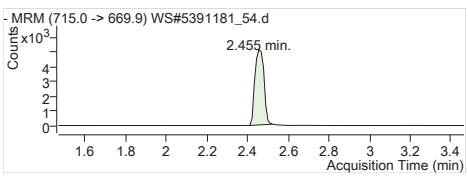


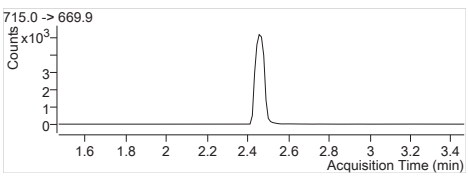
MPFUnA Internal Standard
RT (Exp. RT): 2.234 (2.234)
Concentration: 1 µg/L
Sample type: CC



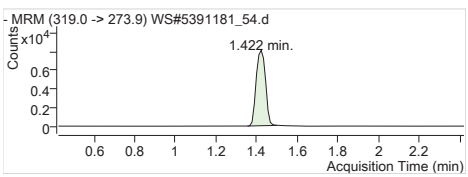


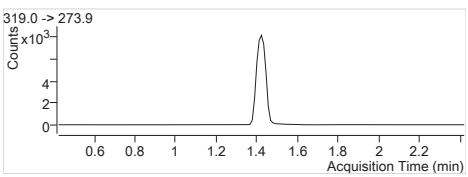
MPFDoA Internal Standard
RT (Exp. RT): 2.311 (2.322)
Concentration: 1 µg/L
Sample type: CC



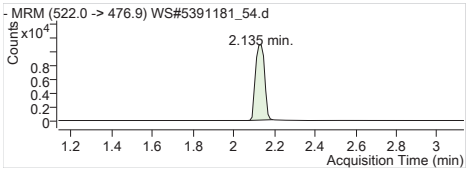


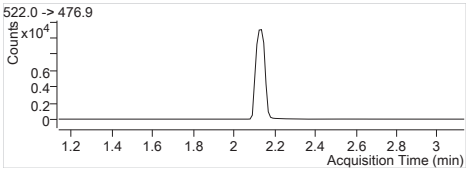
MPFTeDA Internal Standard
RT (Exp. RT): 2.455 (2.467)
Concentration: 1 µg/L
Sample type: CC



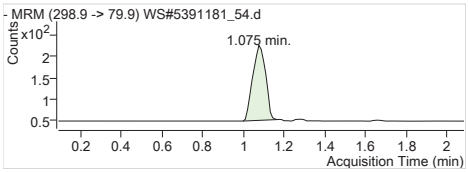


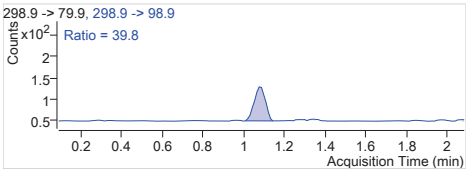
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



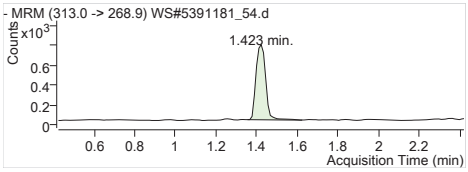


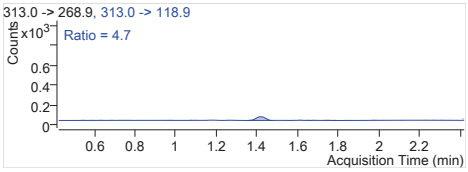
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



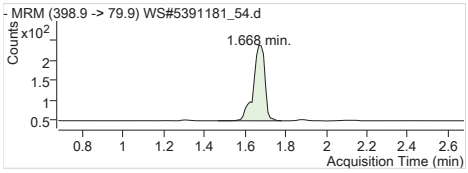


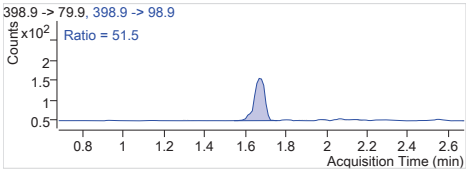
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.075 (1.087)
Calc. conc. 0.89 µg/L
Area ratio: 0.39814
Sample type: CC



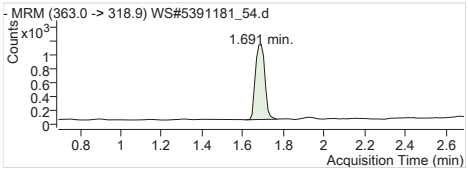


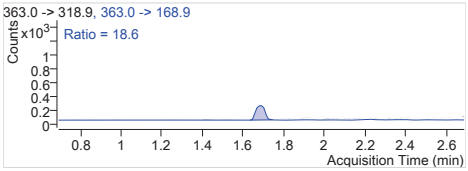
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 0.92 µg/L
Area ratio: 0.32518
Sample type: CC



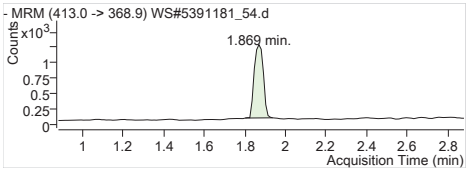


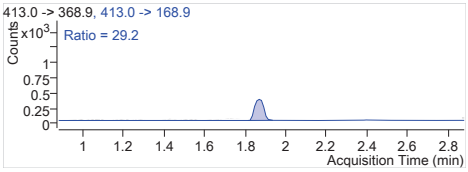
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.668 (1.679)
Calc. conc. 0.91 µg/L
Area ratio: 0.38783
Sample type: CC



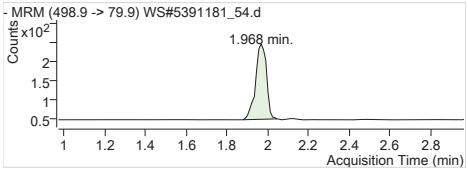


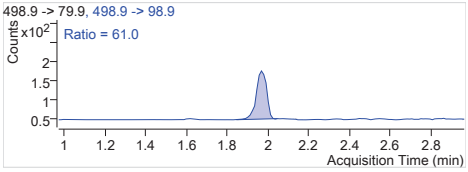
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 0.90 µg/L
Area ratio: 0.36066
Sample type: CC



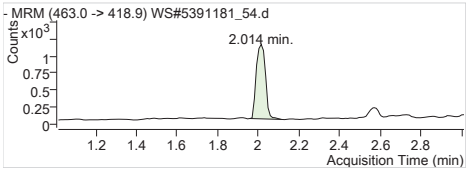


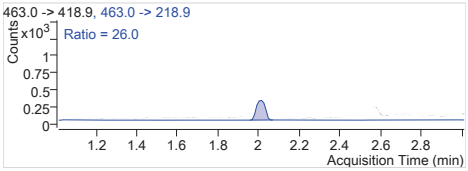
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 0.80 µg/L
Area ratio: 0.35314
Sample type: CC



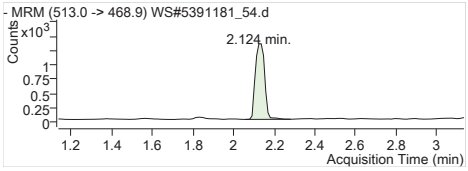


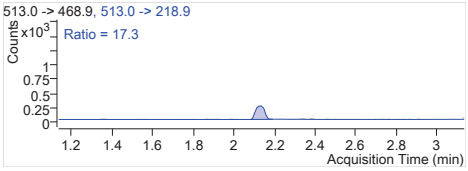
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 0.84 µg/L
Area ratio: 0.32812
Sample type: CC



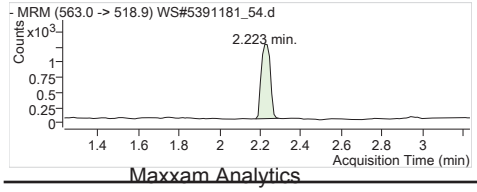


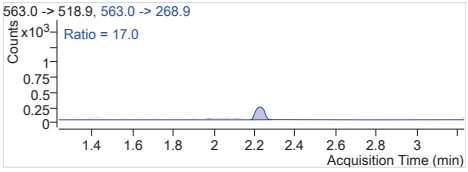
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 0.90 µg/L
Area ratio: 0.32993
Sample type: CC



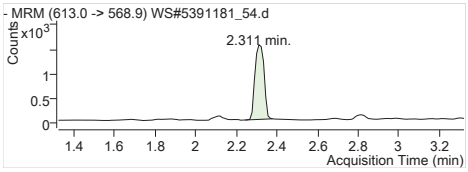


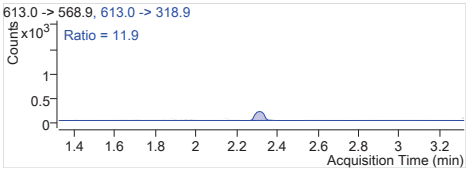
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.124 (2.135)
Calc. conc. 1.05 µg/L
Area ratio: 0.48286
Sample type: CC



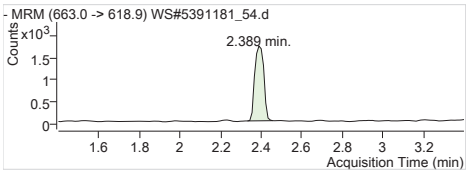


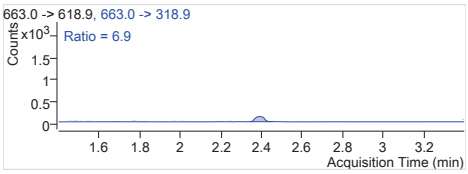
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.223 (2.234)
Calc. conc. 0.85 µg/L
Area ratio: 0.37141
Sample type: CC



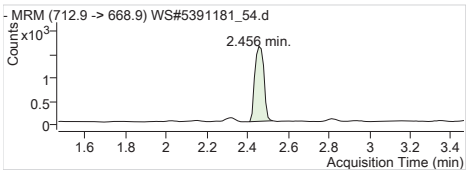


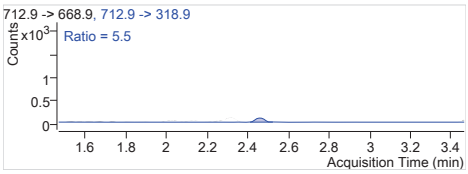
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.311 (2.323)
Calc. conc. 0.90 µg/L
Area ratio: 0.35887
Sample type: CC



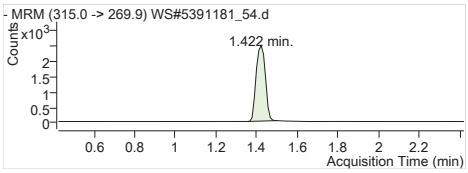


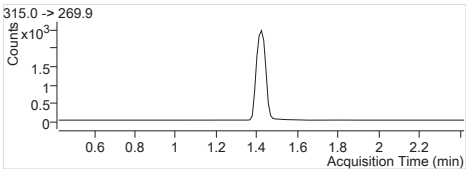
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.389 (2.400)
Calc. conc. 0.82 µg/L
Area ratio: 0.33162
Sample type: CC



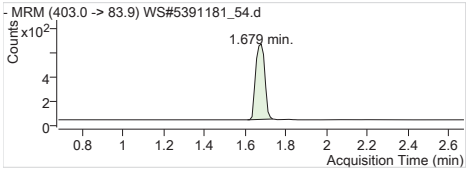


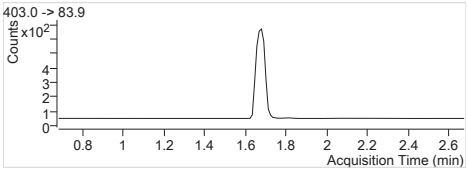
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.456 (2.467)
Calc. conc. 0.92 µg/L
Area ratio: 0.31589
Sample type: CC



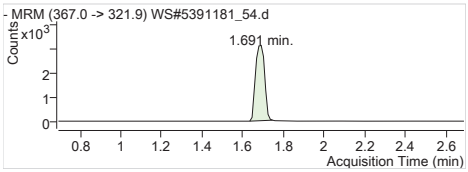


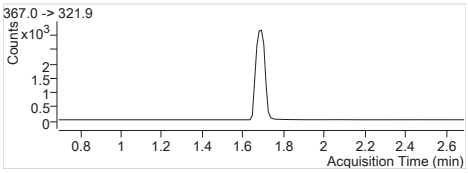
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 115.23 µg/L
Area ratio: 0.30008
Sample type: CC



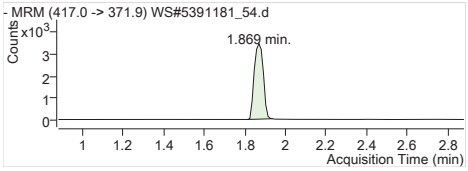


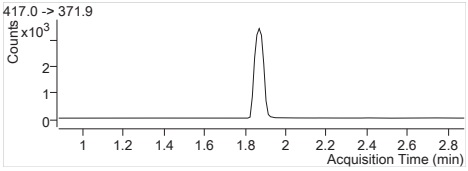
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 116.41 µg/L
Area ratio: 0.07568
Sample type: CC



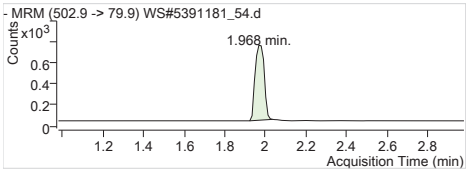


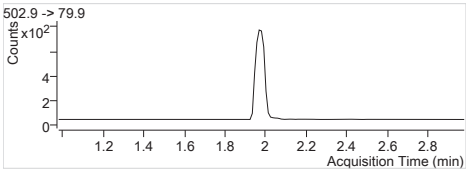
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 114.39 µg/L
Area ratio: 0.38041
Sample type: CC



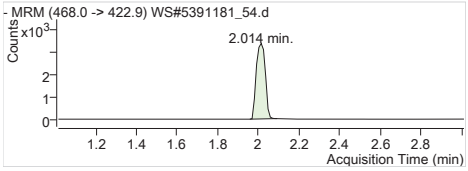


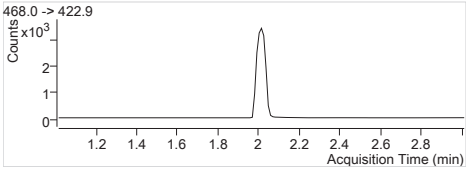
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 117.72 µg/L
Area ratio: 0.41249
Sample type: CC



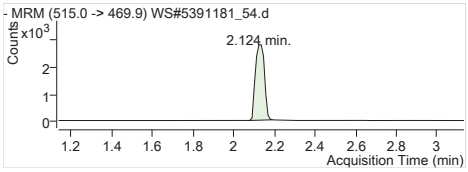


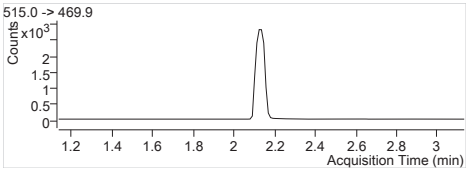
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.968 (1.979)
Calc. conc. 111.99 µg/L
Area ratio: 0.08731
Sample type: CC



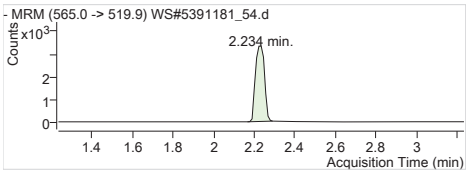


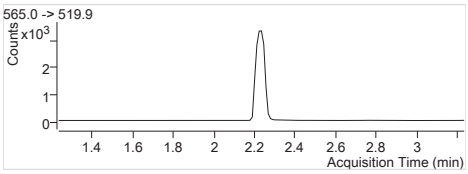
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 114.49 µg/L
Area ratio: 0.40507
Sample type: CC



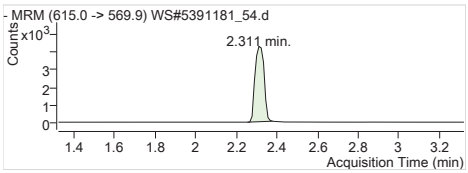


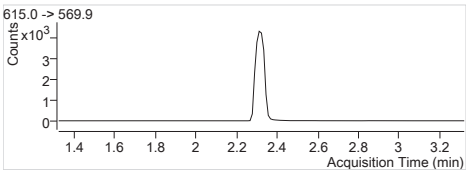
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.124 (2.135)
Calc. conc. 116.18 µg/L
Area ratio: 0.25258
Sample type: CC



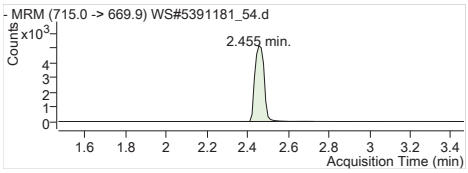


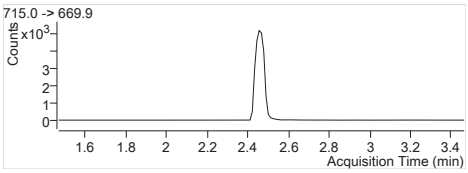
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.234 (2.234)
Calc. conc. 115.53 µg/L
Area ratio: 0.30189
Sample type: CC



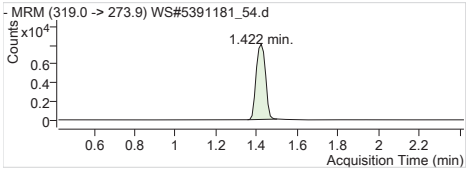


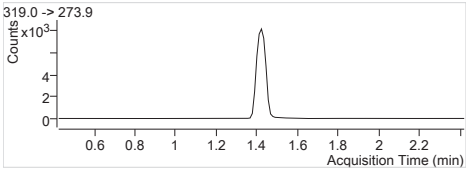
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.311 (2.322)
Calc. conc. 108.01 µg/L
Area ratio: 0.38632
Sample type: CC



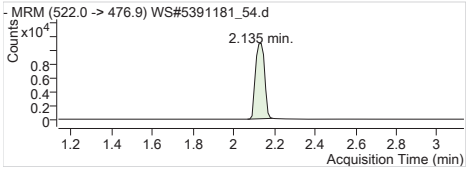


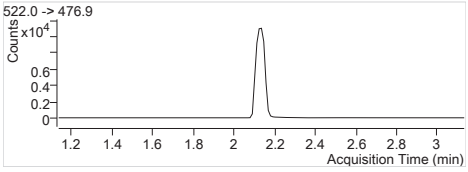
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.455 (2.467)
Calc. conc. 112.89 µg/L
Area ratio: 0.47545
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 119.35 µg/L
Area ratio: 0
Sample type: CC





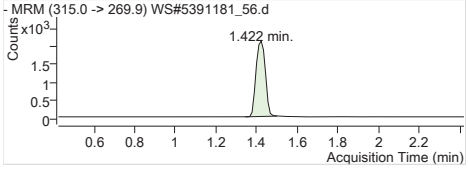
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 121.41 µg/L
Area ratio: 0
Sample type: CC

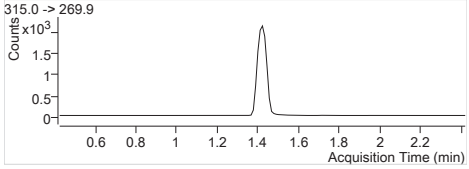
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_56.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-F9
Acq. Date	2018/02/12 2:06:03 PM	**Injection Volume**	Per Method
Sample Annotation	-		

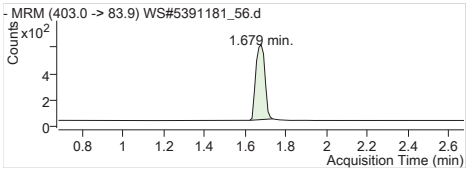
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6652	1.42	1 µg/L		
MPFHxS	1757	1.68	1 µg/L		
MPFHpA	8611	1.69	1 µg/L		
MPFOA	9578	1.87	1 µg/L		
MPFOS	1898	1.98	1 µg/L		
MPFNA	9062	2.01	1 µg/L		
MPFDA	8196	2.14	1 µg/L		
MPFUnA	9369	2.22	1 µg/L		
MPFDoA	11667	2.31	1 µg/L		
MPFTeDA	13305	2.46	1 µg/L		
13C6-PFHxA IS	22928	1.42	1 µg/L		
13C9-PFDA IS	30394	2.13	1 µg/L		

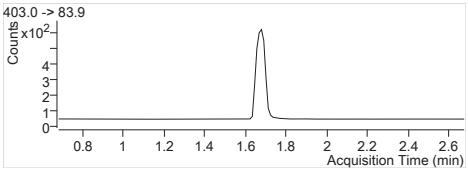
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	9204	1.08	12.50	10.88 µg/L	87.01
PFHxA 1	34755	1.42	12.50	11.71 µg/L	93.68
PFHxS 1	9614	1.68	12.50	11.79 µg/L	94.35
PFHpA 1	42855	1.69	12.50	11.49 µg/L	91.91
PFOA 1	47004	1.87	12.50	11.22 µg/L	89.77
PFOS 1	9292	1.97	12.50	12.42 µg/L	99.33
PFNA 1	42982	2.01	12.50	11.90 µg/L	95.19
PFDA 1	46906	2.12	12.50	10.76 µg/L	86.09
PFUnA 1	50883	2.22	12.50	11.16 µg/L	89.24
PFDoA 1	65831	2.31	12.50	12.36 µg/L	98.91
PFTrDA 1	73047	2.39	12.50	12.52 µg/L	100.13
PFTeDA 1	62912	2.46	12.50	12.69 µg/L	101.56
13C2-PFHxA	6652	1.42	100.00	111.41 µg/L	111.41
18O2-PFHxS	1757	1.68	100.00	117.87 µg/L	117.87
13C4-PFHpA	8611	1.69	100.00	112.93 µg/L	112.93
13C4-PFOA	9578	1.87	100.00	119.22 µg/L	119.22
13C4-PFOS	1898	1.98	100.00	106.17 µg/L	106.17
13C5-PFNA	9061	2.01	100.00	111.69 µg/L	111.69
13C2-PFDA	8007	2.14	100.00	121.17 µg/L	121.17
13C2-PFUnA	9369	2.22	100.00	117.97 µg/L	117.97
13C2-PFDoA	11667	2.31	100.00	107.33 µg/L	107.33
13C2-PFTeDA	13672	2.46	100.00	106.80 µg/L	106.80
13C6-PFHxA	22928	1.42	100.00	106.81 µg/L	106.81
13C9-PFDA	30394	2.13	100.00	108.12 µg/L	108.12



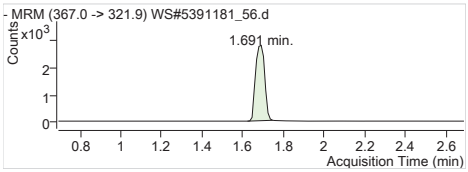


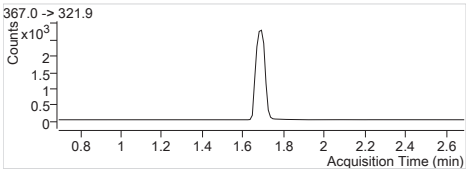
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



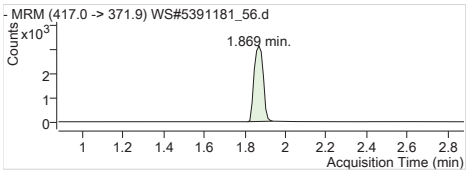


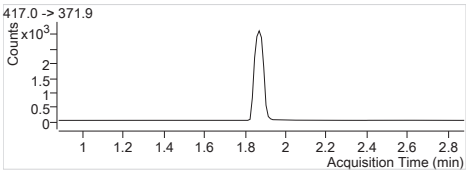
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC



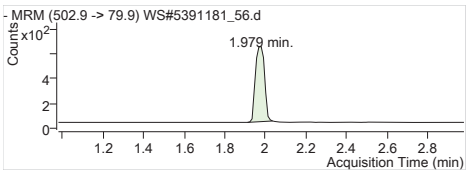


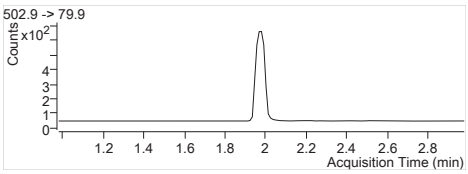
MPFHpA Internal Standard
RT (Exp. RT): 1.691 (1.691)
Concentration: 1 µg/L
Sample type: CC



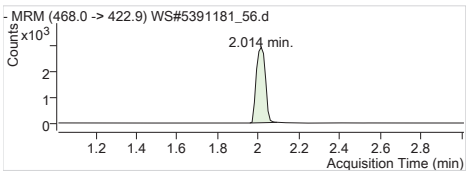


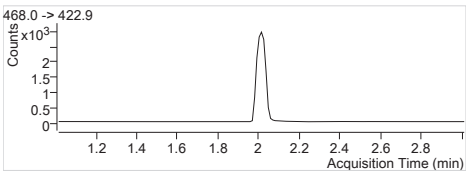
MPFOA Internal Standard
RT (Exp. RT): 1.869 (1.881)
Concentration: 1 µg/L
Sample type: CC



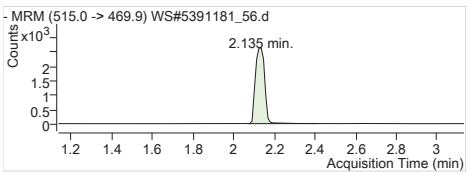


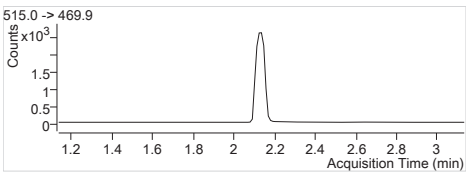
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: CC



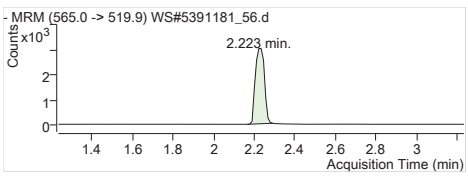


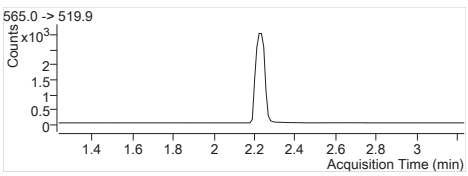
MPFNA Internal Standard
RT (Exp. RT): 2.014 (2.014)
Concentration: 1 µg/L
Sample type: CC



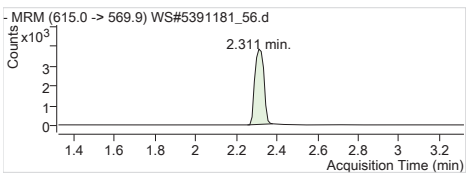


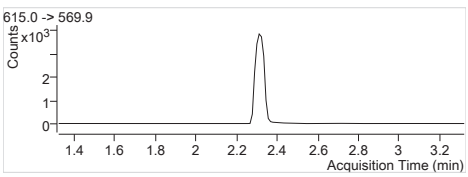
MPFDA Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



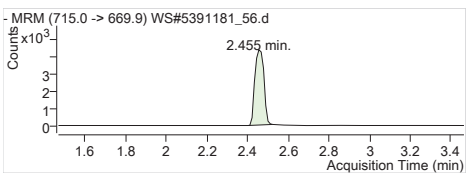


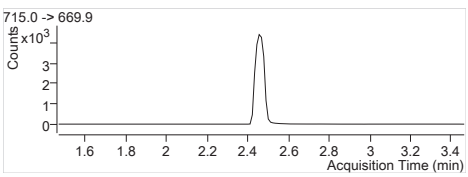
MPFUnA Internal Standard
RT (Exp. RT): 2.223 (2.234)
Concentration: 1 µg/L
Sample type: CC



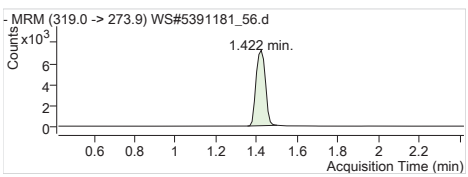


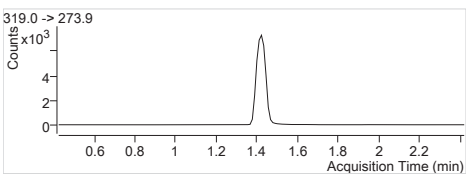
MPFDoA Internal Standard
RT (Exp. RT): 2.311 (2.322)
Concentration: 1 µg/L
Sample type: CC



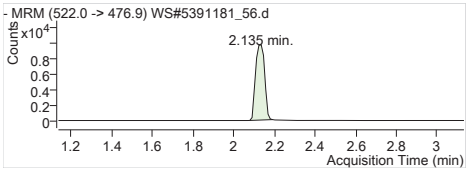


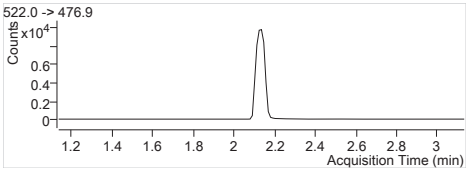
MPFTeDA Internal Standard
RT (Exp. RT): 2.455 (2.467)
Concentration: 1 µg/L
Sample type: CC



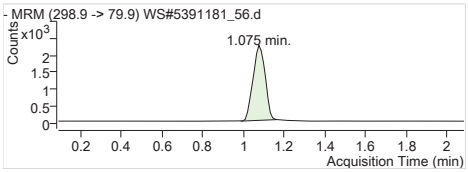


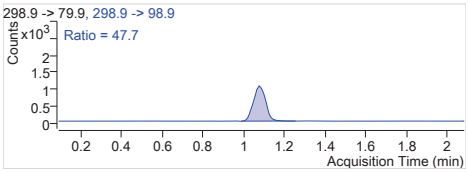
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC



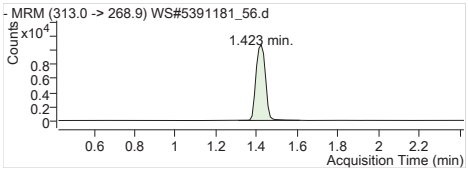


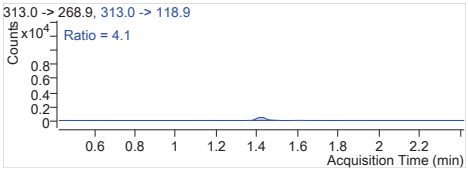
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.135 (2.135)
Concentration: 1 µg/L
Sample type: CC



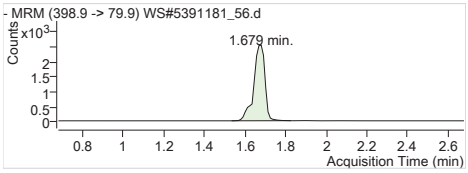


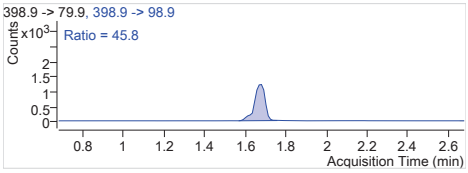
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 1.075 (1.087)
Calc. conc. 10.88 µg/L
Area ratio: 5.23847
Sample type: CC



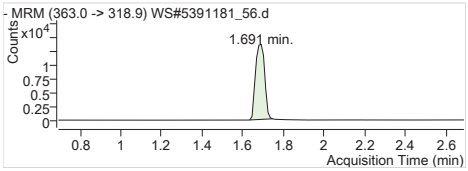


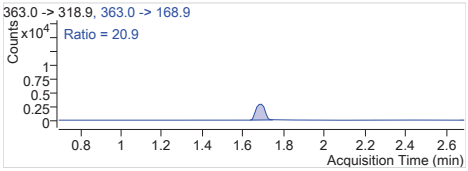
PFHxA 1 313.0 -> 268.9
RT (Exp. RT): 1.423 (1.423)
Calc. conc. 11.71 µg/L
Area ratio: 5.22474
Sample type: CC



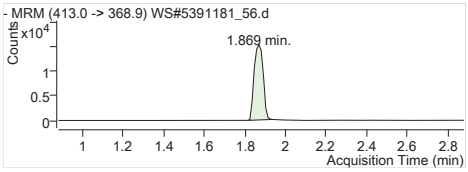


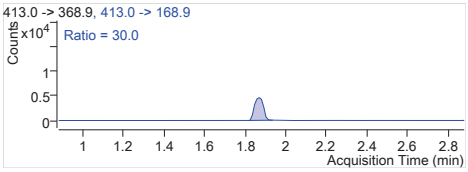
PFHxS 1 398.9 -> 79.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 11.79 µg/L
Area ratio: 5.47183
Sample type: CC



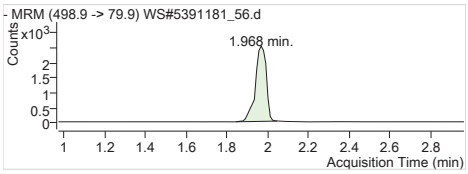


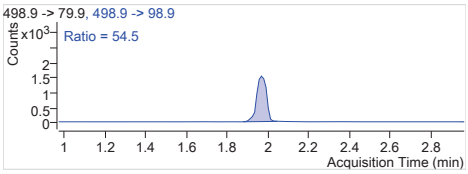
PFHpA 1 363.0 -> 318.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 11.49 µg/L
Area ratio: 4.97677
Sample type: CC



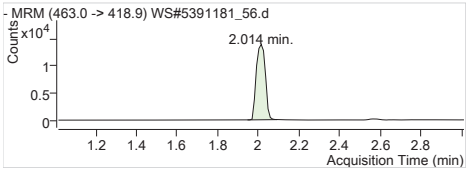


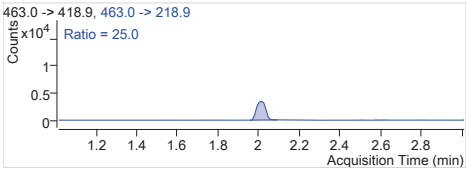
PFOA 1 413.0 -> 368.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 11.22 µg/L
Area ratio: 4.90750
Sample type: CC



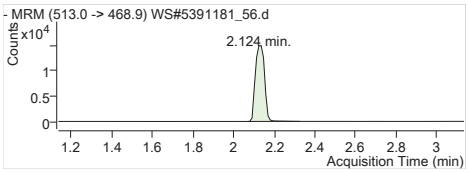


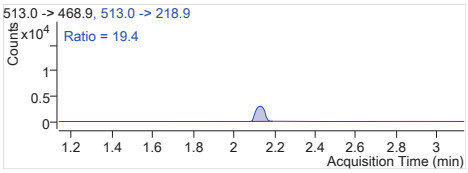
PFOS 1 498.9 -> 79.9
RT (Exp. RT): 1.968 (1.968)
Calc. conc. 12.42 µg/L
Area ratio: 4.89568
Sample type: CC



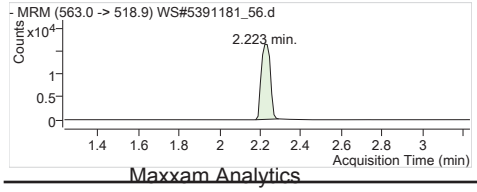


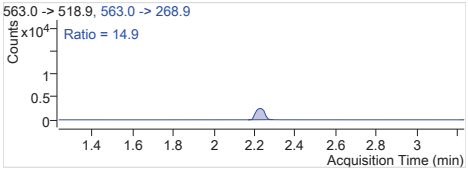
PFNA 1 463.0 -> 418.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 11.90 µg/L
Area ratio: 4.74310
Sample type: CC



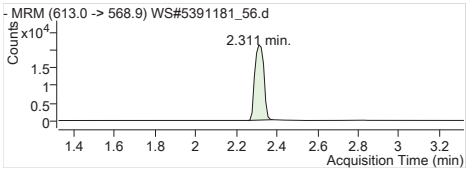


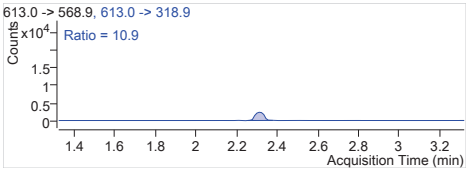
PFDA 1 513.0 -> 468.9
RT (Exp. RT): 2.124 (2.135)
Calc. conc. 10.76 µg/L
Area ratio: 5.72304
Sample type: CC



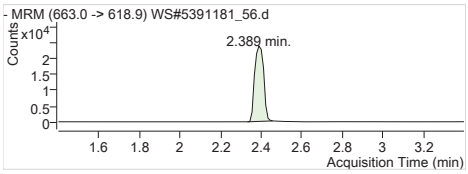


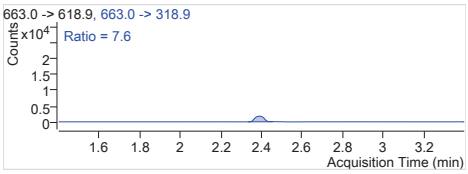
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.223 (2.234)
Calc. conc. 11.16 µg/L
Area ratio: 5.43100
Sample type: CC



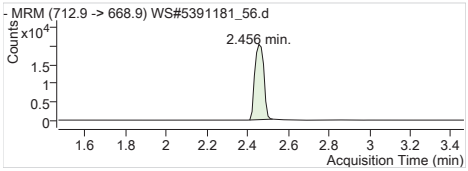


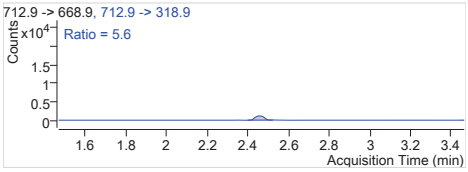
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.311 (2.323)
Calc. conc. 12.36 µg/L
Area ratio: 5.64250
Sample type: CC



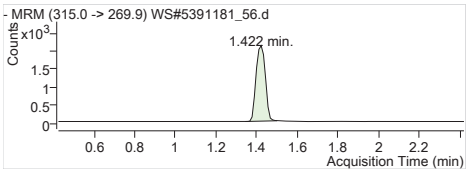


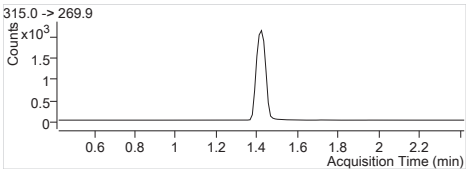
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.389 (2.400)
Calc. conc. 12.52 µg/L
Area ratio: 5.49019
Sample type: CC



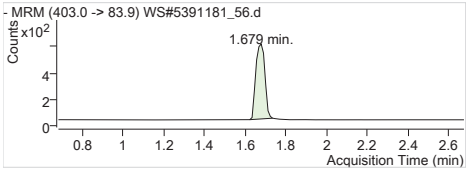


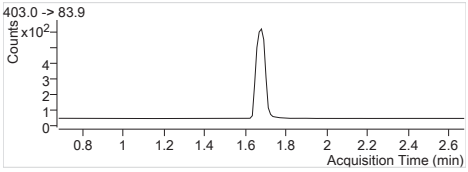
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.456 (2.467)
Calc. conc. 12.69 µg/L
Area ratio: 4.72845
Sample type: CC



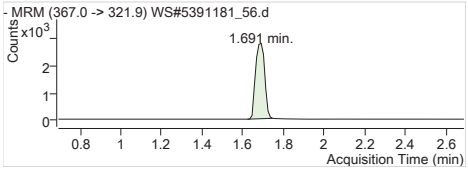


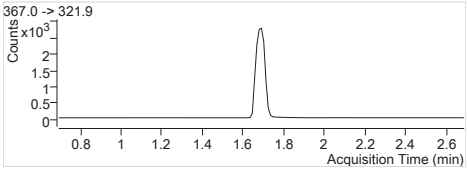
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 111.41 µg/L
Area ratio: 0.29013
Sample type: CC



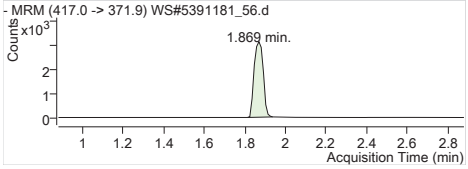


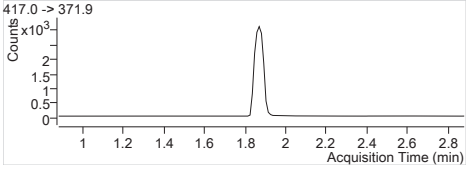
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.679 (1.679)
Calc. conc. 117.87 µg/L
Area ratio: 0.07663
Sample type: CC



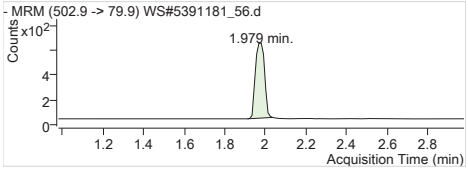


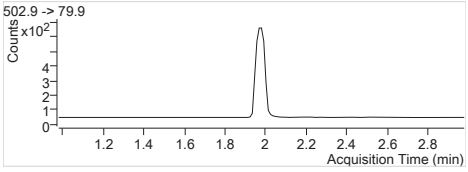
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.691 (1.691)
Calc. conc. 112.93 µg/L
Area ratio: 0.37557
Sample type: CC



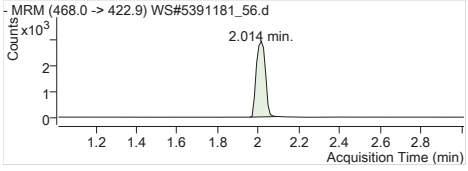


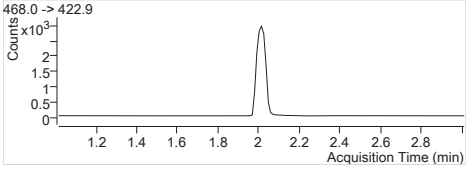
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.869 (1.881)
Calc. conc. 119.22 µg/L
Area ratio: 0.41774
Sample type: CC



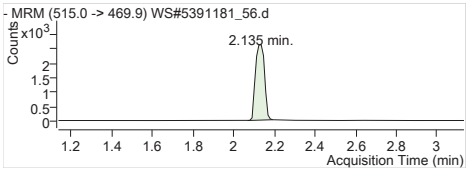


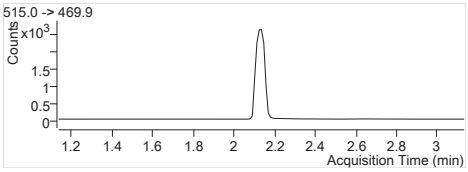
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 106.17 µg/L
Area ratio: 0.08278
Sample type: CC



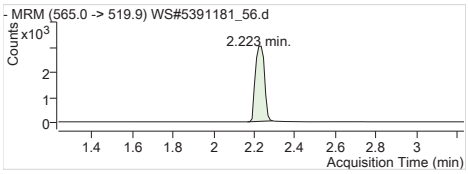


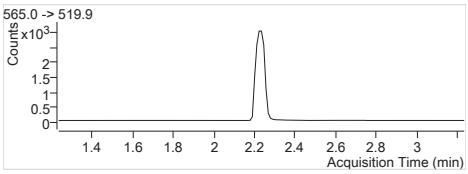
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.014 (2.014)
Calc. conc. 111.69 µg/L
Area ratio: 0.39519
Sample type: CC



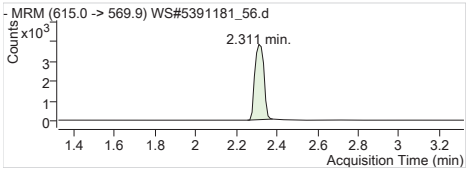


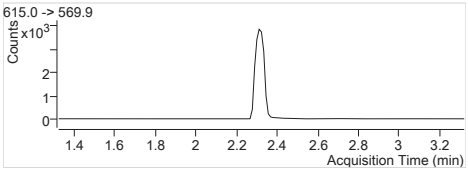
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 121.17 µg/L
Area ratio: 0.26344
Sample type: CC



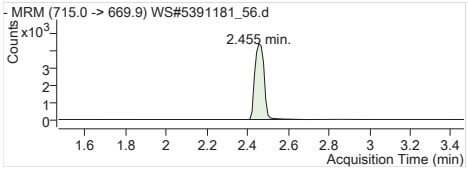


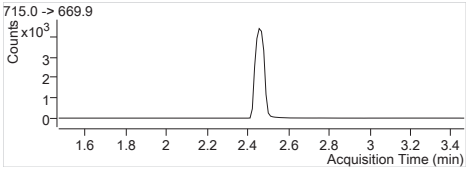
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.223 (2.234)
Calc. conc. 117.97 µg/L
Area ratio: 0.30825
Sample type: CC



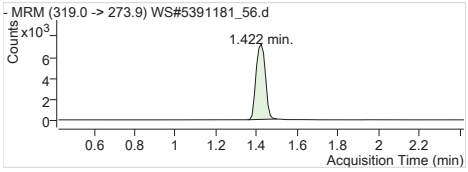


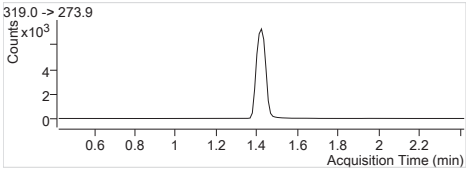
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.311 (2.322)
Calc. conc. 107.33 µg/L
Area ratio: 0.38386
Sample type: CC



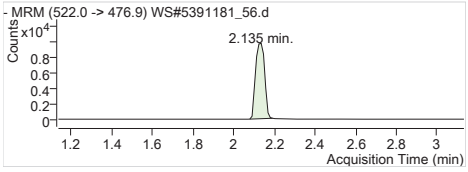


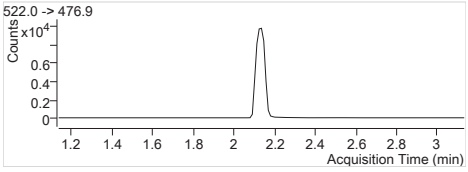
13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.455 (2.467)
Calc. conc. 106.80 µg/L
Area ratio: 0.44983
Sample type: CC





13C6-PFHxA 319.0 -> 273.9
RT (Exp. RT): 1.422 (1.422)
Calc. conc. 106.81 µg/L
Area ratio: 0
Sample type: CC





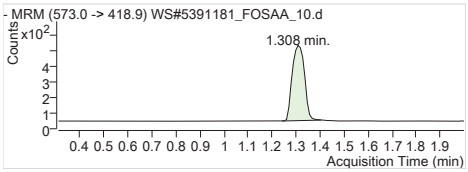
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.135 (2.135)
Calc. conc. 108.12 µg/L
Area ratio: 0
Sample type: CC

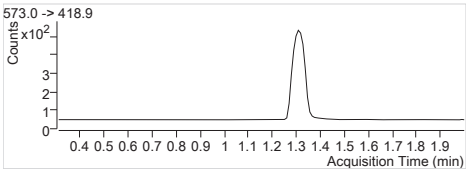
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A2
Acq. Date	2018/02/09 10:48:47 PM	**Injection Volume**	Per Method
Sample Annotation	-		

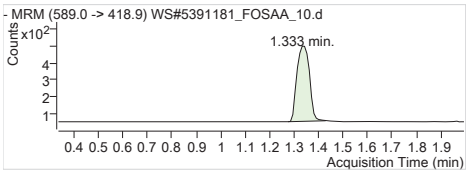
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1718	1.31	1 µg/L		
D5-EtFOSAA IS	1601	1.33	1 µg/L		
13C9-PFDA IS	24824	0.90	1 µg/L		

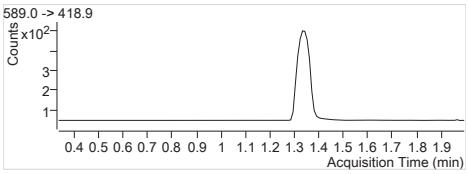
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	568	1.31	0.83	0.89 µg/L	107.58
EtFOSAA 1	561	1.33	0.83	0.85 µg/L	102.99
D3-MeFOSAA	1746	1.31	100.00	95.21 µg/L	95.21
D5-EtFOSAA	1640	1.33	100.00	99.54 µg/L	99.54
13C9-PFDA	24055	0.90	100.00	107.89 µg/L	107.89



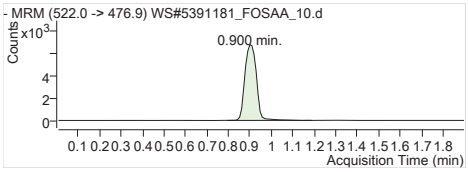


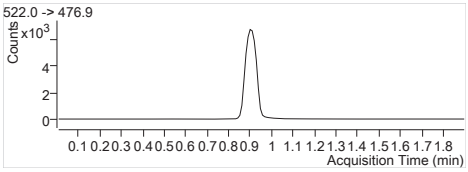
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



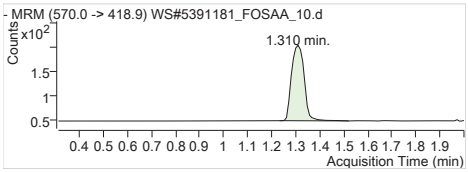


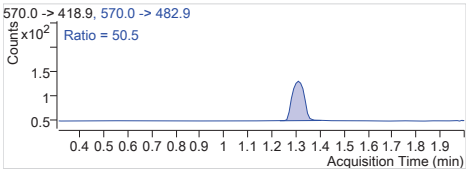
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



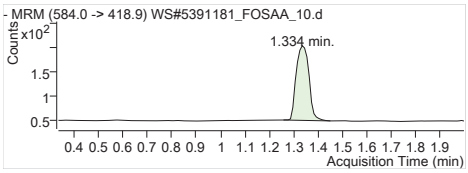


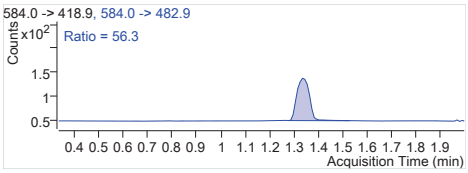
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



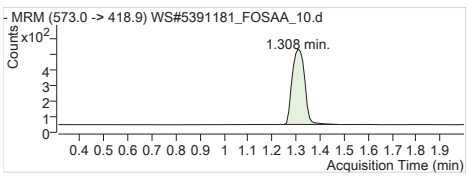


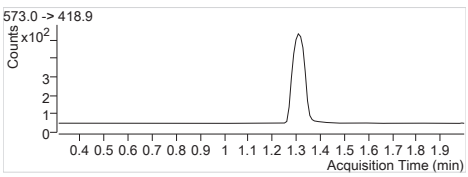
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.89 µg/L
Area ratio: 0.33062
Sample type: CC



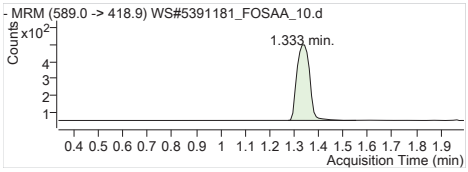


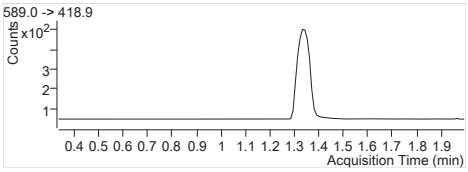
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 0.85 µg/L
Area ratio: 0.35041
Sample type: CC



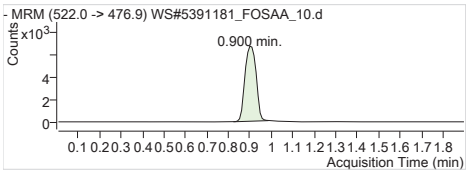


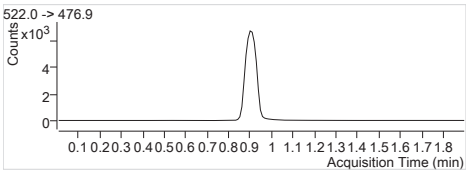
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 95.21 µg/L
Area ratio: 0.07034
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	99.54 µg/L
Area ratio:	0.06607
Sample type:	CC





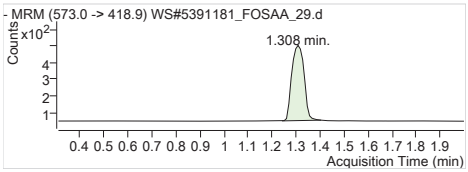
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	107.89 µg/L
Area ratio:	0
Sample type:	CC

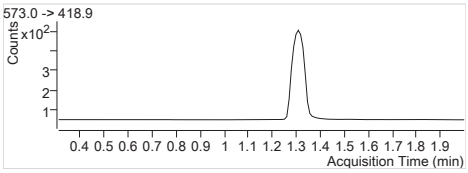
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_29.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A5
Acq. Date	2018/02/09 11:34:35 PM	**Injection Volume**	Per Method
Sample Annotation	-		

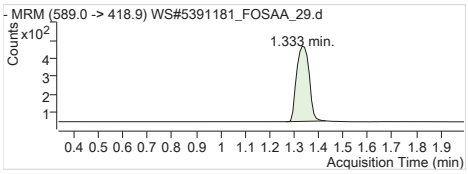
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1611	1.31	1 µg/L		
D5-EtFOSAA IS	1491	1.33	1 µg/L		
13C9-PFDA IS	21819	0.90	1 µg/L		

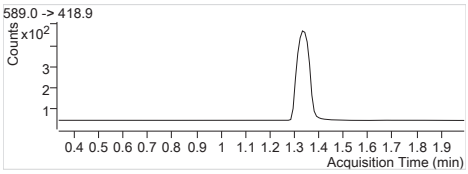
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8248	1.31	12.50	13.35 µg/L	106.83
EtFOSAA 1	8715	1.33	12.50	12.73 µg/L	101.86
D3-MeFOSAA	1634	1.31	100.00	101.37 µg/L	101.37
D5-EtFOSAA	1521	1.33	100.00	105.03 µg/L	105.03
13C9-PFDA	21203	0.90	100.00	95.10 µg/L	95.10



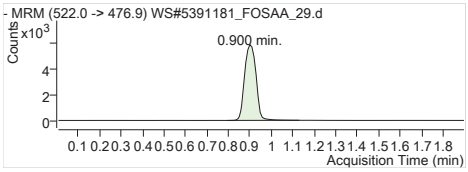


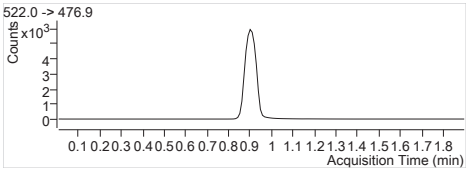
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



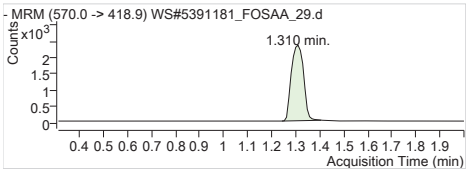


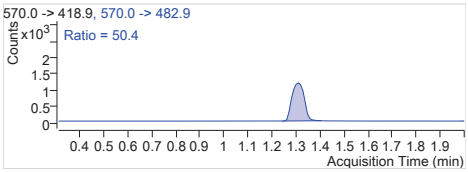
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



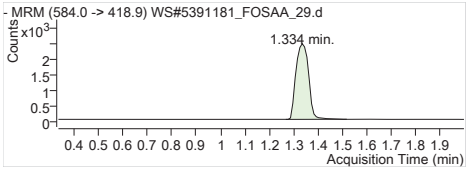


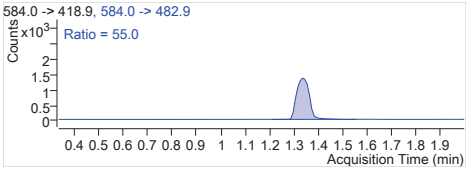
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



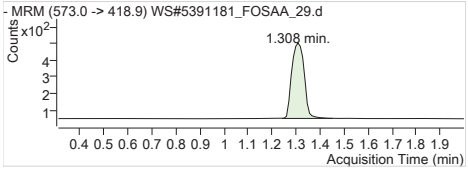


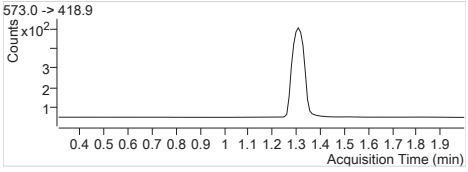
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 13.35 µg/L
Area ratio: 5.11980
Sample type: CC



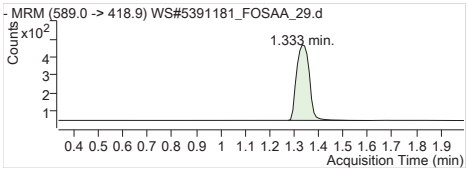


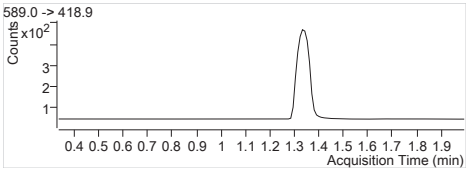
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 12.73 µg/L
Area ratio: 5.84507
Sample type: CC



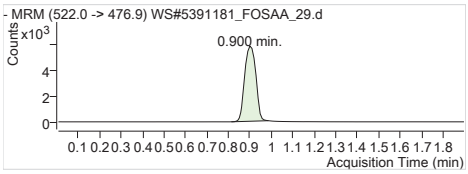


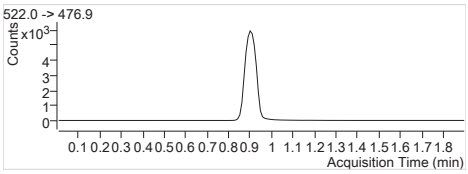
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 101.37 µg/L
Area ratio: 0.07489
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	105.03 µg/L
Area ratio:	0.06971
Sample type:	CC





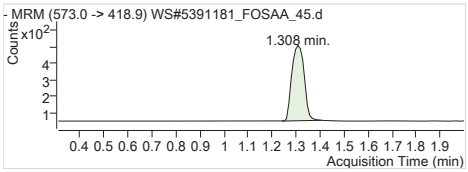
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	95.10 µg/L
Area ratio:	0
Sample type:	CC

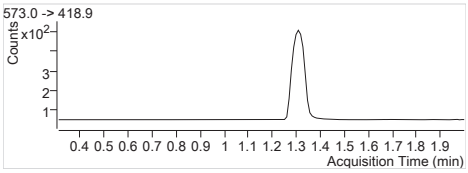
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_45.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A5
Acq. Date	2018/02/10 12:13:07 AM	**Injection Volume**	Per Method
Sample Annotation	-		

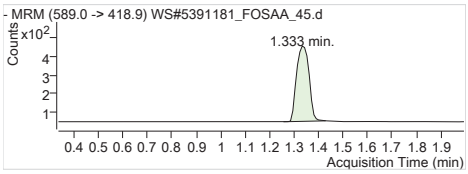
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1642	1.31	1 µg/L		
D5-EtFOSAA IS	1447	1.33	1 µg/L		
13C9-PFDA IS	21974	0.90	1 µg/L		

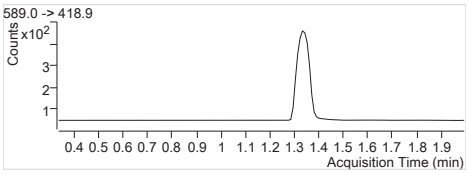
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8000	1.31	12.50	12.71 µg/L	101.68
EtFOSAA 1	8527	1.33	12.50	12.84 µg/L	102.69
D3-MeFOSAA	1674	1.31	100.00	103.12 µg/L	103.12
D5-EtFOSAA	1480	1.33	100.00	101.48 µg/L	101.48
13C9-PFDA	21334	0.90	100.00	95.69 µg/L	95.69



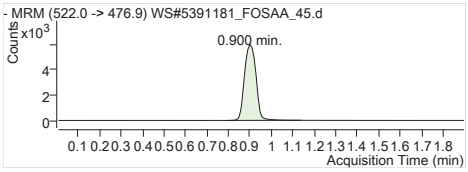


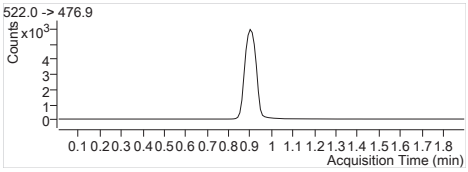
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



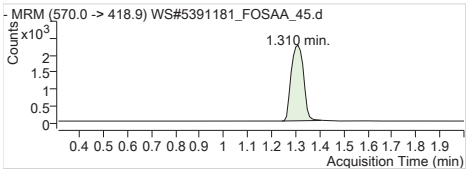


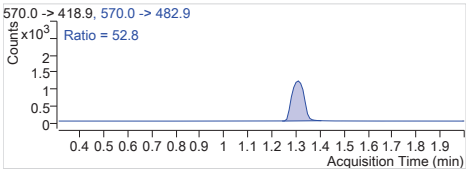
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



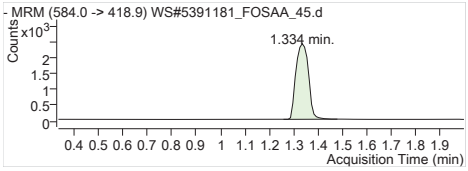


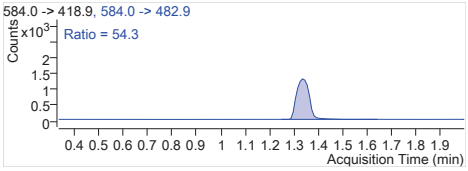
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



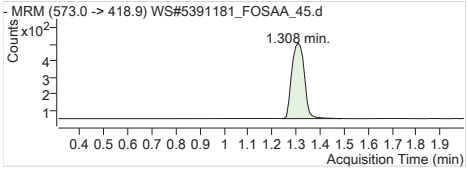


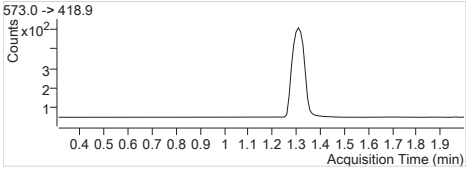
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 12.71 µg/L
Area ratio: 4.87211
Sample type: CC



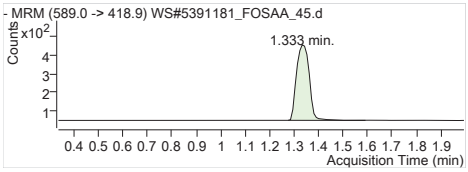


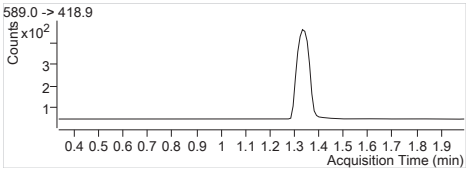
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 12.84 µg/L
Area ratio: 5.89288
Sample type: CC



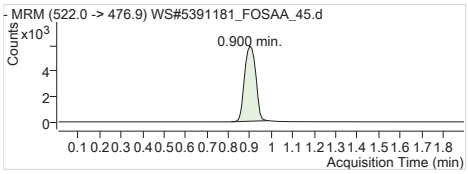


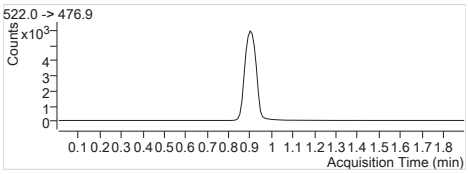
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 103.12 µg/L
Area ratio: 0.07618
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	101.48 µg/L
Area ratio:	0.06735
Sample type:	CC





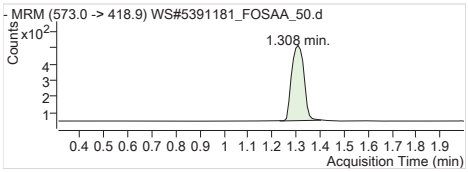
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	95.69 µg/L
Area ratio:	0
Sample type:	CC

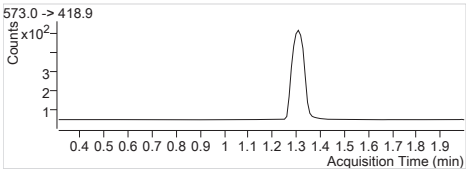
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_50.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A5
Acq. Date	2018/02/10 12:25:12 AM	**Injection Volume**	Per Method
Sample Annotation	-		

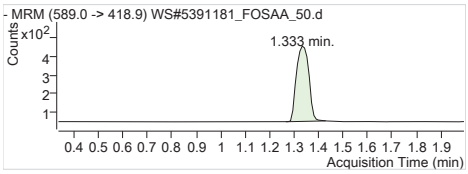
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1660	1.31	1 µg/L		
D5-EtFOSAA IS	1438	1.33	1 µg/L		
13C9-PFDA IS	22191	0.90	1 µg/L		

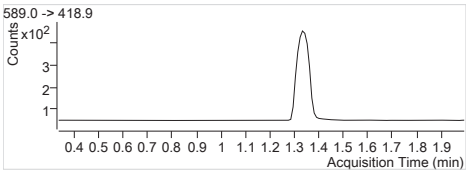
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8147	1.31	12.50	12.80 µg/L	102.42
EtFOSAA 1	8697	1.33	12.50	13.17 µg/L	105.37
D3-MeFOSAA	1682	1.31	100.00	102.60 µg/L	102.60
D5-EtFOSAA	1461	1.33	100.00	99.20 µg/L	99.20
13C9-PFDA	21524	0.90	100.00	96.54 µg/L	96.54



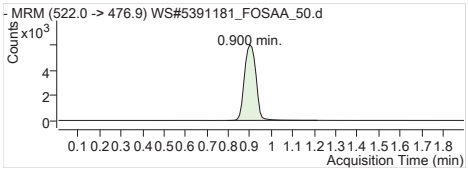


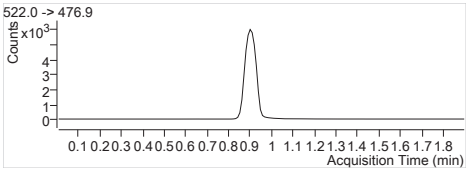
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



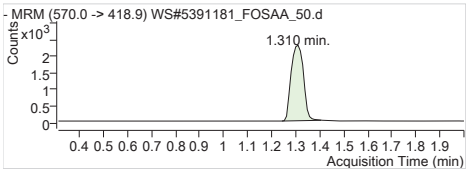


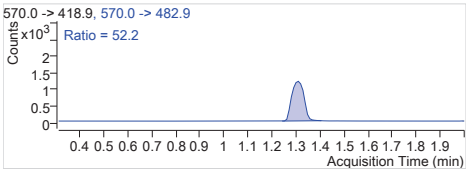
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



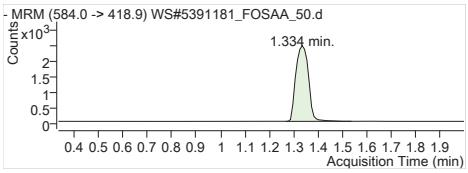


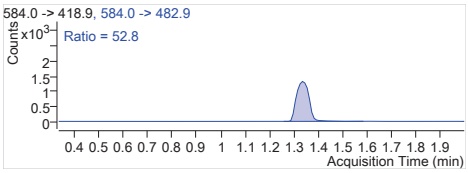
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



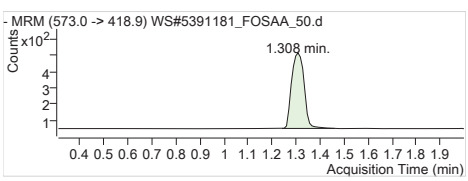


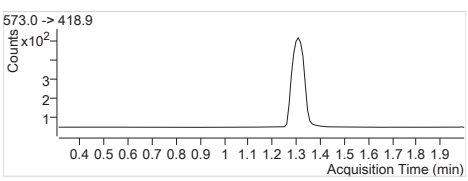
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 12.80 µg/L
Area ratio: 4.90783
Sample type: CC



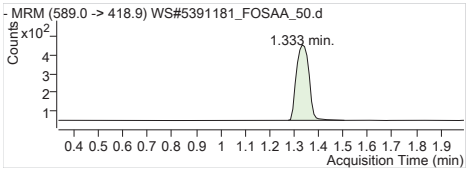


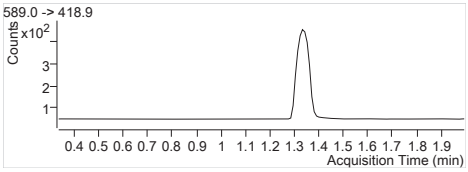
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 13.17 µg/L
Area ratio: 6.04798
Sample type: CC



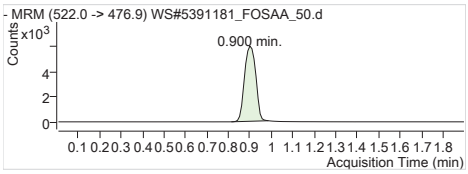


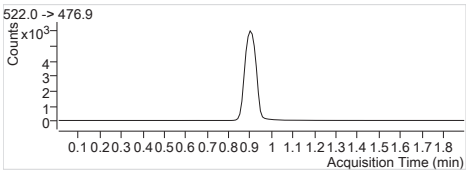
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 102.60 µg/L
Area ratio: 0.07580
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.333 (1.333)
Calc. conc.	99.20 µg/L
Area ratio:	0.06584
Sample type:	CC





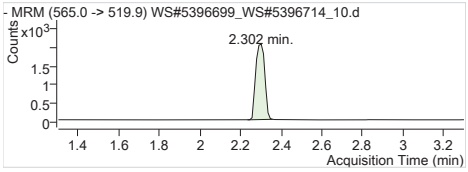
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	0.900 (0.900)
Calc. conc.	96.54 µg/L
Area ratio:	0
Sample type:	CC

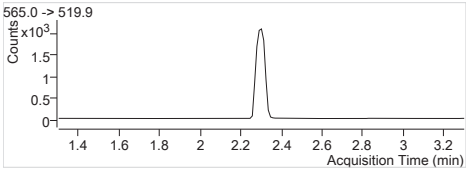
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/15 4:55:18 PM	**Injection Volume**	Per Method
Sample Annotation	-		

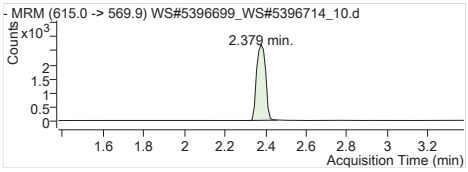
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6327	2.30	1 µg/L		
MPFDoA	8157	2.38	1 µg/L		
MPFTeDA	7028	2.51	1 µg/L		
13C9-PFDA IS	26238	2.20	1 µg/L		

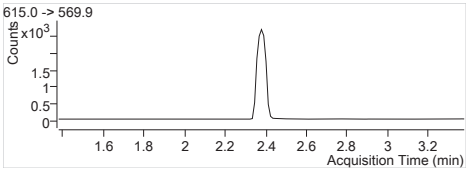
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	2334	2.30	0.83	0.87 µg/L	105.09
PFDoA 1	3175	2.38	0.83	0.92 µg/L	110.46
PFTrDA 1	3314	2.44	0.83	0.95 µg/L	114.56
PFTeDA 1	2539	2.51	0.83	0.90 µg/L	108.79
13C2-PFUnA	6327	2.30	100.00	102.57 µg/L	102.57
13C2-PFDoA	8157	2.38	100.00	101.59 µg/L	101.59
13C2-PFTeDA	7085	2.51	100.00	99.82 µg/L	99.82
13C9-PFDA	26238	2.20	100.00	107.77 µg/L	107.77



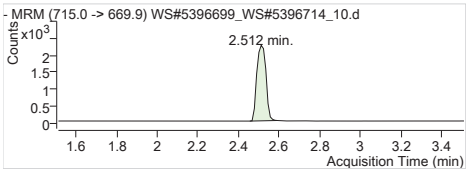


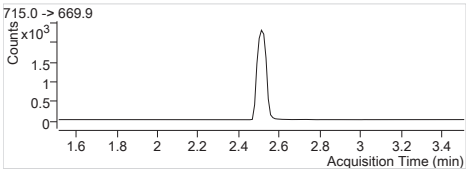
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: CC



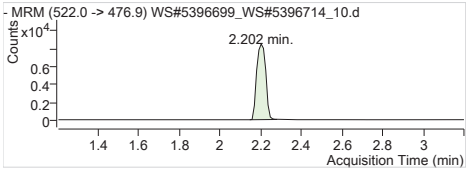


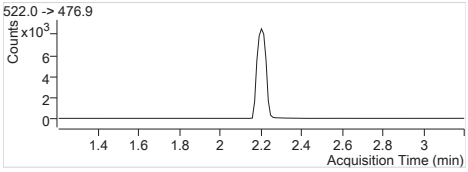
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



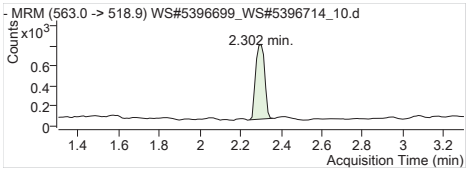


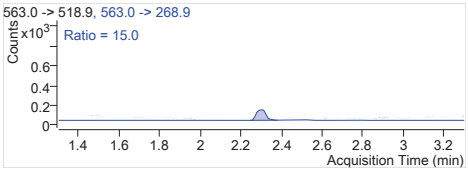
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC



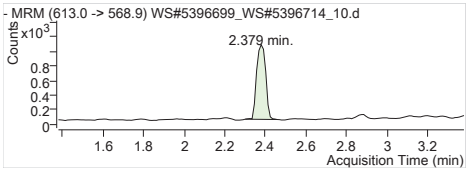


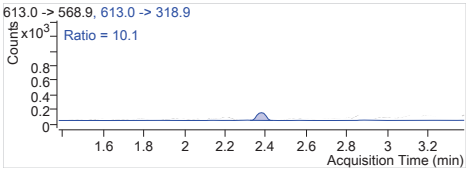
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC



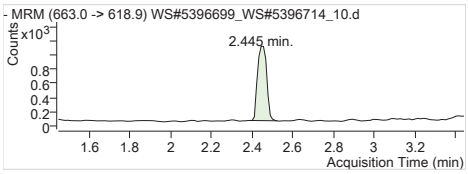


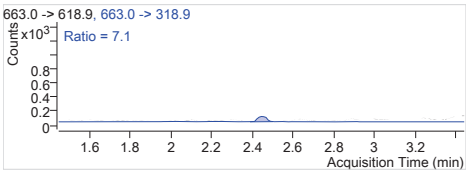
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 0.87 µg/L
Area ratio: 0.36890
Sample type: CC



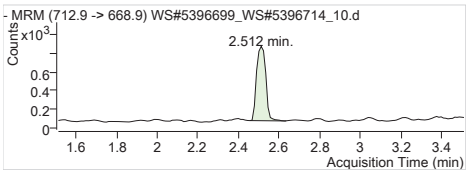


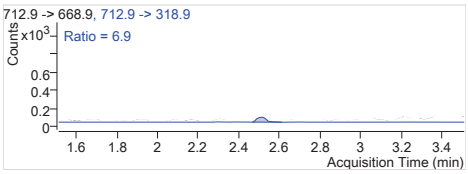
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 0.92 µg/L
Area ratio: 0.38924
Sample type: CC



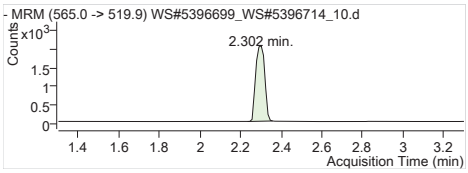


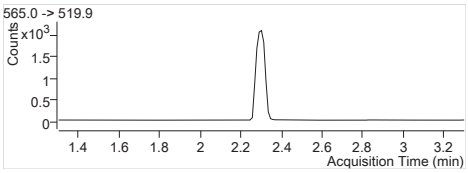
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.445 (2.445)
Calc. conc. 0.95 µg/L
Area ratio: 0.47154
Sample type: CC



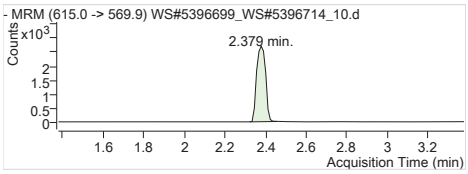


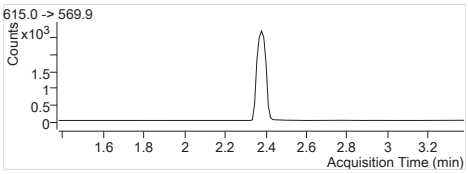
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 0.90 µg/L
Area ratio: 0.36127
Sample type: CC



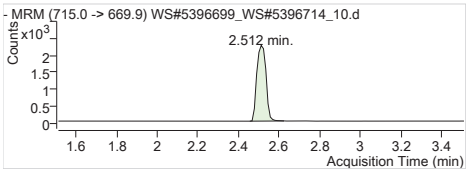


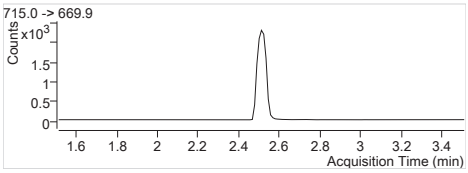
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 102.57 µg/L
Area ratio: 0.24114
Sample type: CC



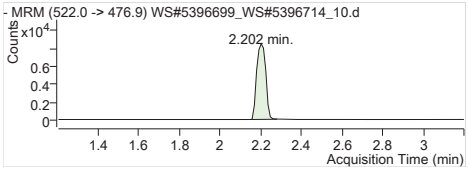


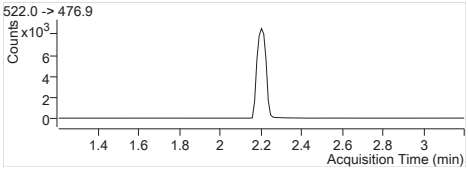
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 101.59 µg/L
Area ratio: 0.31088
Sample type: CC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 99.82 µg/L
Area ratio: 0.27003
Sample type: CC





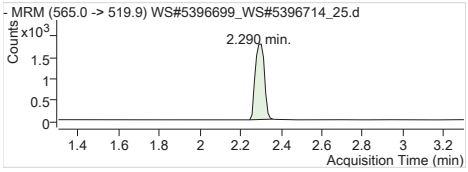
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 107.77 µg/L
Area ratio: 0
Sample type: CC

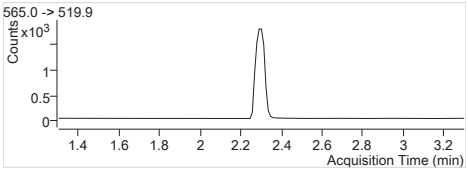
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/15 6:09:18 PM	**Injection Volume**	Per Method
Sample Annotation	-		

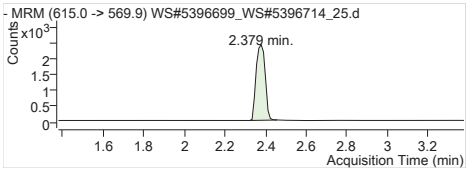
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5530	2.29	1 µg/L		
MPFDoA	7425	2.38	1 µg/L		
MPFTeDA	6845	2.51	1 µg/L		
13C9-PFDA IS	24750	2.20	1 µg/L		

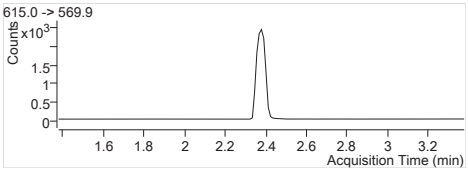
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	39896	2.29	12.50	12.19 µg/L	97.56
PFDoA 1	52915	2.38	12.50	12.49 µg/L	99.95
PFTrDA 1	56339	2.44	12.50	12.38 µg/L	99.01
PFTeDA 1	44336	2.51	12.50	12.25 µg/L	97.98
13C2-PFUnA	5530	2.29	100.00	95.04 µg/L	95.04
13C2-PFDoA	7425	2.38	100.00	98.03 µg/L	98.03
13C2-PFTeDA	6903	2.51	100.00	103.10 µg/L	103.10
13C9-PFDA	24750	2.20	100.00	101.66 µg/L	101.66



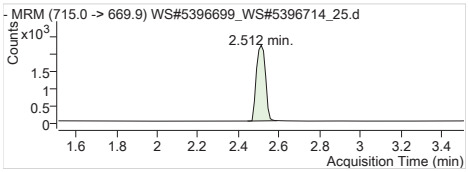


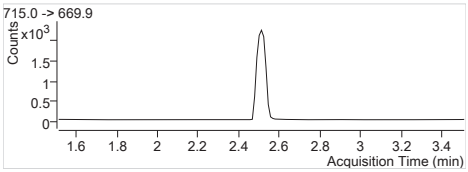
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: CC



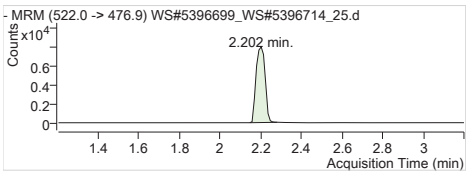


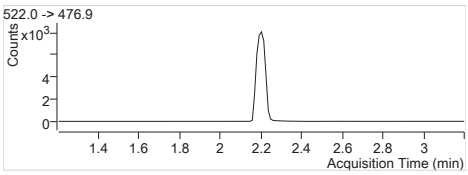
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



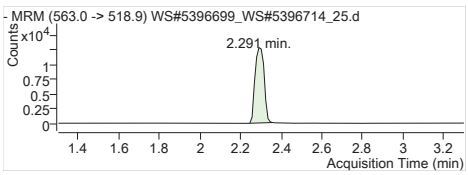


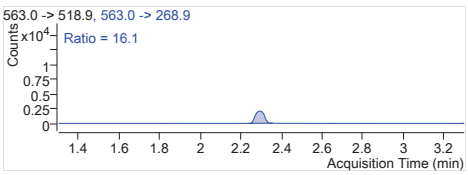
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC



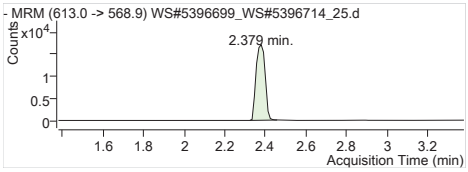


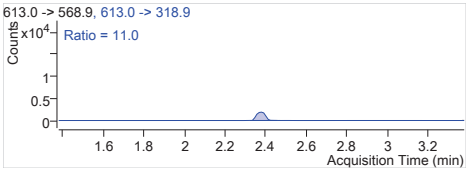
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC



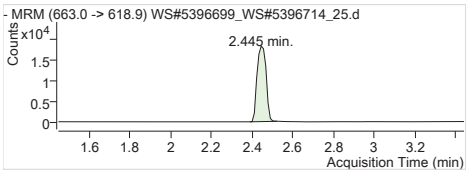


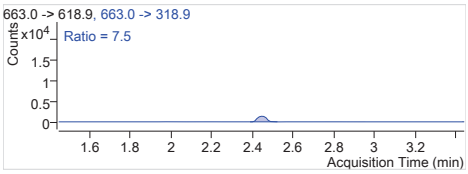
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 12.19 µg/L
Area ratio: 7.21447
Sample type: CC



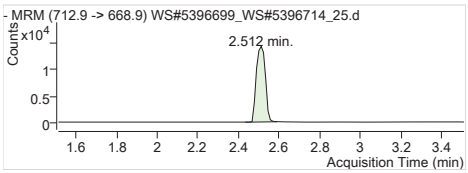


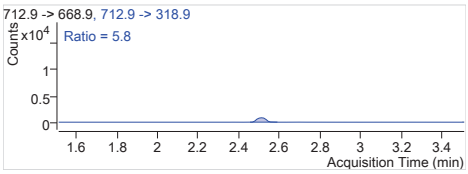
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 12.49 µg/L
Area ratio: 7.12660
Sample type: CC



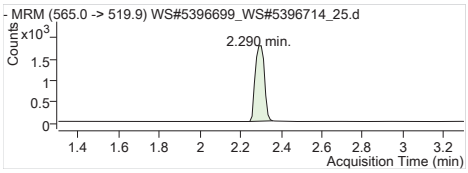


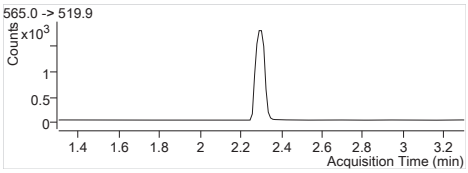
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.445 (2.445)
Calc. conc. 12.38 µg/L
Area ratio: 8.23068
Sample type: CC



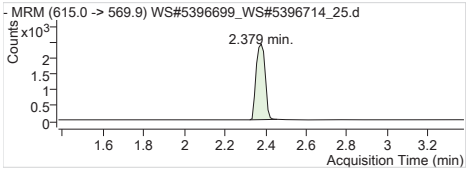


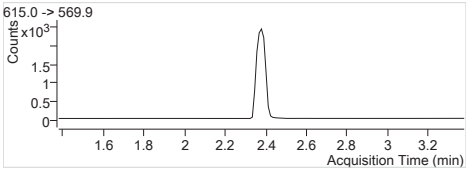
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 12.25 µg/L
Area ratio: 6.47714
Sample type: CC



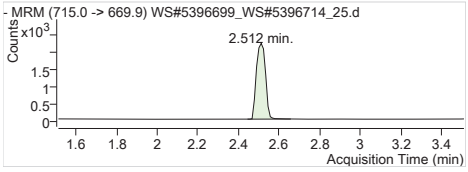


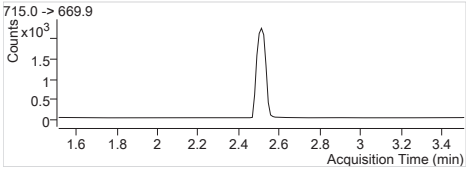
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.290 (2.302)
Calc. conc. 95.04 µg/L
Area ratio: 0.22343
Sample type: CC



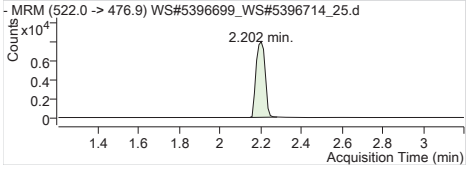


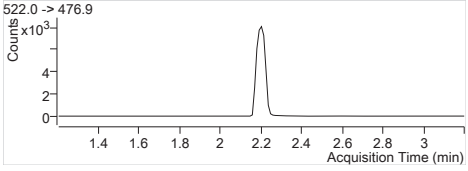
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 98.03 µg/L
Area ratio: 0.30000
Sample type: CC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 103.10 µg/L
Area ratio: 0.27891
Sample type: CC





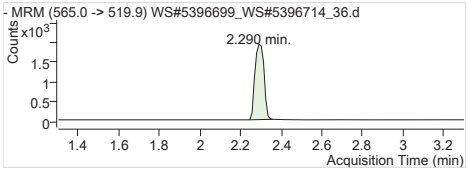
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 101.66 µg/L
Area ratio: 0
Sample type: CC

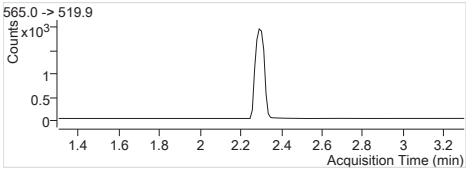
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_36.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/15 7:03:36 PM	**Injection Volume**	Per Method
Sample Annotation	-		

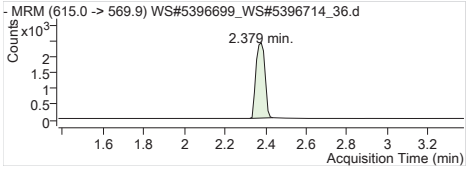
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5902	2.29	1 µg/L		
MPFDoA	7321	2.38	1 µg/L		
MPFTeDA	6965	2.51	1 µg/L		
13C9-PFDA IS	24591	2.20	1 µg/L		

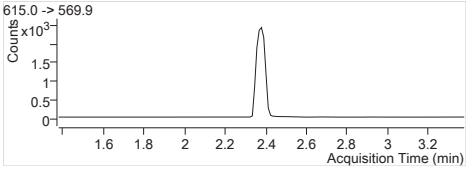
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	41882	2.29	12.50	12.00 µg/L	96.00
PFDoA 1	54333	2.38	12.50	13.00 µg/L	104.01
PFTrDA 1	54911	2.44	12.50	11.87 µg/L	94.92
PFTeDA 1	44587	2.51	12.50	12.11 µg/L	96.86
13C2-PFUnA	5902	2.29	100.00	102.09 µg/L	102.09
13C2-PFDoA	7321	2.38	100.00	97.28 µg/L	97.28
13C2-PFTeDA	7046	2.51	100.00	105.92 µg/L	105.92
13C9-PFDA	24591	2.20	100.00	101.00 µg/L	101.00



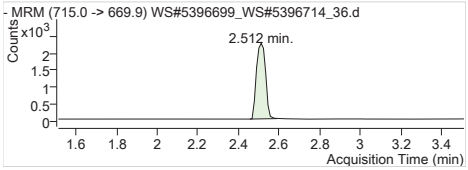


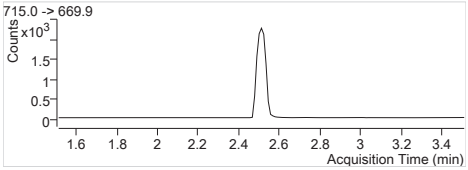
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: CC



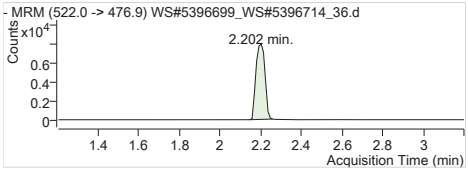


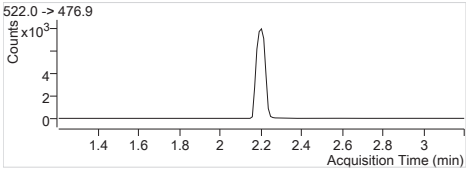
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



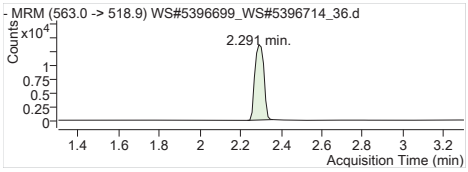


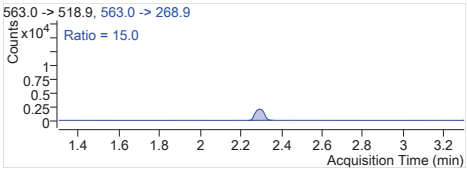
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC



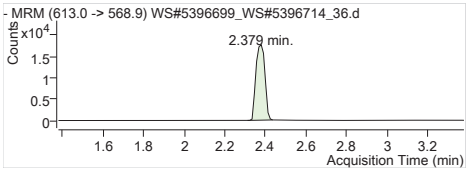


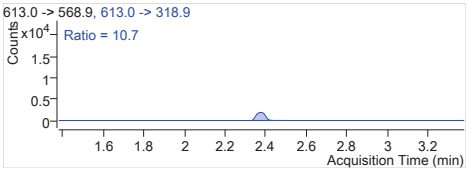
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC



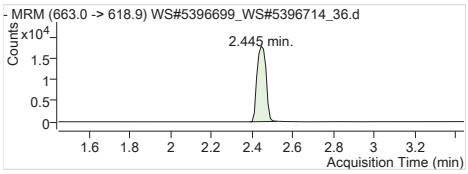


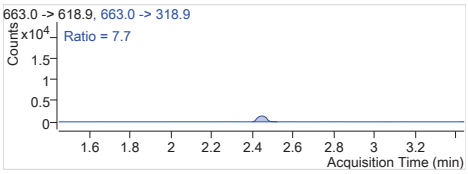
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 12.00 µg/L
Area ratio: 7.09624
Sample type: CC



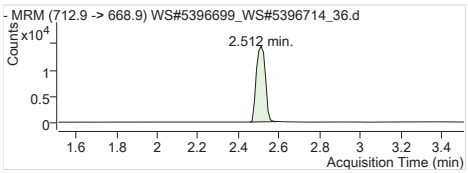


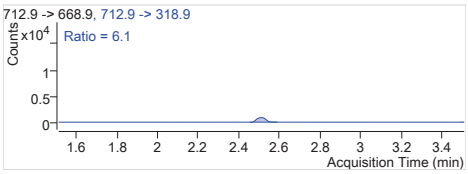
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	13.00 µg/L
Area ratio:	7.42153
Sample type:	CC



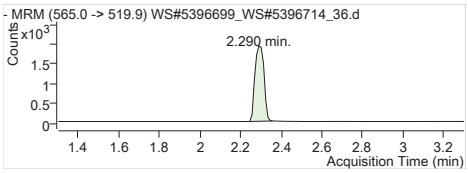


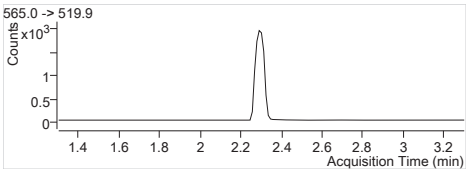
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	2.445 (2.445)
Calc. conc.	11.87 µg/L
Area ratio:	7.88385
Sample type:	CC



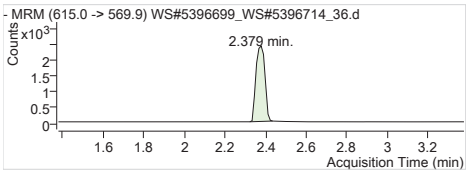


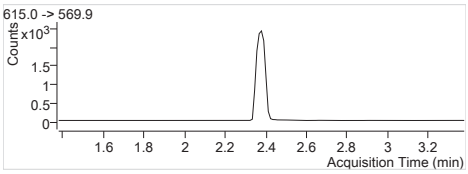
PFTeDA 1	712.9 -> 668.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	12.11 µg/L
Area ratio:	6.40158
Sample type:	CC



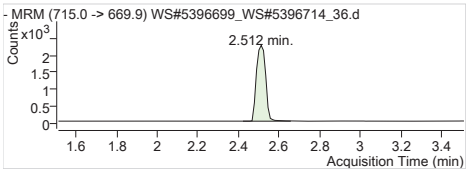


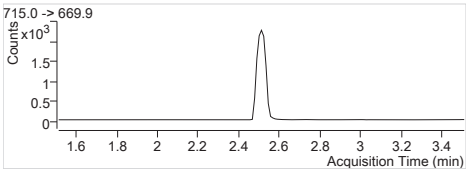
13C2-PFUnA	565.0 -> 519.9
RT (Exp. RT):	2.290 (2.302)
Calc. conc.	102.09 µg/L
Area ratio:	0.24001
Sample type:	CC



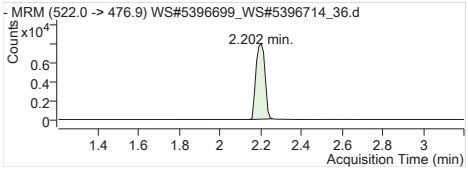


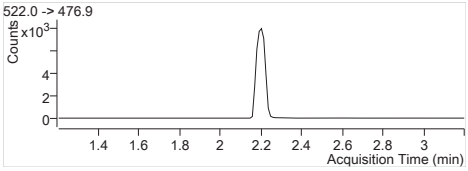
13C2-PFDoA	615.0 -> 569.9
RT (Exp. RT):	2.379 (2.379)
Calc. conc.	97.28 µg/L
Area ratio:	0.29771
Sample type:	CC





13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.512 (2.512)
Calc. conc.	105.92 µg/L
Area ratio:	0.28653
Sample type:	CC





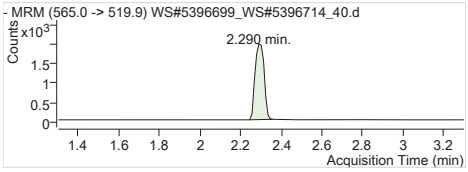
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.202 (2.202)
Calc. conc.	101.00 µg/L
Area ratio:	0
Sample type:	CC

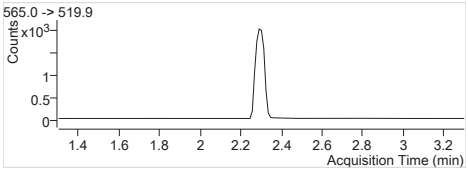
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_40.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/15 7:23:19 PM	**Injection Volume**	Per Method
Sample Annotation	-		

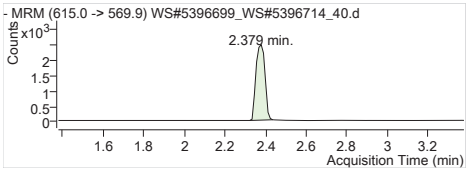
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6093	2.29	1 µg/L		
MPFDoA	7597	2.38	1 µg/L		
MPFTeDA	7433	2.51	1 µg/L		
13C9-PFDA IS	24736	2.20	1 µg/L		

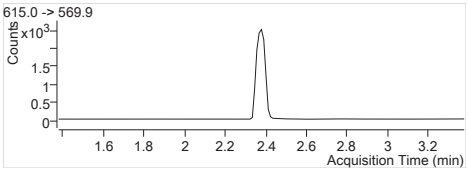
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	41167	2.29	12.50	11.44 µg/L	91.50
PFDoA 1	53422	2.38	12.50	12.33 µg/L	98.65
PFTrDA 1	58326	2.44	12.50	11.81 µg/L	94.49
PFTeDA 1	45687	2.51	12.50	11.63 µg/L	93.07
13C2-PFUnA	6093	2.29	100.00	104.77 µg/L	104.77
13C2-PFDoA	7597	2.38	100.00	100.36 µg/L	100.36
13C2-PFTeDA	7533	2.51	100.00	112.57 µg/L	112.57
13C9-PFDA	24736	2.20	100.00	101.60 µg/L	101.60



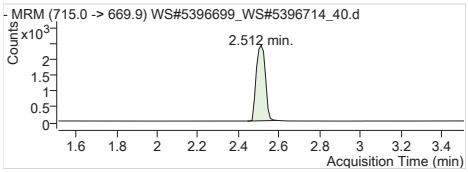


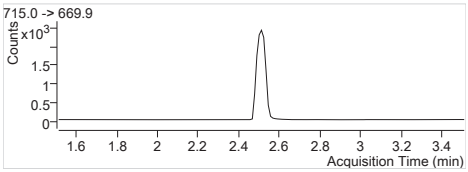
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: CC



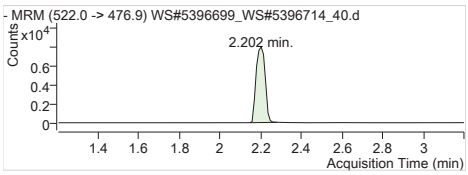


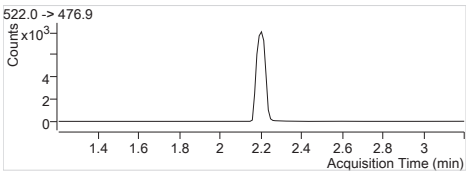
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



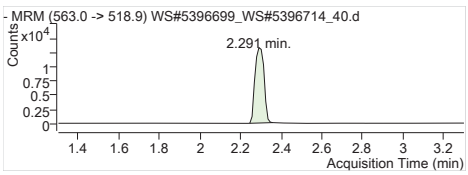


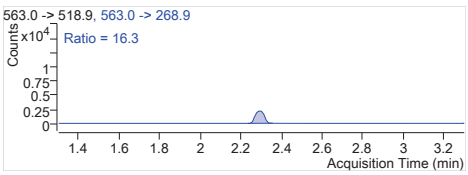
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC



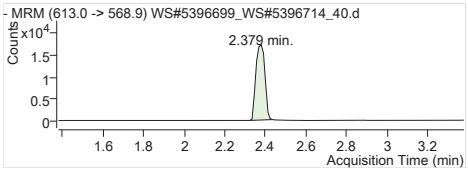


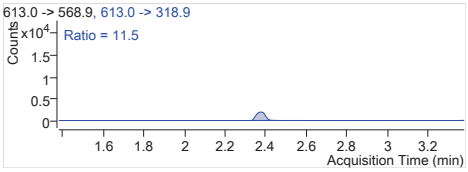
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC



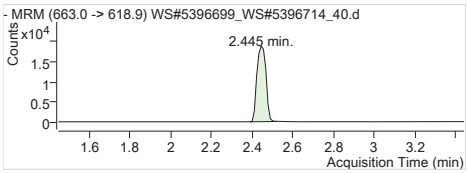


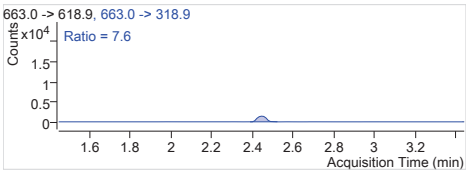
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 11.44 µg/L
Area ratio: 6.75644
Sample type: CC



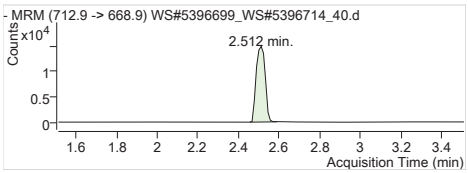


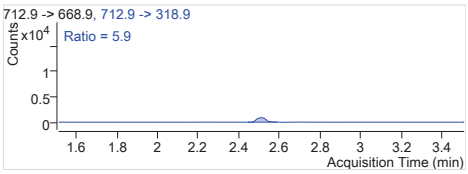
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 12.33 µg/L
Area ratio: 7.03199
Sample type: CC



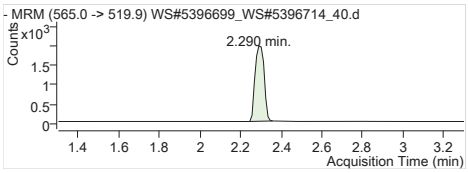


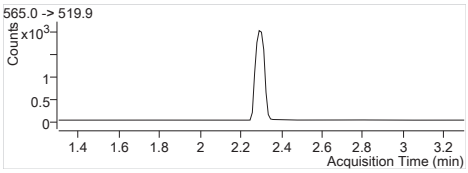
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.445 (2.445)
Calc. conc. 11.81 µg/L
Area ratio: 7.84690
Sample type: CC



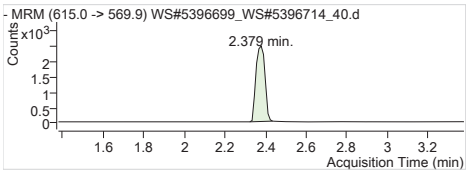


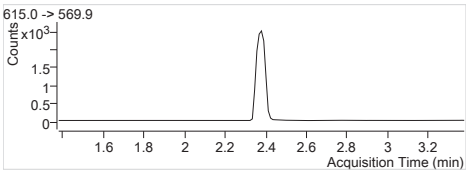
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 11.63 µg/L
Area ratio: 6.14651
Sample type: CC



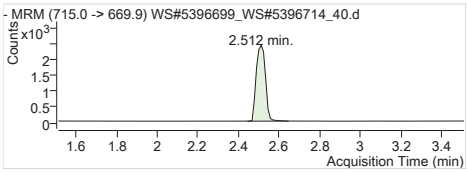


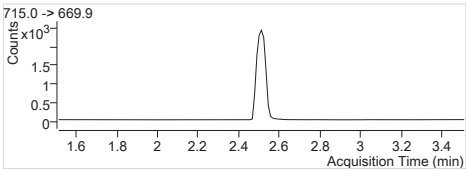
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.290 (2.302)
Calc. conc. 104.77 µg/L
Area ratio: 0.24632
Sample type: CC



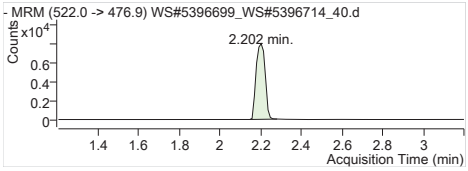


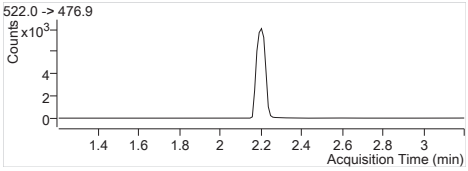
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 100.36 µg/L
Area ratio: 0.30712
Sample type: CC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 112.57 µg/L
Area ratio: 0.30454
Sample type: CC





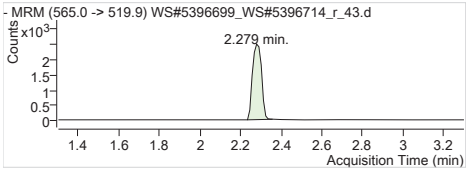
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 101.60 µg/L
Area ratio: 0
Sample type: CC

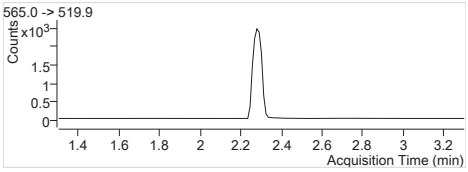
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_r_43.d	**Operator**	
Sample Type	CC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/16 8:47:49 AM	**Injection Volume**	Per Method
Sample Annotation	-		

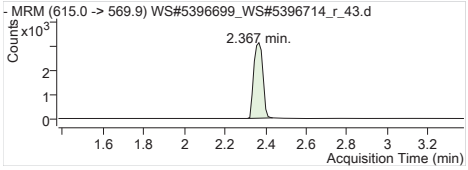
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	7507	2.28	1 µg/L		
MPFDoA	9664	2.37	1 µg/L		
MPFTeDA	9370	2.50	1 µg/L		
13C9-PFDA IS	32416	2.19	1 µg/L		

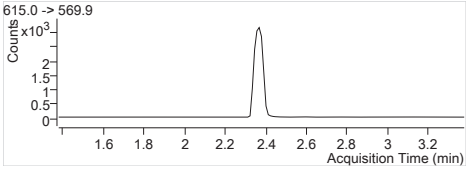
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	2926	2.28	0.83	0.02 µg/L	109.25
PFDoA 1	3770	2.37	0.83	0.02 µg/L	110.64
PFTrDA 1	4217	2.43	0.83	0.02 µg/L	110.75
PFTeDA 1	3363	2.50	0.83	0.02 µg/L	108.27
13C2-PFUnA	7507	2.28	100.00	98.50 µg/L	98.50
13C2-PFDoA	9664	2.37	100.00	97.42 µg/L	97.42
13C2-PFTeDA	9508	2.50	100.00	108.42 µg/L	108.42
13C9-PFDA	32416	2.19	100.00	3.20 µg/L	133.14



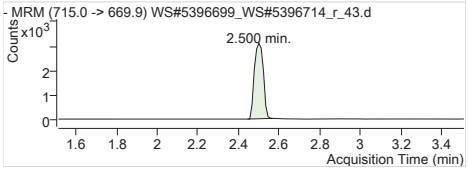


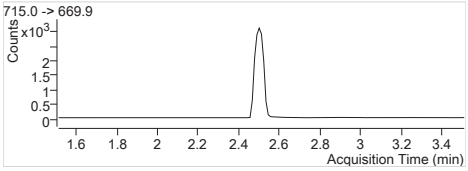
MPFUnA Internal Standard
RT (Exp. RT): 2.279 (2.302)
Concentration: 1 µg/L
Sample type: CC



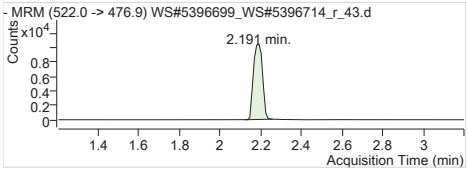


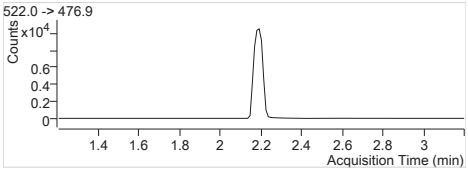
MPFDoA Internal Standard
RT (Exp. RT): 2.367 (2.379)
Concentration: 1 µg/L
Sample type: CC



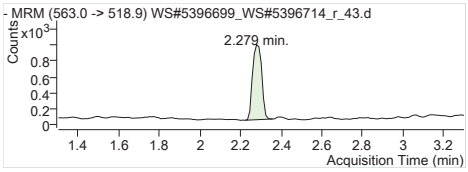


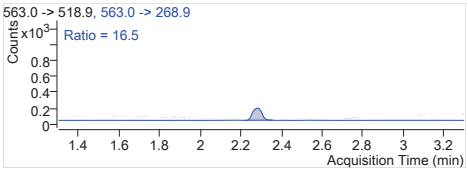
MPFTeDA Internal Standard
RT (Exp. RT): 2.500 (2.512)
Concentration: 1 µg/L
Sample type: CC



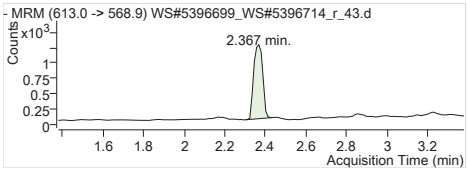


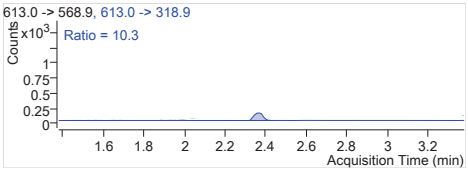
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.191 (2.202)
Concentration: 1 µg/L
Sample type: CC



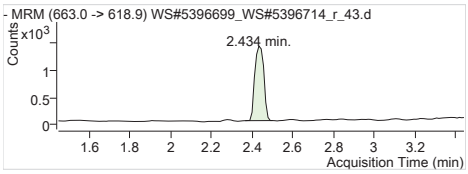


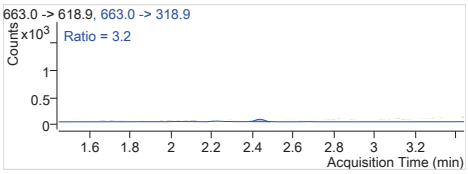
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.279 (2.302)
Calc. conc. 0.02 µg/L
Area ratio: 0.38977
Sample type: CC



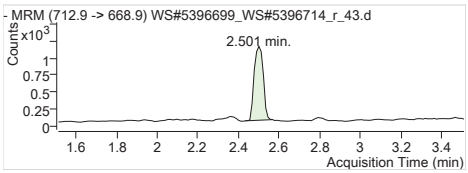


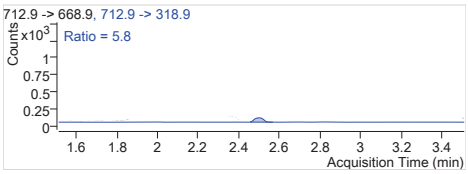
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.367 (2.379)
Calc. conc. 0.02 µg/L
Area ratio: 0.39011
Sample type: CC



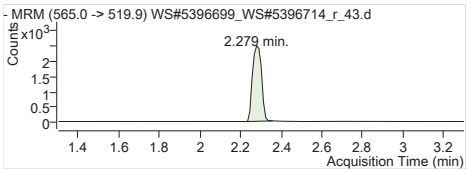


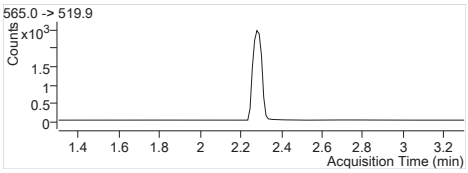
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.434 (2.445)
Calc. conc. 0.02 µg/L
Area ratio: 0.45005
Sample type: CC



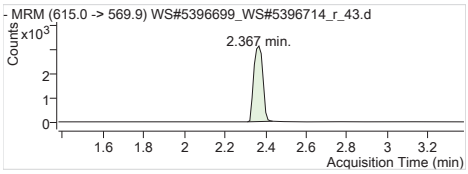


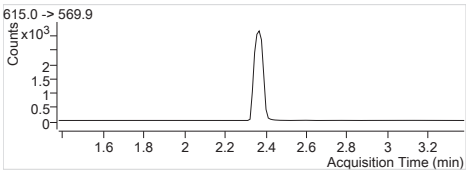
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.501 (2.512)
Calc. conc. 0.02 µg/L
Area ratio: 0.35891
Sample type: CC



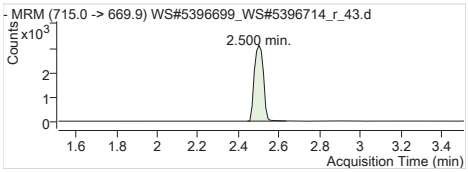


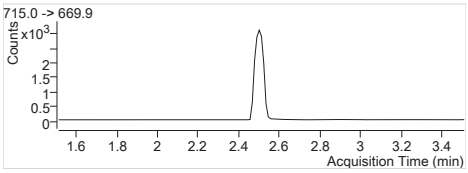
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.279 (2.302)
Calc. conc. 98.50 µg/L
Area ratio: 0.23158
Sample type: CC



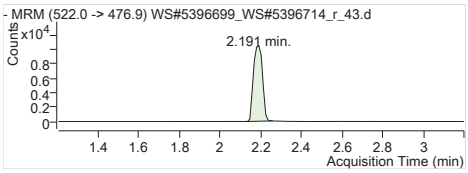


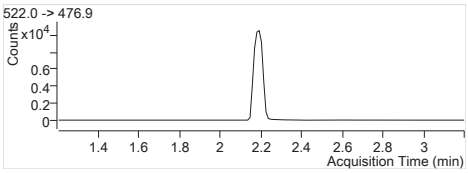
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.367 (2.379)
Calc. conc. 97.42 µg/L
Area ratio: 0.29812
Sample type: CC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.500 (2.512)
Calc. conc. 108.42 µg/L
Area ratio: 0.29331
Sample type: CC





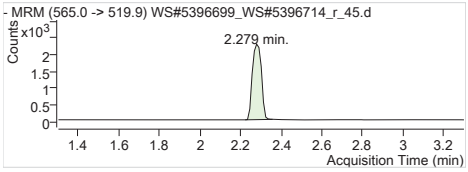
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.191 (2.202)
Calc. conc. 3.20 µg/L
Area ratio: 0
Sample type: CC

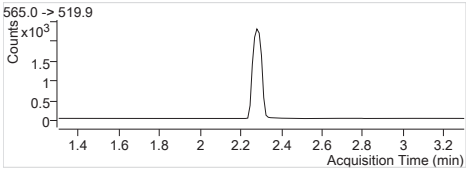
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_r_45.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/16 8:57:41 AM	**Injection Volume**	Per Method
Sample Annotation	-		

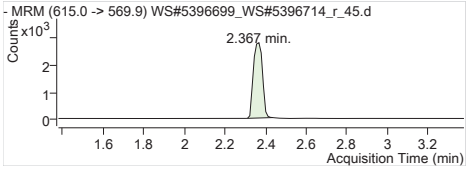
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6983	2.28	1 µg/L		
MPFDoA	8642	2.37	1 µg/L		
MPFTeDA	8576	2.50	1 µg/L		
13C9-PFDA IS	28392	2.19	1 µg/L		

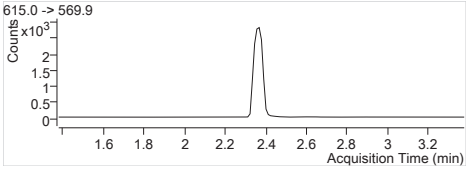
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	48890	2.28	12.50	11.84 µg/L	94.74
PFDoA 1	61990	2.37	12.50	12.57 µg/L	100.59
PFTrDA 1	68583	2.43	12.50	12.03 µg/L	96.26
PFTeDA 1	54399	2.50	12.50	12.00 µg/L	95.99
13C2-PFUnA	6983	2.28	100.00	104.61 µg/L	104.61
13C2-PFDoA	8642	2.37	100.00	99.46 µg/L	99.46
13C2-PFTeDA	8672	2.50	100.00	112.91 µg/L	112.91
13C9-PFDA	28392	2.19	100.00	116.62 µg/L	116.62



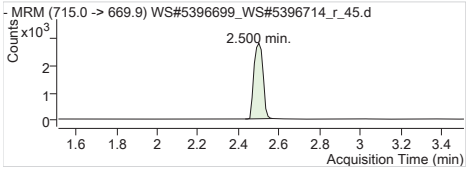


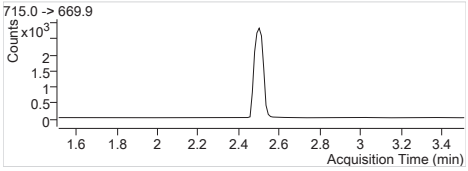
MPFUnA Internal Standard
RT (Exp. RT): 2.279 (2.302)
Concentration: 1 µg/L
Sample type: CC



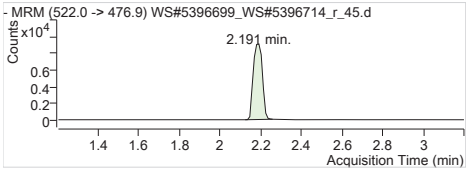


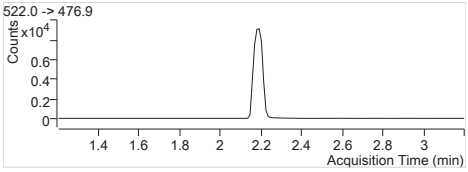
MPFDoA Internal Standard
RT (Exp. RT): 2.367 (2.379)
Concentration: 1 µg/L
Sample type: CC



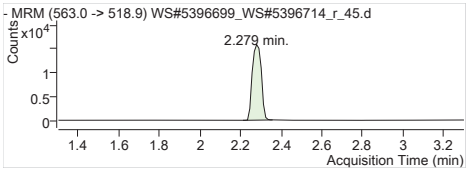


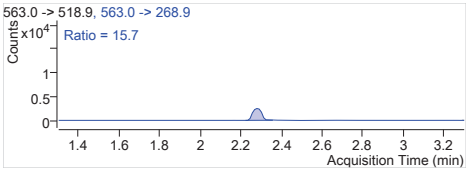
MPFTeDA Internal Standard
RT (Exp. RT): 2.500 (2.512)
Concentration: 1 µg/L
Sample type: CC



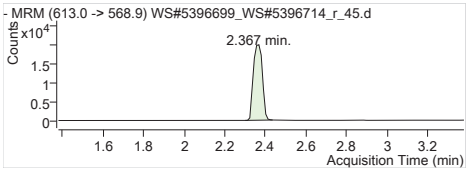


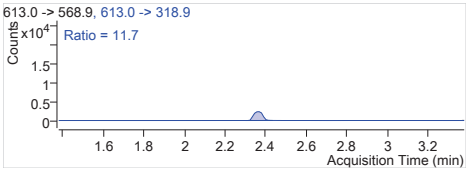
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.191 (2.202)
Concentration: 1 µg/L
Sample type: CC



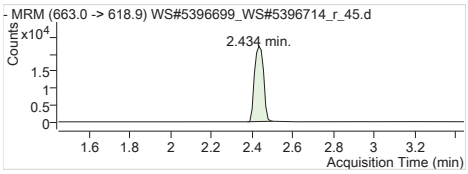


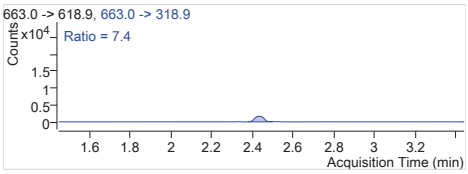
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.279 (2.302)
Calc. conc. 11.84 µg/L
Area ratio: 7.00129
Sample type: CC



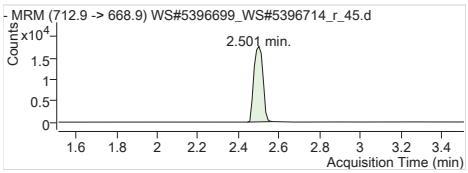


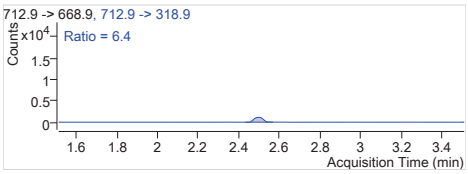
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.367 (2.379)
Calc. conc. 12.57 µg/L
Area ratio: 7.17311
Sample type: CC



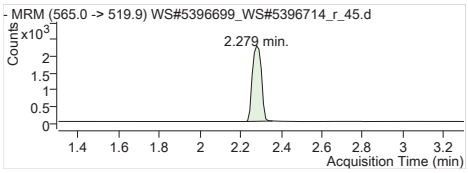


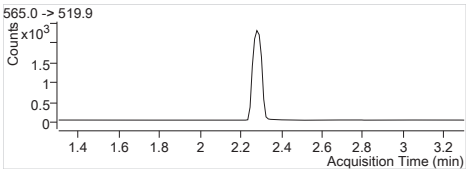
PFTrDA 1 663.0 -> 618.9
RT (Exp. RT): 2.434 (2.445)
Calc. conc. 12.03 µg/L
Area ratio: 7.99708
Sample type: CC



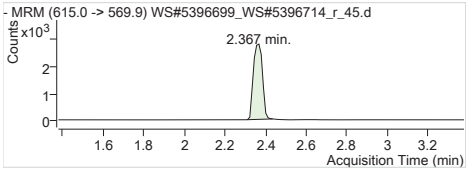


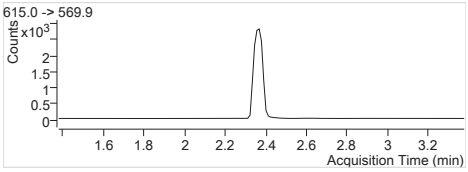
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.501 (2.512)
Calc. conc. 12.00 µg/L
Area ratio: 6.34317
Sample type: CC



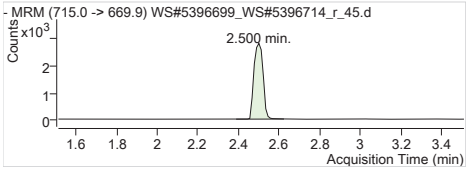


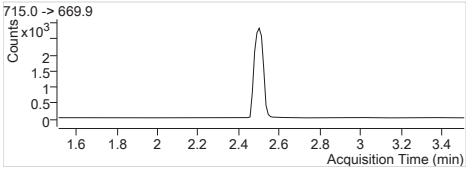
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.279 (2.302)
Calc. conc. 104.61 µg/L
Area ratio: 0.24595
Sample type: CC



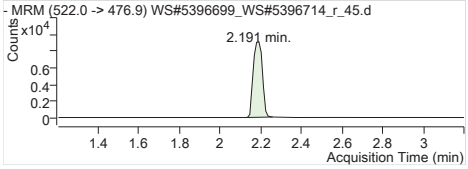


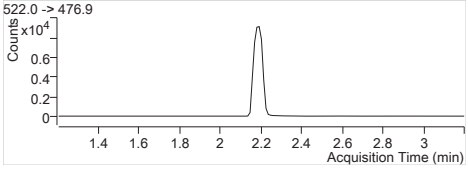
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.367 (2.379)
Calc. conc. 99.46 µg/L
Area ratio: 0.30438
Sample type: CC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.500 (2.512)
Calc. conc. 112.91 µg/L
Area ratio: 0.30544
Sample type: CC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.191 (2.202)
Calc. conc. 116.62 µg/L
Area ratio: 0
Sample type: CC

Quantitation Results

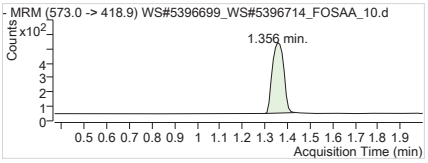
Agilent Technologies

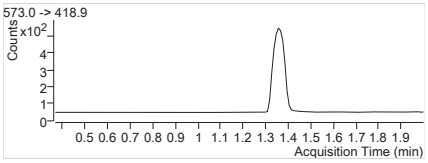
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/15 10:58:29 AM	**Injection Volume**	Per Method
Sample Annotation	-		

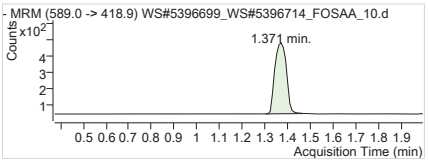
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1728	1.36	1 µg/L		
D5-EtFOSAA IS	1534	1.37	1 µg/L		
13C9-PFDA IS	28624	1.11	1 µg/L		

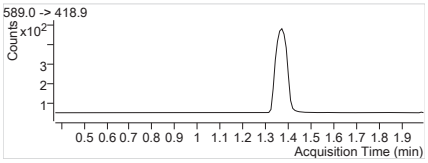
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	631	1.36	0.83	0.98 µg/L	117.79
EtFOSAA 1	620	1.37	0.83	0.98 µg/L	118.33
D3-MeFOSAA	1771	1.36	100.00	112.39 µg/L	112.39
D5-EtFOSAA	1546	1.37	100.00	112.67 µg/L	112.67
13C9-PFDA	28210	1.11	100.00	106.23 µg/L	106.23



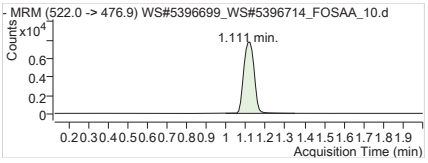


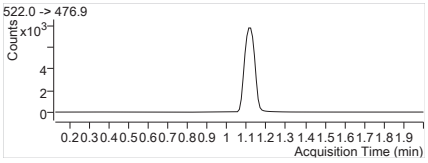
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: CC



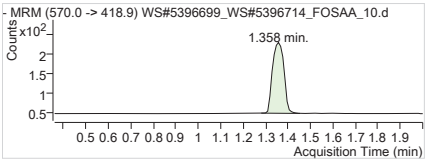


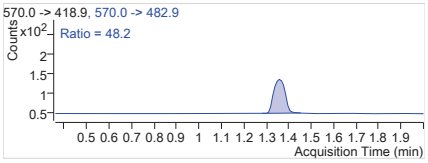
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: CC



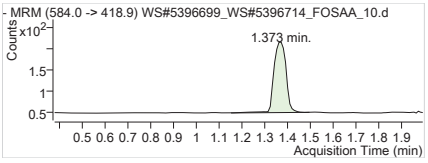


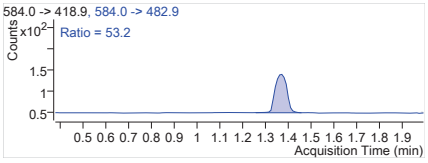
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.111 (1.121)
Concentration: 1 µg/L
Sample type: CC



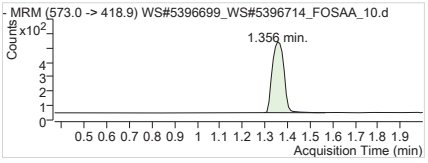


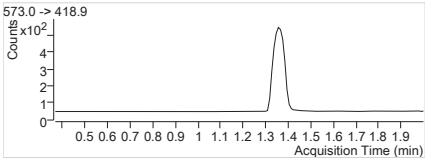
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 0.98 µg/L
Area ratio: 0.36516
Sample type: CC



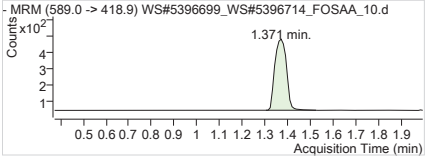


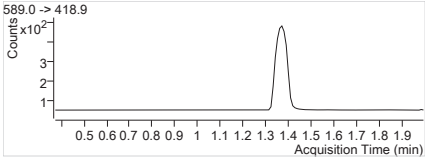
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 0.98 µg/L
Area ratio: 0.40417
Sample type: CC



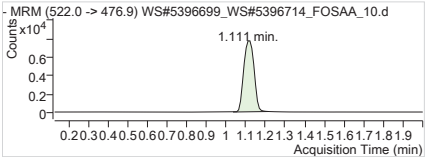


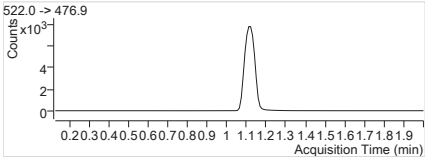
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 112.39 µg/L
Area ratio: 0.06187
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	112.67 µg/L
Area ratio:	0.05401
Sample type:	CC





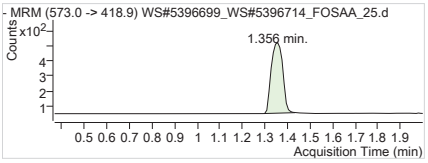
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.111 (1.121)
Calc. conc.	106.23 µg/L
Area ratio:	0
Sample type:	CC

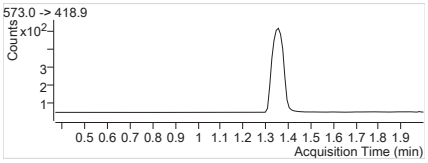
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/15 11:34:40 AM	**Injection Volume**	Per Method
Sample Annotation	-		

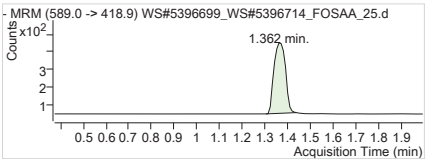
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1658	1.36	1 µg/L		
D5-EtFOSAA IS	1409	1.36	1 µg/L		
13C9-PFDA IS	26628	1.10	1 µg/L		

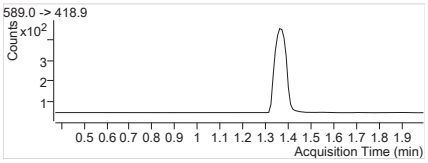
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	9942	1.36	12.50	12.06 µg/L	96.49
EtFOSAA 1	10337	1.36	12.50	12.59 µg/L	100.73
D3-MeFOSAA	1693	1.36	100.00	115.49 µg/L	115.49
D5-EtFOSAA	1442	1.36	100.00	112.96 µg/L	112.96
13C9-PFDA	26064	1.10	100.00	98.15 µg/L	98.15



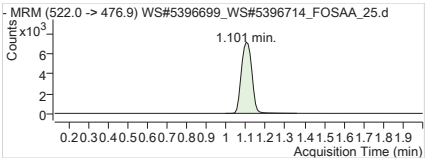


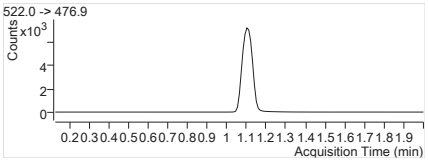
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: CC



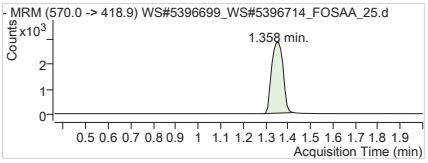


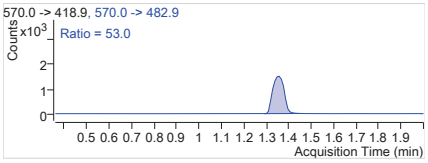
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: CC



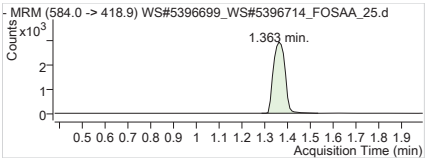


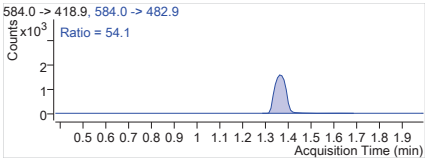
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: CC



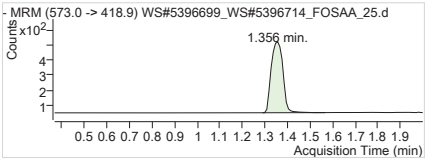


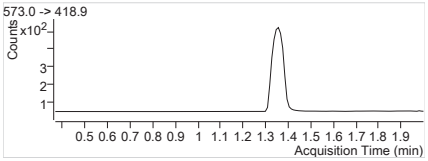
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 12.06 µg/L
Area ratio: 5.99638
Sample type: CC



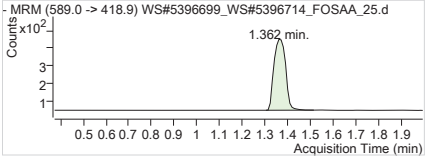


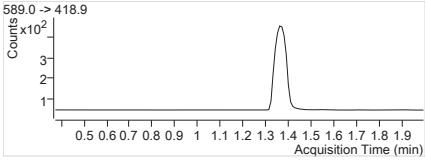
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.363 (1.373)
Calc. conc. 12.59 µg/L
Area ratio: 7.33641
Sample type: CC



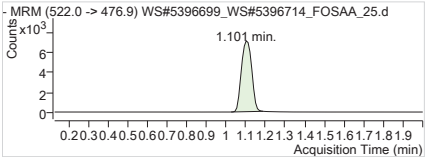


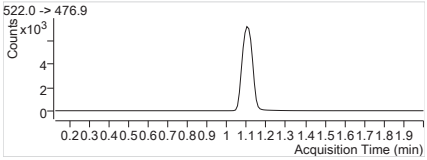
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 115.49 µg/L
Area ratio: 0.06358
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	112.96 µg/L
Area ratio:	0.05415
Sample type:	CC





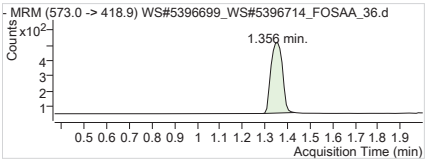
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	98.15 µg/L
Area ratio:	0
Sample type:	CC

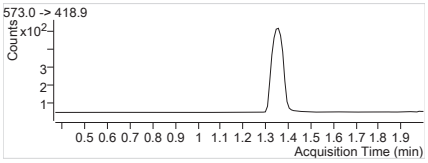
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_36.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/15 12:01:09 PM	**Injection Volume**	Per Method
Sample Annotation	-		

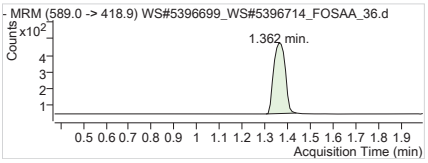
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1653	1.36	1 µg/L		
D5-EtFOSAA IS	1491	1.36	1 µg/L		
13C9-PFDA IS	26549	1.10	1 µg/L		

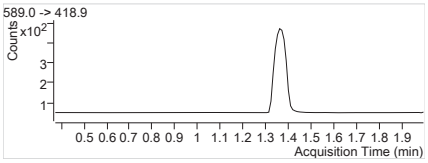
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10075	1.35	12.50	12.25 µg/L	98.04
EtFOSAA 1	10287	1.36	12.50	11.86 µg/L	94.87
D3-MeFOSAA	1680	1.36	100.00	114.95 µg/L	114.95
D5-EtFOSAA	1516	1.36	100.00	119.11 µg/L	119.11
13C9-PFDA	26014	1.10	100.00	97.96 µg/L	97.96



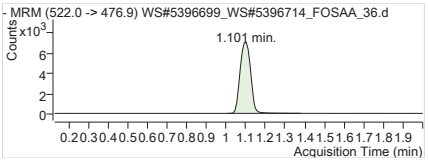


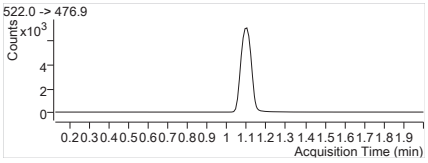
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: CC



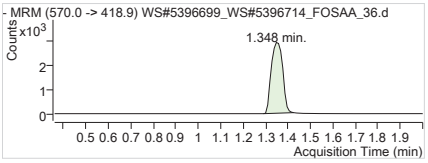


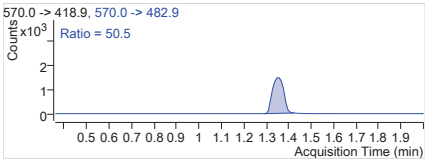
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: CC



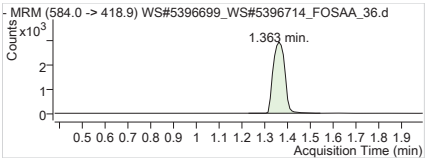


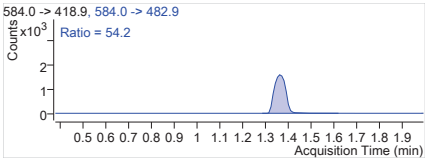
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: CC



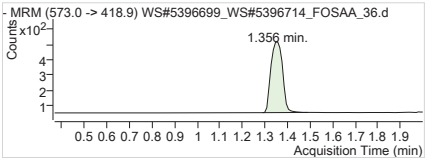


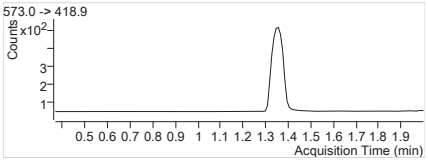
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.348 (1.358)
Calc. conc. 12.25 µg/L
Area ratio: 6.09498
Sample type: CC



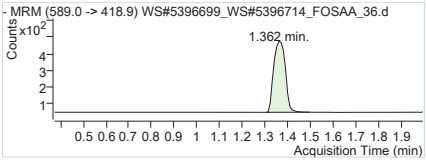


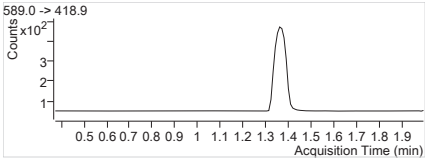
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.363 (1.373)
Calc. conc. 11.86 µg/L
Area ratio: 6.89940
Sample type: CC



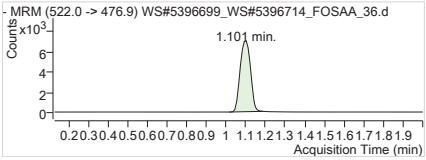


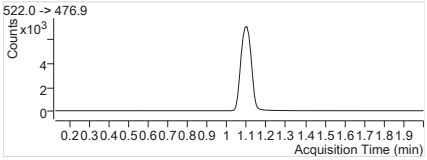
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 114.95 µg/L
Area ratio: 0.06328
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	119.11 µg/L
Area ratio:	0.05710
Sample type:	CC





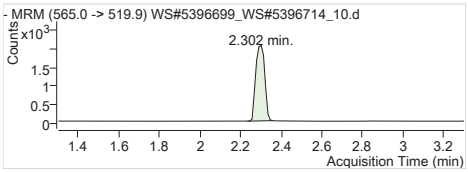
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	97.96 µg/L
Area ratio:	0
Sample type:	CC

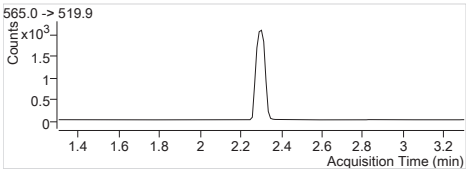
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/15 4:55:18 PM	**Injection Volume**	Per Method
Sample Annotation	-		

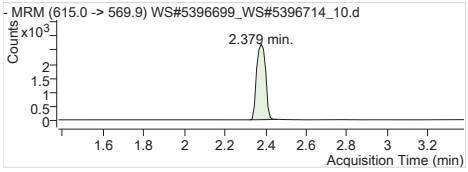
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6327	2.30	1 µg/L		
MPFDoA	8157	2.38	1 µg/L		
MPFTeDA	7028	2.51	1 µg/L		
13C9-PFDA IS	26238	2.20	1 µg/L		

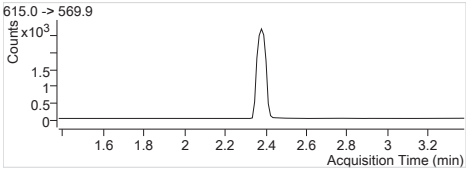
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	2334	2.30	0.83	0.87 µg/L	105.09
PFDoA 1	3175	2.38	0.83	0.92 µg/L	110.46
PFTeDA 1	2539	2.51	0.83	0.90 µg/L	108.79
13C2-PFUnA	6327	2.30	100.00	102.57 µg/L	102.57
13C2-PFDoA	8157	2.38	100.00	101.59 µg/L	101.59
13C2-PFTeDA	7085	2.51	100.00	99.82 µg/L	99.82
13C9-PFDA	26238	2.20	100.00	107.77 µg/L	107.77



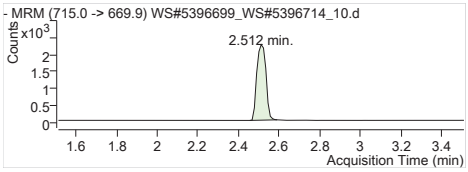


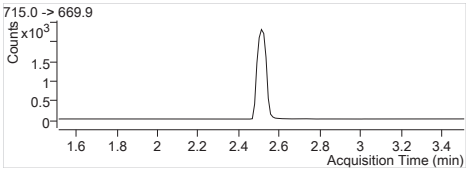
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: CC



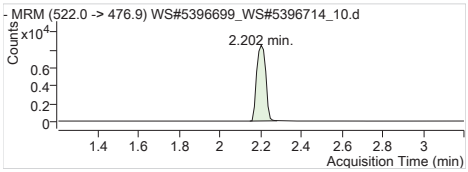


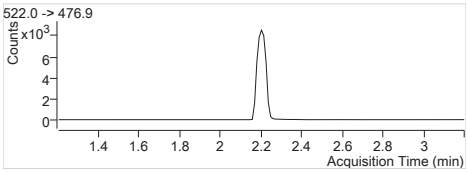
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



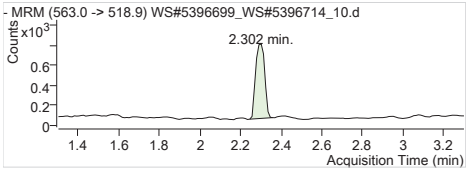


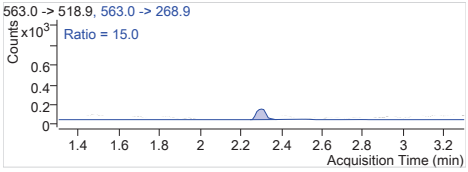
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC



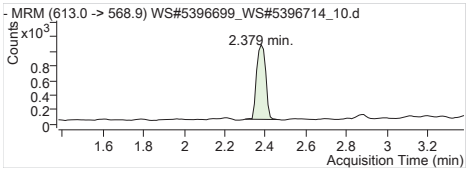


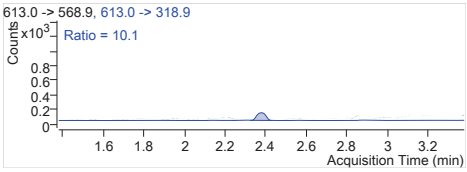
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC



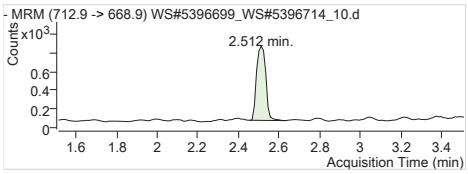


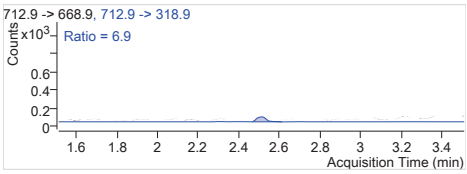
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 0.87 µg/L
Area ratio: 0.36890
Sample type: CC



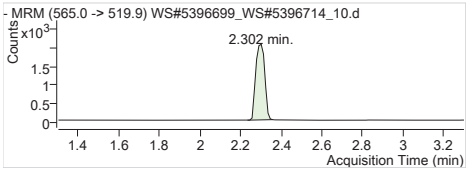


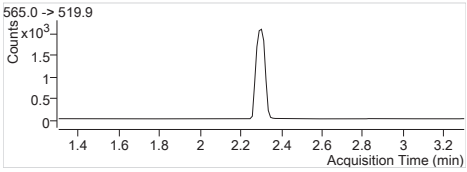
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 0.92 µg/L
Area ratio: 0.38924
Sample type: CC



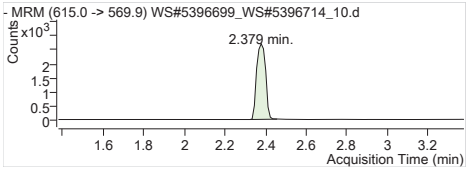


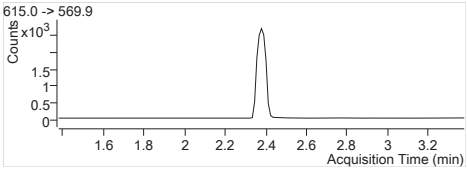
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 0.90 µg/L
Area ratio: 0.36127
Sample type: CC



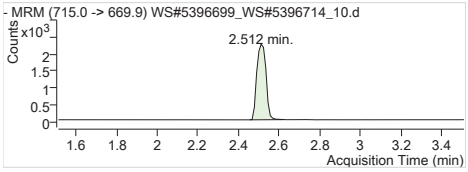


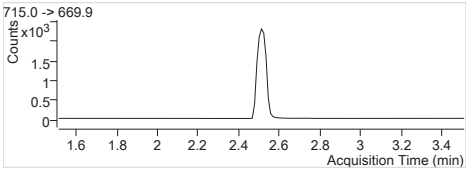
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 102.57 µg/L
Area ratio: 0.24114
Sample type: CC



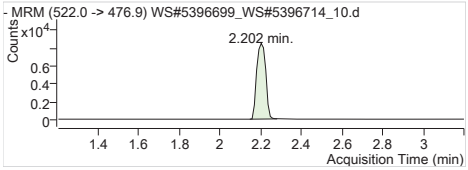


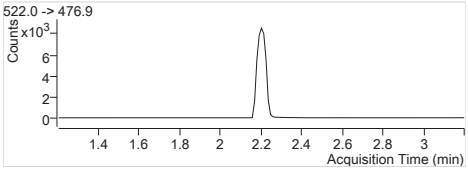
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 101.59 µg/L
Area ratio: 0.31088
Sample type: CC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 99.82 µg/L
Area ratio: 0.27003
Sample type: CC





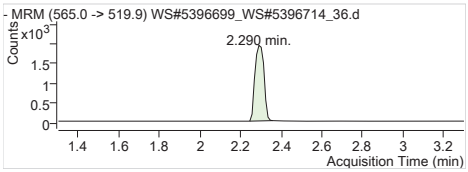
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 107.77 µg/L
Area ratio: 0
Sample type: CC

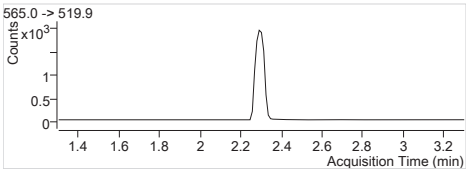
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_36.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/15 7:03:36 PM	**Injection Volume**	Per Method
Sample Annotation	-		

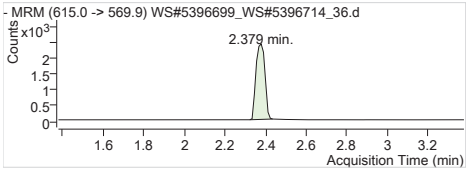
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5902	2.29	1 µg/L		
MPFDoA	7321	2.38	1 µg/L		
MPFTeDA	6965	2.51	1 µg/L		
13C9-PFDA IS	24591	2.20	1 µg/L		

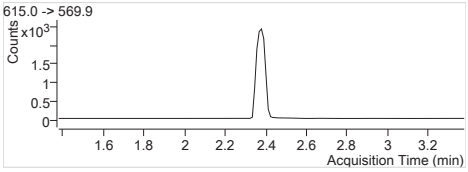
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	41882	2.29	12.50	12.00 µg/L	96.00
PFDoA 1	54333	2.38	12.50	13.00 µg/L	104.01
PFTeDA 1	44587	2.51	12.50	12.11 µg/L	96.86
13C2-PFUnA	5902	2.29	100.00	102.09 µg/L	102.09
13C2-PFDoA	7321	2.38	100.00	97.28 µg/L	97.28
13C2-PFTeDA	7046	2.51	100.00	105.92 µg/L	105.92
13C9-PFDA	24591	2.20	100.00	101.00 µg/L	101.00



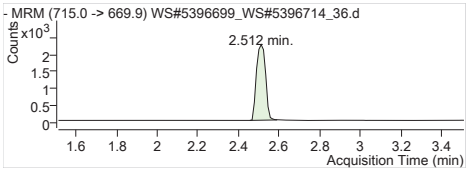


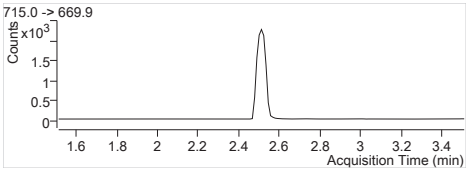
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: CC



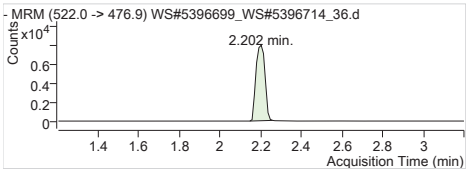


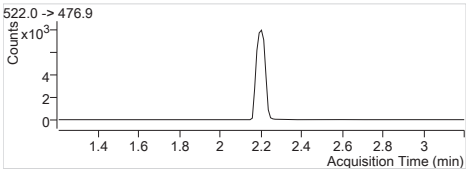
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



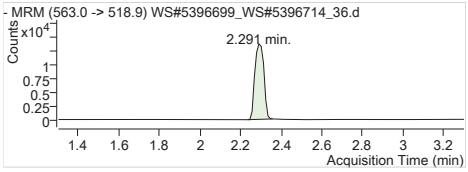


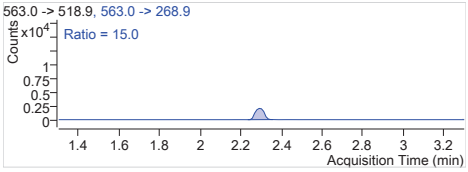
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC



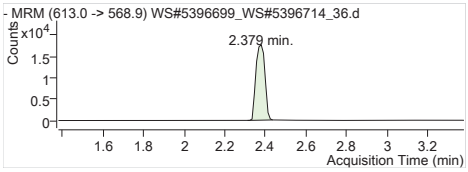


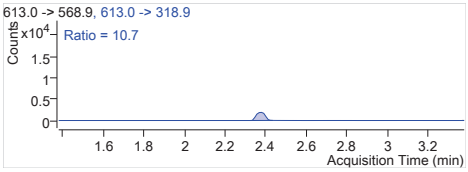
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC



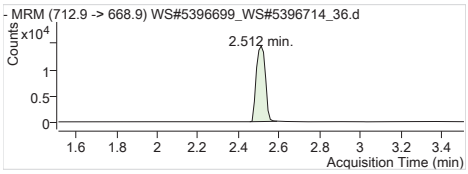


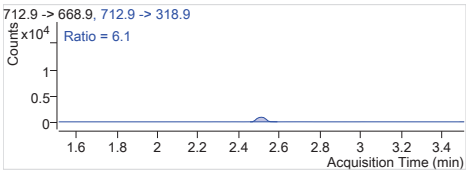
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 12.00 µg/L
Area ratio: 7.09624
Sample type: CC



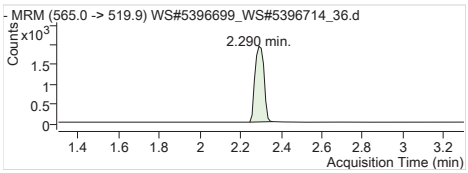


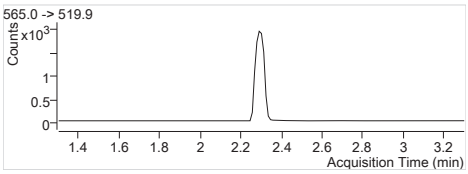
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 13.00 µg/L
Area ratio: 7.42153
Sample type: CC



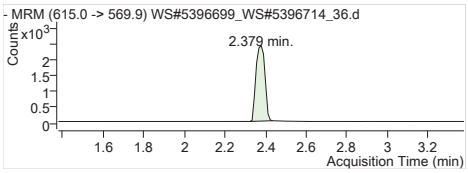


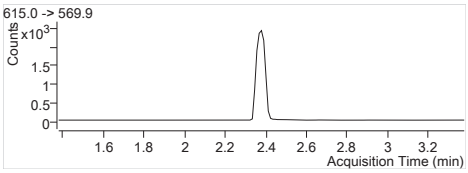
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 12.11 µg/L
Area ratio: 6.40158
Sample type: CC



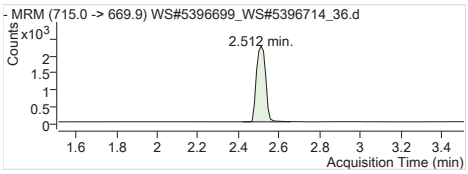


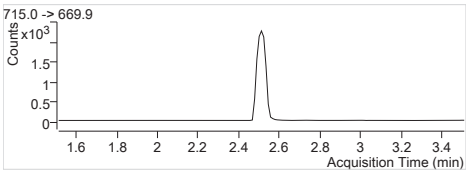
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.290 (2.302)
Calc. conc. 102.09 µg/L
Area ratio: 0.24001
Sample type: CC



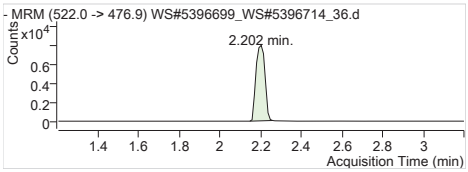


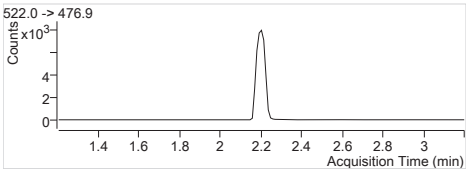
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 97.28 µg/L
Area ratio: 0.29771
Sample type: CC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 105.92 µg/L
Area ratio: 0.28653
Sample type: CC





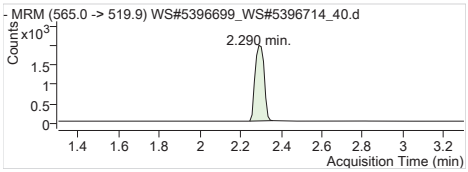
13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 101.00 µg/L
Area ratio: 0
Sample type: CC

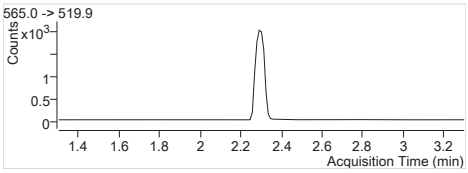
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_40.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/15 7:23:19 PM	**Injection Volume**	Per Method
Sample Annotation	-		

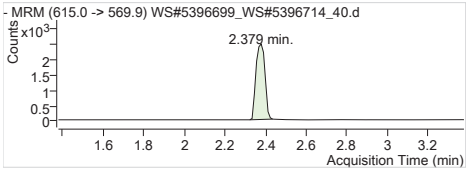
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6093	2.29	1 µg/L		
MPFDoA	7597	2.38	1 µg/L		
MPFTeDA	7433	2.51	1 µg/L		
13C9-PFDA IS	24736	2.20	1 µg/L		

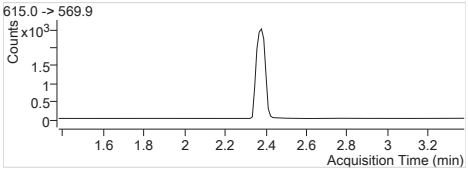
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	41167	2.29	12.50	11.44 µg/L	91.50
PFDoA 1	53422	2.38	12.50	12.33 µg/L	98.65
PFTeDA 1	45687	2.51	12.50	11.63 µg/L	93.07
13C2-PFUnA	6093	2.29	100.00	104.77 µg/L	104.77
13C2-PFDoA	7597	2.38	100.00	100.36 µg/L	100.36
13C2-PFTeDA	7533	2.51	100.00	112.57 µg/L	112.57
13C9-PFDA	24736	2.20	100.00	101.60 µg/L	101.60



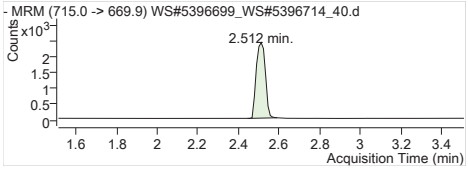


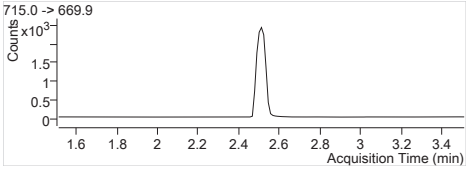
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: CC



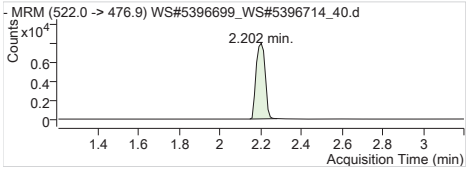


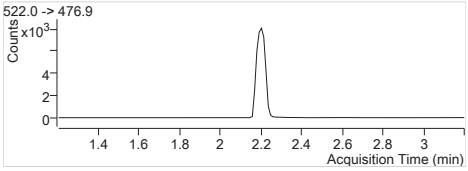
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



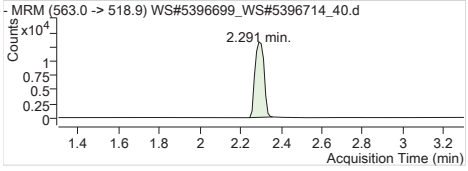


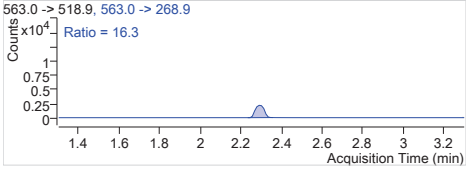
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC



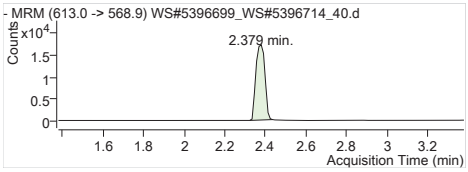


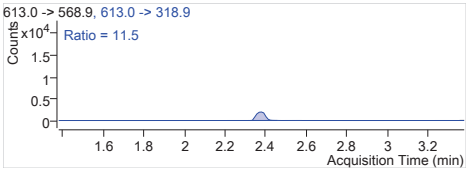
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC



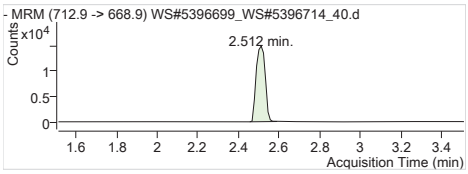


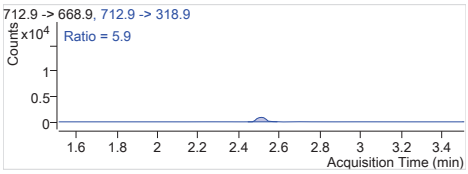
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 11.44 µg/L
Area ratio: 6.75644
Sample type: CC



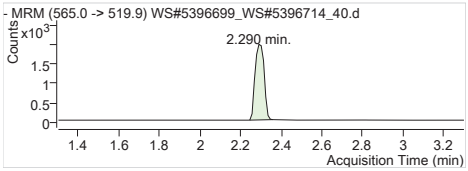


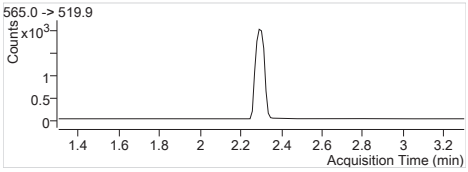
PFDoA 1 613.0 -> 568.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 12.33 µg/L
Area ratio: 7.03199
Sample type: CC



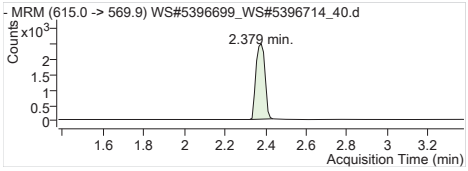


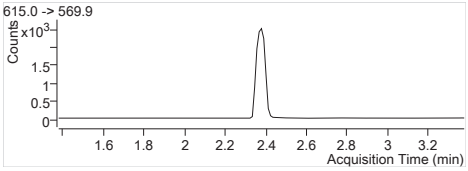
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 11.63 µg/L
Area ratio: 6.14651
Sample type: CC



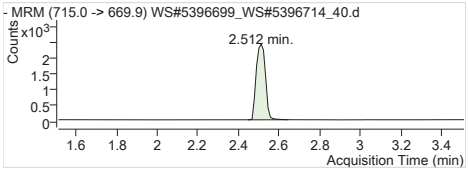


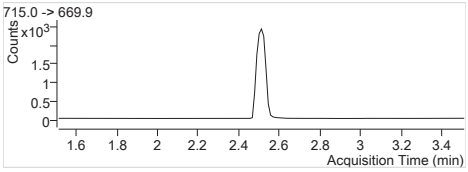
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.290 (2.302)
Calc. conc. 104.77 µg/L
Area ratio: 0.24632
Sample type: CC



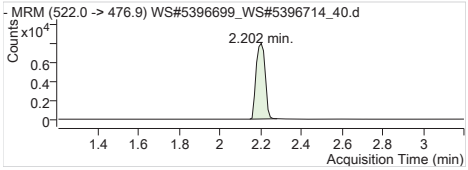


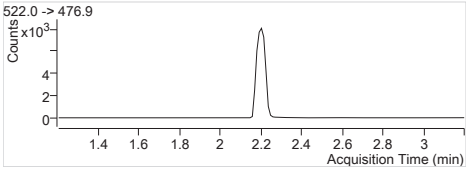
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.379 (2.379)
Calc. conc. 100.36 µg/L
Area ratio: 0.30712
Sample type: CC





13C2-PFTeDA 715.0 -> 669.9
RT (Exp. RT): 2.512 (2.512)
Calc. conc. 112.57 µg/L
Area ratio: 0.30454
Sample type: CC





13C9-PFDA 522.0 -> 476.9
RT (Exp. RT): 2.202 (2.202)
Calc. conc. 101.60 µg/L
Area ratio: 0
Sample type: CC

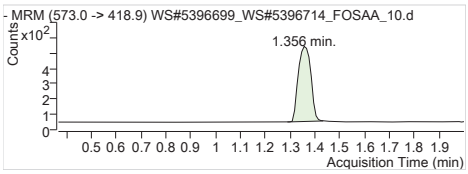
Quantitation Results

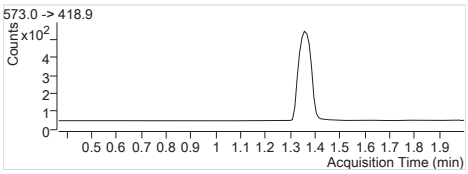
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/15 10:58:29 AM	**Injection Volume**	Per Method
Sample Annotation	-		

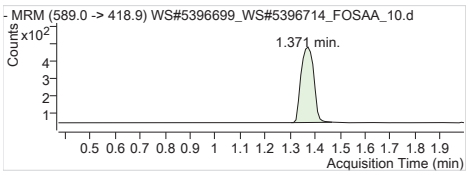
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1728	1.36	1 µg/L		
D5-EtFOSAA IS	1534	1.37	1 µg/L		
13C9-PFDA IS	28624	1.11	1 µg/L		

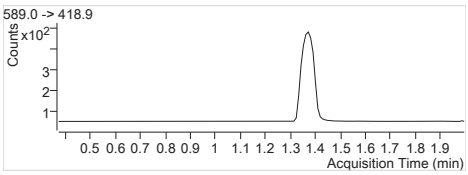
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	631	1.36	0.83	0.98 µg/L	117.79
EtFOSAA 1	620	1.37	0.83	0.98 µg/L	118.33
D3-MeFOSAA	1771	1.36	100.00	112.39 µg/L	112.39
D5-EtFOSAA	1546	1.37	100.00	112.67 µg/L	112.67
13C9-PFDA	28210	1.11	100.00	106.23 µg/L	106.23



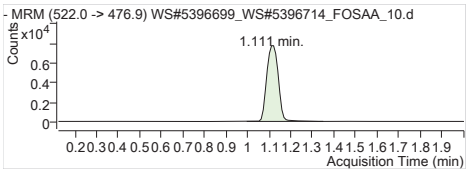


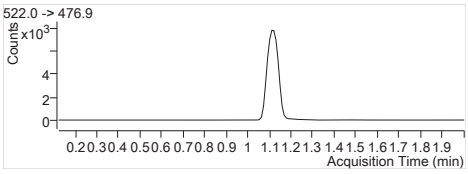
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: CC



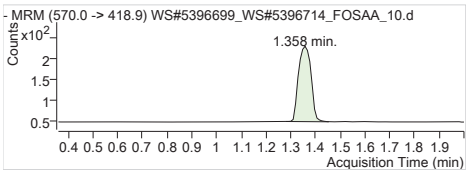


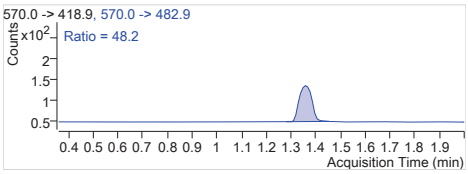
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: CC



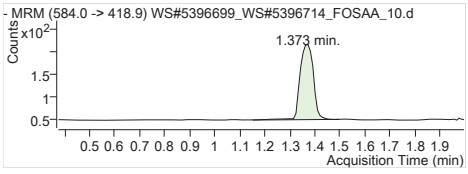


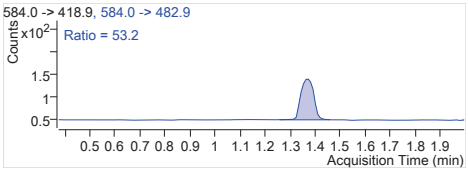
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.111 (1.121)
Concentration: 1 µg/L
Sample type: CC



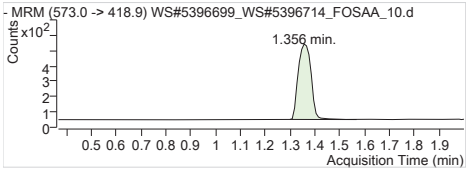


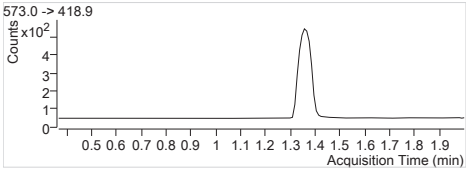
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 0.98 µg/L
Area ratio: 0.36516
Sample type: CC



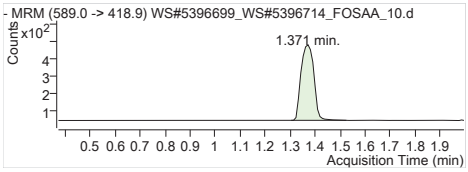


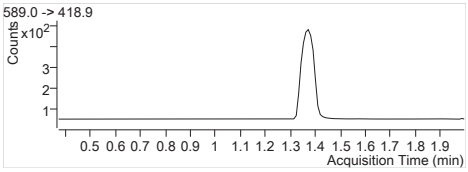
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 0.98 µg/L
Area ratio: 0.40417
Sample type: CC



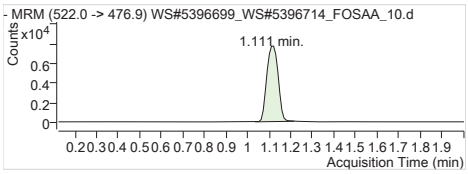


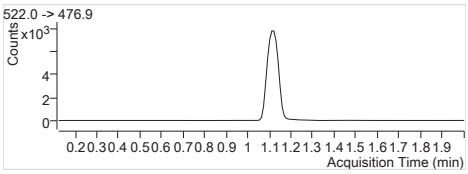
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 112.39 µg/L
Area ratio: 0.06187
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.371 (1.371)
Calc. conc.	112.67 µg/L
Area ratio:	0.05401
Sample type:	CC



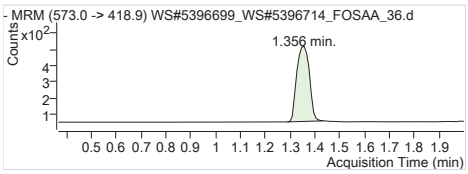


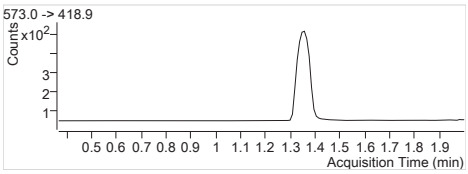
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.111 (1.121)
Calc. conc.	106.23 µg/L
Area ratio:	0
Sample type:	CC

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_36.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/15 12:01:09 PM	**Injection Volume**	Per Method
Sample Annotation	-		

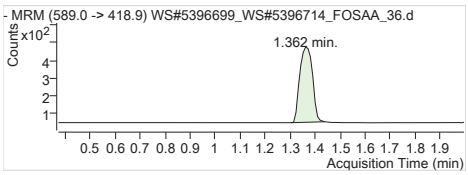
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1653	1.36	1 µg/L		
D5-EtFOSAA IS	1491	1.36	1 µg/L		
13C9-PFDA IS	26549	1.10	1 µg/L		

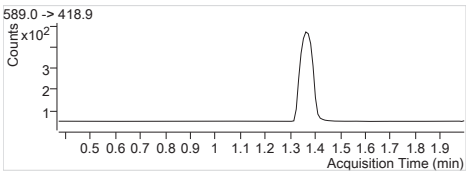
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10075	1.35	12.50	12.25 µg/L	98.04
EtFOSAA 1	10287	1.36	12.50	11.86 µg/L	94.87
D3-MeFOSAA	1680	1.36	100.00	114.95 µg/L	114.95
D5-EtFOSAA	1516	1.36	100.00	119.11 µg/L	119.11
13C9-PFDA	26014	1.10	100.00	97.96 µg/L	97.96



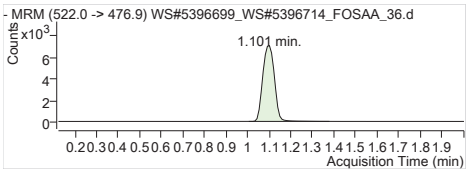


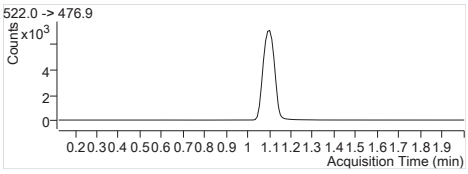
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: CC



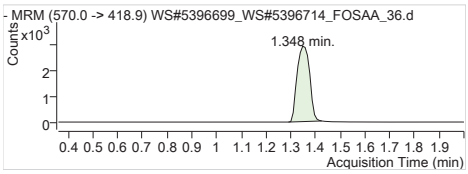


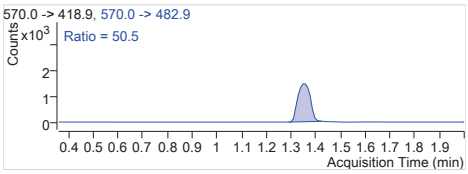
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: CC



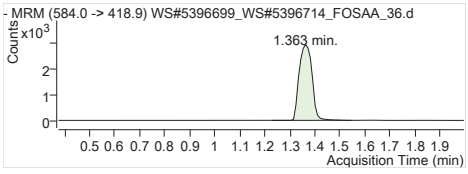


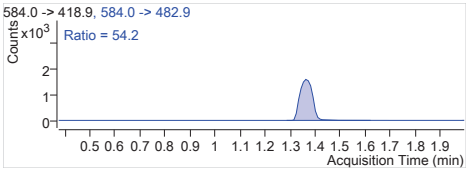
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: CC



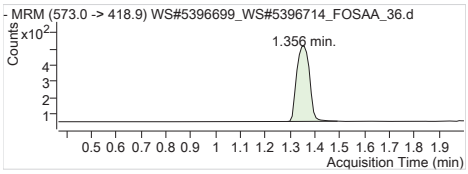


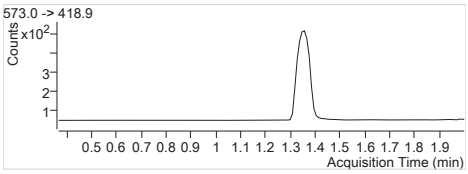
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.348 (1.358)
Calc. conc. 12.25 µg/L
Area ratio: 6.09498
Sample type: CC



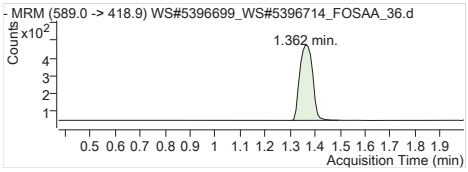


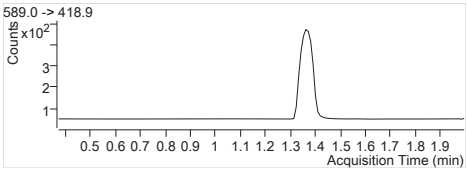
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.363 (1.373)
Calc. conc. 11.86 µg/L
Area ratio: 6.89940
Sample type: CC



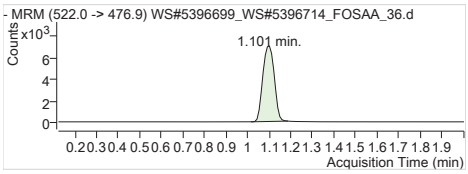


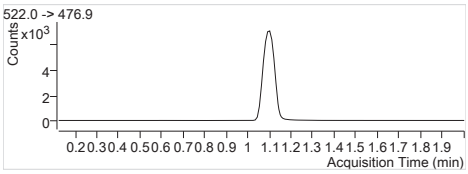
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 114.95 µg/L
Area ratio: 0.06328
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	119.11 µg/L
Area ratio:	0.05710
Sample type:	CC



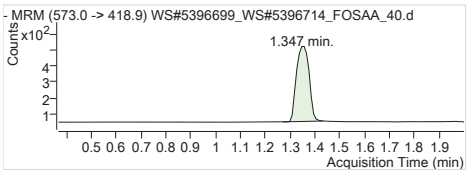


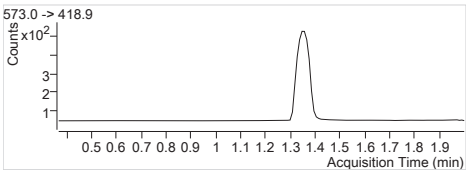
13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.101 (1.121)
Calc. conc.	97.96 µg/L
Area ratio:	0
Sample type:	CC

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	CCV	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_40.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/15 12:10:49 PM	**Injection Volume**	Per Method
Sample Annotation	-		

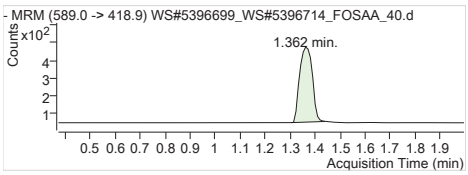
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1675	1.35	1 µg/L		
D5-EtFOSAA IS	1491	1.36	1 µg/L		
13C9-PFDA IS	26293	1.09	1 µg/L		

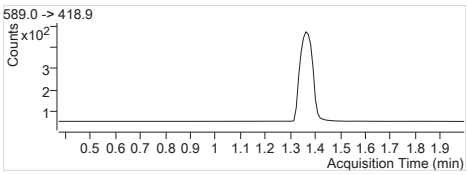
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	9939	1.35	12.50	11.94 µg/L	95.50
EtFOSAA 1	10160	1.36	12.50	11.72 µg/L	93.73
D3-MeFOSAA	1706	1.35	100.00	117.86 µg/L	117.86
D5-EtFOSAA	1528	1.36	100.00	121.23 µg/L	121.23
13C9-PFDA	25810	1.09	100.00	97.19 µg/L	97.19



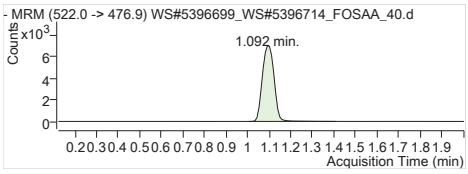


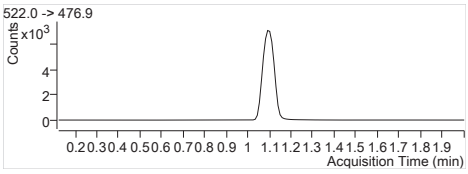
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.347 (1.366)
Concentration: 1 µg/L
Sample type: CC



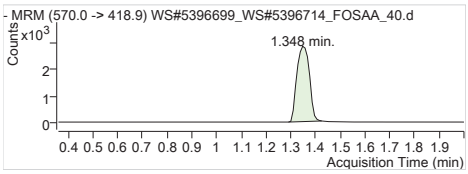


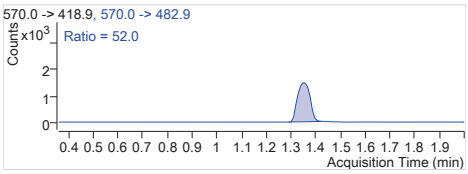
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: CC



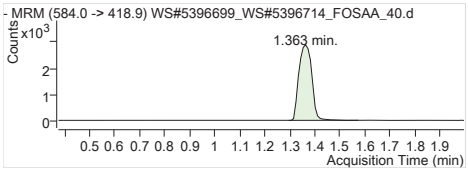


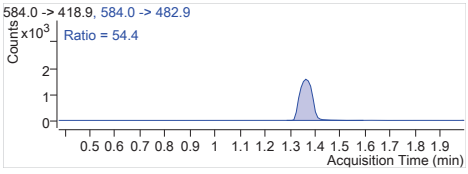
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.092 (1.121)
Concentration: 1 µg/L
Sample type: CC



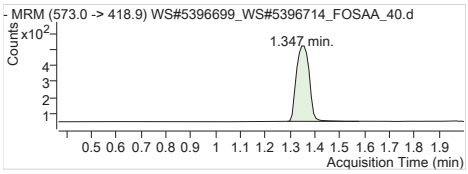


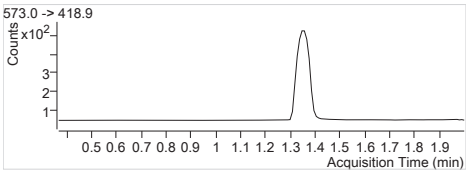
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.348 (1.358)
Calc. conc. 11.94 µg/L
Area ratio: 5.93373
Sample type: CC



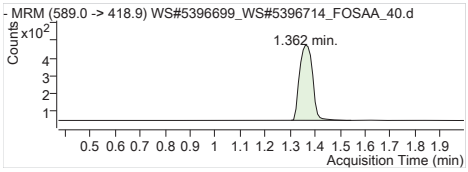


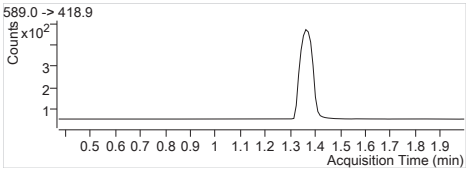
EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.363 (1.373)
Calc. conc. 11.72 µg/L
Area ratio: 6.81422
Sample type: CC



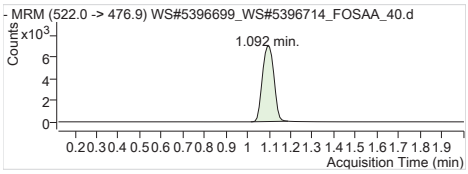


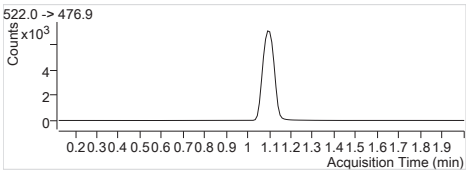
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.347 (1.366)
Calc. conc. 117.86 µg/L
Area ratio: 0.06488
Sample type: CC





D5-EtFOSAA	589.0 -> 418.9
RT (Exp. RT):	1.362 (1.371)
Calc. conc.	121.23 µg/L
Area ratio:	0.05811
Sample type:	CC





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	1.092 (1.121)
Calc. conc.	97.19 µg/L
Area ratio:	0
Sample type:	CC



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"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","107","%","","-99","NA","","SUR","107","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","96","%","","-99","NA","","SUR","96","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","106","%","","-99","NA","","SUR","106","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","2991-50-6","EtFOSAA","3.6","ng/L","U","3.6","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","2355-31-9","MeFOSAA","3.2","ng/L","U","3.2","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","14","ng/L","J","5.9","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","335-76-2","Perfluorodecanoic acid","6.7","ng/L","U","6.7","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","307-55-1","Perfluorododecanoic acid","5.5","ng/L","U","5.5","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","375-85-9","Perfluoroheptanoic acid","20","ng/L","J","8.1","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","640","ng/L","","6.2","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","307-24-4","Perfluorohexanoic acid","160","ng/L","","3.9","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","335-67-1","Perfluorooctanoic acid","1100","ng/L","","36","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","375-95-1","Perfluorononanoic acid","9.6","ng/L","U","9.6","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","110","ng/L","","6.6","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","376-06-7","Perfluorotetradecanoic acid","3.0","ng/L","U","3.0","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"
"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","72629-94-8","Perfluorotridecanoic acid","4.2","ng/L","U","4.2","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"

"CEF-002-06S-0118","E537","DL1","FZH306","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.8","ng/L","U","2.8","MDL","","NM","","","22","PQL","YES","-99","","1","1","22","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","78","%","","-99","NA","","SUR","78","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-8","E537","IN","FZH307","MAXXAM","2058-94-8","Perfluoroundecanoic

acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","103","%","","-99","NA","","SUR","103","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","102","%","","-99","NA","","SUR","102","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","375-85-9","Perfluoroheptanoic
acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","307-24-4","Perfluorohexanoic
acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","335-67-1","Perfluorooctanoic
acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","375-95-1","Perfluorononanoic
acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-9","E537","IN","FZH308","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"

"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","103","%","","-99","NA","","SUR","103","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-007-012518-10","E537","IN","FZH309","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"

"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","75","%","","-99","NA","","SUR","75","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","75","%","","-99","NA","","SUR","75","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","375-85-9","Perfluoroheptanoic
acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","307-24-4","Perfluorohexanoic
acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","335-67-1","Perfluorooctanoic
acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","375-95-1","Perfluorononanoic
acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-007-012518-8","E537","IN","FZH310","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic

acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","59","%","","-99","NA","","SUR","59","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","77","%","","-99","NA","","SUR","77","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","31","ng/L","","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","375-85-9","Perfluoroheptanoic
acid","14","ng/L","J","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","300","ng/L","","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","307-24-4","Perfluorohexanoic
acid","65","ng/L","","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","335-67-1","Perfluorooctanoic
acid","77","ng/L","","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","375-95-1","Perfluorononanoic
acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118-D","E537","IN","FZH311","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"

"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","78","%","","-99","NA","","SUR","78","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","60","%","","-99","NA","","SUR","60","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","109","%","","-99","NA","","SUR","109","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","29","ng/L","","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","375-85-9","Perfluoroheptanoic acid","14","ng/L","J","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","250","ng/L","","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","307-24-4","Perfluorohexanoic acid","55","ng/L","","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","335-67-1","Perfluorooctanoic acid","72","ng/L","","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-013-12S-0118","E537","IN","FZH312","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"

"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","108","%","","-99","NA","","SUR","108","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","107","%","","-99","NA","","SUR","107","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-013-012518-7","E537","IN","FZH313","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"

"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","79","%","","-99","NA","","SUR","79","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","78","%","","-99","NA","","SUR","78","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-860-012518-9","E537","IN","FZH314","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic

acid","78","%","","-99","NA","","SUR","78","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","70","%","","-99","NA","","SUR","70","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","96","%","","-99","NA","","SUR","96","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","375-85-9","Perfluoroheptanoic
acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","307-24-4","Perfluorohexanoic
acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","335-67-1","Perfluorooctanoic
acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","375-95-1","Perfluorononanoic
acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-008-012418-6","E537","IN","FZH318","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"

"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","96","%","","-99","NA","","SUR","96","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","74","%","","-99","NA","","SUR","74","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","76","%","","-99","NA","","SUR","76","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-5","E537","IN","FZH321","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","75","%","","-99","NA","","SUR","75","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic

acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","54","%","","-99","NA","","SUR","54","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","375-85-9","Perfluoroheptanoic
acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","307-24-4","Perfluorohexanoic
acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","335-67-1","Perfluorooctanoic
acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","375-95-1","Perfluorononanoic
acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-6","E537","IN","FZH322","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","73","%","","-99","NA","","SUR","73","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"

"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","65","%","","-99","NA","","SUR","65","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","79","%","","-99","NA","","SUR","79","","-99","NA","YES","-99","","1","1","-99","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"EB-CEF-008-012418-7","E537","IN","FZH323","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic

acid","78","%","","-99","NA","","SUR","78","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","106","%","","-99","NA","","SUR","106","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","109","%","","-99","NA","","SUR","109","","-99","NA","YES","-99","","1","1","-99","TES
T"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","2991-50-
6","EtFOSAA","33","ng/L","U","33","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","2355-31-
9","MeFOSAA","29","ng/L","U","29","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","130","ng/L","J","54","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","335-76-2","Perfluorodecanoic
acid","61","ng/L","U","61","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","307-55-1","Perfluorododecanoic
acid","50","ng/L","U","50","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","375-85-9","Perfluoroheptanoic
acid","1000","ng/L","","74","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","2200","ng/L","","56","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","307-24-4","Perfluorohexanoic
acid","1300","ng/L","","35","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","335-67-1","Perfluorooctanoic
acid","990","ng/L","","33","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted

accordingly (10x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","375-95-1","Perfluorononanoic acid","180","ng/L","J","87","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","21000","ng/L","","600","MDL","","NM","","","2000","PQL","YES","-99","","1","1","2000","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (100x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","376-06-7","Perfluorotetradecanoic acid","27","ng/L","U","27","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","72629-94-8","Perfluorotridecanoic acid","38","ng/L","U","38","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW02-0118","E537","DL1","FZH324","MAXXAM","2058-94-8","Perfluoroundecanoic acid","25","ng/L","U","25","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","2991-50-6","EtFOSAA","33","ng/L","U","33","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","2355-31-9","MeFOSAA","29","ng/L","U","29","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted

accordingly (10x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","190","ng/L","J","54","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","335-76-2","Perfluorodecanoic acid","120","ng/L","J","61","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","307-55-1","Perfluorododecanoic acid","50","ng/L","U","50","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","375-85-9","Perfluoroheptanoic acid","2000","ng/L","","74","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","12000","ng/L","","56","MDL","","NM","","","2000","PQL","YES","-99","","1","1","2000","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (100x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","307-24-4","Perfluorohexanoic acid","2600","ng/L","","35","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","335-67-1","Perfluorooctanoic acid","1600","ng/L","","33","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","375-95-1","Perfluorononanoic acid","900","ng/L","","87","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","37000","ng/L","","600","MDL","","NM","","","2000","PQL","YES","-99","","1","1","2000","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (100x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","376-06-7","Perfluorotetradecanoic acid","27","ng/L","U","27","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","72629-94-8","Perfluorotridecanoic acid","38","ng/L","U","38","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-008-TW01-0118","E537","DL1","FZH325","MAXXAM","2058-94-8","Perfluoroundecanoic acid","25","ng/L","U","25","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic

acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","64","%","","-99","NA","","SUR","64","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","72","%","","-99","NA","","SUR","72","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","96","%","","-99","NA","","SUR","96","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","105","%","","-99","NA","","SUR","105","","-99","NA","YES","-99","","1","1","-99","TES
T"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","38","ng/L","","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","375-85-9","Perfluoroheptanoic
acid","36","ng/L","","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","1600","ng/L","","56","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","307-24-4","Perfluorohexanoic
acid","220","ng/L","","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","335-67-1","Perfluorooctanoic
acid","2300","ng/L","","33","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","375-95-1","Perfluorononanoic
acid","16","ng/L","J","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","1000","ng/L","","60","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW01-0118","E537","IN","FZH326","MAXXAM","2058-94-8","Perfluoroundecanoic

acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","96","%","","-99","NA","","SUR","96","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","63","%","","-99","NA","","SUR","63","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","92","ng/L","","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","335-76-2","Perfluorodecanoic
acid","74","ng/L","","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","375-85-9","Perfluoroheptanoic
acid","150","ng/L","","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","3400","ng/L","","56","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","307-24-4","Perfluorohexanoic
acid","750","ng/L","","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","335-67-1","Perfluorooctanoic
acid","4200","ng/L","","33","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","375-95-1","Perfluorononanoic
acid","37","ng/L","","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","2300","ng/L","","60","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."

"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-007-TW02-0118","E537","IN","FZH327","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","75","%","","-99","NA","","SUR","75","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","69","%","","-99","NA","","SUR","69","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","79","%","","-99","NA","","SUR","79","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","68","%","","-99","NA","","SUR","68","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","68","%","","-99","NA","","SUR","68","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","375-85-9","Perfluoroheptanoic
acid","15","ng/L","J","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","11","ng/L","J","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","307-24-4","Perfluorohexanoic
acid","17","ng/L","J","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","335-67-1","Perfluorooctanoic
acid","31","ng/L","","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","375-95-1","Perfluorononanoic
acid","13","ng/L","J","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","110","ng/L","","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","376-06-7","Perfluorotetradecanoic

acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-38S-0118","E537","IN","FZH328","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","79","%","","-99","NA","","SUR","79","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","73","%","","-99","NA","","SUR","73","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TES
T"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","375-85-9","Perfluoroheptanoic
acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","307-24-4","Perfluorohexanoic
acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","335-67-1","Perfluorooctanoic
acid","24","ng/L","","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","375-95-1","Perfluorononanoic
acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","20","ng/L","J","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","376-06-7","Perfluorotetradecanoic

acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-002-04S-0118","E537","IN","FZH329","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","77","%","","-99","NA","","SUR","77","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","72","%","","-99","NA","","SUR","72","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TES
T"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","375-85-9","Perfluoroheptanoic
acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","307-24-4","Perfluorohexanoic
acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","335-67-1","Perfluorooctanoic
acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","375-95-1","Perfluorononanoic
acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","376-06-7","Perfluorotetradecanoic

acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-002-012318-5","E537","IN","FZH330","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","71","%","","-99","NA","","SUR","71","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","102","%","","-99","NA","","SUR","102","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","77","%","","-99","NA","","SUR","77","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","2991-50-
6","EtFOSAA","6.6","ng/L","U","6.6","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","2355-31-
9","MeFOSAA","5.8","ng/L","U","5.8","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","53","ng/L","","11","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","335-76-2","Perfluorodecanoic
acid","25","ng/L","J","12","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","307-55-1","Perfluorododecanoic
acid","10","ng/L","U","10","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","375-85-9","Perfluoroheptanoic
acid","580","ng/L","","15","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."

"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","860","ng/L","","11","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","307-24-4","Perfluorohexanoic acid","620","ng/L","","7.0","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","335-67-1","Perfluorooctanoic acid","450","ng/L","","6.6","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","375-95-1","Perfluorononanoic acid","96","ng/L","","17","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","5400","ng/L","","120","MDL","","NM","","","400","PQL","YES","-99","","1","1","400","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (20x)."
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","376-06-7","Perfluorotetradecanoic acid","5.4","ng/L","U","5.4","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","72629-94-8","Perfluorotridecanoic acid","7.6","ng/L","U","7.6","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."
"CEF-342-06S-0118","E537","DL1","FZH331","MAXXAM","2058-94-8","Perfluoroundecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","40","PQL","YES","-99","","1","1","40","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x)."
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","71","%","","-99","NA","","SUR","71","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118-D","E537","RA0","FZH332","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","79","%","","-99","NA","","SUR","79","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC

ACID","77","%","","-99","NA","","SUR","77","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","75","%","","-99","NA","","SUR","75","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","50","ng/L","","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","335-76-2","Perfluorodecanoic
acid","15","ng/L","J","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","375-85-9","Perfluoroheptanoic
acid","350","ng/L","","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","680","ng/L","","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","307-24-4","Perfluorohexanoic
acid","410","ng/L","","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","335-67-1","Perfluorooctanoic
acid","330","ng/L","","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","375-95-1","Perfluorononanoic
acid","63","ng/L","","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","3700","ng/L","","60","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high
concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted
accordingly (10x)."
"CEF-342-06S-0118-D","E537","RA0","FZH332","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118-D","E537","RA0","FZH332","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-06S-0118-D","E537","IN","FZH332","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","9.6","ng/L","J","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","96","%","","-99","NA","","SUR","96","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","D3-MEFOSAA","N-METHYL-D3-

PERFLUOROOCTANESULFONAMIDOACETIC
ACID","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","2991-50-
6","EtFOSAA","33","ng/L","U","33","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","2355-31-
9","MeFOSAA","29","ng/L","U","29","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","72","ng/L","J","54","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","335-76-2","Perfluorodecanoic
acid","61","ng/L","U","61","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","307-55-1","Perfluorododecanoic
acid","50","ng/L","U","50","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","375-85-9","Perfluoroheptanoic
acid","7000","ng/L","","74","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","3500","ng/L","","56","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","307-24-4","Perfluorohexanoic
acid","4400","ng/L","","35","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","335-67-1","Perfluorooctanoic
acid","5700","ng/L","","33","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","375-95-1","Perfluorononanoic
acid","1200","ng/L","","87","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","60000","ng/L","","600","MDL","","NM","","","2000","PQL","YES","-99","","1","1","2000","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (100x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","27","ng/L","U","27","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","38","ng/L","U","38","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high

concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-342-12S-0118","E537","DL1","FZH333","MAXXAM","2058-94-8","Perfluoroundecanoic acid","25","ng/L","U","25","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","62","%","","-99","NA","","SUR","62","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118","E537","RA0","FZH334","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","57","%","","-99","NA","","SUR","57","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","76","%","","-99","NA","","SUR","76","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","73","%","","-99","NA","","SUR","73","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","79","%","","-99","NA","","SUR","79","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","74","%","","-99","NA","","SUR","74","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","73","%","","-99","NA","","SUR","73","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","2991-50-6","EtFOSAA","33","ng/L","U","33","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","2355-31-9","MeFOSAA","29","ng/L","U","29","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","54","ng/L","U","54","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","335-76-2","Perfluorodecanoic acid","61","ng/L","U","61","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","307-55-1","Perfluorododecanoic acid","50","ng/L","U","50","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","375-85-9","Perfluoroheptanoic acid","74","ng/L","U","74","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was

adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","56","ng/L","U","56","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","307-24-4","Perfluorohexanoic acid","35","ng/L","U","35","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","335-67-1","Perfluorooctanoic acid","110","ng/L","J","33","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","375-95-1","Perfluorononanoic acid","87","ng/L","U","87","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","60","ng/L","U","60","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","RA0","FZH334","MAXXAM","376-06-7","Perfluorotetradecanoic acid","27","ng/L","U","27","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","RA0","FZH334","MAXXAM","72629-94-8","Perfluorotridecanoic acid","38","ng/L","U","38","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118","E537","DL1","FZH334","MAXXAM","2058-94-8","Perfluoroundecanoic acid","25","ng/L","U","25","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","60","%","","-99","NA","","SUR","60","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","71","%","","-99","NA","","SUR","71","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","72","%","","-99","NA","","SUR","72","","-99","NA","YES","-99","","1","1","-99","TEST"

"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","72","%","","-99","NA","","SUR","72","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","2991-50-6","EtFOSAA","33","ng/L","U","33","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","2355-31-9","MeFOSAA","29","ng/L","U","29","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","54","ng/L","U","54","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","335-76-2","Perfluorodecanoic acid","61","ng/L","U","61","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","307-55-1","Perfluorododecanoic acid","50","ng/L","U","50","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","375-85-9","Perfluoroheptanoic acid","74","ng/L","U","74","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","56","ng/L","U","56","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","307-24-4","Perfluorohexanoic acid","35","ng/L","U","35","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","335-67-1","Perfluorooctanoic acid","130","ng/L","J","33","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","375-95-1","Perfluorononanoic acid","87","ng/L","U","87","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","60","ng/L","U","60","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"CEF-013-03S-0118DUP","E537","DL1","FZH334DUP","MAXXAM","2058-94-8","Perfluoroundecanoic acid","25","ng/L","U","25","MDL","","NM","","","200","PQL","YES","-99","","1","1","200","Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x)."
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"

"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","103","%","","-99","NA","","SUR","103","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","102","%","","-99","NA","","SUR","102","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","103","%","","-99","NA","","SUR","103","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","103","%","","-99","NA","","SUR","103","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-342-012318-4","E537","IN","FZH335","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-076-109S-0118","E537","RA0","FZH337","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic

acid","105","%","","-99","NA","","SUR","105","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-076-109S-0118","E537","RA0","FZH337","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","107","%","","-99","NA","","SUR","107","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","107","%","","-99","NA","","SUR","107","","-99","NA","YES","-99","","1","1","-99","TES
T"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","106","%","","-99","NA","","SUR","106","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","108","%","","-99","NA","","SUR","108","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-076-109S-0118","E537","RA0","FZH337","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","121","%","","-99","NA","","SUR","121","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-076-109S-0118","E537","RA0","FZH337","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","112","%","","-99","NA","","SUR","112","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-076-109S-0118","E537","RA0","FZH337","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","RA0","FZH337","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","RA0","FZH337","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","375-85-9","Perfluoroheptanoic
acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","7.2","ng/L","J","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","307-24-4","Perfluorohexanoic
acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","335-67-1","Perfluorooctanoic
acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","375-95-1","Perfluorononanoic
acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","RA0","FZH337","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","IN","FZH337","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118","E537","RA0","FZH337","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118","E537","RA0","FZH338","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic

acid","114","%","","-99","NA","","SUR","114","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118","E537","RA0","FZH338","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TES
T"
"CEF-372-08-0118","E537","RA0","FZH338","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","116","%","","-99","NA","","SUR","116","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118","E537","RA0","FZH338","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","115","%","","-99","NA","","SUR","115","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118","E537","RA0","FZH338","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","RA0","FZH338","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.8","ng/L","J","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","RA0","FZH338","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","375-85-9","Perfluoroheptanoic
acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","19","ng/L","J","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","307-24-4","Perfluorohexanoic
acid","11","ng/L","J","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","335-67-1","Perfluorooctanoic
acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","375-95-1","Perfluorononanoic
acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","RA0","FZH338","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","RA0","FZH338","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118","E537","IN","FZH338","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","112","%","","-99","NA","","SUR","112","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118-D","E537","RA0","FZH339","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic

acid","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","105","%","","-99","NA","","SUR","105","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118-D","E537","RA0","FZH339","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","108","%","","-99","NA","","SUR","108","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","114","%","","-99","NA","","SUR","114","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","113","%","","-99","NA","","SUR","113","","-99","NA","YES","-99","","1","1","-99","TES
T"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","113","%","","-99","NA","","SUR","113","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","106","%","","-99","NA","","SUR","106","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","116","%","","-99","NA","","SUR","116","","-99","NA","YES","-99","","1","1","-99","TES
T"
"CEF-372-08-0118-D","E537","RA0","FZH339","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","114","%","","-99","NA","","SUR","114","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118-D","E537","RA0","FZH339","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","108","%","","-99","NA","","SUR","108","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-372-08-0118-D","E537","RA0","FZH339","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","RA0","FZH339","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.8","ng/L","J","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","RA0","FZH339","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","375-85-9","Perfluoroheptanoic
acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","20","ng/L","","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","307-24-4","Perfluorohexanoic
acid","11","ng/L","J","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","335-67-1","Perfluorooctanoic
acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","375-95-1","Perfluorononanoic
acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","7.3","ng/L","J","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","RA0","FZH339","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","RA0","FZH339","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-372-08-0118-D","E537","IN","FZH339","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"

"CEF-003-28S-0118","E537","RA0","FZH340","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","106","%","","-99","NA","","SUR","106","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","106","%","","-99","NA","","SUR","106","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-28S-0118","E537","RA0","FZH340","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","109","%","","-99","NA","","SUR","109","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","103","%","","-99","NA","","SUR","103","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","112","%","","-99","NA","","SUR","112","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","111","%","","-99","NA","","SUR","111","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-28S-0118","E537","RA0","FZH340","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","122","%","","-99","NA","","SUR","122","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-28S-0118","E537","RA0","FZH340","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","117","%","","-99","NA","","SUR","117","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-28S-0118","E537","RA0","FZH340","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","RA0","FZH340","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","8.3","ng/L","J","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","RA0","FZH340","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","375-85-9","Perfluoroheptanoic acid","38","ng/L","","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","35","ng/L","","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","307-24-4","Perfluorohexanoic acid","33","ng/L","","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","335-67-1","Perfluorooctanoic acid","120","ng/L","","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","375-95-1","Perfluorononanoic acid","21","ng/L","","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","170","ng/L","","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","RA0","FZH340","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","RA0","FZH340","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-28S-0118","E537","IN","FZH340","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","111","%","","-99","NA","","SUR","111","","-99","NA","YES","-99","","1","1","-99","TEST"

"FB-CEF-016-012218-2","E537","RA0","FZH341","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","109","%","","-99","NA","","SUR","109","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-016-012218-2","E537","RA0","FZH341","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","102","%","","-99","NA","","SUR","102","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","102","%","","-99","NA","","SUR","102","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","118","%","","-99","NA","","SUR","118","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","106","%","","-99","NA","","SUR","106","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","109","%","","-99","NA","","SUR","109","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","110","%","","-99","NA","","SUR","110","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","108","%","","-99","NA","","SUR","108","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-016-012218-2","E537","RA0","FZH341","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-016-012218-2","E537","RA0","FZH341","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-016-012218-2","E537","RA0","FZH341","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","RA0","FZH341","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","RA0","FZH341","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","RA0","FZH341","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","RA0","FZH341","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-016-012218-2","E537","IN","FZH341","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic

acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-07S-0118","E537","RA0","FZH342","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-07S-0118","E537","RA0","FZH342","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","109","%","","-99","NA","","SUR","109","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","107","%","","-99","NA","","SUR","107","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","108","%","","-99","NA","","SUR","108","","-99","NA","YES","-99","","1","1","-99","TES
T"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-07S-0118","E537","RA0","FZH342","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","123","%","","-99","NA","","SUR","123","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-07S-0118","E537","RA0","FZH342","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","116","%","","-99","NA","","SUR","116","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-07S-0118","E537","RA0","FZH342","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","RA0","FZH342","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.5","ng/L","J","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","RA0","FZH342","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","375-85-9","Perfluoroheptanoic
acid","14","ng/L","J","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","13","ng/L","J","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","307-24-4","Perfluorohexanoic
acid","21","ng/L","","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","335-67-1","Perfluorooctanoic
acid","10","ng/L","J","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","375-95-1","Perfluorononanoic
acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","11","ng/L","J","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","RA0","FZH342","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","RA0","FZH342","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-07S-0118","E537","IN","FZH342","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic

acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-17S-0118","E537","RA0","FZH343","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","109","%","","-99","NA","","SUR","109","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-17S-0118","E537","RA0","FZH343","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","76","%","","-99","NA","","SUR","76","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","113","%","","-99","NA","","SUR","113","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TES
T"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","117","%","","-99","NA","","SUR","117","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","118","%","","-99","NA","","SUR","118","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","109","%","","-99","NA","","SUR","109","","-99","NA","YES","-99","","1","1","-99","TES
T"
"CEF-016-17S-0118","E537","RA0","FZH343","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-17S-0118","E537","RA0","FZH343","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-016-17S-0118","E537","RA0","FZH343","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","RA0","FZH343","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","RA0","FZH343","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","375-85-9","Perfluoroheptanoic
acid","38","ng/L","","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","11","ng/L","J","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","307-24-4","Perfluorohexanoic
acid","29","ng/L","","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","335-67-1","Perfluorooctanoic
acid","33","ng/L","","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","375-95-1","Perfluorononanoic
acid","14","ng/L","J","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","59","ng/L","","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","RA0","FZH343","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","RA0","FZH343","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-016-17S-0118","E537","IN","FZH343","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"

"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","77","%","","-99","NA","","SUR","77","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","96","%","","-99","NA","","SUR","96","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"FB-CEF-003-012318-3","E537","IN","FZH344","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"

"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","68","%","","-99","NA","","SUR","68","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","68","%","","-99","NA","","SUR","68","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","75","%","","-99","NA","","SUR","75","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","65","%","","-99","NA","","SUR","65","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","70","%","","-99","NA","","SUR","70","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","69","%","","-99","NA","","SUR","69","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","78","%","","-99","NA","","SUR","78","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","71","%","","-99","NA","","SUR","71","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","73","%","","-99","NA","","SUR","73","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","74","%","","-99","NA","","SUR","74","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","72","%","","-99","NA","","SUR","72","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","375-85-9","Perfluoroheptanoic acid","13","ng/L","J","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","9.8","ng/L","J","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","307-24-4","Perfluorohexanoic acid","14","ng/L","J","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","335-67-1","Perfluorooctanoic acid","31","ng/L","","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","21","ng/L","","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118","E537","IN","FZH347","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic

acid","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","72","%","","-99","NA","","SUR","72","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","77","%","","-99","NA","","SUR","77","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","67","%","","-99","NA","","SUR","67","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","76","%","","-99","NA","","SUR","76","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","2991-50-
6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","2355-31-
9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","335-76-2","Perfluorodecanoic
acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","307-55-1","Perfluorododecanoic
acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","375-85-9","Perfluoroheptanoic
acid","11","ng/L","J","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","7.8","ng/L","J","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","307-24-4","Perfluorohexanoic
acid","13","ng/L","J","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","335-67-1","Perfluorooctanoic
acid","23","ng/L","","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","375-95-1","Perfluorononanoic
acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","17","ng/L","J","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-003-04S-0118-D","E537","IN","FZH348","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5383485:Matrix Spike","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","83","ng/L","","5.4","MDL","","PDSPK","83","","20","PQL","YES","0.0005","CEF-076-109S-

0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5383485:Matrix Spike","MAXXAM","335-76-2","Perfluorodecanoic acid","100","ng/L","","6.1","MDL","","PDSPK","100","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5383485:Matrix Spike","MAXXAM","375-85-9","Perfluoroheptanoic acid","92","ng/L","","7.4","MDL","","PDSPK","92","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5383485:Matrix Spike","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","86","ng/L","","5.6","MDL","","PDSPK","86","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5383485:Matrix Spike","MAXXAM","307-24-4","Perfluorohexanoic acid","90","ng/L","","3.5","MDL","","PDSPK","90","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5383485:Matrix Spike","MAXXAM","335-67-1","Perfluorooctanoic acid","90","ng/L","","3.3","MDL","","PDSPK","90","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5383485:Matrix Spike","MAXXAM","375-95-1","Perfluorononanoic acid","93","ng/L","","8.7","MDL","","PDSPK","93","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5383485:Matrix Spike","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","95","ng/L","","6.0","MDL","","PDSPK","95","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5383485:Matrix Spike","MAXXAM","72629-94-8","Perfluorotridecanoic acid","92","ng/L","","3.8","MDL","","PDSPK","92","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5383485:MSD","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","100","ng/L","","5.4","MDL","","PDSPK","100","18","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5383485:MSD","MAXXAM","335-76-2","Perfluorodecanoic acid","98","ng/L","","6.1","MDL","","PDSPK","98","2.0","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5383485:MSD","MAXXAM","375-85-9","Perfluoroheptanoic acid","94","ng/L","","7.4","MDL","","PDSPK","94","1.9","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5383485:MSD","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","97","ng/L","","5.6","MDL","","PDSPK","97","12","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5383485:MSD","MAXXAM","307-24-4","Perfluorohexanoic acid","101","ng/L","","3.5","MDL","","PDSPK","101","11","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5383485:MSD","MAXXAM","335-67-1","Perfluorooctanoic acid","99","ng/L","","3.3","MDL","","PDSPK","99","9.6","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5383485:MSD","MAXXAM","375-95-1","Perfluorononanoic acid","106","ng/L","","8.7","MDL","","PDSPK","106","13","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5383485:MSD","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","114","ng/L","","6.0","MDL","","PDSPK","114","18","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5383485:MSD","MAXXAM","72629-94-8","Perfluorotridecanoic acid","109","ng/L","","3.8","MDL","","PDSPK","109","17","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","2991-50-6","EtFOSAA","95","ng/L","","3.3","MDL","","PDSPK","95","","20","PQL","YES","0.0005","CEF-003-04S-

0118","1","1","20","TEST"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","2355-31-9","MeFOSAA","102","ng/L","","2.9","MDL","","PDSPK","102","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","112","ng/L","","5.4","MDL","","PDSPK","112","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","335-76-2","Perfluorodecanoic acid","98","ng/L","","6.1","MDL","","PDSPK","98","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","307-55-1","Perfluorododecanoic acid","106","ng/L","","5.0","MDL","","PDSPK","106","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","375-85-9","Perfluoroheptanoic acid","98","ng/L","","7.4","MDL","","PDSPK","98","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","104","ng/L","","5.6","MDL","","PDSPK","104","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","307-24-4","Perfluorohexanoic acid","96","ng/L","","3.5","MDL","","PDSPK","96","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","335-67-1","Perfluorooctanoic acid","92","ng/L","","3.3","MDL","","PDSPK","92","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","375-95-1","Perfluorononanoic acid","95","ng/L","","8.7","MDL","","PDSPK","95","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","91","ng/L","","6.0","MDL","","PDSPK","91","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","376-06-7","Perfluorotetradecanoic acid","155","ng/L","","2.7","MDL","","PDSPK","155","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","Recovery of the matrix spike was above the upper control limit. Laboratory spiked water resulted in satisfactory recovery of the compound of interest. When considered together, these QC data suggest"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","72629-94-8","Perfluorotridecanoic acid","158","ng/L","","3.8","MDL","","PDSPK","158","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","Recovery of the matrix spike was above the upper control limit. Laboratory spiked water resulted in satisfactory recovery of the compound of interest. When considered together, these QC data suggest"
"CEF-003-04S-0118MS","E537","IN","5386102:Matrix Spike","MAXXAM","2058-94-8","Perfluoroundecanoic acid","98","ng/L","","2.5","MDL","","PDSPK","98","","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","2991-50-6","EtFOSAA","104","ng/L","","3.3","MDL","","PDSPK","104","9.1","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","2355-31-9","MeFOSAA","100","ng/L","","2.9","MDL","","PDSPK","100","1.8","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","101","ng/L","","5.4","MDL","","PDSPK","101","11","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","335-76-2","Perfluorodecanoic acid","100","ng/L","","6.1","MDL","","PDSPK","100","2.3","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"

"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","307-55-1","Perfluorododecanoic acid","93","ng/L","","5.0","MDL","","PDSPK","93","13","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","375-85-9","Perfluoroheptanoic acid","98","ng/L","","7.4","MDL","","PDSPK","98","0.038","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","91","ng/L","","5.6","MDL","","PDSPK","91","13","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","307-24-4","Perfluorohexanoic acid","99","ng/L","","3.5","MDL","","PDSPK","99","3.0","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","335-67-1","Perfluorooctanoic acid","96","ng/L","","3.3","MDL","","PDSPK","96","4.0","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","375-95-1","Perfluorononanoic acid","104","ng/L","","8.7","MDL","","PDSPK","104","9.4","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","87","ng/L","","6.0","MDL","","PDSPK","87","4.7","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","376-06-7","Perfluorotetradecanoic acid","105","ng/L","","2.7","MDL","","PDSPK","105","-99","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","72629-94-8","Perfluorotridecanoic acid","112","ng/L","","3.8","MDL","","PDSPK","112","-99","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-003-04S-0118MSD","E537","IN","5386102:MSD","MAXXAM","2058-94-8","Perfluoroundecanoic acid","101","ng/L","","2.5","MDL","","PDSPK","101","3.2","20","PQL","YES","0.0005","CEF-003-04S-0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5396714:Matrix Spike","MAXXAM","2991-50-6","EtFOSAA","87","ng/L","","3.3","MDL","","PDSPK","87","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5396714:Matrix Spike","MAXXAM","2355-31-9","MeFOSAA","87","ng/L","","2.9","MDL","","PDSPK","87","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5396714:Matrix Spike","MAXXAM","307-55-1","Perfluorododecanoic acid","92","ng/L","","5.0","MDL","","PDSPK","92","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5396714:Matrix Spike","MAXXAM","376-06-7","Perfluorotetradecanoic acid","88","ng/L","","2.7","MDL","","PDSPK","88","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MS","E537","IN","5396714:Matrix Spike","MAXXAM","2058-94-8","Perfluoroundecanoic acid","89","ng/L","","2.5","MDL","","PDSPK","89","","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5396714:MSD","MAXXAM","2991-50-6","EtFOSAA","80","ng/L","","3.3","MDL","","PDSPK","80","8.0","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5396714:MSD","MAXXAM","2355-31-9","MeFOSAA","80","ng/L","","2.9","MDL","","PDSPK","80","7.3","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5396714:MSD","MAXXAM","307-55-1","Perfluorododecanoic acid","88","ng/L","","5.0","MDL","","PDSPK","88","4.1","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"

"CEF-076-109S-0118MSD","E537","IN","5396714:MSD","MAXXAM","376-06-7","Perfluorotetradecanoic acid","81","ng/L","","2.7","MDL","","PDSPK","81","8.4","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"CEF-076-109S-0118MSD","E537","IN","5396714:MSD","MAXXAM","2058-94-8","Perfluoroundecanoic acid","86","ng/L","","2.5","MDL","","PDSPK","86","4.3","20","PQL","YES","0.0005","CEF-076-109S-0118","1","1","20","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","103","%","","-99","NA","","SUR","103","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","122","%","","-99","NA","","SUR","122","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","100","ng/L","","5.4","MDL","","PDSPK","100","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","335-76-2","Perfluorodecanoic acid","83","ng/L","","6.1","MDL","","PDSPK","83","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","375-85-9","Perfluoroheptanoic acid","94","ng/L","","7.4","MDL","","PDSPK","94","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","97","ng/L","","5.6","MDL","","PDSPK","97","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","307-24-4","Perfluorohexanoic acid","89","ng/L","","3.5","MDL","","PDSPK","89","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","335-67-1","Perfluorooctanoic acid","97","ng/L","","3.3","MDL","","PDSPK","97","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","375-95-1","Perfluorononanoic acid","93","ng/L","","8.7","MDL","","PDSPK","93","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","101","ng/L","","6.0","MDL","","PDSPK","101","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Spiked Blank","E537","IN","5383466:Spiked Blank","MAXXAM","2058-94-8","Perfluoroundecanoic acid","72","ng/L","","2.5","MDL","","PDSPK","72","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","64","%","","-99","NA","","SUR","64","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","59","%","","-99","NA","","SUR","59","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","77","%","","-99","NA","","SUR","77","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","63","%","","-99","NA","","SUR","63","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","66","%","","-99","NA","","SUR","66","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","76","%","","-99","NA","","SUR","76","","-99","NA","YES","-99","","1","1","-99","TEST"

"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","71","%","","-99","NA","","SUR","71","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","71","%","","-99","NA","","SUR","71","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","72","%","","-99","NA","","SUR","72","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","73","%","","-99","NA","","SUR","73","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","68","%","","-99","NA","","SUR","68","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","69","%","","-99","NA","","SUR","69","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","2991-50-6","EtFOSAA","98","ng/L","","3.3","MDL","","PDSPK","98","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","2355-31-9","MeFOSAA","98","ng/L","","2.9","MDL","","PDSPK","98","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","117","ng/L","","5.4","MDL","","PDSPK","117","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","335-76-2","Perfluorodecanoic acid","111","ng/L","","6.1","MDL","","PDSPK","111","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","307-55-1","Perfluorododecanoic acid","113","ng/L","","5.0","MDL","","PDSPK","113","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","375-85-9","Perfluoroheptanoic acid","98","ng/L","","7.4","MDL","","PDSPK","98","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","110","ng/L","","5.6","MDL","","PDSPK","110","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","307-24-4","Perfluorohexanoic acid","97","ng/L","","3.5","MDL","","PDSPK","97","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","335-67-1","Perfluorooctanoic acid","105","ng/L","","3.3","MDL","","PDSPK","105","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","375-95-1","Perfluorononanoic acid","106","ng/L","","8.7","MDL","","PDSPK","106","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","103","ng/L","","6.0","MDL","","PDSPK","103","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","376-06-7","Perfluorotetradecanoic acid","102","ng/L","","2.7","MDL","","PDSPK","102","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","72629-94-8","Perfluorotridecanoic acid","104","ng/L","","3.8","MDL","","PDSPK","104","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Spiked Blank","E537","IN","5386102:Spiked Blank","MAXXAM","2058-94-8","Perfluoroundecanoic acid","97","ng/L","","2.5","MDL","","PDSPK","97","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","78","%","","-99","NA","","SUR","78","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic

acid","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","2991-50-6","EtFOSAA","88","ng/L","","3.3","MDL","","PDSPK","88","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","2355-31-9","MeFOSAA","88","ng/L","","2.9","MDL","","PDSPK","88","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","78","ng/L","","5.4","MDL","","PDSPK","78","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","335-76-2","Perfluorodecanoic acid","94","ng/L","","6.1","MDL","","PDSPK","94","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","307-55-1","Perfluorododecanoic acid","89","ng/L","","5.0","MDL","","PDSPK","89","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","375-85-9","Perfluoroheptanoic acid","86","ng/L","","7.4","MDL","","PDSPK","86","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","79","ng/L","","5.6","MDL","","PDSPK","79","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","307-24-4","Perfluorohexanoic acid","92","ng/L","","3.5","MDL","","PDSPK","92","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","335-67-1","Perfluorooctanoic acid","86","ng/L","","3.3","MDL","","PDSPK","86","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","375-95-1","Perfluorononanoic acid","96","ng/L","","8.7","MDL","","PDSPK","96","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","82","ng/L","","6.0","MDL","","PDSPK","82","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","376-06-7","Perfluorotetradecanoic acid","93","ng/L","","2.7","MDL","","PDSPK","93","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","72629-94-8","Perfluorotridecanoic acid","88","ng/L","","3.8","MDL","","PDSPK","88","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Spiked Blank","E537","IN","5387452:Spiked Blank","MAXXAM","2058-94-8","Perfluoroundecanoic acid","95","ng/L","","2.5","MDL","","PDSPK","95","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","78","%","","-99","NA","","SUR","78","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","13C4PFHPA","13C4-

Perfluoroheptanoic acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","335-67-1_13C","13C4-
Perfluorooctanoic acid","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","76","%","","-99","NA","","SUR","76","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","2991-50-
6","EtFOSAA","100","ng/L","","3.3","MDL","","PDSPK","100","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","2355-31-
9","MeFOSAA","92","ng/L","","2.9","MDL","","PDSPK","92","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","101","ng/L","","5.4","MDL","","PDSPK","101","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","335-76-2","Perfluorodecanoic
acid","100","ng/L","","6.1","MDL","","PDSPK","100","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","307-55-1","Perfluorododecanoic
acid","98","ng/L","","5.0","MDL","","PDSPK","98","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","375-85-9","Perfluoroheptanoic
acid","94","ng/L","","7.4","MDL","","PDSPK","94","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","98","ng/L","","5.6","MDL","","PDSPK","98","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","307-24-4","Perfluorohexanoic
acid","95","ng/L","","3.5","MDL","","PDSPK","95","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","335-67-1","Perfluorooctanoic
acid","101","ng/L","","3.3","MDL","","PDSPK","101","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","375-95-1","Perfluorononanoic
acid","97","ng/L","","8.7","MDL","","PDSPK","97","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","96","ng/L","","6.0","MDL","","PDSPK","96","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","100","ng/L","","2.7","MDL","","PDSPK","100","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","103","ng/L","","3.8","MDL","","PDSPK","103","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Spiked Blank","E537","IN","5389177:Spiked Blank","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","98","ng/L","","2.5","MDL","","PDSPK","98","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic
acid","76","%","","-99","NA","","SUR","76","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"

"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","89","%","","-99","NA","","SUR","89","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","77","%","","-99","NA","","SUR","77","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","2991-50-6","EtFOSAA","101","ng/L","","3.3","MDL","","PDSPK","101","1.6","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","2355-31-9","MeFOSAA","91","ng/L","","2.9","MDL","","PDSPK","91","1.6","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","102","ng/L","","5.4","MDL","","PDSPK","102","0.84","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","335-76-2","Perfluorodecanoic acid","97","ng/L","","6.1","MDL","","PDSPK","97","3.0","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","307-55-1","Perfluorododecanoic acid","96","ng/L","","5.0","MDL","","PDSPK","96","2.0","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","375-85-9","Perfluoroheptanoic acid","95","ng/L","","7.4","MDL","","PDSPK","95","0.67","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","96","ng/L","","5.6","MDL","","PDSPK","96","2.1","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","307-24-4","Perfluorohexanoic acid","94","ng/L","","3.5","MDL","","PDSPK","94","1.8","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","335-67-1","Perfluorooctanoic acid","98","ng/L","","3.3","MDL","","PDSPK","98","2.7","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","375-95-1","Perfluorononanoic acid","102","ng/L","","8.7","MDL","","PDSPK","102","5.8","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","93","ng/L","","6.0","MDL","","PDSPK","93","2.8","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","376-06-7","Perfluorotetradecanoic acid","103","ng/L","","2.7","MDL","","PDSPK","103","2.6","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","72629-94-8","Perfluorotridecanoic acid","102","ng/L","","3.8","MDL","","PDSPK","102","0.74","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:LCSD","E537","IN","5389177:LCSD","MAXXAM","2058-94-8","Perfluoroundecanoic acid","98","ng/L","","2.5","MDL","","PDSPK","98","0.62","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","112","%","","-99","NA","","SUR","112","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","110","%","","-99","NA","","SUR","110","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","115","%","","-99","NA","","SUR","115","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","101","%","","-99","NA","","SUR","101","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic

acid","105","%","","-99","NA","","SUR","105","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","116","%","","-99","NA","","SUR","116","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","111","%","","-99","NA","","SUR","111","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","114","%","","-99","NA","","SUR","114","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","113","%","","-99","NA","","SUR","113","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","114","%","","-99","NA","","SUR","114","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC
ACID","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","2991-50-6","EtFOSAA","99","ng/L","","3.3","MDL","","PDSPK","99","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","2355-31-9","MeFOSAA","100","ng/L","","2.9","MDL","","PDSPK","100","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","99","ng/L","","5.4","MDL","","PDSPK","99","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","335-76-2","Perfluorodecanoic
acid","94","ng/L","","6.1","MDL","","PDSPK","94","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","307-55-1","Perfluorododecanoic
acid","92","ng/L","","5.0","MDL","","PDSPK","92","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","375-85-9","Perfluoroheptanoic
acid","95","ng/L","","7.4","MDL","","PDSPK","95","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","91","ng/L","","5.6","MDL","","PDSPK","91","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","307-24-4","Perfluorohexanoic
acid","97","ng/L","","3.5","MDL","","PDSPK","97","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","335-67-1","Perfluorooctanoic
acid","97","ng/L","","3.3","MDL","","PDSPK","97","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","375-95-1","Perfluorononanoic
acid","99","ng/L","","8.7","MDL","","PDSPK","99","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","93","ng/L","","6.0","MDL","","PDSPK","93","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","97","ng/L","","2.7","MDL","","PDSPK","97","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","100","ng/L","","3.8","MDL","","PDSPK","100","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Spiked Blank","E537","IN","5390275:Spiked Blank","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","108","ng/L","","2.5","MDL","","PDSPK","108","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","102","%","","-99","NA","","SUR","102","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic
acid","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic
acid","105","%","","-99","NA","","SUR","105","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic

acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic
acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic
acid","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic
acid","98","%","","-99","NA","","SUR","98","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","99","%","","-99","NA","","SUR","99","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","2991-50-
6","EtFOSAA","99","ng/L","","3.3","MDL","","PDSPK","99","0.58","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","2355-31-
9","MeFOSAA","95","ng/L","","2.9","MDL","","PDSPK","95","4.7","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","100","ng/L","","5.4","MDL","","PDSPK","100","1.1","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","335-76-2","Perfluorodecanoic
acid","89","ng/L","","6.1","MDL","","PDSPK","89","5.7","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","307-55-1","Perfluorododecanoic
acid","94","ng/L","","5.0","MDL","","PDSPK","94","2.7","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","375-85-9","Perfluoroheptanoic
acid","90","ng/L","","7.4","MDL","","PDSPK","90","5.6","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","92","ng/L","","5.6","MDL","","PDSPK","92","1.1","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","307-24-4","Perfluorohexanoic
acid","91","ng/L","","3.5","MDL","","PDSPK","91","5.8","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","335-67-1","Perfluorooctanoic
acid","100","ng/L","","3.3","MDL","","PDSPK","100","3.5","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","375-95-1","Perfluorononanoic
acid","93","ng/L","","8.7","MDL","","PDSPK","93","5.8","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","99","ng/L","","6.0","MDL","","PDSPK","99","6.4","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","102","ng/L","","2.7","MDL","","PDSPK","102","5.5","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","100","ng/L","","3.8","MDL","","PDSPK","100","0.25","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:LCSD","E537","IN","5390275:LCSD","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","110","ng/L","","2.5","MDL","","PDSPK","110","2.5","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic
acid","94","%","","-99","NA","","SUR","94","","-99","NA","YES","-99","","1","1","-99","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","13C2PFDOA","13C2-
Perfluorododecanoic acid","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","13C2PFHXA","13C2-
Perfluorohexanoic acid","96","%","","-99","NA","","SUR","96","","-99","NA","YES","-99","","1","1","-99","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","13C2PFTDA","13C2-
Perfluorotetradecanoic

acid","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","13C2PFUA","13C2-
Perfluoroundecanoic acid","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","13C4PFHPA","13C4-
Perfluoroheptanoic acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","1763-23-1_13","13C4-
Perfluorooctanesulfonate","105","%","","-99","NA","","SUR","105","","-99","NA","YES","-99","","1","1","-99","TES
T"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","335-67-1_13C","13C4-
Perfluorooctanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","13C4PFNA","13C5-Perfluorononanoic
acid","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","18O2PFHXS","18O2-
Perfluorohexanesulfonate","88","%","","-99","NA","","SUR","88","","-99","NA","YES","-99","","1","1","-99","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC
ACID","81","%","","-99","NA","","SUR","81","","-99","NA","YES","-99","","1","1","-99","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","D5-ETFOSAA","D5-
ETFOSAA","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","2991-50-
6","EtFOSAA","99","ng/L","","3.3","MDL","","PDSPK","99","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","2355-31-
9","MeFOSAA","95","ng/L","","2.9","MDL","","PDSPK","95","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","375-73-5","Perfluorobutanesulfonic
acid","105","ng/L","","5.4","MDL","","PDSPK","105","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","335-76-2","Perfluorodecanoic
acid","96","ng/L","","6.1","MDL","","PDSPK","96","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","307-55-1","Perfluorododecanoic
acid","97","ng/L","","5.0","MDL","","PDSPK","97","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","375-85-9","Perfluoroheptanoic
acid","103","ng/L","","7.4","MDL","","PDSPK","103","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","355-46-4","Perfluorohexanesulfonic
acid","105","ng/L","","5.6","MDL","","PDSPK","105","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","307-24-4","Perfluorohexanoic
acid","89","ng/L","","3.5","MDL","","PDSPK","89","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","335-67-1","Perfluorooctanoic
acid","104","ng/L","","3.3","MDL","","PDSPK","104","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","375-95-1","Perfluorononanoic
acid","101","ng/L","","8.7","MDL","","PDSPK","101","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","1763-23-1","Perfluorooctanesulfonic
acid","80","ng/L","","6.0","MDL","","PDSPK","80","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","376-06-7","Perfluorotetradecanoic
acid","103","ng/L","","2.7","MDL","","PDSPK","103","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","72629-94-8","Perfluorotridecanoic
acid","107","ng/L","","3.8","MDL","","PDSPK","107","","20","PQL","YES","-99","","1","1","20","TEST"
"5391181:Spiked Blank","E537","IN","5391181:Spiked Blank","MAXXAM","2058-94-8","Perfluoroundecanoic
acid","97","ng/L","","2.5","MDL","","PDSPK","97","","20","PQL","YES","-99","","1","1","20","TEST"
"5396699:Spiked Blank","E537","IN","5396699:Spiked Blank","MAXXAM","13C2PFDOA","13C2-
Perfluorododecanoic acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"5396699:Spiked Blank","E537","IN","5396699:Spiked Blank","MAXXAM","13C2PFTDA","13C2-
Perfluorotetradecanoic
acid","100","%","","-99","NA","","SUR","100","","-99","NA","YES","-99","","1","1","-99","TEST"
"5396699:Spiked Blank","E537","IN","5396699:Spiked Blank","MAXXAM","D3-MEFOSAA","N-METHYL-D3-
PERFLUOROOCTANESULFONAMIDOACETIC

ACID","97","%","","-99","NA","","SUR","97","","-99","NA","YES","-99","","1","1","-99","TEST"
"5396699:Spiked Blank","E537","IN","5396699:Spiked Blank","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"5396699:Spiked Blank","E537","IN","5396699:Spiked Blank","MAXXAM","2991-50-6","EtFOSAA","81","ng/L","","3.3","MDL","","PDSPK","81","","20","PQL","YES","-99","","1","1","20","TEST"
"5396699:Spiked Blank","E537","IN","5396699:Spiked Blank","MAXXAM","2355-31-9","MeFOSAA","82","ng/L","","2.9","MDL","","PDSPK","82","","20","PQL","YES","-99","","1","1","20","TEST"
"5396699:Spiked Blank","E537","IN","5396699:Spiked Blank","MAXXAM","307-55-1","Perfluorododecanoic acid","89","ng/L","","5.0","MDL","","PDSPK","89","","20","PQL","YES","-99","","1","1","20","TEST"
"5396699:Spiked Blank","E537","IN","5396699:Spiked Blank","MAXXAM","376-06-7","Perfluorotetradecanoic acid","75","ng/L","","2.7","MDL","","PDSPK","75","","20","PQL","YES","-99","","1","1","20","TEST"
"5396699:Spiked Blank","E537","IN","5396699:Spiked Blank","MAXXAM","72629-94-8","Perfluorotridecanoic acid","86","ng/L","","3.8","MDL","","PDSPK","86","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","85","%","","-99","NA","","SUR","85","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","106","%","","-99","NA","","SUR","106","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","55","%","","-99","NA","","SUR","55","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","109","%","","-99","NA","","SUR","109","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","107","%","","-99","NA","","SUR","107","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","104","%","","-99","NA","","SUR","104","","-99","NA","YES","-99","","1","1","-99","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5383466:Method Blank","E537","IN","5383466:Method Blank","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","58","%","","-99","NA","","SUR","58","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","58","%","","-99","NA","","SUR","58","","-99","NA","YES","-99","","1","1","-99","TEST"

"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","71","%","","-99","NA","","SUR","71","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","54","%","","-99","NA","","SUR","54","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","62","%","","-99","NA","","SUR","62","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","67","%","","-99","NA","","SUR","67","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","74","%","","-99","NA","","SUR","74","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","65","%","","-99","NA","","SUR","65","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","63","%","","-99","NA","","SUR","63","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","72","%","","-99","NA","","SUR","72","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","61","%","","-99","NA","","SUR","61","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","59","%","","-99","NA","","SUR","59","","-99","NA","YES","-99","","1","1","-99","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5386102:Method Blank","E537","IN","5386102:Method Blank","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","75","%","","-99","NA","","SUR","75","","-99","NA","YES","-99","","1","1","-99","TEST"

"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","90","%","","-99","NA","","SUR","90","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","72","%","","-99","NA","","SUR","72","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","77","%","","-99","NA","","SUR","77","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","82","%","","-99","NA","","SUR","82","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","84","%","","-99","NA","","SUR","84","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","75","%","","-99","NA","","SUR","75","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","78","%","","-99","NA","","SUR","78","","-99","NA","YES","-99","","1","1","-99","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5387452:Method Blank","E537","IN","5387452:Method Blank","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","79","%","","-99","NA","","SUR","79","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","76","%","","-99","NA","","SUR","76","","-99","NA","YES","-99","","1","1","-99","TEST"

"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","92","%","","-99","NA","","SUR","92","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","80","%","","-99","NA","","SUR","80","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","13C2PFUA","13C2-Perfluoroundecanoic acid","78","%","","-99","NA","","SUR","78","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","13C4PFHPA","13C4-Perfluoroheptanoic acid","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","86","%","","-99","NA","","SUR","86","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","96","%","","-99","NA","","SUR","96","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","13C4PFNA","13C5-Perfluorononanoic acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","18O2PFHXS","18O2-Perfluorohexanesulfonate","93","%","","-99","NA","","SUR","93","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","D3-MEFOSAA","N-METHYL-D3-PERFLUOROOCTANESULFONAMIDOACETIC ACID","76","%","","-99","NA","","SUR","76","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","D5-ETFOSAA","D5-ETFOSAA","72","%","","-99","NA","","SUR","72","","-99","NA","YES","-99","","1","1","-99","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","2991-50-6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","2355-31-9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","375-73-5","Perfluorobutanesulfonic acid","5.4","ng/L","U","5.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","335-76-2","Perfluorodecanoic acid","6.1","ng/L","U","6.1","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","307-55-1","Perfluorododecanoic acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","375-85-9","Perfluoroheptanoic acid","7.4","ng/L","U","7.4","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","355-46-4","Perfluorohexanesulfonic acid","5.6","ng/L","U","5.6","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","307-24-4","Perfluorohexanoic acid","3.5","ng/L","U","3.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","335-67-1","Perfluorooctanoic acid","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","375-95-1","Perfluorononanoic acid","8.7","ng/L","U","8.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","1763-23-1","Perfluorooctanesulfonic acid","6.0","ng/L","U","6.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","376-06-7","Perfluorotetradecanoic acid","2.7","ng/L","U","2.7","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","72629-94-8","Perfluorotridecanoic acid","3.8","ng/L","U","3.8","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5389177:Method Blank","E537","IN","5389177:Method Blank","MAXXAM","2058-94-8","Perfluoroundecanoic acid","2.5","ng/L","U","2.5","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
"5390275:Method Blank","E537","IN","5390275:Method Blank","MAXXAM","13C2PFDA","13C2-Perfluorodecanoic acid","95","%","","-99","NA","","SUR","95","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Method Blank","E537","IN","5390275:Method Blank","MAXXAM","13C2PFDOA","13C2-Perfluorododecanoic acid","87","%","","-99","NA","","SUR","87","","-99","NA","YES","-99","","1","1","-99","TEST"

"5390275:Method Blank","E537","IN","5390275:Method Blank","MAXXAM","13C2PFHXA","13C2-Perfluorohexanoic acid","96","%","","-99","NA","","SUR","96","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Method Blank","E537","IN","5390275:Method Blank","MAXXAM","13C2PFTDA","13C2-Perfluorotetradecanoic acid","83","%","","-99","NA","","SUR","83","","-99","NA","YES","-99","","1","1","-99","TEST"
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"5390275:Method Blank","E537","IN","5390275:Method Blank","MAXXAM","1763-23-1_13","13C4-Perfluorooctanesulfonate","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
"5390275:Method Blank","E537","IN","5390275:Method Blank","MAXXAM","335-67-1_13C","13C4-Perfluorooctanoic acid","91","%","","-99","NA","","SUR","91","","-99","NA","YES","-99","","1","1","-99","TEST"
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acid","73","%","","-99","NA","","SUR","73","","-99","NA","YES","-99","","1","1","-99","TEST"
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PERFLUOROOCTANESULFONAMIDOACETIC
ACID","60","%","","-99","NA","","SUR","60","","-99","NA","YES","-99","","1","1","-99","TEST"
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6","EtFOSAA","3.3","ng/L","U","3.3","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
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9","MeFOSAA","2.9","ng/L","U","2.9","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
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acid","5.0","ng/L","U","5.0","MDL","","NM","","","20","PQL","YES","-99","","1","1","20","TEST"
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TETRA TECH

INTERNAL CORRESPONDENCE

TO: **M. VED** **DATE:** **APRIL 18, 2018**

FROM: **MICHELLE L. WOEBER** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – POLYFLUOROALKYL SUBSTANCES (PFAS)**
NAVAL AIR STATION (NAS), CECIL FIELD
SAMPLE DELIVERY GROUP (SDG) B819794

SAMPLES: 35/Aqueous/PFAS

CEF-002-04S-0118	CEF-002-06S-0118	CEF-003-04S-0118
CEF-003-04S-0118-D	CEF-003-28S-0118	CEF-003-38S-0118
CEF-007-TW01-0118	CEF-007-TW02-0118	CEF-008-TW01-0118
CEF-008-TW02-0118	CEF-013-03S-0118	CEF-013-12S-0118
CEF-013-12S-0118-D	CEF-016-07S-0118	CEF-016-17S-0118
CEF-076-109S-0118	CEF-342-06S-0118	CEF-342-06S-0118-D
CEF-342-12S-0118	CEF-372-08-0118	CEF-372-08-0118-D
EB-CEF-007-012518-10	EB-CEF-007-012518-8	EB-CEF-007-012518-9
EB-CEF-008-012418-5	EB-CEF-008-012418-6	EB-CEF-008-012418-7
FB-CEF-002-012318-5	FB-CEF-003-012318-3	FB-CEF-007-012518-8
FB-CEF-008-012418-6	FB-CEF-013-012518-7	FB-CEF-016-012218-2
FB-CEF-342-012318-4	FB-CEF-860-012518-9	

Overview

The sample set for NAS Cecil Field, SDG B819794 consisted of twenty-one (21) aqueous environmental samples, six (6) equipment blanks, and eight (8) Field Reagent Blanks (FRBs). All thirty-five (35) samples were analyzed for polyfluoroalkyl substances (PFAS). Four field duplicate sample pairs were included in this SDG: CEF-003-04S-0118/CEF-003-04S-0118-D, CEF-013-12S-0118/CEF-013-12S-0118-D, CEF-342-06S-0118/CEF-342-06S-0118-D, CEF-372-08-0118/CEF-372-08-0118-D.

The samples were collected by Tetra Tech, Inc. on January 22-25, 2018 and analyzed by Maxxam Analytics. All analyses were conducted in accordance with EPA 537 Modified analytical and reporting protocols. The data contained in this SDG was validated with regard to the following parameters:

* • Data completeness
• Hold times/Sample Preservation
* • Mass Calibration
* • LC/MS/MS System Tuning and Performance
* • Mass Spectral Acquisition Rate
* • Instrument Sensitivity Check
* • Ion Transition Check
* • Initial/Continuing Calibrations
* • Laboratory Method Blank Results
* • Field Reagent Blank Results
* • Extraction Internal Standard Recoveries
* • Injection Internal Standard Recoveries
* • Laboratory Control Sample Recoveries

- Matrix Spike/Matrix Spike Sample Duplicate Results
- Field Duplicate Precision
* • Compound Identification
* • Compound Quantitation
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, and documentation supporting these findings is presented in Appendix C.

PFAS

According to the laboratory case narrative, samples CEF-013-03S-0118 and CEF-342-06S-0118-D had Percent Recoveries (%Rs) for the extracted internal standard, 13C2-perfluorotetradecanoic acid (13C2-PFTeDA), below the lower quality control limits. The samples were re-extracted outside the 14 day holding time and reanalyzed with acceptable results. The laboratory only reported the results from the reanalyses for the PFAS compounds associated with this extracted internal standard. The non-detected results reported for perfluorotridecanoic acid (PFTrDA) and perfluorotetradecanoic acid (PFTeDA) in these samples were qualified as estimated, (UJ), due to the holding time exceedance.

Per the laboratory case narrative, the Laboratory Control Sample (LCS) %Rs for perfluorododecanoic acid (PFDoA), PFTrDA, PFTeDA, methylperfluorooctanesulfonamidoacetic acid (MeFOSAA), and ethylperfluorooctanesulfonamidoacetic acid (EtFOSAA) were below the lower quality control limit in preparation batch #5383466 (Samples CEF-003-28S-0118, CEF-016-07S-0118, CEF-016-17S-0118, CEF-372-08-0118, CEF-372-08-0118-D, and FB-CEF-016-012218-2). The affected samples were re-extracted outside the 14 day holding time and reanalyzed with acceptable results. The laboratory only reported the results from the reanalyses for the aforementioned compounds. The non-detected results reported for these compounds in the affected samples were qualified as estimated, (UJ), due to the holding time exceedance.

According to the laboratory case narrative, the LCS %Rs for PFDoA, PFTrDA, PFTeDA, MeFOSAA, EtFOSAA, and perfluoroundecanoic acid (PFUnA) were below the lower quality control limit in preparation batch #5383485 (Sample CEF-076-109S-0118). The affected sample was re-extracted outside the 14 day holding time and reanalyzed with acceptable results. The laboratory only reported the results from the reanalysis for these compounds. The non-detected results reported for these compounds in the affected sample were qualified as estimated, (UJ), due to the holding time exceedance.

The Relative Percent Differences (RPDs) for pentadecafluorooctanoic acid (PFOA), perfluoroheptanoic acid, perfluorohexanoic acid, and perfluorooctane sulfonic acid exceeded the 30% quality control limit in the field duplicate pair CEF-342-06S-0118/CEF-342-06S-0118-D. The detected results reported for these compounds in the field duplicate pair were qualified as estimated, (J).

The following contaminants were detected in the field quality control blanks at the maximum concentrations indicated:

Contaminant	Concentration	Action Level (ng/L)
Perfluorooctane sulfonic acid[1]	23 ng/L	>RL
Perfluorooctane sulfonic acid[2]	21 ng/L	>RL

[1] Concentration detected in equipment blank(EB) EB-CEF-1820-012618-15 collected on 1/26/18
[2] Concentration detected in equipment blank EB-CEF-MFS-020818-18 collected on 2/8/18

No validation actions were taken because there were no samples in this SDG which were collected on 1/26/18 and the sample associated with the EB collected on 2/8/18 contained PFOS

Additional Comments

The Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses performed on sample CEF-003-04S-0118 had MS %Rs for perfluorotetradecanoic acid and perfluorotridecanoic acid above the upper quality control limits. In addition, the and RPDs exceeded 30%. No action was taken because these compounds were not detected in the parent sample.

The MS/MSD analyses associated with preparation batch #5391181 had %Rs for some PFAS compounds outside the quality control limits. No action was taken because the parent sample was not a sample of interest in this SDG.

Samples CEF-008-TW01-0118, CEF-008-TW02-0118, CEF-342-06S-0118, and CEF-342-12S-0118 were diluted prior to analysis. The reporting limits were adjusted accordingly.

Some samples required dilutions due to concentrations of the following compounds:

Sample	Compound
CEF-002-06S-0118	PFOA
CEF-007-TW01-0118	PFOA
	PFHxS
	PFOS
CEF-007-TW02-0118	PFOA
	PFHxS
	PFOS
CEF-342-06S-0118-D	PFOS

The laboratory only reported the diluted results.

Detected results reported below the Limit of Quantitation (LOQ) but above the Method Detection Limit (MDL) were qualified as estimated, (J). Non-detected results were reported to the MDL in the database.

Executive Summary

Laboratory Performance Issues: Extraction holding times were exceeded for nine samples because corrective action was taken to remedy either an extraction standard exceedance or a few blank spike quality control exceedances in the initial analyses. Only select parameters were affected by the holding time exceedances in the affected samples.

Other Factors Affecting Data Quality: Several samples required dilutions. MS/MSD analyses had noncompliant %Rs. Field duplicate imprecision was noted for one sample pair. Detected results below the LOQ were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017), EPA Method 537 Modified, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (2017). The text of this report has been formulated to address only those areas affecting data quality.

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Attachments:
Appendix A - Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08005-JM10	NSAMPLE	CEF-002-04S-0118			CEF-002-06S-0118			CEF-003-04S-0118			CEF-003-04S-0118-D		
SDG: B819794	LAB_ID	FZH329			FZH306			FZH347			FZH348		
FRACTION: PFAS	SAMP_DATE	1/23/2018			1/25/2018			1/23/2018			1/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF										CEF-003-04S-0118		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		3.3	U		3.6	U		3.3	U		3.3	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.9	U		3.2	U		2.9	U		2.9	U	
PENTADECAFLUOROOCTANOIC ACID		24			1100			31			23		
PERFLUOROBUTANESULFONIC ACID		5.4	U		14	J	P	5.4	U		5.4	U	
PERFLUORODECANOIC ACID		6.1	U		6.7	U		6.1	U		6.1	U	
PERFLUORODODECANOIC ACID		5	U		5.5	U		5	U		5	U	
PERFLUOROHEPTANOIC ACID		7.4	U		20	J	P	13	J	P	11	J	P
PERFLUOROHEXANESULFONIC ACID		5.6	U		640			9.8	J	P	7.8	J	P
PERFLUOROHEXANOIC ACID		3.5	U		160			14	J	P	13	J	P
PERFLUORONONANOIC ACID		8.7	U		9.6	U		8.7	U		8.7	U	
PERFLUOROOCTANE SULFONIC ACID		20	J	P	110			21			17	J	P
PERFLUOROTETRADECANOIC ACID		2.7	U		3	U		2.7	U		2.7	U	
PERFLUOROTRIDECANOIC ACID		3.8	U		4.2	U		3.8	U		3.8	U	
PERFLUOROUNDECANOIC ACID		2.5	U		2.8	U		2.5	U		2.5	U	

PROJ_NO: 08005-JM10	NSAMPLE	CEF-003-28S-0118						CEF-003-38S-0118			CEF-007-TW01-0118		
SDG: B819794	LAB_ID	FZH340						FZH328			FZH326		
FRACTION: PFAS	SAMP_DATE	1/22/2018			1/26/2018			1/23/2018			1/25/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0						0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID					3.3	UJ	H	3.3	U		3.3	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID					2.9	UJ	H	2.9	U		2.9	U	
PENTADECAFLUOROOCTANOIC ACID		120						31			2300		
PERFLUOROBUTANESULFONIC ACID		8.3	J	P				5.4	U		38		
PERFLUORODECANOIC ACID		6.1	U					6.1	U		6.1	U	
PERFLUORODODECANOIC ACID					5	UJ	H	5	U		5	U	
PERFLUOROHEPTANOIC ACID		38						15	J	P	36		
PERFLUOROHEXANESULFONIC ACID		35						11	J	P	1600		
PERFLUOROHEXANOIC ACID		33						17	J	P	220		
PERFLUORONONANOIC ACID		21						13	J	P	16	J	P
PERFLUOROOCTANE SULFONIC ACID		170						110			1000		
PERFLUOROTETRADECANOIC ACID					2.7	UJ	H	2.7	U		2.7	U	
PERFLUOROTRIDECANOIC ACID					3.8	UJ	H	3.8	U		3.8	U	
PERFLUOROUNDECANOIC ACID		2.5	U					2.5	U		2.5	U	

PROJ_NO: 08005-JM10	NSAMPLE	CEF-007-TW02-0118			CEF-008-TW01-0118			CEF-008-TW02-0118			CEF-013-03S-0118		
SDG: B819794	LAB_ID	FZH327			FZH325			FZH324			FZH334		
FRACTION: PFAS	SAMP_DATE	1/25/2018			1/24/2018			1/24/2018			1/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		3.3	U		33	U		33	U		33	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.9	U		29	U		29	U		29	U	
PENTADECAFLUOROOCTANOIC ACID		4200			1600			990			110	J	P
PERFLUOROBUTANESULFONIC ACID		92			190	J	P	130	J	P	54	U	
PERFLUORODECANOIC ACID		74			120	J	P	61	U		61	U	
PERFLUORODODECANOIC ACID		5	U		50	U		50	U		50	U	
PERFLUOROHEPTANOIC ACID		150			2000			1000			74	U	
PERFLUOROHEXANESULFONIC ACID		3400			12000			2200			56	U	
PERFLUOROHEXANOIC ACID		750			2600			1300			35	U	
PERFLUORONONANOIC ACID		37			900			180	J	P	87	U	
PERFLUOROOCTANE SULFONIC ACID		2300			37000			21000			60	U	
PERFLUOROTETRADECANOIC ACID		2.7	U		27	U		27	U				
PERFLUOROTRIDECANOIC ACID		3.8	U		38	U		38	U				
PERFLUOROUNDECANOIC ACID		2.5	U		25	U		25	U		25	U	

PROJ_NO: 08005-JM10	NSAMPLE	CEF-013-03S-0118			CEF-013-12S-0118			CEF-013-12S-0118-D			CEF-016-07S-0118		
SDG: B819794	LAB_ID	FZH334			FZH312			FZH311			FZH342		
FRACTION: PFAS	SAMP_DATE	1/26/2018			1/25/2018			1/25/2018			1/22/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS				0.0			0.0			0.0		
	DUP_OF							CEF-013-12S-0118					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID					3.3	U		3.3	U				
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID					2.9	U		2.9	U				
PENTADECAFLUOROOCTANOIC ACID					72			77			10	J	P
PERFLUOROBUTANESULFONIC ACID					29			31			5.5	J	P
PERFLUORODECANOIC ACID					6.1	U		6.1	U		6.1	U	
PERFLUORODODECANOIC ACID					5	U		5	U				
PERFLUOROHEPTANOIC ACID					14	J	P	14	J	P	14	J	P
PERFLUOROHEXANESULFONIC ACID					250			300			13	J	P
PERFLUOROHEXANOIC ACID					55			65			21		
PERFLUORONONANOIC ACID					8.7	U		8.7	U		8.7	U	
PERFLUOROOCTANE SULFONIC ACID					6	U		6	U		11	J	P
PERFLUOROTETRADECANOIC ACID		27	UJ	H	2.7	U		2.7	U				
PERFLUOROTRIDECANOIC ACID		38	UJ	H	3.8	U		3.8	U				
PERFLUOROUNDECANOIC ACID					2.5	U		2.5	U		2.5	U	

PROJ_NO: 08005-JM10	NSAMPLE	CEF-016-07S-0118			CEF-016-17S-0118						CEF-076-109S-0118		
SDG: B819794	LAB_ID	FZH342			FZH343						FZH337		
FRACTION: PFAS	SAMP_DATE	1/26/2018			1/22/2018			1/26/2018			1/22/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS				0.0						0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		3.3	UJ	H				3.3	UJ	H			
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.9	UJ	H				2.9	UJ	H			
PENTADECAFLUOROOCTANOIC ACID					33						3.3	U	
PERFLUOROBUTANESULFONIC ACID					5.4	U					5.4	U	
PERFLUORODECANOIC ACID					6.1	U					6.1	U	
PERFLUORODODECANOIC ACID		5	UJ	H				5	UJ	H			
PERFLUOROHEPTANOIC ACID					38						7.4	U	
PERFLUOROHEXANESULFONIC ACID					11	J	P				7.2	J	P
PERFLUOROHEXANOIC ACID					29						3.5	U	
PERFLUORONONANOIC ACID					14	J	P				8.7	U	
PERFLUOROOCTANE SULFONIC ACID					59						6	U	
PERFLUOROTETRADECANOIC ACID		2.7	UJ	H				2.7	UJ	H			
PERFLUOROTRIDECANOIC ACID		3.8	UJ	H				3.8	UJ	H	3.8	UJ	H
PERFLUOROUNDECANOIC ACID					2.5	U							

PROJ_NO: 08005-JM10	NSAMPLE	CEF-076-109S-0118			CEF-342-06S-0118			CEF-342-06S-0118-D					
SDG: B819794	LAB_ID	FZH337			FZH331			FZH332					
FRACTION: PFAS	SAMP_DATE	1/26/2018			1/23/2018			1/23/2018			1/26/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS				0.0			0.0					
	DUP_OF							CEF-342-06S-0118			CEF-342-06S-0118		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		3.3	UJ	H	6.6	U		3.3	U				
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.9	UJ	H	5.8	U		2.9	U				
PENTADECAFLUOROOCTANOIC ACID					450	J	G	330	J	G			
PERFLUOROBUTANESULFONIC ACID					53			50					
PERFLUORODECANOIC ACID					25	J	P	15	J	P			
PERFLUORODODECANOIC ACID		5	UJ	H	10	U		5	U				
PERFLUOROHEPTANOIC ACID					580	J	G	350	J	G			
PERFLUOROHEXANESULFONIC ACID					860			680					
PERFLUOROHEXANOIC ACID					620	J	G	410	J	G			
PERFLUORONONANOIC ACID					96			63					
PERFLUOROOCTANE SULFONIC ACID					5400	J	G	3700	J	G			
PERFLUOROTETRADECANOIC ACID		2.7	UJ	H	5.4	U					2.7	UJ	H
PERFLUOROTRIDECANOIC ACID					7.6	U					3.8	UJ	H
PERFLUOROUNDECANOIC ACID		2.5	UJ	H	5	U		9.6	J	P			

PROJ_NO: 08005-JM10	NSAMPLE	CEF-342-12S-0118			CEF-372-08-0118						CEF-372-08-0118-D		
SDG: B819794	LAB_ID	FZH333			FZH338						FZH339		
FRACTION: PFAS	SAMP_DATE	1/23/2018			1/22/2018			1/26/2018			1/22/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0						0.0		
	DUP_OF										CEF-372-08-0118		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		33	U					3.3	UJ	H			
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		29	U					2.9	UJ	H			
PENTADECAFLUOROOCTANOIC ACID		5700			3.3	U					3.3	U	
PERFLUOROBUTANESULFONIC ACID		72	J	P	5.8	J	P				5.8	J	P
PERFLUORODECANOIC ACID		61	U		6.1	U					6.1	U	
PERFLUORODODECANOIC ACID		50	U					5	UJ	H			
PERFLUOROHEPTANOIC ACID		7000			7.4	U					7.4	U	
PERFLUOROHEXANESULFONIC ACID		3500			19	J	P				20		
PERFLUOROHEXANOIC ACID		4400			11	J	P				11	J	P
PERFLUORONONANOIC ACID		1200			8.7	U					8.7	U	
PERFLUOROOCTANE SULFONIC ACID		60000			6	U					7.3	J	P
PERFLUOROTETRADECANOIC ACID		27	U					2.7	UJ	H			
PERFLUOROTRIDECANOIC ACID		38	U					3.8	UJ	H			
PERFLUOROUNDECANOIC ACID		25	U		2.5	U					2.5	U	

PROJ_NO: 08005-JM10	NSAMPLE	CEF-372-08-0118-D			EB-CEF-007-012518-10			EB-CEF-007-012518-8			EB-CEF-007-012518-9		
SDG: B819794	LAB_ID	FZH339			FZH309			FZH307			FZH308		
FRACTION: PFAS	SAMP_DATE	1/26/2018			1/25/2018			1/25/2018			1/25/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS				0.0			0.0			0.0		
	DUP_OF	CEF-372-08-0118											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		3.3	UJ	H	3.3	U		3.3	U		3.3	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.9	UJ	H	2.9	U		2.9	U		2.9	U	
PENTADECAFLUOROOCTANOIC ACID					3.3	U		3.3	U		3.3	U	
PERFLUOROBUTANESULFONIC ACID					5.4	U		5.4	U		5.4	U	
PERFLUORODECANOIC ACID					6.1	U		6.1	U		6.1	U	
PERFLUORODODECANOIC ACID		5	UJ	H	5	U		5	U		5	U	
PERFLUOROHEPTANOIC ACID					7.4	U		7.4	U		7.4	U	
PERFLUOROHEXANESULFONIC ACID					5.6	U		5.6	U		5.6	U	
PERFLUOROHEXANOIC ACID					3.5	U		3.5	U		3.5	U	
PERFLUORONONANOIC ACID					8.7	U		8.7	U		8.7	U	
PERFLUOROOCTANE SULFONIC ACID					6	U		6	U		6	U	
PERFLUOROTETRADECANOIC ACID		2.7	UJ	H	2.7	U		2.7	U		2.7	U	
PERFLUOROTRIDECANOIC ACID		3.8	UJ	H	3.8	U		3.8	U		3.8	U	
PERFLUOROUNDECANOIC ACID					2.5	U		2.5	U		2.5	U	

PROJ_NO: 08005-JM10	NSAMPLE	EB-CEF-008-012418-5			EB-CEF-008-012418-6			EB-CEF-008-012418-7			FB-CEF-002-012318-5		
SDG: B819794	LAB_ID	FZH321			FZH322			FZH323			FZH330		
FRACTION: PFAS	SAMP_DATE	1/24/2018			1/24/2018			1/24/2018			1/23/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		3.3	U		3.3	U		3.3	U		3.3	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.9	U		2.9	U		2.9	U		2.9	U	
PENTADECAFLUOROOCTANOIC ACID		3.3	U		3.3	U		3.3	U		3.3	U	
PERFLUOROBUTANESULFONIC ACID		5.4	U		5.4	U		5.4	U		5.4	U	
PERFLUORODECANOIC ACID		6.1	U		6.1	U		6.1	U		6.1	U	
PERFLUORODODECANOIC ACID		5	U		5	U		5	U		5	U	
PERFLUOROHEPTANOIC ACID		7.4	U		7.4	U		7.4	U		7.4	U	
PERFLUOROHEXANESULFONIC ACID		5.6	U		5.6	U		5.6	U		5.6	U	
PERFLUOROHEXANOIC ACID		3.5	U		3.5	U		3.5	U		3.5	U	
PERFLUORONONANOIC ACID		8.7	U		8.7	U		8.7	U		8.7	U	
PERFLUOROOCTANE SULFONIC ACID		6	U		6	U		6	U		6	U	
PERFLUOROTETRADECANOIC ACID		2.7	U		2.7	U		2.7	U		2.7	U	
PERFLUOROTRIDECANOIC ACID		3.8	U		3.8	U		3.8	U		3.8	U	
PERFLUOROUNDECANOIC ACID		2.5	U		2.5	U		2.5	U		2.5	U	

PROJ_NO: 08005-JM10	NSAMPLE	FB-CEF-003-012318-3			FB-CEF-007-012518-8			FB-CEF-008-012418-6			FB-CEF-013-012518-7		
SDG: B819794	LAB_ID	FZH344			FZH310			FZH318			FZH313		
FRACTION: PFAS	SAMP_DATE	1/23/2018			1/25/2018			1/24/2018			1/25/2018		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		3.3	U		3.3	U		3.3	U		3.3	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.9	U		2.9	U		2.9	U		2.9	U	
PENTADECAFLUOROOCTANOIC ACID		3.3	U		3.3	U		3.3	U		3.3	U	
PERFLUOROBUTANESULFONIC ACID		5.4	U		5.4	U		5.4	U		5.4	U	
PERFLUORODECANOIC ACID		6.1	U		6.1	U		6.1	U		6.1	U	
PERFLUORODODECANOIC ACID		5	U		5	U		5	U		5	U	
PERFLUOROHEPTANOIC ACID		7.4	U		7.4	U		7.4	U		7.4	U	
PERFLUOROHEXANESULFONIC ACID		5.6	U		5.6	U		5.6	U		5.6	U	
PERFLUOROHEXANOIC ACID		3.5	U		3.5	U		3.5	U		3.5	U	
PERFLUORONONANOIC ACID		8.7	U		8.7	U		8.7	U		8.7	U	
PERFLUOROOCTANE SULFONIC ACID		6	U		6	U		6	U		6	U	
PERFLUOROTETRADECANOIC ACID		2.7	U		2.7	U		2.7	U		2.7	U	
PERFLUOROTRIDECANOIC ACID		3.8	U		3.8	U		3.8	U		3.8	U	
PERFLUOROUNDECANOIC ACID		2.5	U		2.5	U		2.5	U		2.5	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH306				FZH307				
Sampling Date		2018/01/25 12:15				2018/01/25 13:35				
COC Number		3184				3184				
	UNITS	CEF-002-06S-0118	DL	LOD	LOQ	EB-CEF-007-012518-8	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters										
EtFOSAA	ng/L	11 U	3.6	11	22	10 U	3.3	10	20	5390275
MeFOSAA	ng/L	11 U	3.2	11	22	10 U	2.9	10	20	5390275
Perfluorobutane Sulfonate (PFBS)	ng/L	14 J	5.9	17	22	15 U	5.4	15	20	5390275
Perfluoroheptanoic Acid (PFHpA)	ng/L	20 J	8.1	17	22	15 U	7.4	15	20	5390275
Perfluorohexanoic Acid (PFHxA)	ng/L	160	3.9	11	22	10 U	3.5	10	20	5390275
Perfluorohexane Sulfonate (PFHxS)	ng/L	640	6.2	17	22	15 U	5.6	15	20	5390275
Perfluorononanoic Acid (PFNA)	ng/L	20 U	9.6	20	22	18 U	8.7	18	20	5390275
Perfluorotetradecanoic Acid	ng/L	11 U	3.0	11	22	10 U	2.7	10	20	5390275
Perfluorotridecanoic Acid	ng/L	11 U	4.2	11	22	10 U	3.8	10	20	5390275
Perfluoroundecanoic Acid (PFUnA)	ng/L	11 U	2.8	11	22	10 U	2.5	10	20	5390275
Perfluorodecanoic Acid (PFDA)	ng/L	17 U	6.7	17	22	15 U	6.1	15	20	5390275
Perfluorododecanoic Acid (PFDoA)	ng/L	11 U	5.5	11	22	10 U	5.0	10	20	5390275
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	1100 (1)	36	110	200	10 U	3.3	10	20	5390275
Perfluorooctane Sulfonate (PFOS)	ng/L	110	6.6	17	22	15 U	6.0	15	20	5390275
Surrogate Recovery (%)										
13C2-Perfluorodecanoic acid	%	99				97				5390275
13C2-Perfluorododecanoic acid	%	87				83				5390275
13C2-Perfluorohexanoic acid	%	101				99				5390275
13C2-perfluorotetradecanoic acid	%	81				88				5390275
13C2-Perfluoroundecanoic acid	%	93				91				5390275
13C4-Perfluoroheptanoic acid	%	107				95				5390275
13C4-Perfluorooctanesulfonate	%	96				88				5390275
13C4-Perfluorooctanoic acid	%	98				98				5390275
13C5-Perfluorononanoic acid	%	106				99				5390275
18O2-Perfluorohexanesulfonate	%	99				91				5390275
D3-MeFOSAA	%	90				78				5390275
D5-EtFOSAA	%	88				83				5390275

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH308	FZH309	FZH310				
Sampling Date		2018/01/25 13:45	2018/01/25 13:55	2018/01/25 14:20				
COC Number		3184	3184	3184				
	UNITS	EB-CEF-007-012518-9	EB-CEF-007-012518-10	FB-CEF-007-012518-8	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters								
EtFOSAA	ng/L	10 U	10 U	10 U	3.3	10	20	5390275
MeFOSAA	ng/L	10 U	10 U	10 U	2.9	10	20	5390275
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	15 U	15 U	5.4	15	20	5390275
Perfluoroheptanoic Acid (PFHpA)	ng/L	15 U	15 U	15 U	7.4	15	20	5390275
Perfluorohexanoic Acid (PFHxA)	ng/L	10 U	10 U	10 U	3.5	10	20	5390275
Perfluorohexane Sulfonate (PFHxS)	ng/L	15 U	15 U	15 U	5.6	15	20	5390275
Perfluorononanoic Acid (PFNA)	ng/L	18 U	18 U	18 U	8.7	18	20	5390275
Perfluorotetradecanoic Acid	ng/L	10 U	10 U	10 U	2.7	10	20	5390275
Perfluorotridecanoic Acid	ng/L	10 U	10 U	10 U	3.8	10	20	5390275
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	10 U	10 U	2.5	10	20	5390275
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	15 U	15 U	6.1	15	20	5390275
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	10 U	10 U	5.0	10	20	5390275
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	10 U	10 U	10 U	3.3	10	20	5390275
Perfluorooctane Sulfonate (PFOS)	ng/L	15 U	15 U	15 U	6.0	15	20	5390275
Surrogate Recovery (%)								
13C2-Perfluorodecanoic acid	%	98	97	86				5390275
13C2-Perfluorododecanoic acid	%	88	87	81				5390275
13C2-Perfluorohexanoic acid	%	101	101	95				5390275
13C2-perfluorotetradecanoic acid	%	87	88	80				5390275
13C2-Perfluoroundecanoic acid	%	89	92	87				5390275
13C4-Perfluoroheptanoic acid	%	103	101	94				5390275
13C4-Perfluorooctanesulfonate	%	88	94	92				5390275
13C4-Perfluorooctanoic acid	%	98	101	93				5390275
13C5-Perfluorononanoic acid	%	102	100	92				5390275
18O2-Perfluorohexanesulfonate	%	94	103	91				5390275
D3-MeFOSAA	%	85	90	75				5390275
D5-EtFOSAA	%	83	90	75				5390275

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH311	FZH312	FZH313				
Sampling Date		2018/01/25 12:48	2018/01/25 12:48	2018/01/25 12:46				
COC Number		3184	3184	3184				
	UNITS	CEF-013-12S-0118-D	CEF-013-12S-0118	FB-CEF-013-012518-7	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters								
EtFOSAA	ng/L	10 U	10 U	10 U	3.3	10	20	5390275
MeFOSAA	ng/L	10 U	10 U	10 U	2.9	10	20	5390275
Perfluorobutane Sulfonate (PFBS)	ng/L	31	29	15 U	5.4	15	20	5390275
Perfluoroheptanoic Acid (PFHpA)	ng/L	14 J	14 J	15 U	7.4	15	20	5390275
Perfluorohexanoic Acid (PFHxA)	ng/L	65	55	10 U	3.5	10	20	5390275
Perfluorohexane Sulfonate (PFHxS)	ng/L	300	250	15 U	5.6	15	20	5390275
Perfluorononanoic Acid (PFNA)	ng/L	18 U	18 U	18 U	8.7	18	20	5390275
Perfluorotetradecanoic Acid	ng/L	10 U	10 U	10 U	2.7	10	20	5390275
Perfluorotridecanoic Acid	ng/L	10 U	10 U	10 U	3.8	10	20	5390275
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	10 U	10 U	2.5	10	20	5390275
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	15 U	15 U	6.1	15	20	5390275
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	10 U	10 U	5.0	10	20	5390275
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	77	72	10 U	3.3	10	20	5390275
Perfluorooctane Sulfonate (PFOS)	ng/L	15 U	15 U	15 U	6.0	15	20	5390275
Surrogate Recovery (%)								
13C2-Perfluorodecanoic acid	%	94	88	98				5390275
13C2-Perfluorododecanoic acid	%	83	78	92				5390275
13C2-Perfluorohexanoic acid	%	85	100	108				5390275
13C2-perfluorotetradecanoic acid	%	59	60	89				5390275
13C2-Perfluoroundecanoic acid	%	86	83	93				5390275
13C4-Perfluoroheptanoic acid	%	94	101	107				5390275
13C4-Perfluorooctanesulfonate	%	93	97	97				5390275
13C4-Perfluorooctanoic acid	%	92	95	100				5390275
13C5-Perfluorononanoic acid	%	95	100	100				5390275
18O2-Perfluorohexanesulfonate	%	89	109	104				5390275
D3-MeFOSAA	%	82	81	86				5390275
D5-EtFOSAA	%	77	80	84				5390275

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH314		FZH318	FZH321				
Sampling Date		2018/01/25 15:50		2018/01/24 10:30	2018/01/24 12:40				
COC Number		3184		3182	3182				
	UNITS	FB-CEF-860-012518-9	QC Batch	FB-CEF-008-012418-6	EB-CEF-008-012418-5	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters									
EtFOSAA	ng/L	10 U	5390275	10 U	10 U	3.3	10	20	5387452
MeFOSAA	ng/L	10 U	5390275	10 U	10 U	2.9	10	20	5387452
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	5390275	15 U	15 U	5.4	15	20	5387452
Perfluoroheptanoic Acid (PFHpA)	ng/L	15 U	5390275	15 U	15 U	7.4	15	20	5387452
Perfluorohexanoic Acid (PFHxA)	ng/L	10 U	5390275	10 U	10 U	3.5	10	20	5387452
Perfluorohexane Sulfonate (PFHxS)	ng/L	15 U	5390275	15 U	15 U	5.6	15	20	5387452
Perfluorononanoic Acid (PFNA)	ng/L	18 U	5390275	18 U	18 U	8.7	18	20	5387452
Perfluorotetradecanoic Acid	ng/L	10 U	5390275	10 U	10 U	2.7	10	20	5387452
Perfluorotridecanoic Acid	ng/L	10 U	5390275	10 U	10 U	3.8	10	20	5387452
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	5390275	10 U	10 U	2.5	10	20	5387452
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	5390275	15 U	15 U	6.1	15	20	5387452
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	5390275	10 U	10 U	5.0	10	20	5387452
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	10 U	5390275	10 U	10 U	3.3	10	20	5387452
Perfluorooctane Sulfonate (PFOS)	ng/L	15 U	5390275	15 U	15 U	6.0	15	20	5387452
Surrogate Recovery (%)									
13C2-Perfluorodecanoic acid	%	95	5390275	92	94				5387452
13C2-Perfluorododecanoic acid	%	85	5390275	78	81				5387452
13C2-Perfluorohexanoic acid	%	92	5390275	87	96				5387452
13C2-perfluorotetradecanoic acid	%	79	5390275	70	74				5387452
13C2-Perfluoroundecanoic acid	%	80	5390275	83	83				5387452
13C4-Perfluoroheptanoic acid	%	97	5390275	96	98				5387452
13C4-Perfluorooctanesulfonate	%	88	5390275	89	85				5387452
13C4-Perfluorooctanoic acid	%	92	5390275	84	94				5387452
13C5-Perfluorononanoic acid	%	95	5390275	94	91				5387452
18O2-Perfluorohexanesulfonate	%	94	5390275	82	83				5387452
D3-MeFOSAA	%	80	5390275	83	76				5387452
D5-EtFOSAA	%	78	5390275	84	81				5387452

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B819794
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Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH322	FZH323				
Sampling Date		2018/01/24 12:45	2018/01/24 12:50				
COC Number		3182	3182				
	UNITS	EB-CEF-008-012418-6	EB-CEF-008-012418-7	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters							
EtFOSAA	ng/L	10 U	10 U	3.3	10	20	5387452
MeFOSAA	ng/L	10 U	10 U	2.9	10	20	5387452
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	15 U	5.4	15	20	5387452
Perfluoroheptanoic Acid (PFHpA)	ng/L	15 U	15 U	7.4	15	20	5387452
Perfluorohexanoic Acid (PFHxA)	ng/L	10 U	10 U	3.5	10	20	5387452
Perfluorohexane Sulfonate (PFHxS)	ng/L	15 U	15 U	5.6	15	20	5387452
Perfluorononanoic Acid (PFNA)	ng/L	18 U	18 U	8.7	18	20	5387452
Perfluorotetradecanoic Acid	ng/L	10 U	10 U	2.7	10	20	5387452
Perfluorotridecanoic Acid	ng/L	10 U	10 U	3.8	10	20	5387452
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	10 U	2.5	10	20	5387452
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	15 U	6.1	15	20	5387452
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	10 U	5.0	10	20	5387452
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	10 U	10 U	3.3	10	20	5387452
Perfluorooctane Sulfonate (PFOS)	ng/L	15 U	15 U	6.0	15	20	5387452
Surrogate Recovery (%)							
13C2-Perfluorodecanoic acid	%	86	94				5387452
13C2-Perfluorododecanoic acid	%	75	73				5387452
13C2-Perfluorohexanoic acid	%	88	89				5387452
13C2-perfluorotetradecanoic acid	%	54	65				5387452
13C2-Perfluoroundecanoic acid	%	81	85				5387452
13C4-Perfluoroheptanoic acid	%	92	90				5387452
13C4-Perfluorooctanesulfonate	%	81	82				5387452
13C4-Perfluorooctanoic acid	%	88	95				5387452
13C5-Perfluorononanoic acid	%	90	92				5387452
18O2-Perfluorohexanesulfonate	%	90	84				5387452
D3-MeFOSAA	%	80	80				5387452
D5-EtFOSAA	%	82	79				5387452

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH324		FZH325				
Sampling Date		2018/01/24 15:42		2018/01/24 16:43				
COC Number		3182		3182				
	UNITS	CEF-008-TW02-0118	LOQ	CEF-008-TW01-0118	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters								
EtFOSAA	ng/L	100 U (1)	200	100 U (1)	33	100	200	5389177
MeFOSAA	ng/L	100 U (1)	200	100 U (1)	29	100	200	5389177
Perfluorobutane Sulfonate (PFBS)	ng/L	130 J (1)	200	190 J (1)	54	150	200	5389177
Perfluoroheptanoic Acid (PFHpA)	ng/L	1000 (1)	200	2000 (1)	74	150	200	5389177
Perfluorohexanoic Acid (PFHxA)	ng/L	1300 (1)	200	2600 (1)	35	100	200	5389177
Perfluorohexane Sulfonate (PFHxS)	ng/L	2200 (1)	200	12000 (2)	56	150	2000	5389177
Perfluorononanoic Acid (PFNA)	ng/L	180 J (1)	200	900 (1)	87	180	200	5389177
Perfluorotetradecanoic Acid	ng/L	100 U (1)	200	100 U (1)	27	100	200	5389177
Perfluorotridecanoic Acid	ng/L	100 U (1)	200	100 U (1)	38	100	200	5389177
Perfluoroundecanoic Acid (PFUnA)	ng/L	100 U (1)	200	100 U (1)	25	100	200	5389177
Perfluorodecanoic Acid (PFDA)	ng/L	150 U (1)	200	120 J (1)	61	150	200	5389177
Perfluorododecanoic Acid (PFDoA)	ng/L	100 U (1)	200	100 U (1)	50	100	200	5389177
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	990 (1)	200	1600 (1)	33	100	200	5389177
Perfluorooctane Sulfonate (PFOS)	ng/L	21000 (2)	2000	37000 (2)	600	1500	2000	5389177
Surrogate Recovery (%)								
13C2-Perfluorodecanoic acid	%	87		84				5389177
13C2-Perfluorododecanoic acid	%	88		82				5389177
13C2-Perfluorohexanoic acid	%	104		92				5389177
13C2-perfluorotetradecanoic acid	%	78		80				5389177
13C2-Perfluoroundecanoic acid	%	91		82				5389177
13C4-Perfluoroheptanoic acid	%	106		89				5389177
13C4-Perfluorooctanesulfonate	%	109		86				5389177
13C4-Perfluorooctanoic acid	%	94		92				5389177
13C5-Perfluorononanoic acid	%	98		85				5389177
18O2-Perfluorohexanesulfonate	%	90		104				5389177
D3-MeFOSAA	%	89		87				5389177
D5-EtFOSAA	%	85		84				5389177

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).
(2) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (100x).

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH326	FZH327				
Sampling Date		2018/01/25 16:45	2018/01/25 16:30				
COC Number		3182	3182				
	UNITS	CEF-007-TW01-0118	CEF-007-TW02-0118	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters							
EtFOSAA	ng/L	10 U	10 U	3.3	10	20	5391181
MeFOSAA	ng/L	10 U	10 U	2.9	10	20	5391181
Perfluorobutane Sulfonate (PFBS)	ng/L	38	92	5.4	15	20	5391181
Perfluoroheptanoic Acid (PFHpA)	ng/L	36	150	7.4	15	20	5391181
Perfluorohexanoic Acid (PFHxA)	ng/L	220	750	3.5	10	20	5391181
Perfluorohexane Sulfonate (PFHxS)	ng/L	1600 (1)	3400 (1)	56	150	200	5391181
Perfluorononanoic Acid (PFNA)	ng/L	16 J	37	8.7	18	20	5391181
Perfluorotetradecanoic Acid	ng/L	10 U	10 U	2.7	10	20	5391181
Perfluorotridecanoic Acid	ng/L	10 U	10 U	3.8	10	20	5391181
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	10 U	2.5	10	20	5391181
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	74	6.1	15	20	5391181
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	10 U	5.0	10	20	5391181
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	2300 (1)	4200 (1)	33	100	200	5391181
Perfluorooctane Sulfonate (PFOS)	ng/L	1000 (1)	2300 (1)	60	150	200	5391181
Surrogate Recovery (%)							
13C2-Perfluorodecanoic acid	%	86	96				5391181
13C2-Perfluorododecanoic acid	%	83	85				5391181
13C2-Perfluorohexanoic acid	%	92	101				5391181
13C2-perfluorotetradecanoic acid	%	64	63				5391181
13C2-Perfluoroundecanoic acid	%	72	92				5391181
13C4-Perfluoroheptanoic acid	%	96	99				5391181
13C4-Perfluorooctanesulfonate	%	94	95				5391181
13C4-Perfluorooctanoic acid	%	90	98				5391181
13C5-Perfluorononanoic acid	%	86	101				5391181
18O2-Perfluorohexanesulfonate	%	105	92				5391181
D3-MeFOSAA	%	80	86				5391181
D5-EtFOSAA	%	80	81				5391181

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Due to high concentrations of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH328	FZH329	FZH330				
Sampling Date		2018/01/23 12:10	2018/01/23 14:00	2018/01/23 13:45				
COC Number		3179	3179	3179				
	UNITS	CEF-003-38S-0118	CEF-002-04S-0118	FB-CEF-002-012318-5	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters								
EtFOSAA	ng/L	10 U	10 U	10 U	3.3	10	20	5386102
MeFOSAA	ng/L	10 U	10 U	10 U	2.9	10	20	5386102
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	15 U	15 U	5.4	15	20	5386102
Perfluoroheptanoic Acid (PFHpA)	ng/L	15 J	15 U	15 U	7.4	15	20	5386102
Perfluorohexanoic Acid (PFHxA)	ng/L	17 J	10 U	10 U	3.5	10	20	5386102
Perfluorohexane Sulfonate (PFHxS)	ng/L	11 J	15 U	15 U	5.6	15	20	5386102
Perfluorononanoic Acid (PFNA)	ng/L	13 J	18 U	18 U	8.7	18	20	5386102
Perfluorotetradecanoic Acid	ng/L	10 U	10 U	10 U	2.7	10	20	5386102
Perfluorotridecanoic Acid	ng/L	10 U	10 U	10 U	3.8	10	20	5386102
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	10 U	10 U	2.5	10	20	5386102
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	15 U	15 U	6.1	15	20	5386102
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	10 U	10 U	5.0	10	20	5386102
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	31	24	10 U	3.3	10	20	5386102
Perfluorooctane Sulfonate (PFOS)	ng/L	110	20 J	15 U	6.0	15	20	5386102
Surrogate Recovery (%)								
13C2-Perfluorodecanoic acid	%	85	82	89				5386102
13C2-Perfluorododecanoic acid	%	75	79	77				5386102
13C2-Perfluorohexanoic acid	%	87	86	97				5386102
13C2-perfluorotetradecanoic acid	%	69	73	72				5386102
13C2-Perfluoroundecanoic acid	%	79	81	90				5386102
13C4-Perfluoroheptanoic acid	%	89	86	94				5386102
13C4-Perfluorooctanesulfonate	%	89	95	93				5386102
13C4-Perfluorooctanoic acid	%	87	87	88				5386102
13C5-Perfluorononanoic acid	%	82	90	99				5386102
18O2-Perfluorohexanesulfonate	%	89	101	101				5386102
D3-MeFOSAA	%	68	85	90				5386102
D5-EtFOSAA	%	68	82	86				5386102

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH331					FZH332				
Sampling Date		2018/01/23 10:35					2018/01/23 10:35				
COC Number		3179					3179				
	UNITS	CEF-342-06S-0118	DL	LOD	LOQ	QC Batch	CEF-342-06S-0118-D	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters											
EtFOSAA	ng/L	20 U (1)	6.6	20	40	5387452	10 U	3.3	10	20	5387452
MeFOSAA	ng/L	20 U (1)	5.8	20	40	5387452	10 U	2.9	10	20	5387452
Perfluorobutane Sulfonate (PFBS)	ng/L	53 (1)	11	30	40	5387452	50	5.4	15	20	5387452
Perfluoroheptanoic Acid (PFHpA)	ng/L	580 (1)	15	30	40	5387452	350	7.4	15	20	5387452
Perfluorohexanoic Acid (PFHxA)	ng/L	620 (1)	7.0	20	40	5387452	410	3.5	10	20	5387452
Perfluorohexane Sulfonate (PFHxS)	ng/L	860 (1)	11	30	40	5387452	680	5.6	15	20	5387452
Perfluorononanoic Acid (PFNA)	ng/L	96 (1)	17	36	40	5387452	63	8.7	18	20	5387452
Perfluorotetradecanoic Acid	ng/L	20 U (1)	5.4	20	40	5387452	10 U	2.7	10	20	5396699
Perfluorotridecanoic Acid	ng/L	20 U (1)	7.6	20	40	5387452	10 U	3.8	10	20	5396699
Perfluoroundecanoic Acid (PFUnA)	ng/L	20 U (1)	5.0	20	40	5387452	9.6 J	2.5	10	20	5387452
Perfluorodecanoic Acid (PFDA)	ng/L	25 J (1)	12	30	40	5387452	15 J	6.1	15	20	5387452
Perfluorododecanoic Acid (PFDoA)	ng/L	20 U (1)	10	20	40	5387452	10 U	5.0	10	20	5387452
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	450 (1)	6.6	20	40	5387452	330	3.3	10	20	5387452
Perfluorooctane Sulfonate (PFOS)	ng/L	5400 (2)	120	300	400	5387452	3700 (3)	60	150	200	5387452
Surrogate Recovery (%)											
13C2-Perfluorodecanoic acid	%	94				5387452	85				5387452
13C2-Perfluorododecanoic acid	%	88				5387452	71				5387452
13C2-Perfluorohexanoic acid	%	98				5387452	88				5387452
13C2-perfluorotetradecanoic acid	%	71				5387452	93				5396699
13C2-Perfluoroundecanoic acid	%	82				5387452	79				5387452
13C4-Perfluoroheptanoic acid	%	102				5387452	94				5387452
13C4-Perfluorooctanesulfonate	%	77				5387452	88				5387452
13C4-Perfluorooctanoic acid	%	101				5387452	95				5387452
13C5-Perfluorononanoic acid	%	98				5387452	91				5387452
18O2-Perfluorohexanesulfonate	%	95				5387452	82				5387452
D3-MeFOSAA	%	88				5387452	77				5387452
D5-EtFOSAA	%	83				5387452	75				5387452

DL = Detection Limit

LOD = Limit of Detection

LOQ = Limit of Quantitation

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x).

(2) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (20x).

(3) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH333					FZH334				
Sampling Date		2018/01/23 11:37					2018/01/23 13:10				
COC Number		3179					3179				
	UNITS	CEF-342-12S-0118	DL	LOD	LOQ	QC Batch	CEF-013-03S-0118	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters											
EtFOSAA	ng/L	100 U (1)	33	100	200	5387452	100 U (2)	33	100	200	5387452
MeFOSAA	ng/L	100 U (1)	29	100	200	5387452	100 U (2)	29	100	200	5387452
Perfluorobutane Sulfonate (PFBS)	ng/L	72 J (1)	54	150	200	5387452	150 U (2)	54	150	200	5387452
Perfluoroheptanoic Acid (PFHpA)	ng/L	7000 (1)	74	150	200	5387452	150 U (2)	74	150	200	5387452
Perfluorohexanoic Acid (PFHxA)	ng/L	4400 (1)	35	100	200	5387452	100 U (2)	35	100	200	5387452
Perfluorohexane Sulfonate (PFHxS)	ng/L	3500 (1)	56	150	200	5387452	150 U (2)	56	150	200	5387452
Perfluorononanoic Acid (PFNA)	ng/L	1200 (1)	87	180	200	5387452	180 U (2)	87	180	200	5387452
Perfluorotetradecanoic Acid	ng/L	100 U (1)	27	100	200	5387452	100 U (2)	27	100	200	5396699
Perfluorotridecanoic Acid	ng/L	100 U (1)	38	100	200	5387452	100 U (2)	38	100	200	5396699
Perfluoroundecanoic Acid (PFUnA)	ng/L	100 U (1)	25	100	200	5387452	100 U (2)	25	100	200	5387452
Perfluorodecanoic Acid (PFDA)	ng/L	150 U (1)	61	150	200	5387452	150 U (2)	61	150	200	5387452
Perfluorododecanoic Acid (PFDoA)	ng/L	100 U (1)	50	100	200	5387452	100 U (2)	50	100	200	5387452
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	5700 (1)	33	100	200	5387452	110 J (2)	33	100	200	5387452
Perfluorooctane Sulfonate (PFOS)	ng/L	60000 (3)	600	1500	2000	5387452	150 U (2)	60	150	200	5387452
Surrogate Recovery (%)											
13C2-Perfluorodecanoic acid	%	99				5387452	80				5387452
13C2-Perfluorododecanoic acid	%	95				5387452	62				5387452
13C2-Perfluorohexanoic acid	%	93				5387452	86				5387452
13C2-perfluorotetradecanoic acid	%	86				5387452	57				5396699
13C2-Perfluoroundecanoic acid	%	96				5387452	76				5387452
13C4-Perfluoroheptanoic acid	%	101				5387452	89				5387452
13C4-Perfluorooctanesulfonate	%	94				5387452	73				5387452
13C4-Perfluorooctanoic acid	%	97				5387452	94				5387452
13C5-Perfluorononanoic acid	%	95				5387452	79				5387452
18O2-Perfluorohexanesulfonate	%	99				5387452	85				5387452
D3-MeFOSAA	%	98				5387452	74				5387452
D5-EtFOSAA	%	99				5387452	73				5387452

DL = Detection Limit

LOD = Limit of Detection

LOQ = Limit of Quantitation

QC Batch = Quality Control Batch

N/A = Not Applicable

(1) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

(2) Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

(3) Due to high concentrations of the target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (100x).

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH334					FZH335				
Sampling Date		2018/01/23 13:10					2018/01/23 10:32				
COC Number		3179					3179				
	UNITS	CEF-013-03S-0118 Lab-Dup	DL	LOD	LOQ	QC Batch	FB-CEF-342-012318-4	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters											
EtFOSAA	ng/L	100 U (1)	33	100	200	5387452	10 U	3.3	10	20	5386102
MeFOSAA	ng/L	100 U (1)	29	100	200	5387452	10 U	2.9	10	20	5386102
Perfluorobutane Sulfonate (PFBS)	ng/L	150 U (1)	54	150	200	5387452	15 U	5.4	15	20	5386102
Perfluoroheptanoic Acid (PFHpA)	ng/L	150 U (1)	74	150	200	5387452	15 U	7.4	15	20	5386102
Perfluorohexanoic Acid (PFHxA)	ng/L	100 U (1)	35	100	200	5387452	10 U	3.5	10	20	5386102
Perfluorohexane Sulfonate (PFHxS)	ng/L	150 U (1)	56	150	200	5387452	15 U	5.6	15	20	5386102
Perfluorononanoic Acid (PFNA)	ng/L	180 U (1)	87	180	200	5387452	18 U	8.7	18	20	5386102
Perfluorotetradecanoic Acid	ng/L	N/A	27	100	200	5396699	10 U	2.7	10	20	5386102
Perfluorotridecanoic Acid	ng/L	N/A	38	100	200	5396699	10 U	3.8	10	20	5386102
Perfluoroundecanoic Acid (PFUnA)	ng/L	100 U (1)	25	100	200	5387452	10 U	2.5	10	20	5386102
Perfluorodecanoic Acid (PFDA)	ng/L	150 U (1)	61	150	200	5387452	15 U	6.1	15	20	5386102
Perfluorododecanoic Acid (PFDoA)	ng/L	100 U (1)	50	100	200	5387452	10 U	5.0	10	20	5386102
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	130 J (1)	33	100	200	5387452	10 U	3.3	10	20	5386102
Perfluorooctane Sulfonate (PFOS)	ng/L	150 U (1)	60	150	200	5387452	15 U	6.0	15	20	5386102
Surrogate Recovery (%)											
13C2-Perfluorodecanoic acid	%	81				5387452	97				5386102
13C2-Perfluorododecanoic acid	%	60				5387452	86				5386102
13C2-Perfluorohexanoic acid	%	85				5387452	103				5386102
13C2-perfluorotetradecanoic acid	%	N/A				5396699	81				5386102
13C2-Perfluoroundecanoic acid	%	71				5387452	102				5386102
13C4-Perfluoroheptanoic acid	%	92				5387452	98				5386102
13C4-Perfluorooctanesulfonate	%	81				5387452	103				5386102
13C4-Perfluorooctanoic acid	%	87				5387452	103				5386102
13C5-Perfluorononanoic acid	%	81				5387452	95				5386102
18O2-Perfluorohexanesulfonate	%	83				5387452	100				5386102
D3-MeFOSAA	%	72				5387452	89				5386102
D5-EtFOSAA	%	72				5387452	90				5386102

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

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Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH337		FZH338	FZH339				
Sampling Date		2018/01/22 12:00		2018/01/22 13:00	2018/01/22 13:00				
COC Number		3178		3178	3178				
	UNITS	CEF-076-109S-0118	QC Batch	CEF-372-08-0118	CEF-372-08-0118-D	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters									
EtFOSAA	ng/L	10 U	5396714	10 U	10 U	3.3	10	20	5396699
MeFOSAA	ng/L	10 U	5396714	10 U	10 U	2.9	10	20	5396699
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	5383485	5.8 J	5.8 J	5.4	15	20	5383466
Perfluoroheptanoic Acid (PFHpA)	ng/L	15 U	5383485	15 U	15 U	7.4	15	20	5383466
Perfluorohexanoic Acid (PFHxA)	ng/L	10 U	5383485	11 J	11 J	3.5	10	20	5383466
Perfluorohexane Sulfonate (PFHxS)	ng/L	7.2 J	5383485	19 J	20	5.6	15	20	5383466
Perfluorononanoic Acid (PFNA)	ng/L	18 U	5383485	18 U	18 U	8.7	18	20	5383466
Perfluorotetradecanoic Acid	ng/L	10 U	5396714	10 U	10 U	2.7	10	20	5396699
Perfluorotridecanoic Acid	ng/L	10 U	5383485	10 U	10 U	3.8	10	20	5396699
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	5396714	10 U	10 U	2.5	10	20	5383466
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	5383485	15 U	15 U	6.1	15	20	5383466
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	5396714	10 U	10 U	5.0	10	20	5396699
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	10 U	5383485	10 U	10 U	3.3	10	20	5383466
Perfluorooctane Sulfonate (PFOS)	ng/L	15 U	5383485	15 U	7.3 J	6.0	15	20	5383466
Surrogate Recovery (%)									
13C2-Perfluorodecanoic acid	%	99	5383485	90	112				5383466
13C2-Perfluorododecanoic acid	%	105	5396714	114	104				5396699
13C2-Perfluorohexanoic acid	%	100	5383485	98	105				5383466
13C2-perfluorotetradecanoic acid	%	80	5383485	83	86				5396699
13C2-Perfluoroundecanoic acid	%	107	5396714	86	108				5383466
13C4-Perfluoroheptanoic acid	%	104	5383485	100	114				5383466
13C4-Perfluorooctanesulfonate	%	107	5383485	92	113				5383466
13C4-Perfluorooctanoic acid	%	106	5383485	100	113				5383466
13C5-Perfluorononanoic acid	%	108	5383485	104	106				5383466
18O2-Perfluorohexanesulfonate	%	99	5383485	100	116				5383466
D3-MeFOSAA	%	121	5396714	116	114				5396699
D5-EtFOSAA	%	112	5396714	115	108				5396699

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH340	FZH341	FZH342				
Sampling Date		2018/01/22 14:35	2018/01/22 15:43	2018/01/22 15:48				
COC Number		3178	3178	3178				
	UNITS	CEF-003-28S-0118	FB-CEF-016-012218-2	CEF-016-07S-0118	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters								
EtFOSAA	ng/L	10 U	10 U	10 U	3.3	10	20	5396699
MeFOSAA	ng/L	10 U	10 U	10 U	2.9	10	20	5396699
Perfluorobutane Sulfonate (PFBS)	ng/L	8.3 J	15 U	5.5 J	5.4	15	20	5383466
Perfluoroheptanoic Acid (PFHpA)	ng/L	38	15 U	14 J	7.4	15	20	5383466
Perfluorohexanoic Acid (PFHxA)	ng/L	33	10 U	21	3.5	10	20	5383466
Perfluorohexane Sulfonate (PFHxS)	ng/L	35	15 U	13 J	5.6	15	20	5383466
Perfluorononanoic Acid (PFNA)	ng/L	21	18 U	18 U	8.7	18	20	5383466
Perfluorotetradecanoic Acid	ng/L	10 U	10 U	10 U	2.7	10	20	5396699
Perfluorotridecanoic Acid	ng/L	10 U	10 U	10 U	3.8	10	20	5396699
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	10 U	10 U	2.5	10	20	5383466
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	15 U	15 U	6.1	15	20	5383466
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	10 U	10 U	5.0	10	20	5396699
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	120	10 U	10 J	3.3	10	20	5383466
Perfluorooctane Sulfonate (PFOS)	ng/L	170	15 U	11 J	6.0	15	20	5383466
Surrogate Recovery (%)								
13C2-Perfluorodecanoic acid	%	97	111	101				5383466
13C2-Perfluorododecanoic acid	%	106	100	101				5396699
13C2-Perfluorohexanoic acid	%	106	109	100				5383466
13C2-perfluorotetradecanoic acid	%	81	102	109				5396699
13C2-Perfluoroundecanoic acid	%	85	102	92				5383466
13C4-Perfluoroheptanoic acid	%	109	118	107				5383466
13C4-Perfluorooctanesulfonate	%	98	106	108				5383466
13C4-Perfluorooctanoic acid	%	103	109	101				5383466
13C5-Perfluorononanoic acid	%	112	110	104				5383466
18O2-Perfluorohexanesulfonate	%	111	108	94				5383466
D3-MeFOSAA	%	122	97	123				5396699
D5-EtFOSAA	%	117	95	116				5396699

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B819794
Report Date: 2018/03/09

Earth Toxics Inc
Client Project #: JM10 CECIL

RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH343		FZH344	FZH347				
Sampling Date		2018/01/22 16:15		2018/01/23 10:00	2018/01/23 10:50				
COC Number		3178		3178	3178				
	UNITS	CEF-016-17S-0118	QC Batch	FB-CEF-003-012318-3	CEF-003-04S-0118	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters									
EtFOSAA	ng/L	10 U	5396699	10 U	10 U	3.3	10	20	5386102
MeFOSAA	ng/L	10 U	5396699	10 U	10 U	2.9	10	20	5386102
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	5383466	15 U	15 U	5.4	15	20	5386102
Perfluoroheptanoic Acid (PFHpA)	ng/L	38	5383466	15 U	13 J	7.4	15	20	5386102
Perfluorohexanoic Acid (PFHxA)	ng/L	29	5383466	10 U	14 J	3.5	10	20	5386102
Perfluorohexane Sulfonate (PFHxS)	ng/L	11 J	5383466	15 U	9.8 J	5.6	15	20	5386102
Perfluorononanoic Acid (PFNA)	ng/L	14 J	5383466	18 U	18 U	8.7	18	20	5386102
Perfluorotetradecanoic Acid	ng/L	10 U	5396699	10 U	10 U	2.7	10	20	5386102
Perfluorotridecanoic Acid	ng/L	10 U	5396699	10 U	10 U	3.8	10	20	5386102
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	5383466	10 U	10 U	2.5	10	20	5386102
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	5383466	15 U	15 U	6.1	15	20	5386102
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	5396699	10 U	10 U	5.0	10	20	5386102
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	33	5383466	10 U	31	3.3	10	20	5386102
Perfluorooctane Sulfonate (PFOS)	ng/L	59	5383466	15 U	21	6.0	15	20	5386102
Surrogate Recovery (%)									
13C2-Perfluorodecanoic acid	%	101	5383466	99	68				5386102
13C2-Perfluorododecanoic acid	%	84	5396699	84	68				5386102
13C2-Perfluorohexanoic acid	%	109	5383466	104	75				5386102
13C2-perfluorotetradecanoic acid	%	76	5396699	77	65				5386102
13C2-Perfluoroundecanoic acid	%	99	5383466	90	70				5386102
13C4-Perfluoroheptanoic acid	%	113	5383466	99	69				5386102
13C4-Perfluorooctanesulfonate	%	101	5383466	100	78				5386102
13C4-Perfluorooctanoic acid	%	117	5383466	99	71				5386102
13C5-Perfluorononanoic acid	%	118	5383466	96	73				5386102
18O2-Perfluorohexanesulfonate	%	109	5383466	98	87				5386102
D3-MeFOSAA	%	95	5396699	85	74				5386102
D5-EtFOSAA	%	93	5396699	86	72				5386102

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N/A = Not Applicable

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RESULTS OF ANALYSES OF WATER

Maxxam ID		FZH348				
Sampling Date		2018/01/23 10:50				
COC Number		3178				
	UNITS	CEF-003-04S-0118-D	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters						
EtFOSAA	ng/L	10 U	3.3	10	20	5386102
MeFOSAA	ng/L	10 U	2.9	10	20	5386102
Perfluorobutane Sulfonate (PFBS)	ng/L	15 U	5.4	15	20	5386102
Perfluoroheptanoic Acid (PFHpA)	ng/L	11 J	7.4	15	20	5386102
Perfluorohexanoic Acid (PFHxA)	ng/L	13 J	3.5	10	20	5386102
Perfluorohexane Sulfonate (PFHxS)	ng/L	7.8 J	5.6	15	20	5386102
Perfluorononanoic Acid (PFNA)	ng/L	18 U	8.7	18	20	5386102
Perfluorotetradecanoic Acid	ng/L	10 U	2.7	10	20	5386102
Perfluorotridecanoic Acid	ng/L	10 U	3.8	10	20	5386102
Perfluoroundecanoic Acid (PFUnA)	ng/L	10 U	2.5	10	20	5386102
Perfluorodecanoic Acid (PFDA)	ng/L	15 U	6.1	15	20	5386102
Perfluorododecanoic Acid (PFDoA)	ng/L	10 U	5.0	10	20	5386102
Perfluoro-n-Octanoic Acid (PFOA)	ng/L	23	3.3	10	20	5386102
Perfluorooctane Sulfonate (PFOS)	ng/L	17 J	6.0	15	20	5386102
Surrogate Recovery (%)						
13C2-Perfluorodecanoic acid	%	80				5386102
13C2-Perfluorododecanoic acid	%	72				5386102
13C2-Perfluorohexanoic acid	%	77				5386102
13C2-perfluorotetradecanoic acid	%	67				5386102
13C2-Perfluoroundecanoic acid	%	76				5386102
13C4-Perfluoroheptanoic acid	%	87				5386102
13C4-Perfluorooctanesulfonate	%	87				5386102
13C4-Perfluorooctanoic acid	%	82				5386102
13C5-Perfluorononanoic acid	%	83				5386102
18O2-Perfluorohexanesulfonate	%	82				5386102
D3-MeFOSAA	%	84				5386102
D5-EtFOSAA	%	82				5386102

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable

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APPENDIX C

SUPPORT DOCUMENTATION

ANALYTE	ORIGINAL	DUPLICATE	RL	RPD	RPD > 30%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2xRL
PENTADECAFLUOROOCTANOIC ACID	31	23	20	29.63	FALSE	FALSE	FALSE	FALSE
PERFLUOROHEPTANOIC ACID	13	11	20	16.67	FALSE	FALSE	FALSE	FALSE
PERFLUOROHEXANESULFONIC ACID	9.8	7.8	20	22.73	FALSE	FALSE	FALSE	FALSE
PERFLUOROHEXANOIC ACID	14	13	20	7.41	FALSE	FALSE	FALSE	FALSE
PERFLUOROOCTANE SULFONIC ACID	21	17	20	21.05	FALSE	FALSE	FALSE	FALSE

SDG B819794

CEF-003-04S-0118/CEF-003-04S-0118-D

ANALYTE	ORIGINAL	DUPLICATE	RL	RPD	RPD > 30%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2xRL
PENTADECAFLUOROOCTANOIC ACID	72	77	20	6.71	FALSE	TRUE	TRUE	FALSE
PERFLUOROBUTANESULFONIC ACID	29	31	20	6.67	FALSE	FALSE	FALSE	FALSE
PERFLUOROHEPTANOIC ACID	14	14	20	0.00	FALSE	FALSE	FALSE	FALSE
PERFLUOROHEXANESULFONIC ACID	250	300	20	18.18	FALSE	TRUE	TRUE	TRUE
PERFLUOROHEXANOIC ACID	55	65	20	16.67	FALSE	TRUE	TRUE	FALSE

SDG B819794

CEF-013-12S-0118/CEF-013-12S-0118-D

ANALYTE	ORIGINAL	DUPLICATE	RL	RPD	RPD > 30%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2xRL
PERFLUOROBUTANESULFONIC ACID	5.8	5.8	20	0.00	FALSE	FALSE	FALSE	FALSE
PERFLUOROHEXANESULFONIC ACID	19	20	20	5.13	FALSE	FALSE	FALSE	FALSE
PERFLUOROHEXANOIC ACID	11	11	20	0.00	FALSE	FALSE	FALSE	FALSE
PERFLUOROOCTANE SULFONIC ACID	6	7.3	20	19.55	FALSE	FALSE	FALSE	FALSE

SDG B819794

CEF-372-08-0118/CEF-372-08-0118-D

ANALYTE	ORIGINAL	DUPLICATE	RL	RPD	RPD > 30%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2xRL
PENTADECAFLUOROOCTANOIC ACID	450	330	40	30.77	TRUE	TRUE	TRUE	TRUE
PERFLUOROBUTANESULFONIC ACID	53	50	40	5.83	FALSE	FALSE	FALSE	FALSE
PERFLUORODECANOIC ACID	25	15	40	50.00	TRUE	FALSE	FALSE	FALSE
PERFLUOROHEPTANOIC ACID	580	350	40	49.46	TRUE	TRUE	TRUE	TRUE
PERFLUOROHEXANESULFONIC ACID	860	680	40	23.38	FALSE	TRUE	TRUE	TRUE
PERFLUOROHEXANOIC ACID	620	410	40	40.78	TRUE	TRUE	TRUE	TRUE
PERFLUORONONANOIC ACID	96	63	40	41.51	TRUE	TRUE	FALSE	FALSE
PERFLUOROOCTANE SULFONIC ACID	5400	3700	40	37.36	TRUE	TRUE	TRUE	TRUE
PERFLUOROUNDECANOIC ACID	5	9.6	40	63.01	TRUE	FALSE	FALSE	FALSE

SDG B819794

CEF-342-06S-0118/CEF-342-06S-0118-D

NAS CECIL FIELD
SDG B819794

SAMPLE IDENTIFICATION	CEF-342-12S-0118 (FZH333)
COMPOUND	PERFLUOROOCTANE SULFONIC ACID
EXTRACTION	3ml/1.25ml
INTERNAL STANDARD CONCENTRATION	1

CONCENTRATION USING CALIBRATION CURVE

AREA*(IS CONCENTRATION/IS AREA)

18722*(1/1944) = 9.6306584

CALIBRATION CURVE y = 0.389960 * x - 0.046937 p. 1841 of data package

9.630658 = 0.389960 * x - 0.046937

x = 24.816891

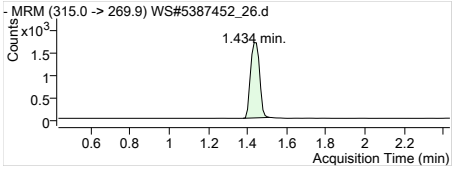
PFDA RESULT CONC = X/EXTRACTION	59.6	µg/L
DILUTION FACTOR	1	
FINAL RESULT	59.6	µg/L
	59561	ng/L

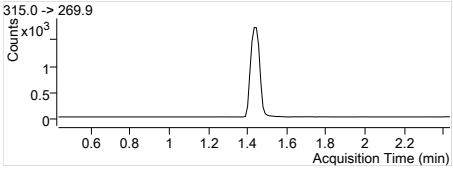
Batch Path	T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**5387452:FZH333-01:100x**	**Instrument**	LCMS04
Data File	WS#5387452_26.d	**Operator**	
Sample Type	Sample	**Dilution**	2.4
Acq. Method	PFC_Water_Low.m	**Position**	P1-C4
Acq. Date	2018/02/08 2:32:21 AM	**Injection Volume**	Per Method
Sample Annotation	Reported for PFOS only		

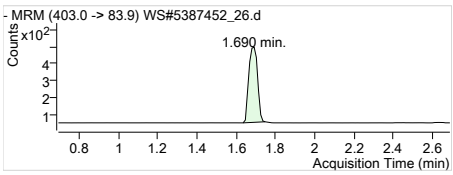
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5407	1.43	1 µg/L		
MPFHxS	1390	1.69	1 µg/L		
MPFHpA	7563	1.70	1 µg/L		
MPFOA	8279	1.88	1 µg/L		
MPFOS	1944	1.98	1 µg/L		
MPFNA	7915	2.02	1 µg/L		
MPFDA	6200	2.15	1 µg/L		
MPFUnA	7070	2.25	1 µg/L		
MPFDoA	9222	2.32	1 µg/L		
MPFTeDA	10053	2.47	1 µg/L		
13C6-PFHxA IS	28836	1.44	1 µg/L		
13C9-PFDA IS	35379	2.15	1 µg/L		

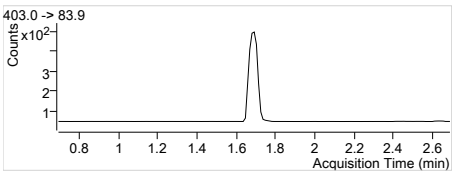
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1			-	ND	-
PFHxA 1	4122	1.43	-	4.53 µg/L	-
PFHxS 1	1137	1.69	-	4.12 µg/L	-
PFHpA 1	9386	1.70	-	7.25 µg/L	-
PFOA 1	7861	1.88	-	5.44 µg/L	-
PFOS 1	18722	1.98	-	59.56 µg/L	-
PFNA 1	1458	2.03	-	1.33 µg/L	-
PFDA 1			-	ND	-
PFUnA 1			-	ND	-
PFDoA 1			-	ND	-
PFTrDA 1			-	ND	-
PFTeDA 1			-	ND	-
13C2-PFHxA	5407	1.43	-	87.74 µg/L	-
18O2-PFHxS	1390	1.69	-	83.12 µg/L	-
13C4-PFHpA	7563	1.70	-	95.12 µg/L	-
13C4-PFOA	8279	1.88	-	96.78 µg/L	-
13C4-PFOS	1944	1.98	-	94.29 µg/L	-
13C5-PFNA	7915	2.02	-	90.53 µg/L	-
13C2-PFDA	6074	2.15	-	94.17 µg/L	-
13C2-PFUnA	7070	2.25	-	87.38 µg/L	-
13C2-PFDoA	9222	2.32	-	83.92 µg/L	-
13C2-PFTeDA	10333	2.47	-	79.58 µg/L	-
13C6-PFHxA	28836	1.44	-	296.89 µg/L	-
13C9-PFDA	35379	2.15	-	269.43 µg/L	-



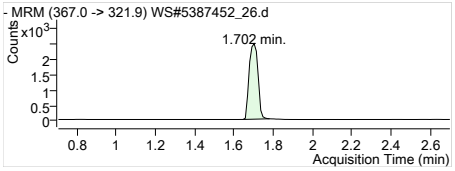


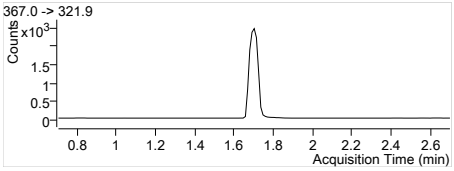
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: Sample



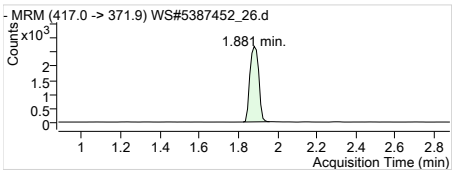


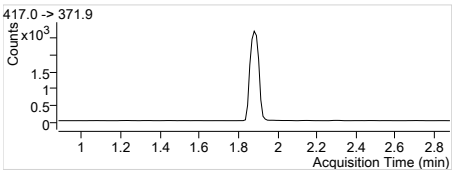
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: Sample



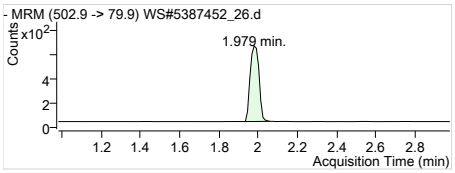


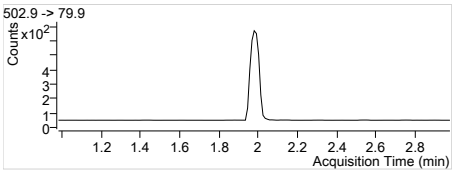
MPFHpA Internal Standard
RT (Exp. RT): 1.702 (1.702)
Concentration: 1 µg/L
Sample type: Sample



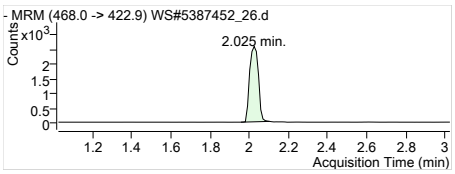


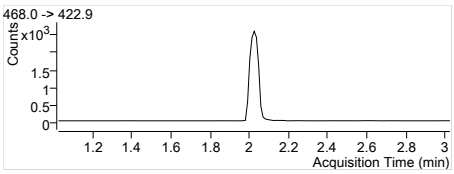
MPFOA Internal Standard
RT (Exp. RT): 1.881 (1.881)
Concentration: 1 µg/L
Sample type: Sample



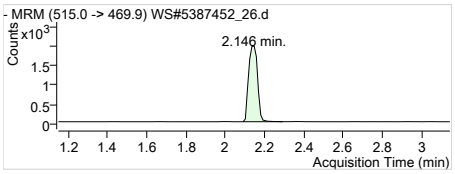


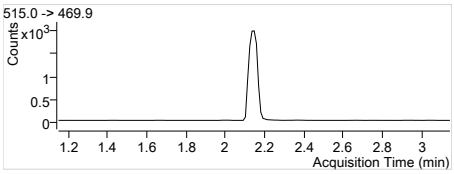
MPFOS Internal Standard
RT (Exp. RT): 1.979 (1.979)
Concentration: 1 µg/L
Sample type: Sample



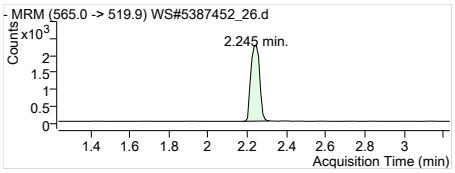


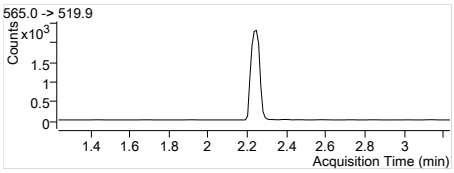
MPFNA Internal Standard
RT (Exp. RT): 2.025 (2.025)
Concentration: 1 µg/L
Sample type: Sample



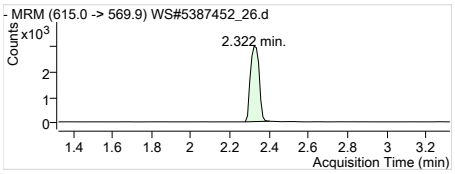


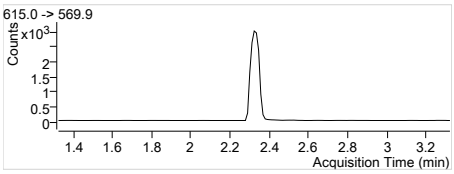
MPFDA Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



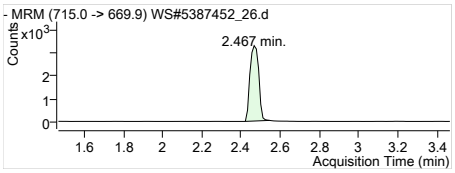


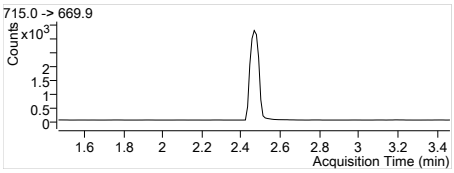
MPFUnA Internal Standard
RT (Exp. RT): 2.245 (2.234)
Concentration: 1 µg/L
Sample type: Sample



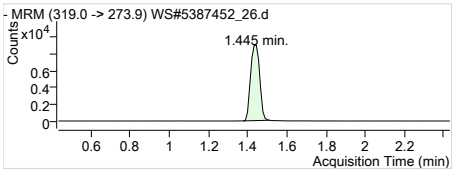


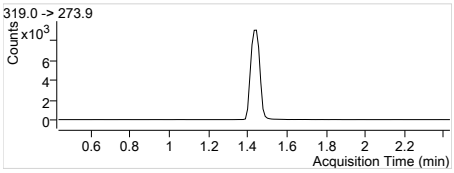
MPFDoA Internal Standard
RT (Exp. RT): 2.322 (2.322)
Concentration: 1 µg/L
Sample type: Sample



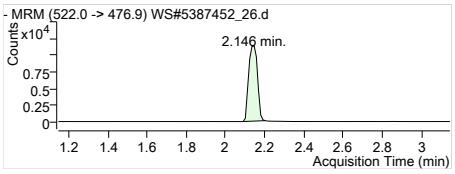


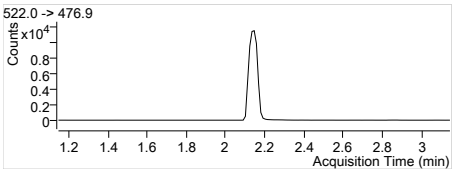
MPFTeDA Internal Standard
RT (Exp. RT): 2.467 (2.467)
Concentration: 1 µg/L
Sample type: Sample



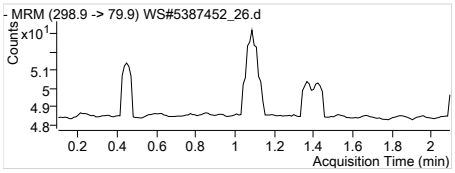


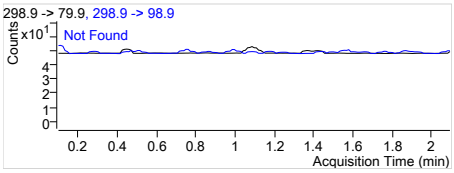
13C6-PFHxA IS Internal Standard
RT (Exp. RT): 1.445 (1.434)
Concentration: 1 µg/L
Sample type: Sample



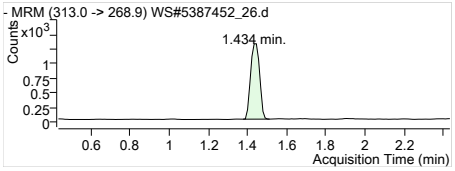


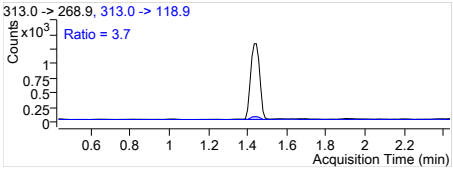
13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.146 (2.146)
Concentration: 1 µg/L
Sample type: Sample



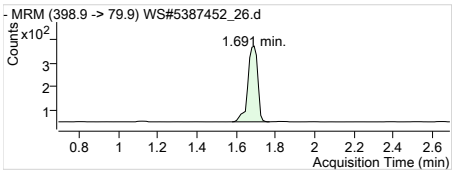


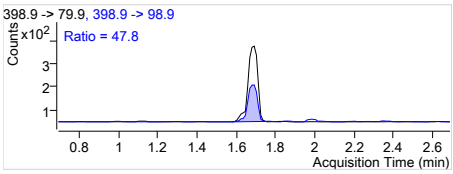
PFBS 1 298.9 -> 79.9
RT (Exp. RT): 0.000 (1.098)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



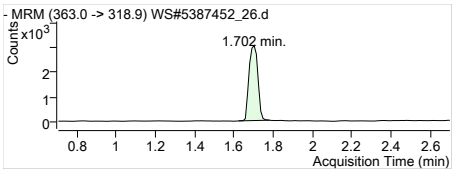


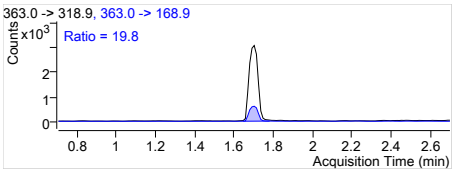
PFHxA 1	313.0 -> 268.9
RT (Exp. RT):	1.434 (1.434)
Calc. conc.	4.53 µg/L
Area ratio:	0.76235
Sample type:	Sample



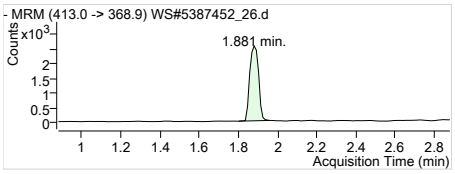


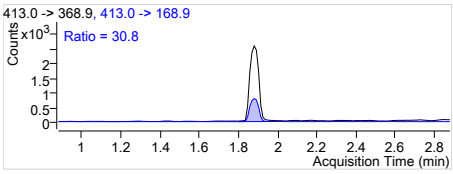
PFHxS 1	398.9 -> 79.9
RT (Exp. RT):	1.691 (1.691)
Calc. conc.	4.12 µg/L
Area ratio:	0.81799
Sample type:	Sample



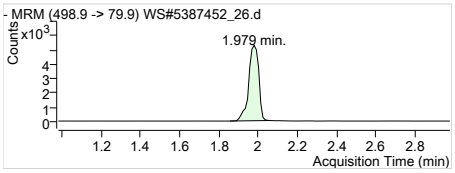


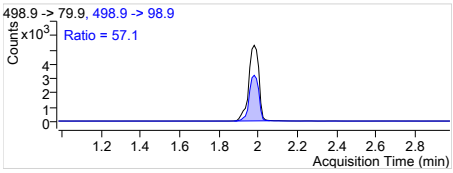
PFHpA 1	363.0 -> 318.9
RT (Exp. RT):	1.702 (1.702)
Calc. conc.	7.25 µg/L
Area ratio:	1.24104
Sample type:	Sample



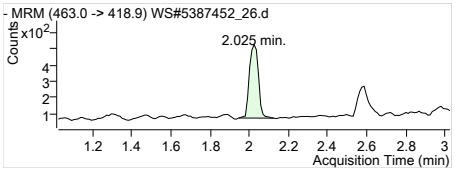


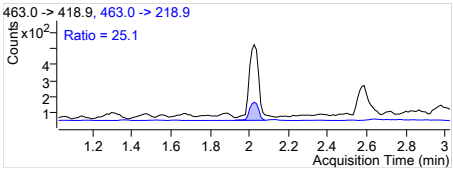
PFOA 1	413.0 -> 368.9
RT (Exp. RT):	1.881 (1.881)
Calc. conc.	5.44 µg/L
Area ratio:	0.94951
Sample type:	Sample



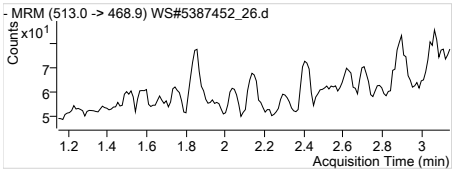


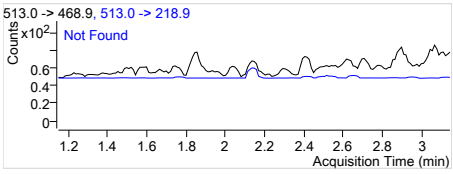
PFOS 1	498.9 -> 79.9
RT (Exp. RT):	1.979 (1.979)
Calc. conc.	59.56 µg/L
Area ratio:	9.63066
Sample type:	Sample



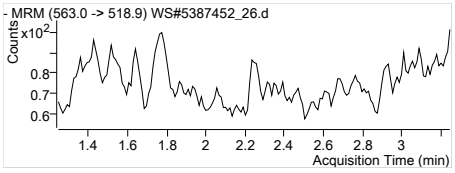


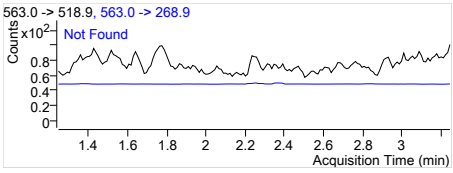
PFNA 1	463.0 -> 418.9
RT (Exp. RT):	2.025 (2.025)
Calc. conc.	1.33 µg/L
Area ratio:	0.18421
Sample type:	Sample



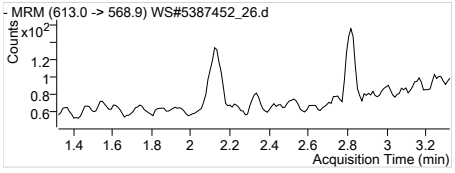


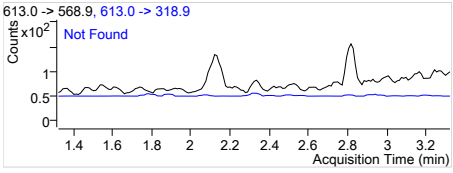
PFDA 1	513.0 -> 468.9
RT (Exp. RT):	0.000 (2.147)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



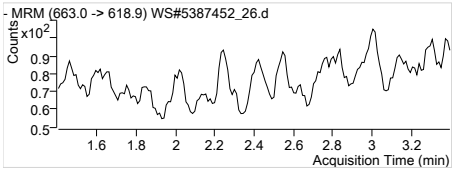


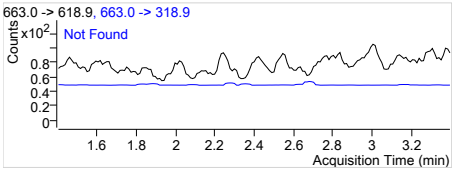
PFUnA 1	563.0 -> 518.9
RT (Exp. RT):	0.000 (2.246)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



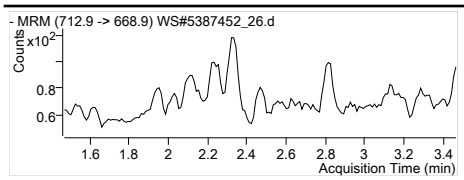


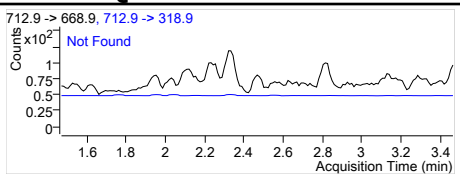
PFDoA 1	613.0 -> 568.9
RT (Exp. RT):	0.000 (2.323)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



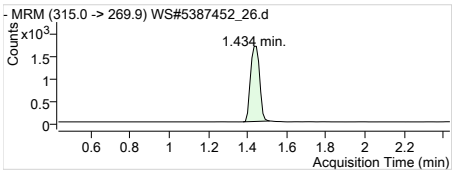


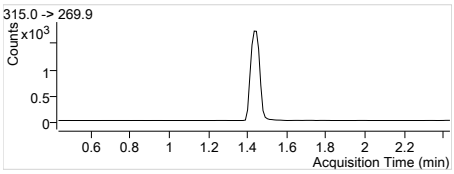
PFTrDA 1	663.0 -> 618.9
RT (Exp. RT):	0.000 (2.400)
Calc. conc.	N.D.
Area ratio:	0
Sample type:	Sample



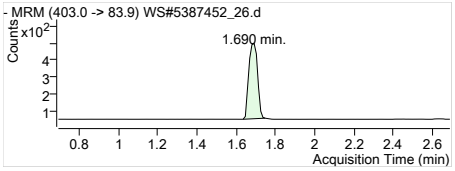


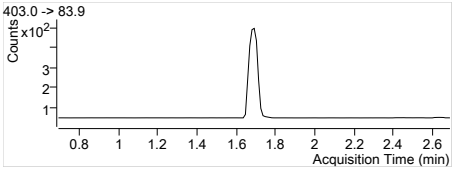
PFTeDA 1 712.9 -> 668.9
RT (Exp. RT): 0.000 (2.467)
Calc. conc. N.D.
Area ratio: 0
Sample type: Sample



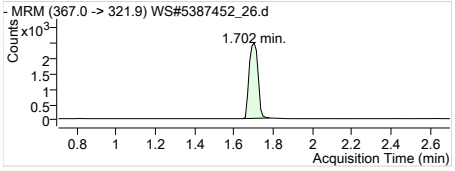


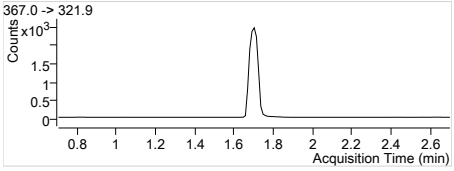
13C2-PFHxA 315.0 -> 269.9
RT (Exp. RT): 1.434 (1.434)
Calc. conc. 87.74 µg/L
Area ratio: 0.18751
Sample type: Sample



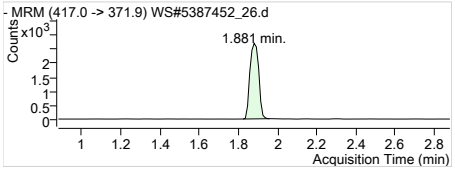


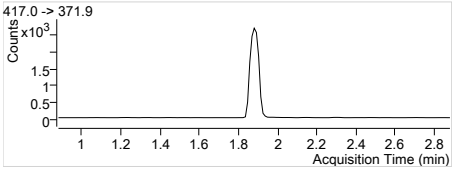
18O2-PFHxS 403.0 -> 83.9
RT (Exp. RT): 1.690 (1.690)
Calc. conc. 83.12 µg/L
Area ratio: 0.04820
Sample type: Sample



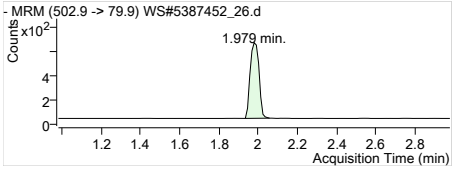


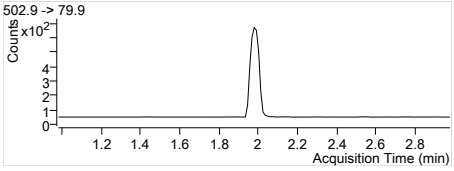
13C4-PFHpA 367.0 -> 321.9
RT (Exp. RT): 1.702 (1.702)
Calc. conc. 95.12 µg/L
Area ratio: 0.26228
Sample type: Sample



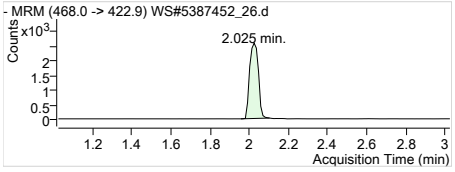


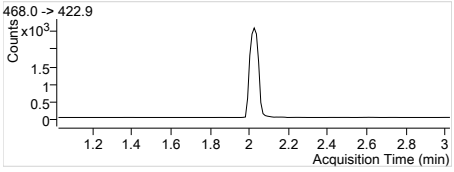
13C4-PFOA 417.0 -> 371.9
RT (Exp. RT): 1.881 (1.881)
Calc. conc. 96.78 µg/L
Area ratio: 0.28711
Sample type: Sample



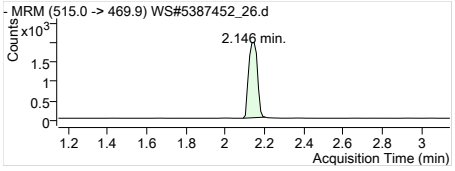


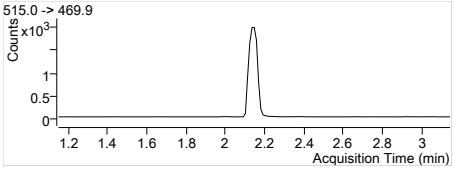
13C4-PFOS 502.9 -> 79.9
RT (Exp. RT): 1.979 (1.979)
Calc. conc. 94.29 µg/L
Area ratio: 0.06742
Sample type: Sample



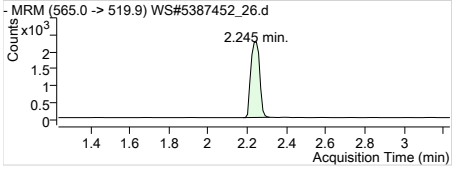


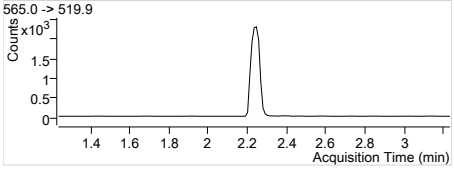
13C5-PFNA 468.0 -> 422.9
RT (Exp. RT): 2.025 (2.025)
Calc. conc. 90.53 µg/L
Area ratio: 0.27448
Sample type: Sample



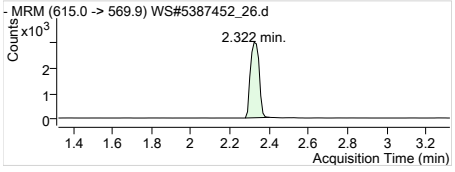


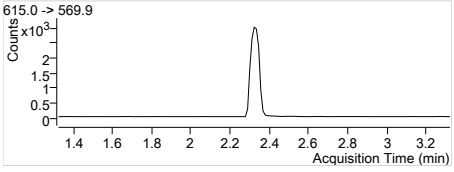
13C2-PFDA 515.0 -> 469.9
RT (Exp. RT): 2.146 (2.146)
Calc. conc. 94.17 µg/L
Area ratio: 0.17168
Sample type: Sample



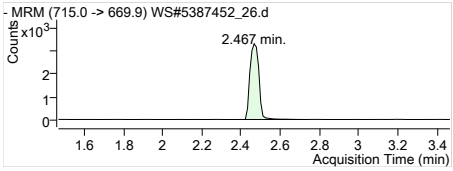


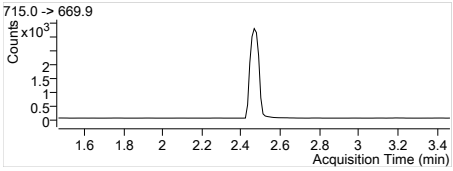
13C2-PFUnA 565.0 -> 519.9
RT (Exp. RT): 2.245 (2.234)
Calc. conc. 87.38 µg/L
Area ratio: 0.19984
Sample type: Sample



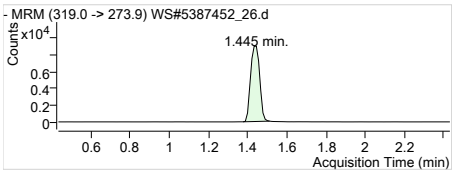


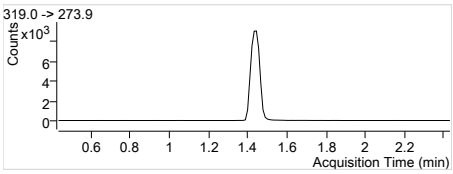
13C2-PFDoA 615.0 -> 569.9
RT (Exp. RT): 2.322 (2.322)
Calc. conc. 83.92 µg/L
Area ratio: 0.26066
Sample type: Sample



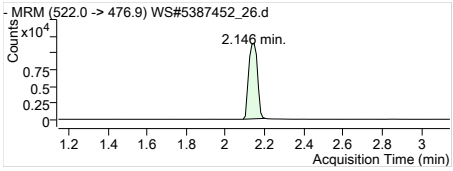


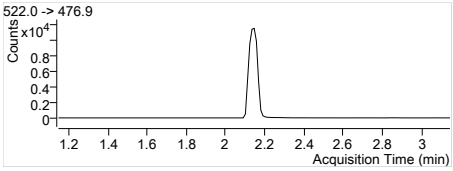
13C2-PFTeDA	715.0 -> 669.9
RT (Exp. RT):	2.467 (2.467)
Calc. conc.	79.58 µg/L
Area ratio:	0.29207
Sample type:	Sample





13C6-PFHxA	319.0 -> 273.9
RT (Exp. RT):	1.445 (1.434)
Calc. conc.	296.89 µg/L
Area ratio:	0
Sample type:	Sample





13C9-PFDA	522.0 -> 476.9
RT (Exp. RT):	2.146 (2.146)
Calc. conc.	269.43 µg/L
Area ratio:	0
Sample type:	Sample

Tetra Tech, Inc. AIR CHAIN OF CUSTODY | NUMBER No. 3184 | PAGE 1 OF 4

PROJECT NO: Jmco	FACILITY: Ceci	PROJECT MANAGER: Megan Ved	PHONE NUMBER	LABORATORY NAME AND CONTACT: Maxxam / Stephens
SAMPLERS (SIGNATURE) [signature]		FIELD OPERATIONS LEADER: David Siefken	PHONE NUMBER: 904-334-7260	ADDRESS: 6740 Campobello Rd
		CARRIER/WAYBILL NUMBER: Fed-Ex		CITY, STATE: Mississauga, Ont. CANADA

STANDARD TAT ☑
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P
PRESERVATIVE USED: —

DATE YEAR 2018	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS PFAS	COMMENTS
1/25	1215	CEF-002-065-0118						2	x	Cool 4°C
1/25	1335	EB-CEF-007-012518-8						2	x	
1/25	1345	EB-CEF-007-012518-9						2	x	
1/25	1355	EB-CEF-007-012518-10						2	x	
1/25	1420	FB-CEF-007-012518-8						2	x	
1/25	1248	CEF-013-125-0118-D						2	x	
1/25	1248	CEF-013-125-0118						2	x	
1/25	1246	FB-CEF-013-012518-7						2	x	
1/25	1550	FB-CEF-860-012518-9						2	x	
1/25	1610	EB-CEF-860-012518-11						2	x	
1/25	1615	EB-CEF-860-012518-12						2	x	
1/25	1620	EB-CEF-860-012518-13						2	x	

26-Jan-18 13:30
Cristina (Maria) Bacchus
B819794
GID ENV-727

1. RELINQUISHED BY [signature]	DATE 1-25-18	TIME 1900	1. RECEIVED BY [signature] Gurmeyer	DATE 2018/01/26	TIME 13:30
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) 5.5/4.2/3.0 PINK (FILE COPY) Custod sect mtn #417032 4/02R FORM NO. TINUS-001

Tetra Tech, Inc. CHAIN OF CUSTODY NUMBER No. 3182 PAGE 2 OF 4

PROJECT NO: JM10	FACILITY: Cecil	PROJECT MANAGER: Mag Ved	PHONE NUMBER:
SAMPLERS (SIGNATURE): [signature]		FIELD OPERATIONS LEADER: D. Slefhen	PHONE NUMBER: 904.334.7260
		CARRIER/WAYBILL NUMBER: Fed, Ex	

LABORATORY NAME AND CONTACT: Maxxam / Stephanie
ADDRESS: 6740 Campobello Rd
CITY, STATE: Mississauga, Ontario, Canada

STANDARD TAT ☒
RUSH TAT ☐ ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P
PRESERVATIVE USED: —

DATE YEAR 2018	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS PFAS ...	COMMENTS
1/24	1030	FB-CEF-008-012418-6				QC		2	X	Cool 4°C
1/24	1035	EB-CEF-PublixDI-012418-3						2	X	
1/24	1040	EB-CEF-LabChem DI-012418-4						2	X	
1/24	1240	EB-CEF-008-~~Screen~~-012418-5						2	X	
1/24	1245	EB-CEF-008-~~Rod~~-012418-6						2	X	
1/24	1250	EB-CEF-008-~~Tubing~~-012418-7						2	X	
1/24	1542	CEF-008-TW02-0118				GW		2	X	
1/24	1643	CEF-008 TW01 0118				GW		2	X	
1/25	1645	CEF-007-TW01-0118				GW		2	X	
1/25	1630	CEF-007-TW02-0118				GW		2	X	

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: [signature]	1-25-18	1900	1. RECEIVED BY: [signature] Gurpreet	2018/01/26	13:30
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) 5.5/4.2/3.0 PINK (FILE COPY) Cust. Sel Intact #1417032 4/02R FORM NO. TINUS-001

Tetra Tech, Inc.

CHAIN OF CUSTODY | NUMBER No. 3179 | PAGE 3 OF 4

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
JM10	Ceul	Megan Ved		Maxxam Analytical Int / Stephanie
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: Dave Siefken	PHONE NUMBER: 904.334.7260	ADDRESS: 6740 Campobello Rd
		CARRIER/WAYBILL NUMBER: Fex Ex		CITY, STATE: Mississauga, Ontario, Canada

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G)
PRESERVATIVE USED

DATE YEAR 2018	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS PFOS								COMMENTS
1/23	1210	CEF-003-38s-0118						2	X								Cool 4°C
	1400	CEF-002-04s-0118						2	X								
	1345	FB-CEF-002-012318-5						2	X								
S	1035	CEF-342-06s-0118						2	X								
S	1035	CEF-342-06s-0118-D						2	X								
S	1137	CEF-342-12s-0118						2	X								
S	1310	CEF-343-03s-0118						6	X								
S 1/23	1032	FB-CEF-342-012318-4						2	X								

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY	1-25-18	1900	1. RECEIVED BY GP Gurnkal	2018/01/26	13:30
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY) Cust Seal Inc 4/02R

S.S 4/2/3.0 #417032 FORM NO. TtNUS-001

Tetra Tech, Inc. CHAIN OF CUSTODY NUMBER No. 3178 PAGE 4 OF 4

PROJECT NO: Jmio	FACILITY: Cecil	PROJECT MANAGER: Megan Ved	PHONE NUMBER:
SAMPLERS (SIGNATURE): [signature]		FIELD OPERATIONS LEADER: Dave Siefken	PHONE NUMBER: 904.334.7260
		CARRIER/WAYBILL NUMBER: FED-Ex	

LABORATORY NAME AND CONTACT: Maxxam Analytical Int / Stephanie
ADDRESS: 6740 Campobello RD
CITY, STATE: Mississauga, Ontario Canada

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): P
PRESERVATIVE USED: –

DATE YEAR 2018	TIME	FB SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS PFOS							COMMENTS
1/22	1145	CEF-NFF-~~FB~~-012218-1						2	x							Cool 4°C
	1200	CEF-076-109S-0118						6	x							
	1300	CEF-372-08-0118						24	x							
	1300	CEF-372-08-0118-D						2	x							
	1435	CEF-003-28S-0118						2	x							
	1543	FB CEF-016-~~FB~~-012218-2						2	x							
	1548	CEF-016-07S-0118						2	x							
	1615	CEF-016-17S-0118						2	x							
1/23	1000	FB-CEF-003-012318-3						2	X							
1/23	0950	EB-CEF-003-012318-2						2	X							
1/22	1440	EB-CEF-017-012218-1						2	x							
1/23	1050	CEF-003-04S-0118						6	x							
1/23	1050	CEF-003-04S-0118-D						2	X							

1. RELINQUISHED BY [signature]	DATE 1-25-18	TIME 1900	1. RECEIVED BY GP Gurpreet Kan	DATE 2018/01/30	TIME 13:30
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) 5.5/4.2/3. PINK (FILE COPY) Cut = Sectional #417036

4/02R
FORM NO. TINUS-001

Sample Analysis

Samples were initially pre-screened and estimated concentrations were obtained so that appropriate sample volumes could be extracted on QC batches 5383466 (2018/02/06), 5383485 (2018/02/06), 5386102 (2018/02/08), 5387452 (2018/02/08), 5389177 (2018/02/08-09), 5390275 (2018/02/09-10) and 5391181 (2018/02/09). Due to high concentrations, the following samples were analyzed for selected analytes using reduced sample extraction volumes:

FZH306	*CEF-002-06S-0118*	*Perfluorooctanoic acid (PFOA)*
FZH331	*CEF-342-06S-0118*	*All analytes*
FZH332	*CEF-342-06S-0118-D*	*Perfluorooctanesulfonate (PFOS)*
FZH333	*CEF-342-12S-0118*	*All analytes*
FZH324	*CEF-008-TW02-0118*	*All analytes*
FZH325	*CEF-008-TW01-0118*	*All analytes*
FZH326	*CEF-007-TW01-0118*	*Perfluorohexanesulfonate (PFHxS), Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonate (PFOS)*
FZH327	*CEF-007-TW01-0118*	*Perfluorohexanesulfonate (PFHxS), Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonate (PFOS)*

Detection limits were adjusted accordingly.

A reduced sample volume was also extracted for the following sample:

FZH334 *CEF-013-03S-0118*

This was due to the foamy and discolored appearance of the sample matrix, which would likely have resulted in clogging of the solid phase extraction (SPE) cartridge if the full sample volume had been extracted. Detection limits were adjusted accordingly.

The recoveries observed for Perfluorododecanoic acid (PFDoA), Perfluorotridecanoic acid (PFTrDA), Perfluorotetradecanoic acid (PFTeDA), Methylperfluorooctanesulfonamidoacetic acid (MeFOSAA) and Ethylperfluorooctanesulfonamidoacetic acid (EtFOSAA) were below acceptance criteria for the Spike (LCS) on QC batches 5383466 (2018/02/06) and 5383485 (2018/02/06). Samples were re-extracted and re-analyzed for these analytes on QC batches 5396699 (2018/02/15-16) and 5396714 (2018/02/15), past the method defined hold time. Because of their chemical structures, per- and polyfluorinated alkyl substances (PFAS) are chemically and biologically stable in the environment and resist typical environmental degradation processes. This would suggest the hold time exceedance would not have a significant impact on the data quality.

Extracted Internal Standard Analytes

The extracted internal standard analyte $^{13}C_2$-Perfluorotetradecanoic acid ($^{13}C_2$-PFTeDA) is used to quantify native Perfluorotridecanoic acid (PFTrDA) & Perfluorotetradecanoic acid (PFTeDA). The recoveries observed for this extracted internal standard analyte were below the defined lower control limit (LCL) for the following samples on QC batch 5387452 (2018/02/08):

FZH332 *CEF-342-06S-0118-D*
FZH334 *CEF-013-03S-0118*

These samples were re-extracted and re-analyzed for the associated native analytes on QC batch 5396699 (2018/02/15-16), past the method defined hold time. Acceptable $^{13}C_2$-PFTeDA recoveries were obtained on re-analysis.

QC Samples

Matrix Spike and Matrix Spike Duplicate (MS/MSD) was required for sample FZH334 *(CEF-013-03S-0118)* but not performed as a reduced sample volume was extracted for this sample. A Matrix Duplicate (MD) was prepared and analyzed instead on QC batch 5387452 (2018/02/08).

Revised Report

During assembly of the Level IV data package, it was observed that incorrect analytes had been reported for the re-analysis on QC batch 5396699 (2018/02/15-16). A revised report was issued with the correct re-analyzed compounds, Perfluorododecanoic acid (PFDoA), Perfluorotridecanoic acid (PFTrDA), Perfluorotetradecanoic acid (PFTeDA), Methylperfluorooctanesulfonamidoacetic acid (MeFOSAA) and Ethylperfluorooctanesulfonamidoacetic acid (EtFOSAA).

In addition, it was observed that incorrect extraction dates had been initially entered for samples on QC batch 5386102 (2018/02/08). The correct date (2018/02/06) was entered into the LIMS system for re-issue of the report.

Data Qualifiers

U – Analyte was not detected and is reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.

J – The reported result is an estimated value (e.g., matrix interference was observed, or the analyte was detected at a concentration outside the calibration range).

Sin Chii Chia, B.Sc.
schia@maxxam.ca
Office 905 817 5700

PROJECT NARRATIVE

Maxxam Analytics
Client Project #: JM10 CECIL

Client: Earth Toxics Inc
Client Project: JM10 CECIL

I. SAMPLE RECEIPT/ANALYSIS

a) Sample Listing

Maxxam ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Date Run	Initial Calibration
PFOS and PFOA in water by SPE/LCMS						
FZH306	CEF-002-06S-0118	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH307	EB-CEF-007-012518-8	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH308	EB-CEF-007-012518-9	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH309	EB-CEF-007-012518-10	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH310	FB-CEF-007-012518-8	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH311	CEF-013-12S-0118-D	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH312	CEF-013-12S-0118	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH313	FB-CEF-013-012518-7	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH314	FB-CEF-860-012518-9	2018/01/25	2018/01/26	2018/02/08	2018/02/10	2018/02/09-10
FZH318	FB-CEF-008-012418-6	2018/01/24	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH321	EB-CEF-008-012418-5	2018/01/24	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH322	EB-CEF-008-012418-6	2018/01/24	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH323	EB-CEF-008-012418-7	2018/01/24	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH324	CEF-008-TW02-0118	2018/01/24	2018/01/26	2018/02/07	2018/02/09	2018/02/08-09
FZH325	CEF-008-TW01-0118	2018/01/24	2018/01/26	2018/02/07	2018/02/08	2018/02/08-09
FZH326	CEF-007-TW01-0118	2018/01/25	2018/01/26	2018/02/08	2018/02/09	2018/02/09
FZH327	CEF-007-TW02-0118	2018/01/25	2018/01/26	2018/02/08	2018/02/09	2018/02/09
FZH328	CEF-003-38S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH329	CEF-002-04S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH330	FB-CEF-002-012318-5	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH331	CEF-342-06S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH332	CEF-342-06S-0118-D	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08 & 2018/02/15-16
FZH333	CEF-342-12S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH334	CEF-013-03S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08 & 2018/02/15-16
FZH334 Dup	CEF-013-03S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08 & 2018/02/15-16
FZH335	FB-CEF-342-012318-4	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH337	CEF-076-109S-0118	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15
FZH338	CEF-372-08-0118	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15-16
FZH339	CEF-372-08-0118-D	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15-16
FZH340	CEF-003-28S-0118	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15-16
FZH341	FB-CEF-016-012218-2	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15-16
FZH342	CEF-016-07S-0118	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15-16
FZH343	CEF-016-17S-0118	2018/01/22	2018/01/26	2018/02/13	2018/02/15	2018/02/06 & 2018/02/15-16
FZH344	FB-CEF-003-012318-3	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH347	CEF-003-04S-0118	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08
FZH348	CEF-003-04S-0118-D	2018/01/23	2018/01/26	2018/02/06	2018/02/08	2018/02/08

Run Date is defined as the date of injection of the last calibration standard (12 hours or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

b) Shipping Problems: none encountered

c) Documentation Problems: All FB and EB samples were initially not reported as per client request. Client later requested that these samples be reported.

II. SAMPLE PREP:

No problems encountered

III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis

a) Hold Times: Due to rework requirements, the following samples were analyzed for PFDoA, PFTrDA, PFTeDA, MeFOSAA and EtFOSAA past hold time: FZH336, FZH338, FZH339, FZH340, FZH341, FZH342, FZH343, FZH337. The following samples were analyzed for PFTeDA and PFTrDA past hold time: FZH332 and FZH334.

b) Instrument Calibration: all within control limits

c) Quality Control: All applicable QC meets control criteria, except where otherwise noted.

d) All analytes requiring manual intergration(s) are noted on the sample chromatograms

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for other than the conditions detailed above.

In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate. Release of the data contained in this data package has been authorized by the cognizant laboratory official or his/her designee, as verified by this signature.



Project Manager- Site Assessment and Remediation/ Ultra Trace

2018/03/16
Date

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.2°C

Revised Report (2018/03/02): Including results for FB samples. Correction to report results for FZH338, FZH339, FZH340, FZH342, FZH343 (PFuNA, PFTrDA) from the correct analytical batch. Extraction date corrected for batch 5386102.
Results reported in ng/L as per client request.

Revised Report (2018/03/09): Sample FZH334 ID updated to "CEF-013-03S-0118" as per client request. Including results for EB samples.

Sample FZH332, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH334, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH337, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH338, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH339, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH340, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH341, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH342, PFOS and PFOA in water by SPE/LCMS: Test repeated.
Sample FZH343, PFOS and PFOA in water by SPE/LCMS: Test repeated.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Glossary of Terms

- ***Detection Limit (DL)*** this can also be called ***Method Detection Limit (MDL***): The lowest concentration or amount of the target analyte that can be identified, measured, and reported with confidence that the analyte concentration is not a false positive value. (Clarification): The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence. At the DL, the false positive rate (Type I error) is 1%.

- ***Limit of Detection (LOD*)**: An estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. (Clarification): The smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

- ***Limits of Quantitation (LOQ)*** this can also be called ***Reporting Detection Limit (RDL)***: The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. (Clarification): The lowest concentration that produces a quantitative result within specified limits of precision and bias. For DoD projects, the LOQ shall be set at or above the concentration of the lowest initial calibration standard.

- ***Acceptance Criteria*** are values used by the laboratory to determine that a process is in control.

- ***Accuracy*** is the degree of agreement of a measured value with the true or expected value.

- ***Calibration Standards*** are a set of solutions containing the analytes of interest at a specified concentration.

- ***Calibration Verification Standard*** consists of a calibration standard solution of intermediate concentration (mid-point initial calibration level) used to access whether the initial calibration is still valid

- ***Certified Reference Material*** is a stable homogenous material that is certified by repetitive analysis from a supplier who is certified to generate said materials.

- ***Internal Standard*** a deuterated or ^{13}C-labelled analyte that is added to a sample extract prior to instrumental analysis to compensate for injection variability.

- ***Isomer*** is a member of a group of compounds that differ from each other only in the locations of a specific number of common substituent atoms or groups of atoms on the parent compound.

- ***Method Blank*** is a laboratory control sample using reagents that are known to be free of contamination.

- ***Precision*** is the degree of agreement between the data generated from repetitive measurements under specific conditions.

- ***Quality Assurance*** is a system of activities whose purpose is to provide the producer or user of a product with the assurance that the product meets a defined standard of quality.

- ***Quality Control*** is the overall system of activities whose purpose is to control the quality of a product so that it meets the needs of the end user.

- ***RSD*** is the relative standard deviation.

- ***Blank Spike*** is a laboratory control sample that has been fortified with native analytes of interest.

- ***Window Defining Mixture*** is a solution containing only the earliest and latest eluting congeners within each homologous group of target analytes on a specified GC column.

- ***RPD*** or Relative Percent Difference. A measure used to compare duplicate sample analysis.

- ***EMPC/NDR –*** Peak detected does not meet ratio criteria and has resulted in a higher detection limit.

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
5383466	M_G	Matrix Spike	13C2-Perfluorodecanoic acid	2018/02/06		85	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/06		92	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/06		87	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/06		102	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/06		101	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/06		97	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/06		100	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/06		104	%	50 - 150
			Perfluorobutane Sulfonate (PFBS)	2018/02/06		83	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06		87	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/06		92	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06		88	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/06		93	%	72 - 131
			Perfluoroundecanoic Acid (PFUnA)	2018/02/06		96	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/06		102	%	71 - 133
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06		96	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/06		95	%	72 - 131
5383466	M_G	Matrix Spike DUP	13C2-Perfluorodecanoic acid	2018/02/06		104	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/06		97	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/06		97	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/06		103	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/06		99	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/06		105	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/06		101	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/06		102	%	50 - 150
			Perfluorobutane Sulfonate (PFBS)	2018/02/06		96	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06		94	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/06		93	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06		96	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/06		97	%	72 - 131
			Perfluoroundecanoic Acid (PFUnA)	2018/02/06		102	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/06		95	%	71 - 133
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06		94	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/06		109	%	72 - 131
5383466	M_G	MS/MSD RPD	Perfluorobutane Sulfonate (PFBS)	2018/02/06	14		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06	8.1		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/06	0.89		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06	8.8		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/06	3.5		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/06	5.8		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/06	7.3		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06	2.1		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/06	13		%	30
5383466	M_G	Spiked Blank	13C2-Perfluorodecanoic acid	2018/02/06		103	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/06		90	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/06		122	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/06		92	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/06		88	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/06		90	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/06		97	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/06		89	%	50 - 150
			Perfluorobutane Sulfonate (PFBS)	2018/02/06		100	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06		94	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/06		89	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06		97	%	67 - 132

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorononanoic Acid (PFNA)	2018/02/06		93	%	72 - 131
			Perfluoroundecanoic Acid (PFUnA)	2018/02/06		72	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/06		83	%	71 - 133
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06		97	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/06		101	%	72 - 131
5383466	M_G	Method Blank	13C2-Perfluorodecanoic acid	2018/02/06		85	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/06		106	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/06		55	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/06		109	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/06		104	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/06		107	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/06		104	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/06		104	%	50 - 150
			Perfluorobutane Sulfonate (PFBS)	2018/02/06	15 U, LOD=15		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06	15 U, LOD=15		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/02/06	10 U, LOD=10		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06	15 U, LOD=15		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/02/06	18 U, LOD=18		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/02/06	10 U, LOD=10		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/02/06	15 U, LOD=15		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06	10 U, LOD=10		ng/L	
			Perfluorooctane Sulfonate (PFOS)	2018/02/06	15 U, LOD=15		ng/L	
5383485	M_G	Matrix Spike(FZH337)	13C2-Perfluorodecanoic acid	2018/02/06		99	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/06		110	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/06		95	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/06		116	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/06		117	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/06		119	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/06		115	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/06		124	%	50 - 150
			Perfluorobutane Sulfonate (PFBS)	2018/02/06		83	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06		92	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/06		90	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06		86	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/06		93	%	72 - 131
			Perfluorotridecanoic Acid	2018/02/06		92	%	67 - 143
			Perfluorodecanoic Acid (PFDA)	2018/02/06		100	%	71 - 133
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06		90	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/06		95	%	72 - 131
5383485	M_G	Matrix Spike DUP(FZH337)	13C2-Perfluorodecanoic acid	2018/02/06		88	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/06		93	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/06		74	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/06		100	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/06		87	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/06		97	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/06		93	%	50 - 150

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			18O2-Perfluorohexanesulfonate	2018/02/06		98	%	50 - 150
			Perfluorobutane Sulfonate (PFBS)	2018/02/06		100	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06		94	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/06		101	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06		97	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/06		106	%	72 - 131
			Perfluorotridecanoic Acid	2018/02/06		109	%	67 - 143
			Perfluorodecanoic Acid (PFDA)	2018/02/06		98	%	71 - 133
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06		99	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/06		114	%	72 - 131
5383485	M_G	MS/MSD RPD	Perfluorobutane Sulfonate (PFBS)	2018/02/06	18		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/02/06	1.9		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/06	11		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/06	12		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/06	13		%	30
			Perfluorotridecanoic Acid	2018/02/06	17		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/06	2.0		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/06	9.6		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/06	18		%	30
5386102	M_G	Matrix Spike(FZH347)	13C2-Perfluorodecanoic acid	2018/02/08		80	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/08		70	%	50 - 150
CEF-003-04S-0118			13C2-Perfluorohexanoic acid	2018/02/08		84	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/08		43 (1)	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/08		74	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/08		82	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/08		86	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/08		85	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/08		86	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/08		85	%	50 - 150
			D3-MeFOSAA	2018/02/08		78	%	50 - 150
			D5-EtFOSAA	2018/02/08		82	%	50 - 150
			EtFOSAA	2018/02/08		95	%	73 - 128
			MeFOSAA	2018/02/08		102	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/08		112	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08		98	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/08		96	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08		104	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/08		95	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/08		155 (2)	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/08		158 (2)	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08		98	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/08		98	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/08		106	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08		92	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/08		91	%	72 - 131
5386102	M_G	Matrix Spike DUP(FZH347)	13C2-Perfluorodecanoic acid	2018/02/08		77	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/08		75	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/08		84	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/08		66	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/08		75	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/08		84	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/08		91	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/08		81	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/08		75	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/08		103	%	50 - 150

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			D3-MeFOSAA	2018/02/08		76	%	50 - 150
			D5-EtFOSAA	2018/02/08		75	%	50 - 150
			EtFOSAA	2018/02/08		104	%	73 - 128
			MeFOSAA	2018/02/08		100	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/08		101	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08		98	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/08		99	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08		91	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/08		104	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/08		105	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/08		112	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08		101	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/08		100	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/08		93	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08		96	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/08		87	%	72 - 131
5386102	M_G	MS/MSD RPD	EtFOSAA	2018/02/08	9.1		%	30
			MeFOSAA	2018/02/08	1.8		%	30
			Perfluorobutane Sulfonate (PFBS)	2018/02/08	11		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08	0.038		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/08	3.0		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08	13		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/08	9.4		%	30
			Perfluorotetradecanoic Acid	2018/02/08	38 (3)		%	30
			Perfluorotridecanoic Acid	2018/02/08	34 (3)		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08	3.2		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/08	2.3		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/02/08	13		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08	4.0		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/08	4.7		%	30
5386102	M_G	Spiked Blank	13C2-Perfluorodecanoic acid	2018/02/08		64	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/08		59	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/08		77	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/08		63	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/08		66	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/08		76	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/08		71	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/08		71	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/08		72	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/08		73	%	50 - 150
			D3-MeFOSAA	2018/02/08		68	%	50 - 150
			D5-EtFOSAA	2018/02/08		69	%	50 - 150
			EtFOSAA	2018/02/08		98	%	73 - 128
			MeFOSAA	2018/02/08		98	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/08		117	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08		98	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/08		97	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08		110	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/08		106	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/08		102	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/08		104	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08		97	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/08		111	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/08		113	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08		105	%	71 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorooctane Sulfonate (PFOS)	2018/02/08		103	%	72 - 131
5386102	M_G	Method Blank	13C2-Perfluorodecanoic acid	2018/02/08		58	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/08		58	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/08		71	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/08		54	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/08		62	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/08		67	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/08		74	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/08		65	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/08		63	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/08		72	%	50 - 150
			D3-MeFOSAA	2018/02/08		61	%	50 - 150
			D5-EtFOSAA	2018/02/08		59	%	50 - 150
			EtFOSAA	2018/02/08	10 U, LOD=10		ng/L	
			MeFOSAA	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorobutane Sulfonate (PFBS)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/02/08	18 U, LOD=18		ng/L	
			Perfluorotetradecanoic Acid	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorotridecanoic Acid	2018/02/08	10 U, LOD=10		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluorododecanoic Acid (PFDoA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorooctane Sulfonate (PFOS)	2018/02/08	15 U, LOD=15		ng/L	
5387452	M_G	Spiked Blank	13C2-Perfluorodecanoic acid	2018/02/08		89	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/08		86	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/08		88	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/08		78	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/08		88	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/08		100	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/08		91	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/08		97	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/08		88	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/08		89	%	50 - 150
			D3-MeFOSAA	2018/02/08		86	%	50 - 150
			D5-EtFOSAA	2018/02/08		85	%	50 - 150
			EtFOSAA	2018/02/08		88	%	73 - 128
			MeFOSAA	2018/02/08		88	%	77 - 127

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorobutane Sulfonate (PFBS)	2018/02/08		78	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08		86	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/08		92	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08		79	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/08		96	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/08		93	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/08		88	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08		95	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/08		94	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/08		89	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08		86	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/08		82	%	72 - 131
5387452	M_G	Method Blank	13C2-Perfluorodecanoic acid	2018/02/08		80	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/08		75	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/08		90	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/08		72	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/08		77	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/08		91	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/08		82	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/08		95	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/08		86	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/08		84	%	50 - 150
			D3-MeFOSAA	2018/02/08		75	%	50 - 150
			D5-EtFOSAA	2018/02/08		78	%	50 - 150
			EtFOSAA	2018/02/08	10 U, LOD=10		ng/L	
			MeFOSAA	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorobutane Sulfonate (PFBS)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/02/08	18 U, LOD=18		ng/L	
			Perfluorotetradecanoic Acid	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorotridecanoic Acid	2018/02/08	10 U, LOD=10		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/02/08	15 U, LOD=15		ng/L	
			Perfluorododecanoic Acid (PFDoA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08	10 U, LOD=10		ng/L	
			Perfluorooctane Sulfonate (PFOS)	2018/02/08	15 U, LOD=15		ng/L	
5387452	M_G	RPD - Sample/Sample Dup	EtFOSAA	2018/02/08	NC (4)		%	30
			MeFOSAA	2018/02/08	NC (4)		%	30
			Perfluorobutane Sulfonate (PFBS)	2018/02/08	NC (4)		%	30

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluoroheptanoic Acid (PFHpA)	2018/02/08	NC (4)		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/08	NC (4)		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/08	NC (4)		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/08	NC (4)		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/08	NC (4)		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/08	NC (4)		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/02/08	NC (4)		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/08	NC (4)		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/08	NC (4)		%	30
5389177	M_G	Spiked Blank	13C2-Perfluorodecanoic acid	2018/02/09		86	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		80	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		87	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		78	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		92	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		87	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		82	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		84	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		86	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		84	%	50 - 150
			D3-MeFOSAA	2018/02/09		81	%	50 - 150
			D5-EtFOSAA	2018/02/09		76	%	50 - 150
			EtFOSAA	2018/02/09		100	%	73 - 128
			MeFOSAA	2018/02/09		92	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/09		101	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09		94	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/09		95	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09		98	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/09		97	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/09		100	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/09		103	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09		98	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/09		100	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/09		98	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09		101	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/09		96	%	72 - 131
5389177	M_G	Spiked Blank DUP	13C2-Perfluorodecanoic acid	2018/02/09		91	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		80	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		98	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		76	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		91	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		94	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		89	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		94	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		90	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		91	%	50 - 150
			D3-MeFOSAA	2018/02/09		82	%	50 - 150
			D5-EtFOSAA	2018/02/09		77	%	50 - 150
			EtFOSAA	2018/02/09		101	%	73 - 128
			MeFOSAA	2018/02/09		91	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/09		102	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09		95	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/09		94	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09		96	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/09		102	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/09		103	%	70 - 134

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorotridecanoic Acid	2018/02/09		102	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09		98	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/09		97	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/09		96	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09		98	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/09		93	%	72 - 131
5389177	M_G	RPD	EtFOSAA	2018/02/09	1.6		%	30
			MeFOSAA	2018/02/09	1.6		%	30
			Perfluorobutane Sulfonate (PFBS)	2018/02/09	0.84		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09	0.67		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/09	1.8		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09	2.1		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/09	5.8		%	30
			Perfluorotetradecanoic Acid	2018/02/09	2.6		%	30
			Perfluorotridecanoic Acid	2018/02/09	0.74		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09	0.62		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/09	3.0		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/02/09	2.0		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09	2.7		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/09	2.8		%	30
5389177	M_G	Method Blank	13C2-Perfluorodecanoic acid	2018/02/09		79	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		76	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		92	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		80	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		78	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		93	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		86	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		96	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		87	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		93	%	50 - 150
			D3-MeFOSAA	2018/02/09		76	%	50 - 150
			D5-EtFOSAA	2018/02/09		72	%	50 - 150
			EtFOSAA	2018/02/09	10 U, LOD=10		ng/L	
			MeFOSAA	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorobutane Sulfonate (PFBS)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/02/09	18 U, LOD=18		ng/L	
			Perfluorotetradecanoic Acid	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorotridecanoic Acid	2018/02/09	10 U, LOD=10		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/02/09	15 U, LOD=15		ng/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorododecanoic Acid (PFDoA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorooctane Sulfonate (PFOS)	2018/02/09	15 U, LOD=15		ng/L	
5390275	M_G	Spiked Blank	13C2-Perfluorodecanoic acid	2018/02/10		112	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/10		110	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/10		115	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/10		101	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/10		105	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/10		116	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/10		111	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/10		114	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/10		113	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/10		114	%	50 - 150
			D3-MeFOSAA	2018/02/10		91	%	50 - 150
			D5-EtFOSAA	2018/02/10		98	%	50 - 150
			EtFOSAA	2018/02/10		99	%	73 - 128
			MeFOSAA	2018/02/10		100	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/10		99	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/10		95	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/10		97	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/10		91	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/10		99	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/10		97	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/10		100	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/10		108	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/10		94	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/10		92	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/10		97	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/10		93	%	72 - 131
5390275	M_G	Spiked Blank DUP	13C2-Perfluorodecanoic acid	2018/02/10		102	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/10		93	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/10		105	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/10		86	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/10		90	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/10		104	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/10		90	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/10		98	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/10		104	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/10		99	%	50 - 150
			D3-MeFOSAA	2018/02/10		87	%	50 - 150
			D5-EtFOSAA	2018/02/10		86	%	50 - 150
			EtFOSAA	2018/02/10		99	%	73 - 128
			MeFOSAA	2018/02/10		95	%	77 - 127
			Perfluorobutane Sulfonate (PFBS)	2018/02/10		100	%	65 - 135
			Perfluoroheptanoic Acid (PFHpA)	2018/02/10		90	%	73 - 129
			Perfluorohexanoic Acid (PFHxA)	2018/02/10		91	%	74 - 129
			Perfluorohexane Sulfonate (PFHxS)	2018/02/10		92	%	67 - 132
			Perfluorononanoic Acid (PFNA)	2018/02/10		93	%	72 - 131
			Perfluorotetradecanoic Acid	2018/02/10		102	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/10		100	%	67 - 143
			Perfluoroundecanoic Acid (PFUnA)	2018/02/10		110	%	71 - 133
			Perfluorodecanoic Acid (PFDA)	2018/02/10		89	%	71 - 133

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorododecanoic Acid (PFDoA)	2018/02/10		94	%	71 - 131
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/10		100	%	71 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/10		99	%	72 - 131
5390275	M_G	RPD	EtFOSAA	2018/02/10	0.58		%	30
			MeFOSAA	2018/02/10	4.7		%	30
			Perfluorobutane Sulfonate (PFBS)	2018/02/10	1.1		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/02/10	5.6		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/10	5.8		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/10	1.1		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/10	5.8		%	30
			Perfluorotetradecanoic Acid	2018/02/10	5.5		%	30
			Perfluorotridecanoic Acid	2018/02/10	0.25		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/10	2.5		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/10	5.7		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/02/10	2.7		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/10	3.5		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/10	6.4		%	30
5390275	M_G	Method Blank	13C2-Perfluorodecanoic acid	2018/02/10		95	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/10		87	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/10		96	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/10		83	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/10		85	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/10		96	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/10		91	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/10		91	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/10		100	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/10		94	%	50 - 150
			D3-MeFOSAA	2018/02/10		81	%	50 - 150
			D5-EtFOSAA	2018/02/10		79	%	50 - 150
			EtFOSAA	2018/02/10	10 U, LOD=10		ng/L	
			MeFOSAA	2018/02/10	10 U, LOD=10		ng/L	
			Perfluorobutane Sulfonate (PFBS)	2018/02/10	15 U, LOD=15		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/02/10	15 U, LOD=15		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/02/10	10 U, LOD=10		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/02/10	15 U, LOD=15		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/02/10	18 U, LOD=18		ng/L	
			Perfluorotetradecanoic Acid	2018/02/10	10 U, LOD=10		ng/L	
			Perfluorotridecanoic Acid	2018/02/10	10 U, LOD=10		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/02/10	10 U, LOD=10		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/02/10	15 U, LOD=15		ng/L	
			Perfluorododecanoic Acid (PFDoA)	2018/02/10	10 U, LOD=10		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/10	10 U, LOD=10		ng/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorooctane Sulfonate (PFOS)	2018/02/10	15 U, LOD=15		ng/L	
5391181	M_G	Matrix Spike	13C2-Perfluorodecanoic acid	2018/02/09		88	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		72	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		96	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		46 (1)	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		82	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		95	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		81	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		92	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		94	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		96	%	50 - 150
			D3-MeFOSAA	2018/02/09		73	%	50 - 150
			D5-EtFOSAA	2018/02/09		73	%	50 - 150
			EtFOSAA	2018/02/09		94	%	70 - 130
			MeFOSAA	2018/02/09		91	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2018/02/09		95	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09		99	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/02/09		92	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09		51 (3)	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/02/09		99	%	70 - 130
			Perfluorotetradecanoic Acid	2018/02/09		93	%	70 - 130
			Perfluorotridecanoic Acid	2018/02/09		131	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09		93	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2018/02/09		91	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/02/09		92	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09		103	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/09		111	%	70 - 130
5391181	M_G	Matrix Spike DUP	13C2-Perfluorodecanoic acid	2018/02/09		81	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		65	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		96	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		38 (1)	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		71	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		91	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		89	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		95	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		90	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		101	%	50 - 150
			D3-MeFOSAA	2018/02/09		75	%	50 - 150
			D5-EtFOSAA	2018/02/09		72	%	50 - 150
			EtFOSAA	2018/02/09		97	%	70 - 130
			MeFOSAA	2018/02/09		93	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2018/02/09		94	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09		102	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/02/09		94	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09		41 (3)	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/02/09		102	%	70 - 130
			Perfluorotetradecanoic Acid	2018/02/09		104	%	70 - 130
			Perfluorotridecanoic Acid	2018/02/09		146 (2)	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09		103	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2018/02/09		94	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/02/09		100	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09		100	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/09		86	%	70 - 130
5391181	M_G	MS/MSD RPD	EtFOSAA	2018/02/09	4.0		%	30

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			MeFOSAA	2018/02/09	2.5		%	30
			Perfluorobutane Sulfonate (PFBS)	2018/02/09	1.3		%	30
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09	3.0		%	30
			Perfluorohexanoic Acid (PFHxA)	2018/02/09	1.9		%	30
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09	22		%	30
			Perfluorononanoic Acid (PFNA)	2018/02/09	2.6		%	30
			Perfluorotetradecanoic Acid	2018/02/09	11		%	30
			Perfluorotridecanoic Acid	2018/02/09	11 (2)		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09	10		%	30
			Perfluorodecanoic Acid (PFDA)	2018/02/09	3.9		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/02/09	7.8		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09	2.8		%	30
			Perfluorooctane Sulfonate (PFOS)	2018/02/09	25		%	30
5391181	M_G	Spiked Blank	13C2-Perfluorodecanoic acid	2018/02/09		94	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		84	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		96	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		80	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		93	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		90	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		105	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		92	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		93	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		88	%	50 - 150
			D3-MeFOSAA	2018/02/09		81	%	50 - 150
			D5-EtFOSAA	2018/02/09		80	%	50 - 150
			EtFOSAA	2018/02/09		99	%	70 - 130
			MeFOSAA	2018/02/09		95	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2018/02/09		105	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09		103	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2018/02/09		89	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09		105	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2018/02/09		101	%	70 - 130
			Perfluorotetradecanoic Acid	2018/02/09		103	%	70 - 130
			Perfluorotridecanoic Acid	2018/02/09		107	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09		97	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2018/02/09		96	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2018/02/09		97	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09		104	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2018/02/09		80	%	70 - 130
5391181	M_G	Method Blank	13C2-Perfluorodecanoic acid	2018/02/09		101	%	50 - 150
			13C2-Perfluorododecanoic acid	2018/02/09		86	%	50 - 150
			13C2-Perfluorohexanoic acid	2018/02/09		100	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/09		86	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/09		93	%	50 - 150
			13C4-Perfluoroheptanoic acid	2018/02/09		100	%	50 - 150
			13C4-Perfluorooctanesulfonate	2018/02/09		99	%	50 - 150
			13C4-Perfluorooctanoic acid	2018/02/09		107	%	50 - 150
			13C5-Perfluorononanoic acid	2018/02/09		91	%	50 - 150
			18O2-Perfluorohexanesulfonate	2018/02/09		95	%	50 - 150
			D3-MeFOSAA	2018/02/09		81	%	50 - 150
			D5-EtFOSAA	2018/02/09		88	%	50 - 150
			EtFOSAA	2018/02/09	10 U, LOD=10		ng/L	
			MeFOSAA	2018/02/09	10 U, LOD=10		ng/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorobutane Sulfonate (PFBS)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluoroheptanoic Acid (PFHpA)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluorohexanoic Acid (PFHxA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorohexane Sulfonate (PFHxS)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluorononanoic Acid (PFNA)	2018/02/09	18 U, LOD=18		ng/L	
			Perfluorotetradecanoic Acid	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorotridecanoic Acid	2018/02/09	10 U, LOD=10		ng/L	
			Perfluoroundecanoic Acid (PFUnA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorodecanoic Acid (PFDA)	2018/02/09	15 U, LOD=15		ng/L	
			Perfluorododecanoic Acid (PFDoA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2018/02/09	10 U, LOD=10		ng/L	
			Perfluorooctane Sulfonate (PFOS)	2018/02/09	15 U, LOD=15		ng/L	
5396699	AD9	Matrix Spike	13C2-Perfluorododecanoic acid	2018/02/15		109	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/15		103	%	50 - 150
			D3-MeFOSAA	2018/02/15		119	%	50 - 150
			D5-EtFOSAA	2018/02/15		118	%	50 - 150
			EtFOSAA	2018/02/15		82	%	73 - 128
			MeFOSAA	2018/02/15		84	%	77 - 127
			Perfluorotetradecanoic Acid	2018/02/15		86	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/15		93	%	67 - 143
			Perfluorododecanoic Acid (PFDoA)	2018/02/15		88	%	71 - 131
5396699	AD9	Matrix Spike DUP	13C2-Perfluorododecanoic acid	2018/02/15		101	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/15		90	%	50 - 150
			D3-MeFOSAA	2018/02/15		115	%	50 - 150
			D5-EtFOSAA	2018/02/15		111	%	50 - 150
			EtFOSAA	2018/02/15		87	%	73 - 128
			MeFOSAA	2018/02/15		86	%	77 - 127
			Perfluorotetradecanoic Acid	2018/02/15		95	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/15		101	%	67 - 143
			Perfluorododecanoic Acid (PFDoA)	2018/02/15		89	%	71 - 131
5396699	AD9	MS/MSD RPD	EtFOSAA	2018/02/15	5.5		%	30
			MeFOSAA	2018/02/15	3.2		%	30
			Perfluorotetradecanoic Acid	2018/02/15	9.7		%	30
			Perfluorotridecanoic Acid	2018/02/15	7.8		%	30
			Perfluorododecanoic Acid (PFDoA)	2018/02/15	1.3		%	30
5396699	AD9	Spiked Blank	13C2-Perfluorododecanoic acid	2018/02/15		95	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/15		100	%	50 - 150
			D3-MeFOSAA	2018/02/15		97	%	50 - 150
			D5-EtFOSAA	2018/02/15		92	%	50 - 150
			EtFOSAA	2018/02/15		81	%	73 - 128
			MeFOSAA	2018/02/15		82	%	77 - 127
			Perfluorotetradecanoic Acid	2018/02/15		75	%	70 - 134
			Perfluorotridecanoic Acid	2018/02/15		86	%	67 - 143

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorododecanoic Acid (PFDoA)	2018/02/15		89	%	71 - 131
5396699	AD9	Method Blank	13C2-Perfluorododecanoic acid	2018/02/15		69	%	50 - 150
			13C2-perfluorotetradecanoic acid	2018/02/15		73	%	50 - 150
			D3-MeFOSAA	2018/02/15		60	%	50 - 150
			D5-EtFOSAA	2018/02/15		58	%	50 - 150
			EtFOSAA	2018/02/15	10 U, LOD=10		ng/L	
			MeFOSAA	2018/02/15	10 U, LOD=10		ng/L	
			Perfluorotetradecanoic Acid	2018/02/15	10 U, LOD=10		ng/L	
			Perfluorotridecanoic Acid	2018/02/15	10 U, LOD=10		ng/L	
			Perfluorododecanoic Acid (PFDoA)	2018/02/15	10 U, LOD=10		ng/L	
5396714	AD9	Matrix Spike(FZH337)	13C2-Perfluorododecanoic acid	2018/02/15		103	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/15		107	%	50 - 150
			D3-MeFOSAA	2018/02/15		114	%	50 - 150
			D5-EtFOSAA	2018/02/15		112	%	50 - 150
			EtFOSAA	2018/02/15		87	%	73 - 128
			MeFOSAA	2018/02/15		87	%	77 - 127
			Perfluorotetradecanoic Acid	2018/02/15		88	%	70 - 134
			Perfluoroundecanoic Acid (PFUnA)	2018/02/15		89	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/15		92	%	71 - 131
5396714	AD9	Matrix Spike DUP(FZH337)	13C2-Perfluorododecanoic acid	2018/02/15		104	%	50 - 150
			13C2-Perfluoroundecanoic acid	2018/02/15		117	%	50 - 150
			D3-MeFOSAA	2018/02/15		122	%	50 - 150
			D5-EtFOSAA	2018/02/15		122	%	50 - 150
			EtFOSAA	2018/02/15		80	%	73 - 128
			MeFOSAA	2018/02/15		80	%	77 - 127
			Perfluorotetradecanoic Acid	2018/02/15		81	%	70 - 134
			Perfluoroundecanoic Acid (PFUnA)	2018/02/15		86	%	71 - 133
			Perfluorododecanoic Acid (PFDoA)	2018/02/15		88	%	71 - 131
5396714	AD9	MS/MSD RPD	EtFOSAA	2018/02/15	8.0		%	30
			MeFOSAA	2018/02/15	7.3		%	30
			Perfluorotetradecanoic Acid	2018/02/15	8.4		%	30
			Perfluoroundecanoic Acid (PFUnA)	2018/02/15	4.3		%	30

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorododecanoic Acid (PFDoA)	2018/02/15	4.1		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Extracted internal standard analyte recovery was below the defined lower control limit (LCL). Laboratory spiked water resulted in satisfactory recovery of the extracted internal standard analyte. When considered together, these QC data suggest that matrix interferences may be biasing the data low. Because quantitation is performed using isotope dilution techniques, any losses of the native compound that may occur during any of the sample preparation, extraction, cleanup or determinative steps will be mirrored by a similar loss of the labeled standard, and as such can be accounted for and corrected. Therefore, the quantification of these target compounds is not affected by the low extracted internal standard analyte recovery.

(2) Recovery of the matrix spike was above the upper control limit. Laboratory spiked water resulted in satisfactory recovery of the compound of interest. When considered together, these QC data suggest that matrix interferences may be biasing the data high. For results that were not detected (ND), this potential bias has no impact.

(3) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(4) Due to the nature of the sample matrix (foamy and dark in color), a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

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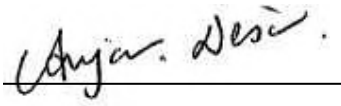
Maxxam Job #: B819794
Report Date: 2018/03/09

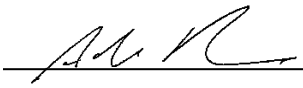
Earth Toxics Inc
Client Project #: JM10 CECIL

VALIDATION SIGNATURE PAGE

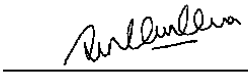
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anjan Desai, Senior Analyst, Liquid Chromatography



Adam Robinson, Supervisor, LC/MS/MS



Sin Chii Chia, Scientific Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C9-PFDA
	Mass labeled IS	STD 4	STD 4
	IS Area	28147	35314
		IS Peak Area	IS Peak Area
STD 1		25741	34399
STD 2		27981	35531
STD 3		29424	36955
STD 4		28147	35314
STD 5		29859	36873
STD 6		29422	35570
IB		29106	37296
ICV		28001	33648
ISC		26497	34805
5383466:BLANK		29859	39886
5383466:SPIKE		29307	37003
5383466:MTRX SPK		27642	37506
5383466:MTRX SPK:D1		25480	33966
IB		26939	38248
5383466:FZA783-01		25882	34758
5383466:FZA784-01		24676	33994
5383466:FZA785-01		27247	34955
5383466:FZA786-01		26008	35273
5383466:FZA788-01		25728	33925
5383466:FZA789-01		26172	36609
5383466:FZA790-01		28289	37505
5383466:FZA791-01		28121	36445
5383466:FZA792-01		28688	38079
CCV		26693	36124
5383466:FZH336-01		27884	37923
5383466:FZH338-01		26448	34863
5383466:FZH339-01		25164	30767
5383466:FZH340-01		28111	36130
5383466:FZH341-01		27813	36173
5383466:FZH342-01		27752	36036
5383466:FZH343-01		27164	36234
CCV		27441	35024

QC -50% TO +50%

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	28326
		IS Peak Area
STD 1		26183
STD 2		28851
STD 3		29289
STD 4		28326
STD 5		28590
STD 6		27901
IB		28656
ICV		27331
ISC		25738
5383466:BLANK		30305
5383466:SPIKE		29691
5383466:MTRX SPK		29366
5383466:MTRX SPK:D1		27872
IB		28486
5383466:FZA783-01		28289
5383466:FZA784-01		26622
5383466:FZA785-01		27990
5383466:FZA786-01		27719
5383466:FZA788-01		27328
5383466:FZA789-01		28684
5383466:FZA790-01		29109
5383466:FZA791-01		29148
5383466:FZA792-01		29407
CCV		28134
5383466:FZH336-01		29109
5383466:FZH338-01		27615
5383466:FZH339-01		25195
5383466:FZH340-01		27688
5383466:FZH341-01		29013
5383466:FZH342-01		28807
5383466:FZH343-01		28498
CCV		28351
CCV		28872
5383466:SPIKE:R		30309
CCV		29023

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C9-PFDA
	Mass labeled IS	STD 4	STD 4
	IS Area	28147	35314
		IS Peak Area	IS Peak Area
STD 1		25741	34399
STD 2		27981	35531
STD 3		29424	36955
STD 4		28147	35314
STD 5		29859	36873
STD 6		29422	35570
IB		29106	37296
ICV		28001	33648
ISC		26497	34805
CCV		27441	35024
5383485:FZH337-01		27267	36713
5383485:MTRX SPK		23400	32571
5383485:MTRX SPK:D1		26743	36341
IB		28585	37236
CCV		27560	36811

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	28326
		IS Peak Area
STD 1		26183
STD 2		28851
STD 3		29289
STD 4		28326
STD 5		28590
STD 6		27901
IB		28656
ICV		27331
ISC		25738
CCV		28351
5383485:FZH337-01		27490
5383485:MTRX SPK		24818
5383485:MTRX SPK:D1		26099
IB		27923
CCV		28308

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	32806	34491	41938	43455
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
STD 1		31547		40575	
STD 2		31482		42308	
STD 3		31926		40767	
STD 4		32806		41938	
STD 5		31504		39393	
STD 6		31071		38348	
IB		29753		39820	
ICV		32370		43532	
ISC		32150		41525	
5386102:BLANK		32505		40494	
5386102:SPIKE		32560		42455	
5386102:MTRX SPK		29803		37721	
5386102:MTRX SPK:D1		29149		36576	
IB		32514		42276	
5386102:FZA801-01		31765		42246	
5386102:FZA802-01		41475		49869	
5386102:FZA803-01		35436		45046	
5386102:FZA804-01		32197		40725	
5386102:FZA805-01		31057		40745	
5386102:FZA806-01		29544		38435	
5386102:FZH328-01		30996		38972	
5386102:FZH329-01		28126		38227	
5386102:FZH330-01		32627		40871	
5386102:FZH335-01		30264		38485	
CCV		33413		42329	
5386102:FZH344-01		30203		38903	
5386102:FZH345-01		31004		38786	
5386102:FZH346-01		30546		40067	
5386102:FZH347-01		30143		39310	
5386102:FZH348-01		29953		38951	
5386102:FZJ934-01		30902		40936	
CCV		32937		44706	
ISC			34491		43455
IB			33420		42585
5386102:FZJ934-01			32849		45154
CCV			35453		44102

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	34558
		IS Peak Area
STD 1		33632
STD 2		34091
STD 3		33520
STD 4		34558
STD 5		32642
STD 6		32000
IB		32617
ICV		35298
ISC		34350
5386102:BLANK		33885
5386102:SPIKE		33412
5386102:MTRX SPK		31685
5386102:MTRX SPK:D1		31716
IB		32431
5386102:FZA801-01		32722
5386102:FZA802-01		45409
5386102:FZA803-01		37497
5386102:FZA804-01		33884
5386102:FZA805-01		32429
5386102:FZA806-01		29837
5386102:FZH328-01		31315
5386102:FZH329-01		30665
5386102:FZH330-01		31697
5386102:FZH335-01		30947
CCV		35131
5386102:FZH344-01		31668
5386102:FZH345-01		33239
5386102:FZH346-01		32946
5386102:FZH347-01		32447
5386102:FZH348-01		31093
5386102:FZJ934-01		34319
CCV		35154

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C9-PFDA
	Mass labeled IS	STD 4	STD 4
	IS Area	23335	32614
		IS Peak Area	IS Peak Area
STD 1		25110	32852
STD 2		21438	30728
STD 3		22684	29920
STD 4		23335	32614
STD 5		23887	31422
STD 6		23411	31550
IB		26633	35487
ICV		25129	34664
ISC		29289	39482
5387452:BLANK		26906	38785
5387452:SPIKE		27268	36952
5387452:FZH318-01		26742	34724
5387452:FZH319-01		26537	34677
5387452:FZH320-01		25101	34257
5387452:FZH321-01		28194	36082
5387452:FZH322-01		27728	35724
5387452:FZH323-01		28728	37120
5387452:FZH331-01:20x		29962	39889
5387452:FZH331-01:2x		25213	33548
IB		29708	37977
5387452:FZH332-01:10x		27765	36538
5387452:FZH332-01		28515	37150
IB		29480	38322
CCV		27894	36656
5387452:FZH333-01:100x		28836	35379
5387452:FZH333-01:10x		25953	32989
IB		30398	38604
5387452:FZH334-01:10x		28283	36820
5387452:FZH334-01:D1:10x		28076	37847
IB		30795	38294
CCV		29863	38016

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	29446
		IS Peak Area
STD 1		32495
STD 2		28730
STD 3		28975
STD 4		29446
STD 5		29045
STD 6		28522
IB		30892
ICV		29357
ISC		32624
5387452:BLANK		30871
5387452:SPIKE		29667
5387452:FZH318-01		28259
5387452:FZH319-01		29003
5387452:FZH320-01		27332
5387452:FZH321-01		30905
5387452:FZH322-01		30847
5387452:FZH323-01		29979
5387452:FZH331-01:20x		32097
5387452:FZH331-01:2x		27805
IB		31828
5387452:FZH332-01:10x		29922
5387452:FZH332-01		31562
IB		31742
CCV		29985
5387452:FZH333-01:100x		30396
5387452:FZH333-01:10x		27522
IB		32095
5387452:FZH334-01:10x		29282
5387452:FZH334-01:D1:10x		28912
IB		31826
CCV		30756

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C9-PFDA
	Mass labeled IS	STD 4	STD 4
	IS Area	21649	28437
		IS Peak Area	IS Peak Area
STD 1		21986	30410
STD 2		20032	26332
STD 3		22277	30779
STD 4		21649	28437
STD 5		20825	26760
STD 6		21682	28751
IB		22297	29387
ICV		22492	30514
ISC		24034	32777
5389177:BLANK		22966	30416
5389177:SPIKE		23803	30268
5389177:SPIKE:D1		22196	28195
5389177:FZA807-01		22530	29719
5389177:FZA808-01		22142	29462
5389177:FZA809-01		21360	26718
5389177:FZH324-01:100x		22416	30180
5389177:FZH324-01:10x		21770	29401
IB		22580	27966
5389177:FZH325-01:100x		22961	30341
5389177:FZH325-01:10x		22336	29662
IB		22526	29513
5389177:FZJ938-01		20849	28242
5389177:FZJ941-01:10x		23138	29182
5389177:FZJ941-01		22287	28837
IB		23136	29942
CCV		22921	30245
5389177:FZJ953-01:50x		22621	30273
5389177:FZJ953-01:10x		22180	30261
IB		22158	29196
5389177:FZJ954-01:25x		22380	29980
5389177:FZJ954-01:5x		22050	29672
IB		23315	30723
CCV		23371	30394

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	22636
		IS Peak Area
STD 1		24326
STD 2		21526
STD 3		23563
STD 4		22636
STD 5		21784
STD 6		20928
IB		22354
ICV		21894
ISC		24330
5389177:BLANK		22583
5389177:SPIKE		22763
5389177:SPIKE:D1		21014
5389177:FZA807-01		22315
5389177:FZA808-01		22445
5389177:FZA809-01		20946
5389177:FZH324-01:100x		21763
5389177:FZH324-01:10x		21395
IB		22275
5389177:FZH325-01:100x		22516
5389177:FZH325-01:10x		22348
IB		21982
5389177:FZJ938-01		21039
5389177:FZJ941-01:10x		22106
5389177:FZJ941-01		21225
IB		22490
CCV		22437
5389177:FZJ953-01:50x		22335
5389177:FZJ953-01:10x		22112
IB		22057
5389177:FZJ954-01:25x		22837
5389177:FZJ954-01:5x		22412
IB		22271
CCV		22407

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C9-PFDA
	Mass labeled IS	STD 4	STD 4
	IS Area	24336	31660
		IS Peak Area	IS Peak Area
STD 1		23265	31397
STD 2		23676	30926
STD 3		23144	30938
STD 4		24336	31660
STD 5		23276	31734
STD 6		22811	29039
IB		20118	26942
ICV		24288	32215
ISC		23804	32182
5390275:BLANK		25220	33519
5390275:SPIKE		20746	27176
5390275:SPIKE:D1		23523	30943
5390275:FZH306-01:10x		25064	32842
5390275:FZH306-01		21947	29926
IB		20823	26431
5390275:FZH307-01		24072	31080
5390275:FZH308-01		23890	32295
5390275:FZH309-01		24803	32633
5390275:FZH310-01		25338	32529
5390275:FZH311-01		23258	30398
5390275:FZH312-01		22201	31529
5390275:FZH313-01		22997	30369
5390275:FZH314-01		24707	31608
CCV		24806	32186
5390275:FZH315-01		23762	32357
5390275:FZH316-01		24654	33518
5390275:FZH317-01		24651	33318
5390275:FZT419-01:10x		22782	30367
5390275:FZT419-01		22054	30454
IB		20118	26900
5390275:FZT420-01		24368	32418
5390275:FZT421-01		23233	30895
5390275:FZT422-01		24155	31821
5390275:FZT423-01		23594	31236
5390275:FZT424-01		23008	31282
CCV		24204	32789
5390275:FZT425-01		23542	31050
CCV		24535	32723

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	25154
		IS Peak Area
STD 1		24231
STD 2		24810
STD 3		24721
STD 4		25154
STD 5		24748
STD 6		23294
IB		21134
ICV		24598
ISC		24430
5390275:BLANK		25518
5390275:SPIKE		21375
5390275:SPIKE:D1		23768
5390275:FZH306-01:10x		25178
5390275:FZH306-01		22234
IB		21079
5390275:FZH307-01		24082
5390275:FZH308-01		25352
5390275:FZH309-01		24562
5390275:FZH310-01		25998
5390275:FZH311-01		22685
5390275:FZH312-01		23193
5390275:FZH313-01		24051
5390275:FZH314-01		24450
CCV		25073
5390275:FZH315-01		24471
5390275:FZH316-01		24664
5390275:FZH317-01		24614
5390275:FZT419-01:10x		23518
5390275:FZT419-01		22422
IB		20276
5390275:FZT420-01		24424
5390275:FZT421-01		24873
5390275:FZT422-01		24737
5390275:FZT423-01		23957
5390275:FZT424-01		24401
CCV		25106
5390275:FZT425-01		24107
CCV		25357

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	20587	25620	27112	34132
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
STD 1		21505		29170	
STD 2		22000		30116	
STD 3		23128		29118	
STD 4		20587		27112	
STD 5		21174		27233	
STD 6		20402		25923	
IB		21988		28703	
ICV		21926		28789	
ISC		23329		30557	
5391181:BLANK		20411		27053	
5391181:SPIKE		22104		28291	
5391181:MTRX SPK		21073		27955	
5391181:MTRX SPK:D1		20854		29597	
IB		21528		28472	
5391181:FZH326-01:10x		22457		29038	
5391181:FZH326-01		20728		27366	
IB		21638		28367	
5391181:FZH327-01:10x		22045		27838	
5391181:FZH327-01		20209		26670	
IB		22349		29226	
5391181:FZJ942-01		20430		27463	
5391181:FZJ955-01:10x		20471		28011	
5391181:FZJ955-01		21296		27262	
IB		21610		27875	
5391181:FZJ956-01:10x		22010		29748	
5391181:FZJ956-01		20711		27527	
IB		21027		29672	
CCV		20920		27348	
5391181:FZJ957-01:10x		23360		30860	
5391181:FZJ957-01		19908		25526	
IB		21481		29056	
5391181:FZJ958-01:10x		21223		27763	
5391181:FZJ958-01		20954		27121	
IB		22099		28898	
5391181:FZJ959-01:10x		22202		28947	
5391181:FZJ959-01		21395		28180	
IB		21579		29029	
5391181:FZJ960-01:50x		20509		27248	
5391181:FZJ960-01:10x		19942		27541	
IB		22089		28204	

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C6-PFHxA	13C6-PFHxA	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV	STD 4	ISC/CCV
	IS Area	20587	25620	27112	34132
		IS Peak Area	IS Peak Area	IS Peak Area	IS Peak Area
5391181:FZJ961-01:25x		21592		29050	
5391181:FZJ961-01:5x		21571		28978	
IB		21713		29059	
CCV		21506		27920	
5391181:GAC701-01		21315		28168	
5391181:GAC702-01		21312		24577	
5391181:GAC703-01		21636		28116	
5391181:GAC704-01		23213		27308	
CCV		22098		28298	
ISC			25620		34132
5391181:FZJ961-01:50x			23269		28510
CCV			22928		30394

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	21811
		IS Peak Area
STD 1		23093
STD 2		22945
STD 3		23705
STD 4		21811
STD 5		21467
STD 6		20755
IB		22116
ICV		22425
ISC		24055
5391181:BLANK		20838
5391181:SPIKE		21771
5391181:MTRX SPK		21742
5391181:MTRX SPK:D1		21611
IB		22013
5391181:FZH326-01:10x		21301
5391181:FZH326-01		21615
IB		22151
5391181:FZH327-01:10x		22245
5391181:FZH327-01		21211
IB		22048
5391181:FZJ942-01		20867
5391181:FZJ955-01:10x		21500
5391181:FZJ955-01		21939
IB		21985
5391181:FZJ956-01:10x		21980
5391181:FZJ956-01		21305
IB		21830
CCV		21203
5391181:FZJ957-01:10x		22345
5391181:FZJ957-01		20022
IB		21901
5391181:FZJ958-01:10x		20831
5391181:FZJ958-01		20700
IB		22222
5391181:FZJ959-01:10x		20504
5391181:FZJ959-01		20124
IB		21805
5391181:FZJ960-01:50x		21016
5391181:FZJ960-01:10x		21264
IB		21446
5391181:FZJ961-01:25x		21932
5391181:FZJ961-01:5x		21485

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	21811
		IS Peak Area
IB		21932
CCV		21334
5391181:GAC701-01		21072
5391181:GAC702-01		23041
5391181:GAC703-01		21744
5391181:GAC704-01		23089
CCV		21524

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA	13C9-PFDA
	Mass labeled IS	STD 4	ISC/CCV
	IS Area	22554	32416
		IS Peak Area	IS Peak Area
STD 1		25927	
STD 2		24969	
STD 3		25417	
STD 4		22554	
STD 5		22966	
STD 6		24246	
IB		26065	
ICV		25421	
ISC		26238	
5396699:BLANK		24303	
5396699:SPIKE		24971	
5396699:MTRX SPK		23199	
5396699:MTRX SPK:D1		23790	
5396699:FZA783-01		20364	
5396699:FZA784-01		21739	
5396699:FZA785-01		24437	
5396699:FZA786-01		23166	
5396699:FZA788-01		26438	
5396699:FZA789-01		26327	
5396699:FZA790-01		23035	
5396699:FZA791-01		26734	
5396699:FZA792-01		27684	
5396699:FZA802-01		25076	
CCV		24750	
5396699:FZH332-01		26857	
5396699:FZH334-01:10x		23286	
5396699:FZH336-01		26577	
5396699:FZH338-01		22356	
5396699:FZH339-01		22519	
5396699:FZH340-01		23244	
5396699:FZH341-01		27193	
5396699:FZH342-01		23878	
5396699:FZH343-01		24293	
5396699:FZJ934-01		26756	
CCV		24591	
CCV		24736	
ISC			32416
5396699:FZA802-01:R			28934
CCV			28392

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	25796
		IS Peak Area
STD 1		27678
STD 2		27671
STD 3		27255
STD 4		25796
STD 5		26388
STD 6		27400
IB		27800
ICV		28101
ISC		28624
5396699:BLANK		27095
5396699:SPIKE		28179
5396699:MTRX SPK		26043
5396699:MTRX SPK:D1		26287
5396699:FZA783-01		23363
5396699:FZA784-01		23860
5396699:FZA785-01		27890
5396699:FZA786-01		25662
5396699:FZA788-01		27993
5396699:FZA789-01		28087
5396699:FZA790-01		26220
5396699:FZA791-01		29188
5396699:FZA792-01		30529
5396699:FZA802-01		27559
CCV		26628
5396699:FZH332-01		29100
5396699:FZH334-01:10x		25375
5396699:FZH336-01		28742
5396699:FZH338-01		25425
5396699:FZH339-01		25622
5396699:FZH340-01		25495
5396699:FZH341-01		28358
5396699:FZH342-01		26611
5396699:FZH343-01		26091
5396699:FZJ934-01		28945
CCV		26549

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	22554
		IS Peak Area
STD 1		25927
STD 2		24969
STD 3		25417
STD 4		22554
STD 5		22966
STD 6		24246
IB		26065
ICV		25421
ISC		26238
CCV		24591
5396714:MTRX SPK		22210
5396714:MTRX SPK:D1		23334
5396714:FZH337-01		24522
CCV		24736

INJECTION INTERNAL STANDARD PEAK AREAS

Sample Name	Analyte	13C9-PFDA
	Mass labeled IS	STD 4
	IS Area	25796
		IS Peak Area
STD 1		27678
STD 2		27671
STD 3		27255
STD 4		25796
STD 5		26388
STD 6		27400
IB		27800
ICV		28101
ISC		28624
CCV		26549
5396714:MTRX SPK		24143
5396714:MTRX SPK:D1		24615
5396714:FZH337-01		25937
CCV		26293

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/06

Worksheet # (s): 5383466

Analysis: PFOS PFOA-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			
2	Analysis set-up meets method criteria	✓			
3	Tuning and correct calibration used - criteria meets method criteria	✓			
4	SQC/Control Charts updated, analysis in statistical/method control	✓			
5	Internal area counts checked (if applicable)	✓			
6	LCS, SRM are within acceptance criteria	✓			
7	Surrogate Recovery(s) is within acceptance criteria	✓	✓		
8	Method Blank meets acceptance criteria	✓			
9	Matrix Spike recovery(s) meets acceptance criteria	✓			
10	Duplicate precision meets acceptance criteria	✓			
11	QC is documented on the run logs	✓			
12	Runs checked for carryover	✓			
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			
15	Standards and reagents traceable to Certificates of Analysis	✓			
16	Samples above calibration range diluted and reanalyzed			✓	
17	Dilution factors (where justified) have been checked for correctness and entered	✓			
18	Analytical observations/anomalies documented in LIMS			✓	
19	Random calculation checked and in correct units	✓			
20	If corrective actions were applied they are documented, initialed & dated			✓	
21	Manual integration – before & after data with a reason included, initialed & dated			✓	
22	Transferred data is validated in LIMS for correctness	✓			
23	Data package assembled (where required)	✓			

Reviewed by: [illegible] Date: 2018/02/07

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: AD Date: 2018/02/08

Comments: All samples sent for rework for PFDoA, PF7rDA, PF7eDA due to spike failed to meet acceptance criteria. AD 2018/02/08

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # | Testcode: PEOSALCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)			✓
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded			✓
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: [illegible] | Date: 2018/02/07

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: | Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: | Date:

Comments:

WS# : 5383466

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Saturday, February 03, 2018

Assigned to : Shahbaz Ahmad

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

sediment gm gm ml SAA 2018/02/03

	Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	
5,5		MTRX SPK	0	PFOS FZA786-01		0.2	125	3	1X					2018/02/03	33.0
5,7		MTRX SPK	1	PFOS FZA786-01		0.2	125	3	1X					2018/02/03	34.1
5,3		SPIKE		PFOS		0	125	3	1X					2018/02/03	26.8
5,11		BLANK				0	125	3	1X					2018/02/03	28.8
5,9	B818419	*FZA783-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	31.0
5,11	B818419	*FZA784-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	31.9
5,13	B818419	*FZA785-01R		[redacted]		<0.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	30.3
5,15	B818419	*FZA786-01R		[redacted]		0.2	125	3	1X	6	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	26.8
5,17	B818419	*FZA788-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	31
5,19	B818419	*FZA789-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	31.3
6,1	B818419	*FZA790-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	25.8
6,3	B818419	*FZA791-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	25.8
6,5	B818419	*FZA792-01R		[redacted]		0	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/03	27.9
6,7	B819794	*FZH336-01R		FB-CEF-NFF-0122*		0	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	34.8
6,9	B819794	*FZH338-01R		CEF-372-08-0118		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	25.3
6,11	B819794	*FZH339-01R		CEF-372-08-0118-D		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	27.5
6,13	B819794	*FZH340-01R		CEF-003-28S-0118		0	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	28.3
6,15	B819794	*FZH341-01R		FB-CEF-016-01221*		0	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	28.5
6,17	B819794	*FZH342-01R		CEF-016-07S-0118		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	35.0
6,19	B819794	*FZH343-01R		CEF-016-17S-0118		0	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	31.8

SAA 2018/02/03

Remarks:

Samples extracted by: Shahbaz Ahmad SAA 2018/02/03

Instrumentation performed by: MR Date: 2018/02/06

Calculations performed by: AZ Date: 2018/02/07

Validated by: AD Date: 2018/02/08

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB818419	[redacted]			
GB819794	**SP8 Earth Toxics Inc**	**Rick Carr**	**Tier 5 (Enviro.) AECOM**	

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B818419	FZA783-01R	
B818419	FZA784-01R	
B818419	FZA785-01R	
B818419	FZA786-01R	
B818419	FZA788-01R	
B818419	FZA789-01R	
B818419	FZA790-01R	
B818419	FZA791-01R	
B818419	FZA792-01R	
B819794	FZH336-01R	
B819794	FZH338-01R	
B819794	FZH339-01R	
B819794	FZH340-01R	
B819794	FZH341-01R	
B819794	FZH342-01R	
B819794	FZH343-01R	

Standard	vol of MeOH	Amount Spiked	
S1	2825	25	SK-7390 1/2
S2	2800	50	
S3	2700	150	
S4	2813	37.5	I-5297
S5	2775	75	
S6			
ICV	2725	125	
IB	2788 2850	62.5	I-5299

Folder: 20180206

Worksheet Reagent Tracking Record Worksheet # 5383466

Surrogate/Spike solutions	√	Solution ID #	Conc.	Volume (µL) Blk-Spk Solid	Blk-Spk Liquid	MS Solid	MS Liquid	Samples Solid	Samples Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	F-5299 1/3	1ug/mL	75	21 62.5	75	21 62.5	NA	NA
PFC Internal Standard Solution	✓	SF 6765 2/4 [illegible]	50/125 ng/mL	200	100 150	200	100 150	200	100/150
PFC Injection IS	✓	SF 6716 3/4 [illegible]	400 ng/mL	20	20	20	20	20	20
ICV	✓	F 5299 1/3							

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHBJ545	2018/02/02	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol				DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRLRE	108-334	0.2% NH_4OH	✓	PRLRE	108-337
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/2/2
0.05M HCl							

*Spiked by: SAD

Spike Date: 2018/02/03

Spike Syringe/Pipette ID#: L132773F

Int. Std Syringe/Pipette ID#: K19865F

*Spiking Witnessed by: JPB

Final pH:

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor L132773F K19865F		SPE Cartridge			QC Balance ID	
		Filter			Thermometer ID &Temp	
Dispenser		Centrifuge				
		Sonicator				

Bottle Tracking ✓

Bottle# 18587

Cap# 18422

Systems plus Lot# 17-12-11

Comments:

* - SPIKING OF QC'S & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet Number: **5383466**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	B818419 FZA783	B818419 FZA784
6:2 Fluorotelomer sulfonate	ug/L	98.37626	92.01237	96.11331	0	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	ug/L	86.62930	92.03689	90.62876	0	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	ug/L	74.44754	97.35368	N/A*******	0	N/A*******	N/A*******
EtFOSAA	ug/L	87.30327	93.84580	!! 63.7510	0	0	0
N-ethylperfluorooctane sulfonamidoe	ug/L	91.90741	104.11467	N/A*******	0	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	ug/L	76.91467	100.23684	N/A*******	0	N/A*******	N/A*******
MeFOSAA	ug/L	90.03268	93.65003	!! 68.0806	0	0	0
N-methylperfluorooctanesulfonamidol	ug/L	95.67363	106.57021	N/A*******	0	N/A*******	N/A*******
Perfluorobutanoic acid	ug/L	98.21468	106.85716	N/A*******	0	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	ug/L	82.89653	95.79209	99.67851	0	0	0.00518978
Perfluorodecane Sulfonate	ug/L	92.45756	91.41692	N/A*******	0	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	ug/L	86.81164	94.10782	93.60885	0	0	0
Perfluoroheptane sulfonate	ug/L	90.98726	101.20481	N/A*******	0	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	ug/L	91.96093	92.78204	88.50372	0	0.01054153	0
Perfluorohexane Sulfonate (PFHxS)	ug/L	87.52991	95.60760	97.20073	0	0.00887340	0.00870697
Perfluorononanoic Acid (PFNA)	ug/L	93.43522	96.72312	92.66732	0	0	0
Perfluorooctane Sulfonamide (PFOSA)	ug/L	89.72318	92.62598	73.80000	0	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	ug/L	89.37200	95.20211	N/A*******	0	N/A*******	N/A*******
Perfluorotetradecanoic Acid	ug/L	95.89857	96.32574	!! 67.7402	0	0	0
Perfluorotridecanoic Acid	ug/L	96.29521	95.44624	!! 65.8448	0	0	0
Perfluoroundecanoic Acid (PFUnA)	ug/L	96.46350	102.22507	72.08254	0	0	0
Perfluorodecanoic Acid (PFDA)	ug/L	102.37893	95.12233	83.49513	0	0	0
Perfluorododecanoic Acid (PFDoA)	ug/L	90.78481	96.72123	!! 62.1820	0	0	0
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	95.93662	93.98174	97.19234	0	0	0
Perfluorooctane Sulfonate (PFOS)	ug/L	94.99755	108.74849	100.84658	0	0	0
13C2-6:2 Fluorotelomer sulfonate	ug/L	114.338062	127.448872	N/A*******	113.307957	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	ug/L	115.440507	121.518490	N/A*******	106.113909	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	ug/L	82.1416632	98.8016425	109.679857	51.9150278	76.4072488	85.4869829
13C4-Perfluorobutanoic acid	ug/L	77.5120182	83.1025398	N/A*******	105.324665	N/A*******	N/A*******
D3-MeFOSAA	ug/L	85.9779888	94.4857630	97.3966072	56.8873348	75.2789238	96.7656805
D5-EtFOSAA	ug/L	86.9803015	94.0731946	101.825486	51.6461405	76.6323194	94.6359966
N-methyl-d3-perfluorooctane sulfona	ug/L	69.3815036	80.5225348	N/A*******	49.9444954	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	ug/L	74.2509996	82.4447942	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	ug/L	84.9829149	104.124832	102.743556	84.5472739	85.8951135	107.176218
13C2-Perfluorododecanoic acid	ug/L	85.0687692	96.3858250	121.072838	!! 47.0485	80.7479578	98.6366498
13C2-Perfluorohexanoic acid	ug/L	91.9963409	97.1022640	90.1829971	106.199163	88.1415799	109.981383
13C2-Perfluoroundecanoic acid	ug/L	87.1043163	97.3023074	122.399275	55.3508344	82.7148159	91.0925685
13C4-Perfluoroheptanoic acid	ug/L	102.395216	103.278540	92.4433542	109.351244	86.9681260	114.092549
13C5-Perfluorononanoic acid	ug/L	100.042328	101.475792	97.4697765	103.507539	91.3425498	118.788865
13C4-Perfluorooctanoic acid	ug/L	96.7876585	104.962665	89.9736143	107.163039	89.9404074	111.145407
13C4-Perfluorooctanesulfonate	ug/L	100.788647	99.1059572	88.3395098	104.464942	95.2156371	122.062293
13C5-Perfluoropentanoic acid	ug/L	103.538890	100.012540	N/A*******	104.079397	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	ug/L	83.4616405	94.3043519	N/A*******	76.7569834	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	ug/L	103.719356	102.254100	89.3711957	103.625993	87.7003331	114.442701

2018/02/07

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B818419 FZA785	B818419 FZA786	B818419 FZA788	B818419 FZA789	B818419 FZA790	B818419 FZA791	B818419 FZA792
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
EtFOSAA	0	0	0	0.00631487	0	0.00686332	0
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
MeFOSAA	0	0	0	0.00425524	0	0.00472317	0
N-methylperfluorooctanesulfonamidoi	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	0	0.01193250	0	0	0	0	0
Perfluorodecane Sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	0	0.02478493	0	0	0	0	0
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	0.01013417	0.03463848	0	0	0	0	0
Perfluorohexane Sulfonate (PFHxS)	0.01292668	0.02680901	0	0	0	0	0
Perfluorononanoic Acid (PFNA)	0	0	0	0	0	0	0
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorotetradecanoic Acid	0	0	0	0	0	0	0
Perfluorotridecanoic Acid	0	0	0	0	0	0	0
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0	0	0	0
Perfluorodecanoic Acid (PFDA)	0	0	0	0	0	0	0
Perfluorododecanoic Acid (PFDoA)	0	0	0	0	0	0	0
Perfluoro-n-Octanoic Acid (PFOA)	0.01241350	0.13900978	0	0	0	0	0
Perfluorooctane Sulfonate (PFOS)	0	0.08384642	0	0	0	0	0
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	85.4142379	88.0451122	90.3541599	82.7616701	79.7376927	91.8342583	78.6502893
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
D3-MeFOSAA	88.7512946	96.5307079	79.8667176	84.4242428	80.6499269	85.7074761	81.0173050
D5-EtFOSAA	92.2812853	94.4723015	83.1968631	86.3076807	76.2579366	85.8390887	80.1326144
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	94.7633248	92.9341622	98.2133293	93.5583158	85.5432448	105.273795	101.554717
13C2-Perfluorododecanoic acid	85.7494157	89.7584173	86.2010403	90.0551321	84.4332738	97.0746443	89.3930862
13C2-Perfluorohexanoic acid	82.2543348	96.1208807	108.781731	109.242403	99.6946472	103.727305	89.7307559
13C2-Perfluoroundecanoic acid	96.3707223	91.5754004	96.1159327	91.3052098	83.6232551	102.356730	94.9027912
13C4-Perfluoroheptanoic acid	98.9300004	101.168675	116.185939	113.024733	107.022817	107.029242	92.1590805
13C5-Perfluorononanoic acid	101.219717	103.281922	111.933531	106.056714	103.080275	109.467849	93.0812003
13C4-Perfluorooctanoic acid	98.2843273	99.7939782	109.683986	113.264299	99.6416921	108.631589	101.487366
13C4-Perfluorooctanesulfonate	99.0594609	111.521580	109.581844	114.476256	102.068445	105.769386	103.628421
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	96.7596645	102.692574	111.368531	102.706610	100.921354	94.7315136	96.1584669

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

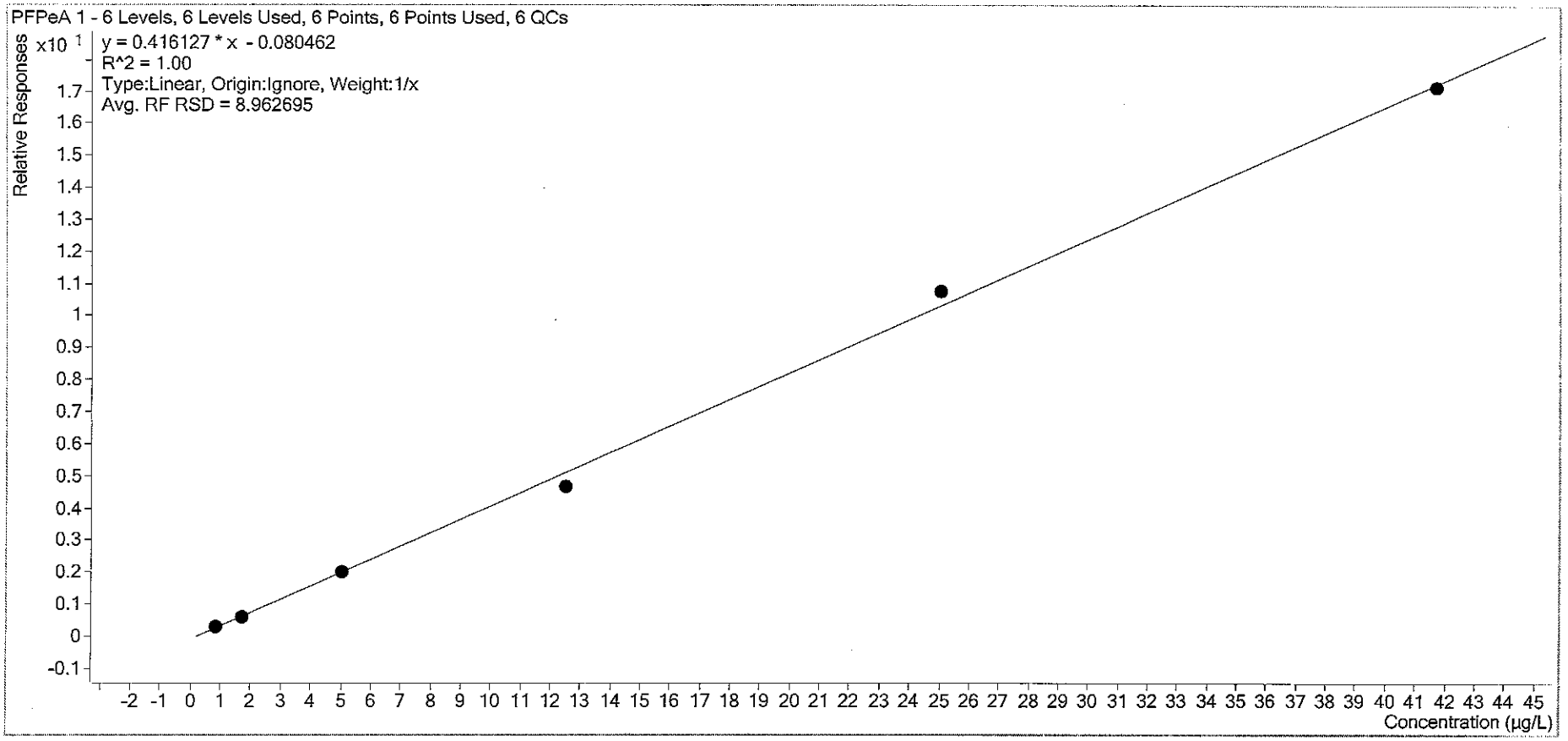
Parameter Name	B819794 FZH336	B819794 FZH338	B819794 FZH339	B819794 FZH340	B819794 FZH341	B819794 FZH342	B819794 FZH343
6:2 Fluorotelomer sulfonate	0	N/A*******	N/A*******	N/A*******	0	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	0	N/A*******	N/A*******	N/A*******	0	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	0	N/A*******	N/A*******	N/A*******	0	N/A*******	N/A*******
EtFOSAA	0	0	0	0	0	0	0
N-ethylperfluorooctane sulfonamidoe	0	N/A*******	N/A*******	N/A*******	0	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	0	N/A*******	N/A*******	N/A*******	0	N/A*******	N/A*******
MeFOSAA	0	0	0	0	0	0.00369223	0
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	N/A*******	0.00578757	0.00580984	0.00830906	N/A*******	0.00546567	0
Perfluorodecane Sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	N/A*******	0	0	0.03766183	N/A*******	0.01384674	0.03785991
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	N/A*******	0.01087472	0.01061936	0.03328450	N/A*******	0.02075096	0.02922022
Perfluorohexane Sulfonate (PFHxS)	N/A*******	0.01865163	0.02011585	0.03548554	N/A*******	0.01337441	0.01063257
Perfluorononanoic Acid (PFNA)	N/A*******	0	0	0.02114793	N/A*******	0	0.01371525
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorotetradecanoic Acid	N/A*******	0	0	0	N/A*******	0	0
Perfluorotridecanoic Acid	N/A*******	0	0	0	N/A*******	0	0
Perfluoroundecanoic Acid (PFUnA)	N/A*******	0	0	0	N/A*******	0	0
Perfluorodecanoic Acid (PFDA)	N/A*******	0	0	0	N/A*******	0	0
Perfluorododecanoic Acid (PFDoA)	N/A*******	0	0	0	N/A*******	0	0
Perfluoro-n-Octanoic Acid (PFOA)	N/A*******	0	0	0.11760894	N/A*******	0.00999132	0.03320958
Perfluorooctane Sulfonate (PFOS)	N/A*******	0	0.00729654	0.16776425	N/A*******	0.01122045	0.05863242
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	N/A*******	73.9561732	79.4066955	85.3303714	N/A*******	83.0714057	92.8280190
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
D3-MeFOSAA	N/A*******	85.3319462	95.1483448	80.3632760	N/A*******	88.2167770	93.7794006
D5-EtFOSAA	N/A*******	82.0348917	90.3125828	82.1893041	N/A*******	90.4363256	93.1031969
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	N/A*******	90.0390222	112.392065	96.7434826	N/A*******	100.549863	100.976896
13C2-Perfluorododecanoic acid	N/A*******	86.1004444	102.156897	91.3866200	N/A*******	89.0216764	95.7538358
13C2-Perfluorohexanoic acid	N/A*******	97.6177087	105.148131	106.286616	N/A*******	100.102876	108.780066
13C2-Perfluoroundecanoic acid	N/A*******	86.1893416	108.104630	85.0206170	N/A*******	91.9654141	98.7652956
13C4-Perfluoroheptanoic acid	N/A*******	100.249172	113.607486	108.784192	N/A*******	106.836593	112.639666
13C5-Perfluorononanoic acid	N/A*******	103.568549	106.424781	112.255674	N/A*******	103.583624	117.561769
13C4-Perfluorooctanoic acid	N/A*******	99.8442087	112.712030	103.491143	N/A*******	100.938387	116.551762
13C4-Perfluorooctanesulfonate	N/A*******	92.1919661	113.246941	98.0248112	N/A*******	108.324230	100.908838
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	N/A*******	100.398533	115.916245	111.416464	N/A*******	94.1928131	109.218905

Worksheet Number: **5383466**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	DL	RDL	MDL	IDL			
6:2 Fluorotelomer sulfonate	0.02	0.02	0.0066	0			
8:2 Fluorotelomer sulfonate	0.02	0.02	0.0066	0			
N-ethylperfluorooctane sulfonamide	0.02	0.02	0.01	0			
EtFOSAA	0.02	0.02	0.0033	0			
N-ethylperfluorooctane sulfonamidoe	0.02	0.02	0.0079	0			
N-methylperfluorooctane sulfonamide	0.02	0.02	0.013	0			
MeFOSAA	0.02	0.02	0.0029	0			
N-methylperfluorooctanesulfonamidol	0.02	0.02	0.012	0			
Perfluorobutanoic acid	0.02	0.02	0.0055	0			
Perfluorobutane Sulfonate (PFBS)	0.02	0.02	0.0054	0			
Perfluorodecane Sulfonate	0.02	0.02	0.006	0			
Perfluoroheptanoic Acid (PFHpA)	0.02	0.02	0.0074	0			
Perfluoroheptane sulfonate	0.02	0.02	0.008	0			
Perfluorohexanoic Acid (PFHxA)	0.02	0.02	0.0035	0			
Perfluorohexane Sulfonate (PFHxS)	0.02	0.02	0.0056	0			
Perfluorononanoic Acid (PFNA)	0.02	0.02	0.0087	0			
Perfluorooctane Sulfonamide (PFOSA)	0.02	0.02	0.0034	0			
Perfluoropentanoic Acid (PFPeA)	0.02	0.02	0.0075	0			
Perfluorotetradecanoic Acid	0.02	0.02	0.0027	0			
Perfluorotridecanoic Acid	0.02	0.02	0.0038	0			
Perfluoroundecanoic Acid (PFUnA)	0.02	0.02	0.0025	0			
Perfluorodecanoic Acid (PFDA)	0.02	0.02	0.0061	0			
Perfluorododecanoic Acid (PFDoA)	0.02	0.02	0.005	0			
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0.02	0.0033	0			
Perfluorooctane Sulfonate (PFOS)	0.02	0.02	0.006	0			
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



Manual calculation for SpK:

8.2275 = 0.416127 x - 0.080462

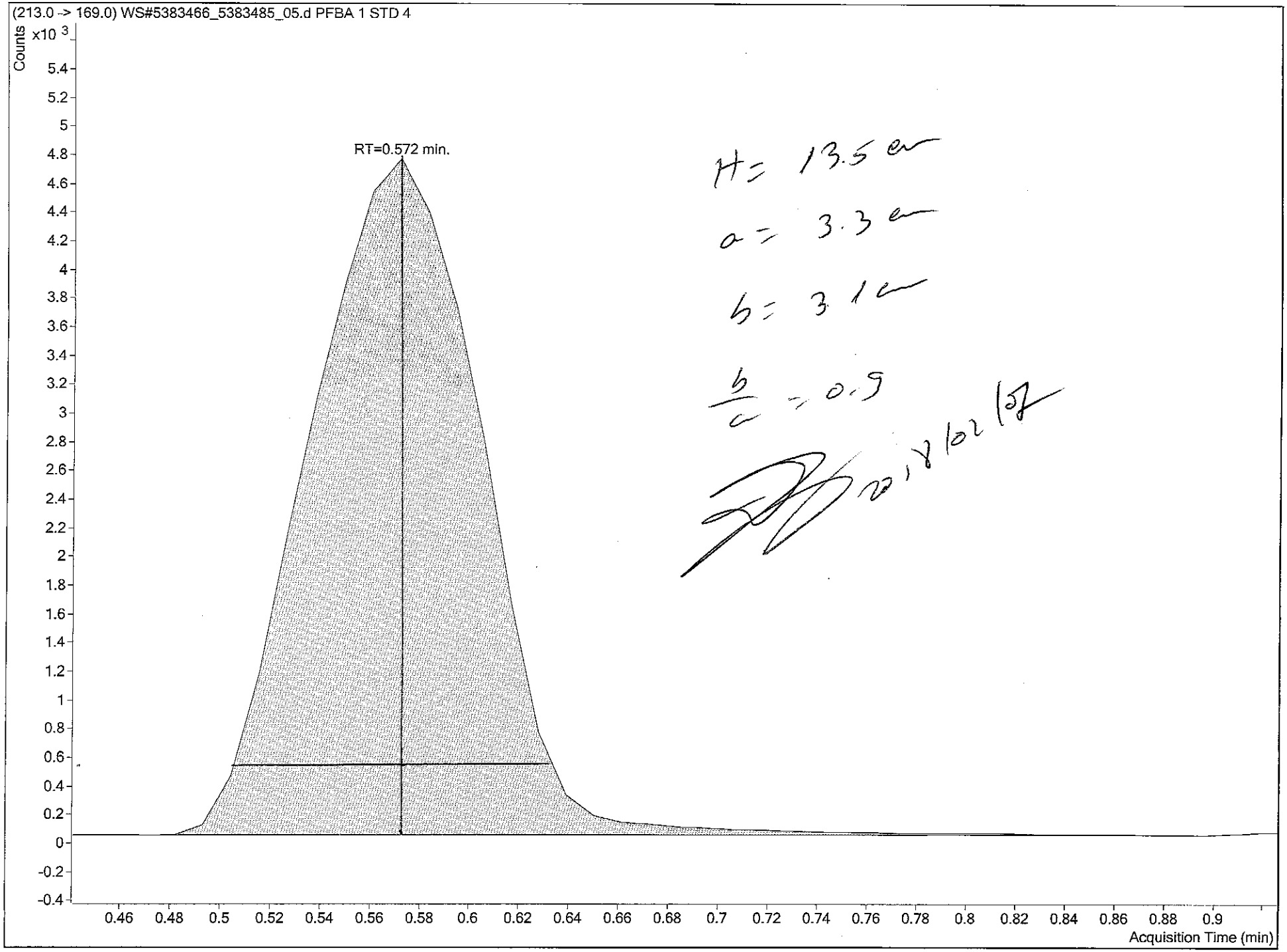
x = 19.964967 x 0.024

= 0.479159 µg/L

$\frac{0.479159}{0.5} \times 100 = 95.8\%$

AD
2018/02/08

18/02/07



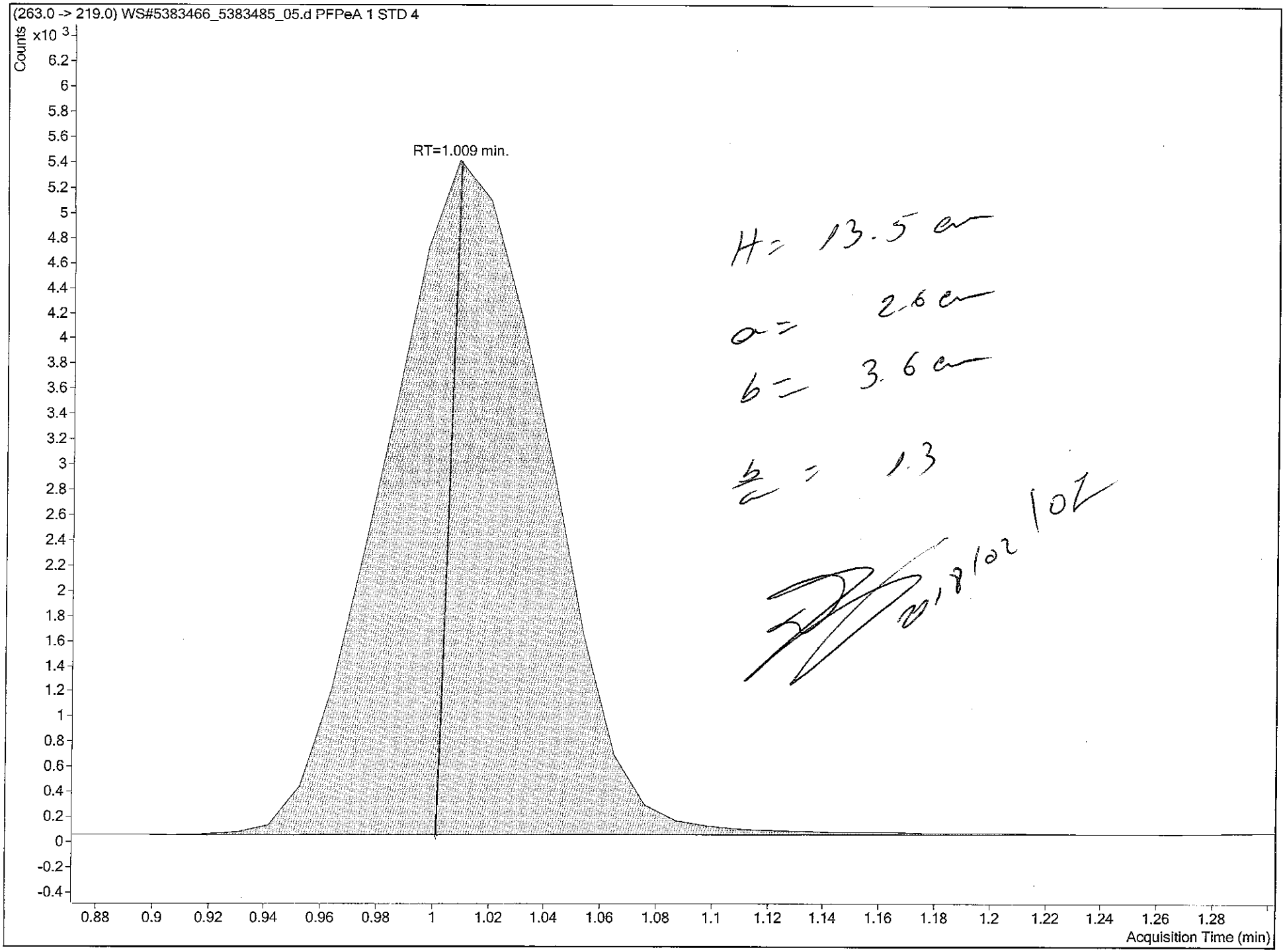
H = 13.5 cm

a = 3.3 cm

b = 3.1 cm

$\frac{b}{a} = 0.9$

20,8/02/17



H = 13.5 cm

a = 2.6 cm

b = 3.6 cm

$\frac{b}{a}$ = 1.3

10/8/02

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/03

Test Code: **PFOSALCM-W**

Worksheet Number: **5383466**

Sample Number	Parameter Code	Parameter	
FZA783-01	ETFOSAA	EtFOSAA	*
FZA784-01	MEFOSAA	MeFOSAA	*
FZA785-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FZA786-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
FZA788-01	PFHXA	Perfluorohexanoic Acid (PFHxA)	
FZA789-01	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
FZA790-01	PFNA	Perfluorononanoic Acid (PFNA)	
FZA791-01	PFTEDA	Perfluorotetradecanoic Acid	
FZA792-01	PFTRDA	Perfluorotridecanoic Acid	
FZH338-01	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
FZH339-01	PFDA	Perfluorodecanoic Acid (PFDA)	
FZH340-01	PFDOA	Perfluorododecanoic Acid (PFDoA)	
FZH342-01	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
FZH343-01	PFOS	Perfluorooctane Sulfonate (PFOS)	
FZH336-01	NONE	NONE	
FZH341-01			

2018/02/03

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5383466 Instrument Sequences

1.	5383466:MTRX SPK	MTRX SPK
2.	5383466:MTRX SPK:D1	MTRX SPK :D1
3.	5383466:SPIKE	SPIKE
4.	5383466:BLANK	BLANK
5.	5383466:FZA783-01	[redacted]
6.	5383466:FZA784-01	[redacted]
7.	5383466:FZA785-01	[redacted]
8.	5383466:FZA786-01	[redacted]
9.	5383466:FZA788-01	[redacted]
10.	5383466:FZA789-01	[redacted]
11.	5383466:FZA790-01	[redacted]
12.	5383466:FZA791-01	[redacted]
13.	5383466:FZA792-01	[redacted]
14.	5383466:FZH336-01	FB-CEF-NFF-012218-1
15.	5383466:FZH338-01	CEF-372-08-0118
16.	5383466:FZH339-01	CEF-372-08-0118-D
17.	5383466:FZH340-01	CEF-003-28S-0118
18.	5383466:FZH341-01	FB-CEF-016-012218-2
19.	5383466:FZH342-01	CEF-016-07S-0118
20.	5383466:FZH343-01	CEF-016-17S-0118

2018/02/03

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180206_Low.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180206\WS#5383466_5383485
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 265 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low.m	WS#5383466_5383485_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low.m	WS#5383466_5383485_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low.m	WS#5383466_5383485_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low.m	WS#5383466_5383485_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low.m	WS#5383466_5383485_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low.m	WS#5383466_5383485_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low.m	WS#5383466_5383485_07.d	Calibration	STD 6	As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P2-A8	PFC_Water_Low.m	WS#5383466_53834 85_08.d	Sample		As Method	-
9	ICV	P2-A9	PFC_Water_Low.m	WS#5383466_53834 85_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low.m	WS#5383466_53834 85_10.d	ConCal	STD 1	As Method	-
11	5383466:BLANK	P2-B1	PFC_Water_Low.m	WS#5383466_53834 85_11.d	Sample		As Method	-
12	5383466:SPIKE	P2-B2	PFC_Water_Low.m	WS#5383466_53834 85_12.d	QC	ICV	As Method	-
13	5383466:MTRX SPK	P2-B3	PFC_Water_Low.m	WS#5383466_53834 85_13.d	QC	ICV	As Method	-
14	5383466:MTRX SPK:D1	P2-B4	PFC_Water_Low.m	WS#5383466_53834 85_14.d	Sample		As Method	-
15	IB	P2-A8	PFC_Water_Low.m	WS#5383466_53834 85_15.d	Sample		As Method	-
16	5383466:FZA783-01	P2-B5	PFC_Water_Low.m	WS#5383466_53834 85_16.d	Sample		As Method	-
17	5383466:FZA784-01	P2-B6	PFC_Water_Low.m	WS#5383466_53834 85_17.d	Sample		As Method	-
18	5383466:FZA785-01	P2-B7	PFC_Water_Low.m	WS#5383466_53834 85_18.d	Sample		As Method	-
19	5383466:FZA786-01	P2-B8	PFC_Water_Low.m	WS#5383466_53834 85_19.d	Sample		As Method	-
20	5383466:FZA788-01	P2-B9	PFC_Water_Low.m	WS#5383466_53834 85_20.d	Sample		As Method	-
21	5383466:FZA789-01	P2-C1	PFC_Water_Low.m	WS#5383466_53834 85_21.d	Sample		As Method	-
22	5383466:FZA790-01	P2-C2	PFC_Water_Low.m	WS#5383466_53834 85_22.d	Sample		As Method	-
23	5383466:FZA791-01	P2-C3	PFC_Water_Low.m	WS#5383466_53834 85_23.d	Sample		As Method	-
24	5383466:FZA792-01	P2-C4	PFC_Water_Low.m	WS#5383466_53834 85_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low.m	WS#5383466_53834 85_25.d	ConCal	STD 4	As Method	-
26	5383466:FZH336-01	P2-C5	PFC_Water_Low.m	WS#5383466_53834 85_26.d	Sample		As Method	-
27	5383466:FZH338-01	P2-C6	PFC_Water_Low.m	WS#5383466_53834 85_27.d	Sample		As Method	-
28	5383466:FZH339-01	P2-C7	PFC_Water_Low.m	WS#5383466_53834 85_28.d	Sample		As Method	-
29	5383466:FZH340-01	P2-C8	PFC_Water_Low.m	WS#5383466_53834 85_29.d	Sample		As Method	-
30	5383466:FZH341-01	P2-C9	PFC_Water_Low.m	WS#5383466_53834 85_30.d	Sample		As Method	-

Maxxam Analytics

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Worklist Report

Agilent Technologies

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5383466:FZH342-01	P2-D1	PFC_Water_Low.m	WS#5383466_5383485_31.d	Sample		As Method	-
32	5383466:FZH343-01	P2-D2	PFC_Water_Low.m	WS#5383466_5383485_32.d	Sample		As Method	-
33	CCV	P2-A5	PFC_Water_Low.m	WS#5383466_5383485_33.d	ConCal	STD 4	As Method	-
34	5383485:FZH337-01	P2-D3	PFC_Water_Low.m	WS#5383466_5383485_34.d	Sample		As Method	-
35	5383485:MTRX SPK	P2-D4	PFC_Water_Low.m	WS#5383466_5383485_35.d	Sample		As Method	-
36	5383485:MTRX SPK:D1	P2-D5	PFC_Water_Low.m	WS#5383466_5383485_36.d	Sample		As Method	-
37	IB	P2-A8	PFC_Water_Low.m	WS#5383466_5383485_37.d	Sample		As Method	-
38	CCV	P2-A5	PFC_Water_Low.m	WS#5383466_5383485_38.d	ConCal	STD 4	As Method	-

Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180206_Low_FOSAA.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180206\WS#5383466_5383485_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 265 (FSRE18)
MP B2: Solution# 272 [FSRE18]

2018/02/06 MG

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P2-A9	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5383466:BLANK	P2-B1	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_11.d	Sample		As Method	-
12	5383466:SPIKE	P2-B2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_12.d	QC	ICV	As Method	-
13	5383466:MTRX SPK	P2-B3	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_13.d	QC	ICV	As Method	-
14	5383466:MTRX SPK:D1	P2-B4	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_14.d	Sample		As Method	-
15	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_15.d	Sample		As Method	-
16	5383466:FZA783-01	P2-B5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_16.d	Sample		As Method	-
17	5383466:FZA784-01	P2-B6	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_17.d	Sample		As Method	-
18	5383466:FZA785-01	P2-B7	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_18.d	Sample		As Method	-
19	5383466:FZA786-01	P2-B8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_19.d	Sample		As Method	-
20	5383466:FZA788-01	P2-B9	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_20.d	Sample		As Method	-
21	5383466:FZA789-01	P2-C1	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_21.d	Sample		As Method	-
22	5383466:FZA790-01	P2-C2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_22.d	Sample		As Method	-
23	5383466:FZA791-01	P2-C3	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_23.d	Sample		As Method	-
24	5383466:FZA792-01	P2-C4	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_25.d	ConCal	STD 4	As Method	-
26	5383466:FZH336-01	P2-C5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_26.d	Sample		As Method	-
27	5383466:FZH338-01	P2-C6	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_27.d	Sample		As Method	-
28	5383466:FZH339-01	P2-C7	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_28.d	Sample		As Method	-
29	5383466:FZH340-01	P2-C8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_29.d	Sample		As Method	-
30	5383466:FZH341-01	P2-C9	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_30.d	Sample		As Method	-
31	5383466:FZH342-01	P2-D1	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_31.d	Sample		As Method	-
32	5383466:FZH343-01	P2-D2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_32.d	Sample		As Method	-
33	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_33.d	ConCal	STD 4	As Method	-
34	5383485:FZH337-01	P2-D3	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_34.d	Sample		As Method	-

D:\MassHunter\Worklists\PFCs\PFC_180206_Low_FOSAA.wkl

Report generation date: 06-Feb-2018 12:51:12 PM

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
35	5383485:MTRX SPK	P2-D4	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_35.d	Sample		As Method	-
36	5383485:MTRX SPK:D1	P2-D5	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_36.d	Sample		As Method	-
37	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_37.d	Sample		As Method	-
38	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_38.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/06 6:11 PM	PFC_Water_Low.m	WS#5383466_5383485_02.d	P2-A2
STD 2	-	2018/02/06 6:16 PM	PFC_Water_Low.m	WS#5383466_5383485_03.d	P2-A3
STD 3	-	2018/02/06 6:21 PM	PFC_Water_Low.m	WS#5383466_5383485_04.d	P2-A4
STD 4	-	2018/02/06 6:26 PM	PFC_Water_Low.m	WS#5383466_5383485_05.d	P2-A5
STD 5	-	2018/02/06 6:31 PM	PFC_Water_Low.m	WS#5383466_5383485_06.d	P2-A6
STD 6	-	2018/02/06 6:36 PM	PFC_Water_Low.m	WS#5383466_5383485_07.d	P2-A7
IB	-	2018/02/06 6:41 PM	PFC_Water_Low.m	WS#5383466_5383485_08.d	P2-A8
ICV	-	2018/02/06 6:46 PM	PFC_Water_Low.m	WS#5383466_5383485_09.d	P2-A9
ISC	-	2018/02/06 6:51 PM	PFC_Water_Low.m	WS#5383466_5383485_10.d	P2-A2
5383466:BLANK	-	2018/02/06 6:56 PM	PFC_Water_Low.m	WS#5383466_5383485_11.d	P2-B1
5383466:SPIKE	-	2018/02/06 7:01 PM	PFC_Water_Low.m	WS#5383466_5383485_12.d	P2-B2
5383466:MTRX SPK	FZA786	2018/02/06 7:06 PM	PFC_Water_Low.m	WS#5383466_5383485_13.d	P2-B3
5383466:MTRX SPK:D1	FZA786	2018/02/06 7:11 PM	PFC_Water_Low.m	WS#5383466_5383485_14.d	P2-B4
IB	-	2018/02/06 7:16 PM	PFC_Water_Low.m	WS#5383466_5383485_15.d	P2-A8
5383466:FZA783-01	-	2018/02/06 7:21 PM	PFC_Water_Low.m	WS#5383466_5383485_16.d	P2-B5
5383466:FZA784-01	-	2018/02/06 7:25 PM	PFC_Water_Low.m	WS#5383466_5383485_17.d	P2-B6
5383466:FZA785-01	-	2018/02/06 7:30 PM	PFC_Water_Low.m	WS#5383466_5383485_18.d	P2-B7
5383466:FZA786-01	-	2018/02/06 7:35 PM	PFC_Water_Low.m	WS#5383466_5383485_19.d	P2-B8
5383466:FZA788-01	-	2018/02/06 7:40 PM	PFC_Water_Low.m	WS#5383466_5383485_20.d	P2-B9
5383466:FZA789-01	-	2018/02/06 7:45 PM	PFC_Water_Low.m	WS#5383466_5383485_21.d	P2-C1
5383466:FZA790-01	-	2018/02/06 7:50 PM	PFC_Water_Low.m	WS#5383466_5383485_22.d	P2-C2
5383466:FZA791-01	-	2018/02/06 7:55 PM	PFC_Water_Low.m	WS#5383466_5383485_23.d	P2-C3
5383466:FZA792-01	-	2018/02/06 8:00 PM	PFC_Water_Low.m	WS#5383466_5383485_24.d	P2-C4
CCV	-	2018/02/06 8:05 PM	PFC_Water_Low.m	WS#5383466_5383485_25.d	P2-A5
5383466:FZH336-01	-	2018/02/06 8:10 PM	PFC_Water_Low.m	WS#5383466_5383485_26.d	P2-C5
5383466:FZH338-01	-	2018/02/06 8:15 PM	PFC_Water_Low.m	WS#5383466_5383485_27.d	P2-C6
5383466:FZH339-01	-	2018/02/06 8:20 PM	PFC_Water_Low.m	WS#5383466_5383485_28.d	P2-C7
5383466:FZH340-01	-	2018/02/06 8:25 PM	PFC_Water_Low.m	WS#5383466_5383485_29.d	P2-C8
5383466:FZH341-01	-	2018/02/06 8:30 PM	PFC_Water_Low.m	WS#5383466_5383485_30.d	P2-C9
5383466:FZH342-01	-	2018/02/06 8:34 PM	PFC_Water_Low.m	WS#5383466_5383485_31.d	P2-D1
5383466:FZH343-01	-	2018/02/06 8:39 PM	PFC_Water_Low.m	WS#5383466_5383485_32.d	P2-D2
CCV	-	2018/02/06 8:44 PM	PFC_Water_Low.m	WS#5383466_5383485_33.d	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/06 12:28 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_02.d	P2-A2
STD 2	-	2018/02/06 12:30 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_03.d	P2-A3
STD 3	-	2018/02/06 12:32 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_04.d	P2-A4
STD 4	-	2018/02/06 12:35 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_05.d	P2-A5
STD 5	-	2018/02/06 12:37 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_06.d	P2-A6
STD 6	-	2018/02/06 12:40 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_07.d	P2-A7
IB	-	2018/02/06 12:42 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_08.d	P2-A8
ICV	-	2018/02/06 12:44 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_09.d	P2-A9
ISC	-	2018/02/06 12:47 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_10.d	P2-A2
5383466:BLANK	-	2018/02/06 12:49 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_11.d	P2-B1
5383466:SPIKE	-	2018/02/06 12:52 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_12.d	P2-B2
5383466:MTRX SPK	FZA786	2018/02/06 12:54 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_13.d	P2-B3
5383466:MTRX SPK:D1	FZA786	2018/02/06 12:57 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_14.d	P2-B4
IB	-	2018/02/06 12:59 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_15.d	P2-A8
5383466:FZA783-01	-	2018/02/06 1:01 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_16.d	P2-B5
5383466:FZA784-01	-	2018/02/06 1:04 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_17.d	P2-B6
5383466:FZA785-01	-	2018/02/06 1:06 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_18.d	P2-B7
5383466:FZA786-01	-	2018/02/06 1:09 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_19.d	P2-B8
5383466:FZA788-01	-	2018/02/06 1:11 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_20.d	P2-B9
5383466:FZA789-01	-	2018/02/06 1:13 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_21.d	P2-C1
5383466:FZA790-01	-	2018/02/06 1:16 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_22.d	P2-C2
5383466:FZA791-01	-	2018/02/06 1:18 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_23.d	P2-C3
5383466:FZA792-01	-	2018/02/06 1:21 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_24.d	P2-C4
CCV	-	2018/02/06 1:23 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_25.d	P2-A5
5383466:FZH336-01	-	2018/02/06 1:25 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_26.d	P2-C5
5383466:FZH338-01	-	2018/02/06 1:28 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_27.d	P2-C6
5383466:FZH339-01	-	2018/02/06 1:30 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_28.d	P2-C7
5383466:FZH340-01	-	2018/02/06 1:33 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_29.d	P2-C8
5383466:FZH341-01	-	2018/02/06 1:35 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_30.d	P2-C9
5383466:FZH342-01	-	2018/02/06 1:38 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_31.d	P2-D1
5383466:FZH343-01	-	2018/02/06 1:40 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_32.d	P2-D2
CCV	-	2018/02/06 1:42 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_33.d	P2-A5
CCV	-	2018/02/06 2:52 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_39.d	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
5383466:SPIKE:R	Not used	2018/02/06 2:55 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_40.d	P2-B2
CCV	-	2018/02/06 2:57 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_41.d	P2-A5

By Compound Report

Agilent Technologies

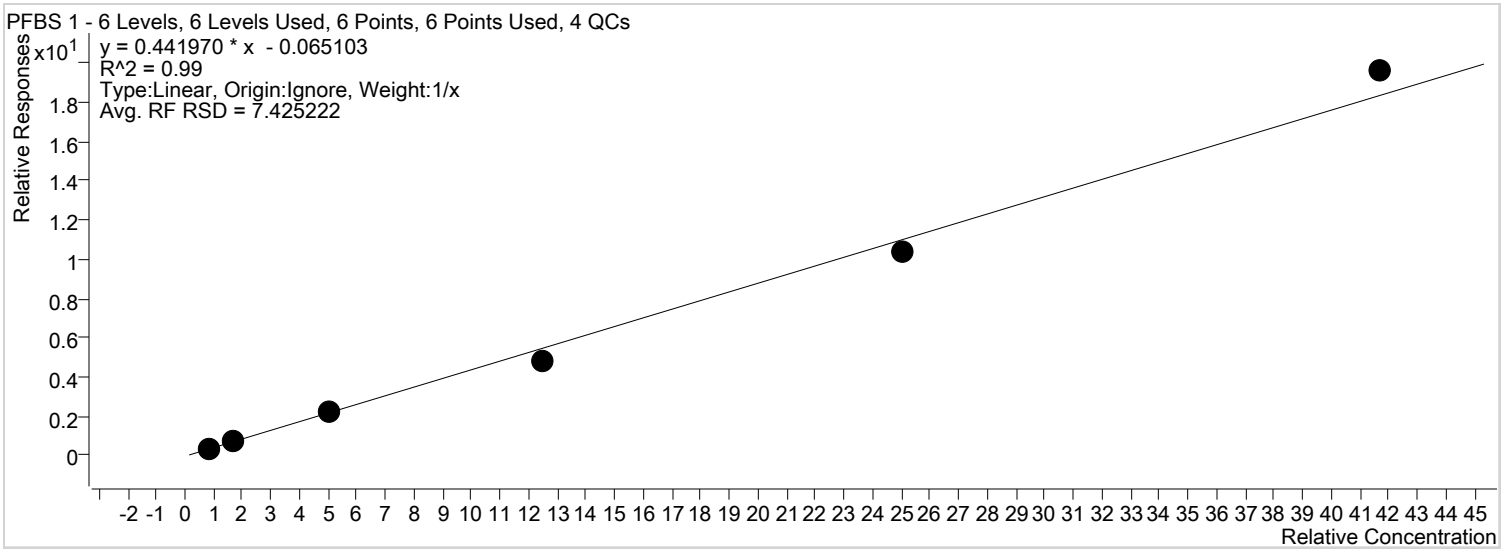
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFBS 1

Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.89	560	0.3948	57	107.1
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.77	1174	0.4229	207	104.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.00	3442	0.4289	103	100.0
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	10.92	7910	0.3810	165	87.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	23.59	18029	0.4145	120	94.4
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	44.55	30068	0.4707	187	106.8

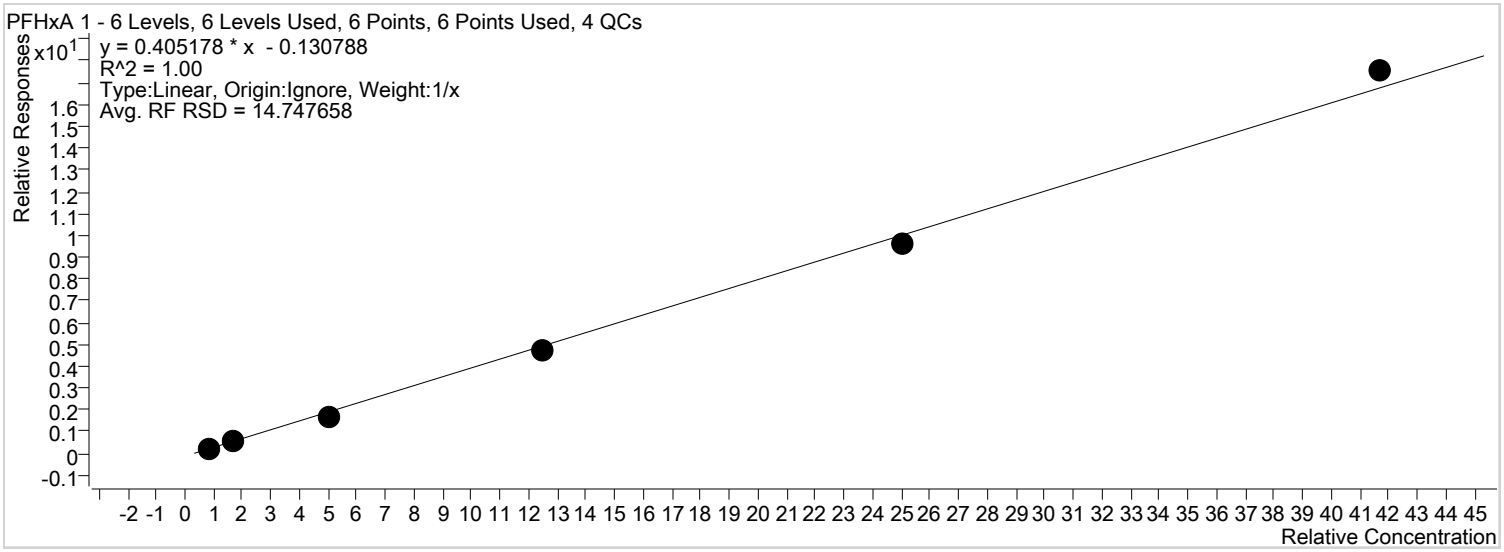
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFHxA 1

Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.86	1612	0.2639	65	104.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.86	4054	0.3665	319	109.5
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.56	11982	0.3431	1042	91.1
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.87	29220	0.3744	3543	95.0
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	23.94	67616	0.3827	2597	95.7
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.64	107039	0.4209	8065	104.6

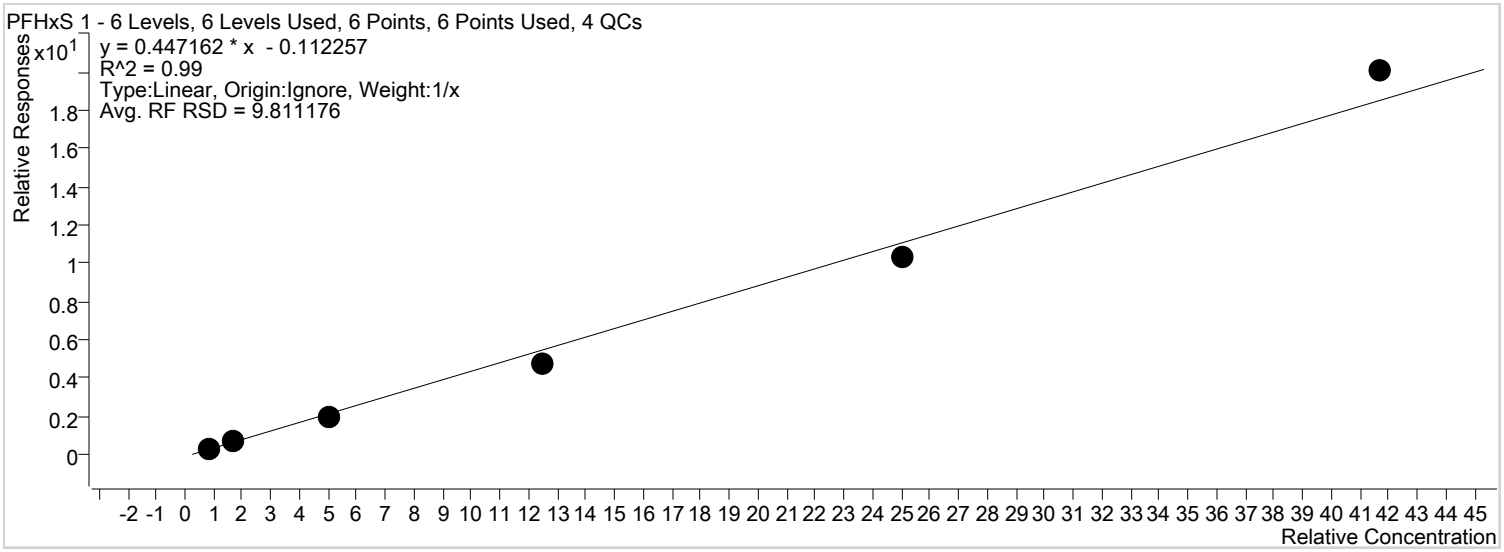
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFHxS 1

Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.94	524	0.3694	114	112.9
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.78	1115	0.4016	66	104.6
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.73	3214	0.4005	429	94.6
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	10.80	7832	0.3772	361	86.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	23.32	17949	0.4126	1264	93.3
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	45.17	30772	0.4817	2986	108.3

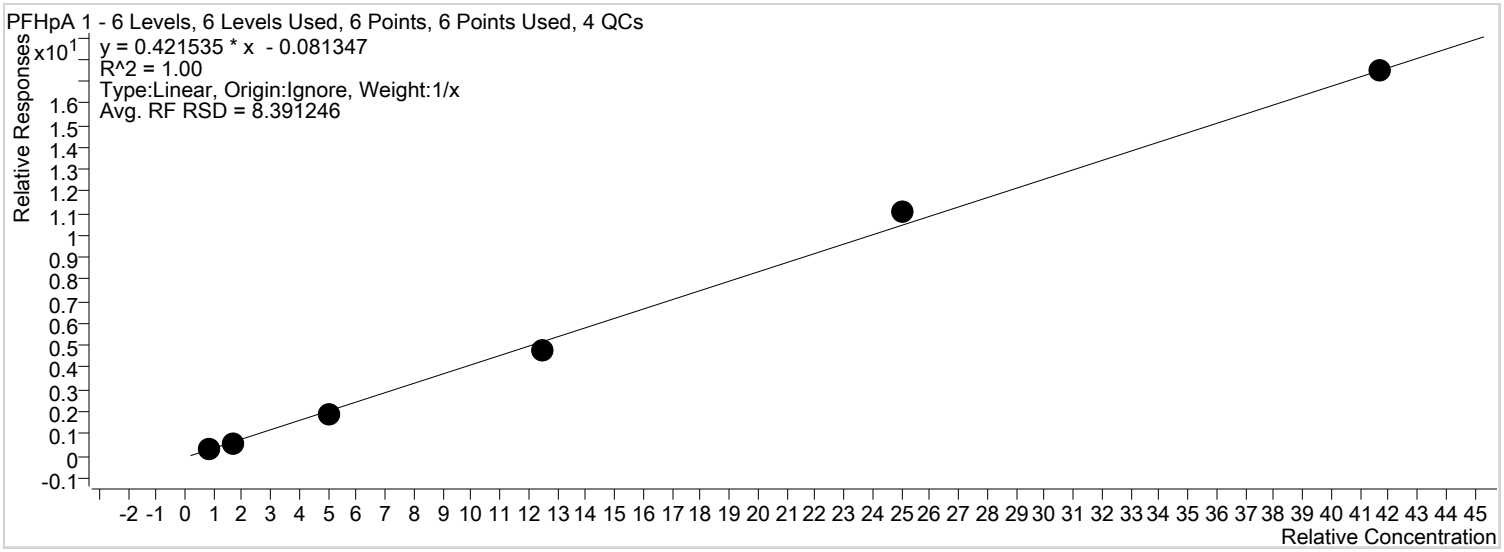
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFHpA 1

Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.96	2769	0.3900	28	115.8
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.63	5056	0.3562	60	95.9
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.55	15761	0.3676	190	91.1
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.43	38005	0.3789	352	91.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	26.49	87578	0.4433	1189	105.9
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	41.67	144581	0.4193	1765	99.9

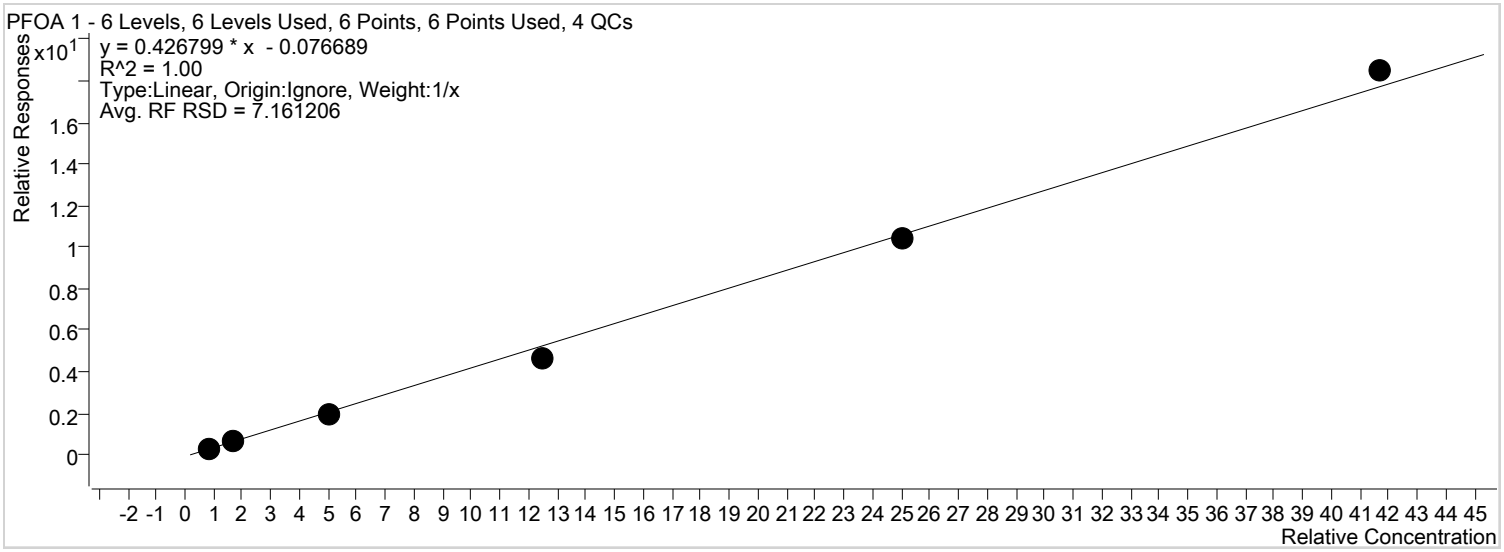
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFOA 1

Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.89	2835	0.3675	27	107.8
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.77	5942	0.4001	55	104.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.82	17315	0.3960	251	96.4
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.06	42523	0.3716	363	88.5
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	24.69	94546	0.4184	1057	98.7
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.49	154971	0.4433	1698	104.3

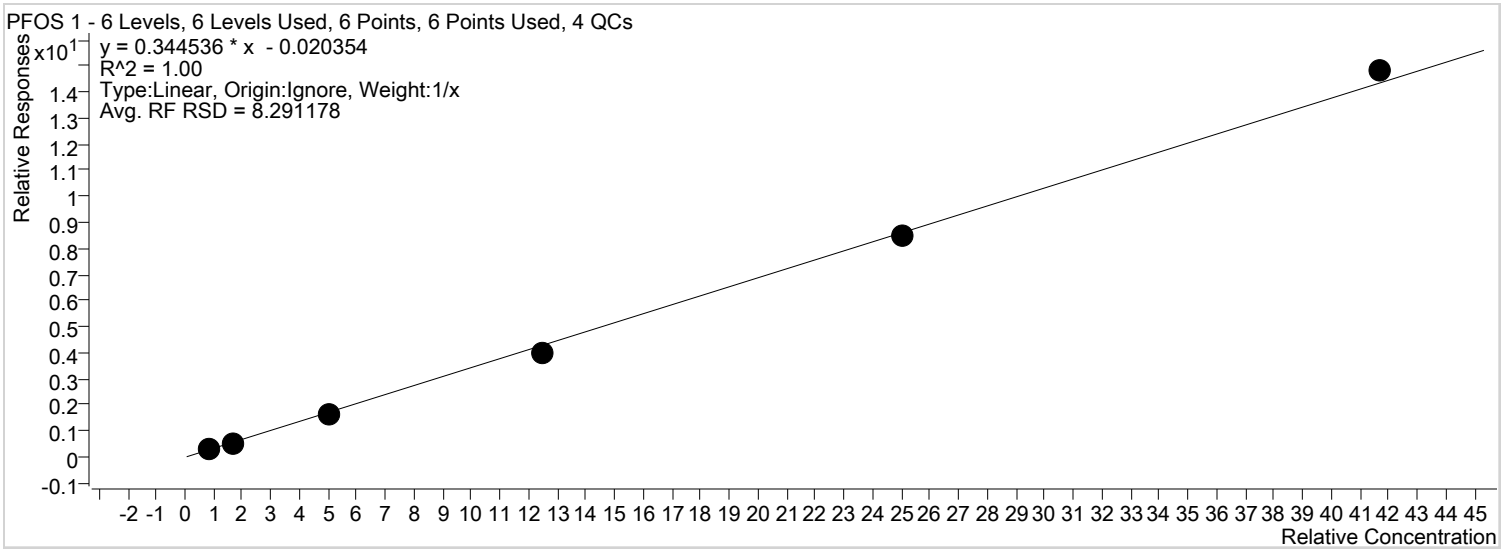
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFOS 1

Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.97	592	0.3794	90	117.2
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.54	961	0.2993	162	90.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.87	3310	0.3318	213	97.5
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.63	7727	0.3190	147	93.1
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	24.66	17307	0.3390	292	98.6
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.06	29880	0.3553	242	103.3

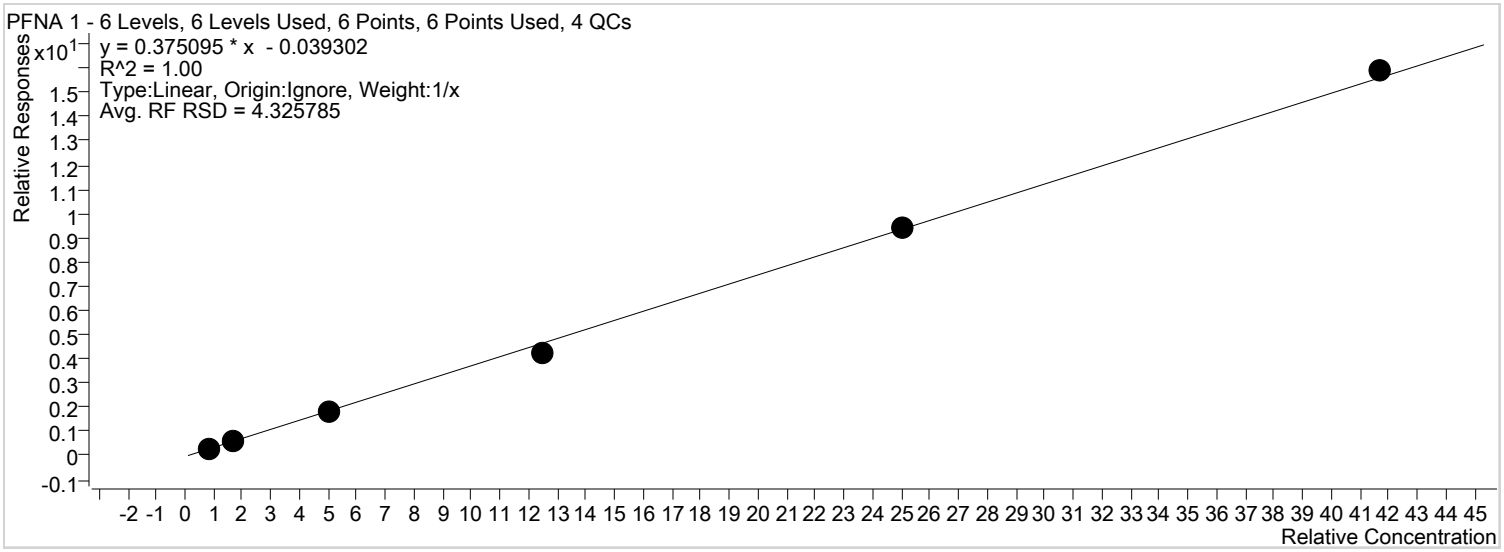
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFNA 1

Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.88	2562	0.3499	48	105.9
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.71	5291	0.3533	151	100.4
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.95	16213	0.3636	293	99.0
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.49	37466	0.3417	727	91.9
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.23	84183	0.3770	1433	100.9
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	42.47	137494	0.3811	1911	101.9

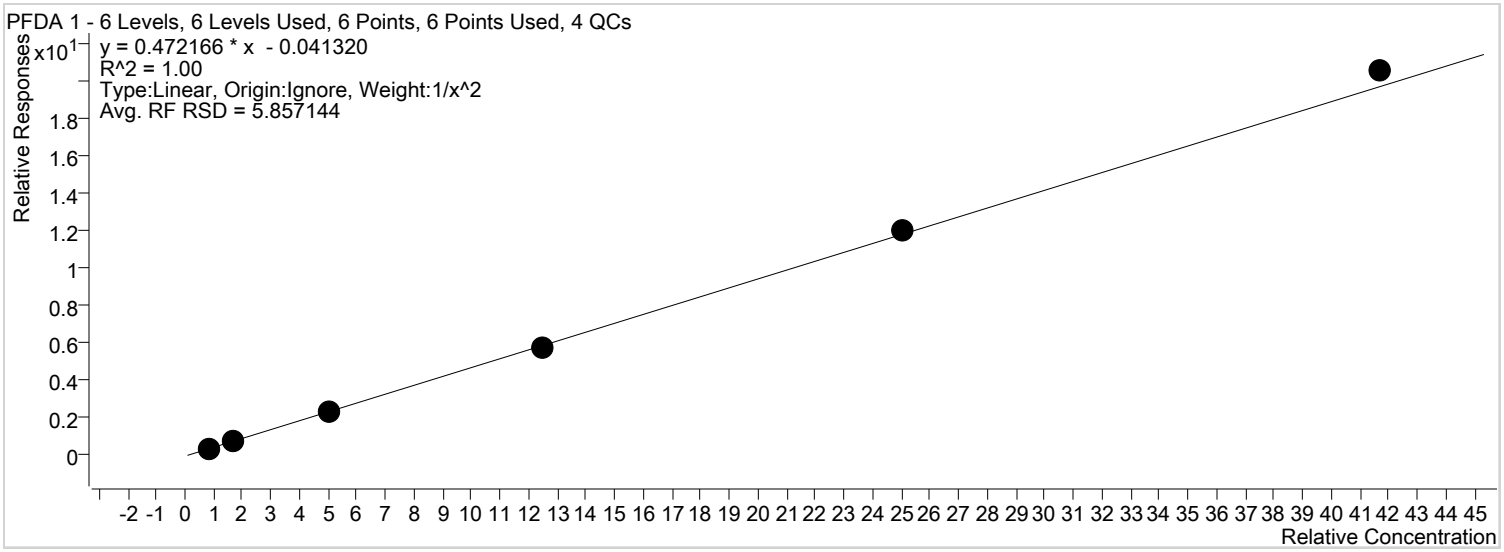
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFDA 1

Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.86	2686	0.4377	29	103.3
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.60	5351	0.4187	62	93.8
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.92	16796	0.4562	188	98.4
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	12.26	39281	0.4599	409	98.1
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.54	87430	0.4806	700	102.1
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.49	147759	0.4915	1476	104.3

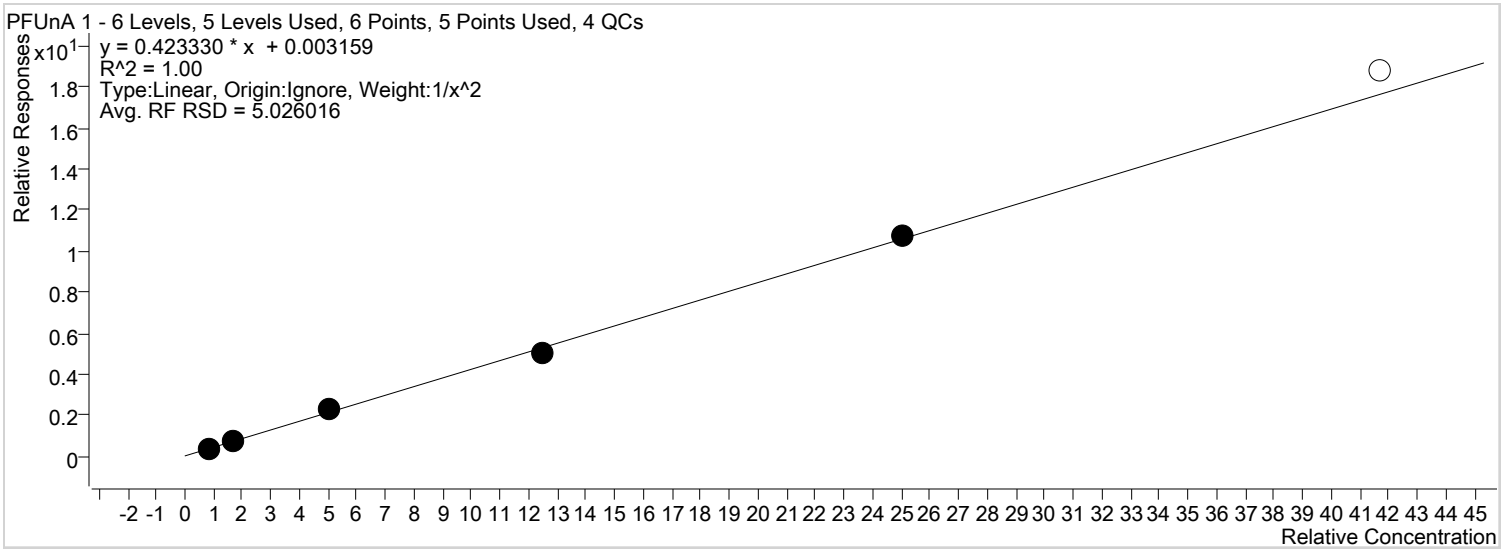
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFUnA 1

Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.85	3117	0.4360	20	102.1
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.60	5994	0.3998	71	94.0
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.32	19129	0.4508	113	106.3
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.98	42745	0.4059	217	95.8
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.43	96084	0.4308	236	101.7
STD 6	STD 6		2018/02/06 6:36:29 PM	41.70	44.42	162248	0.4511	303	106.5

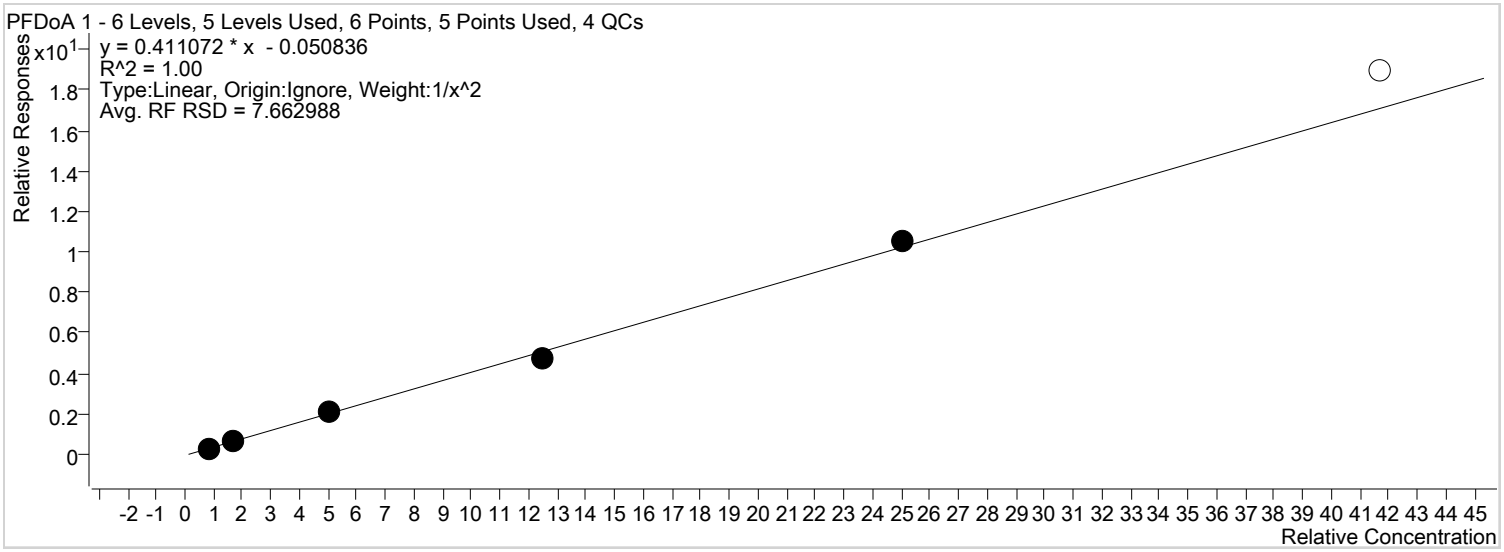
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFDoA 1

Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.82	3531	0.3457	89	99.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.73	7517	0.3894	128	102.0
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.11	23281	0.4097	657	102.1
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.67	54842	0.3799	1503	93.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.87	122186	0.4233	2081	103.5
STD 6	STD 6		2018/02/06 6:36:29 PM	41.70	46.23	206576	0.4545	3325	110.9

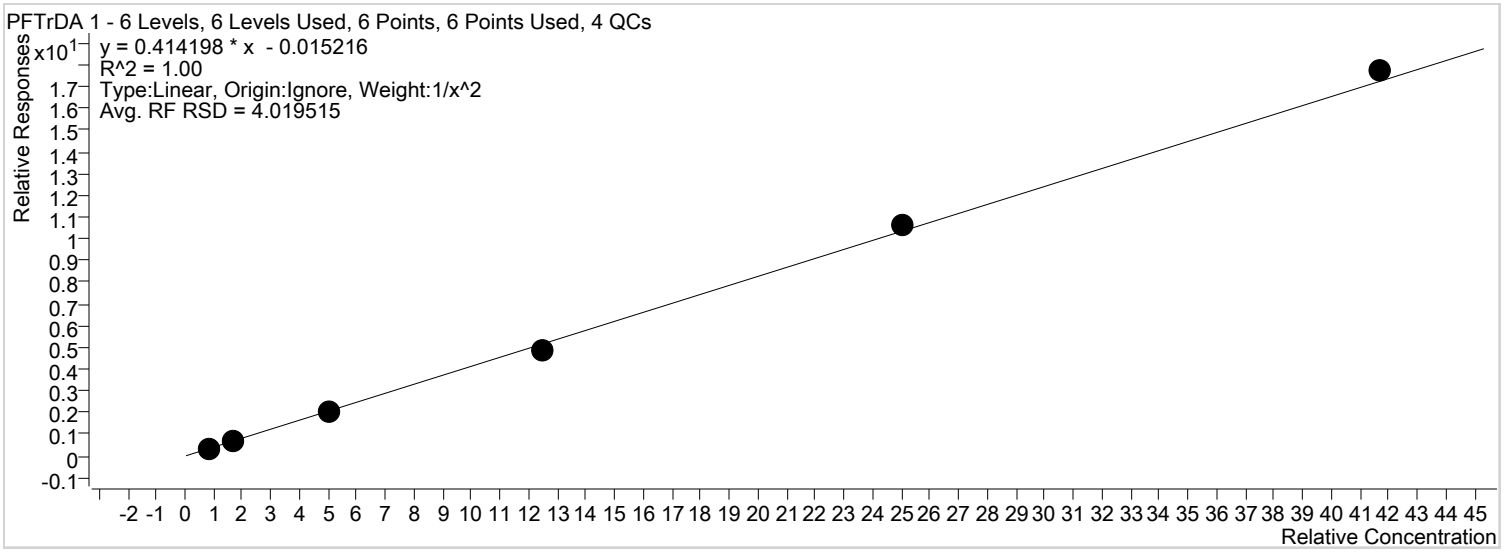
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFTrDA 1

Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.84	4399	0.4002	42	101.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.67	8288	0.3973	53	98.1
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.05	27306	0.4149	174	100.9
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.72	61125	0.3871	125	93.8
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.85	138442	0.4277	142	103.4
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	42.87	231782	0.4255	161	102.8

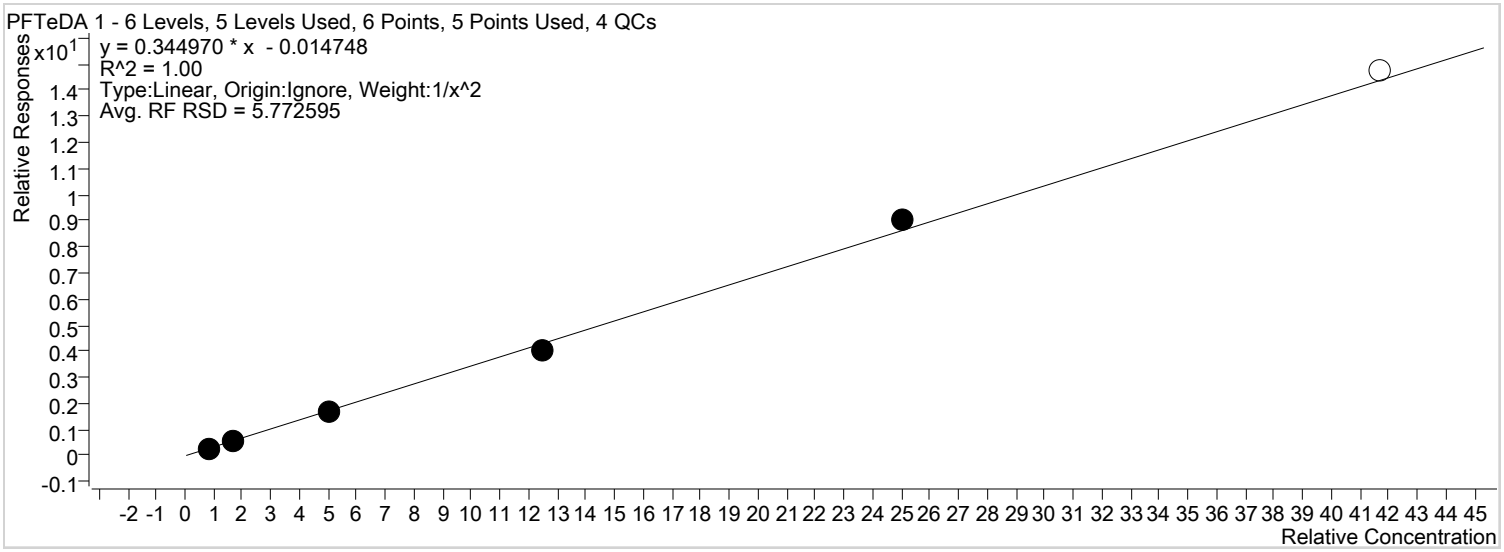
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics.batch.bin

Last Calib Update 2018/02/08 1:24:10 PM

Instrument: LCMS04

Analyte: PFTeDA 1

Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.81	3520	0.3202	18	98.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.79	7406	0.3550	45	105.4
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.89	22027	0.3347	86	97.9
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.67	50660	0.3209	113	93.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	26.34	117482	0.3629	124	105.4
STD 6	STD 6		2018/02/06 6:36:29 PM	41.70	42.78	192586	0.3535	126	102.6

By Compound Report

Agilent Technologies

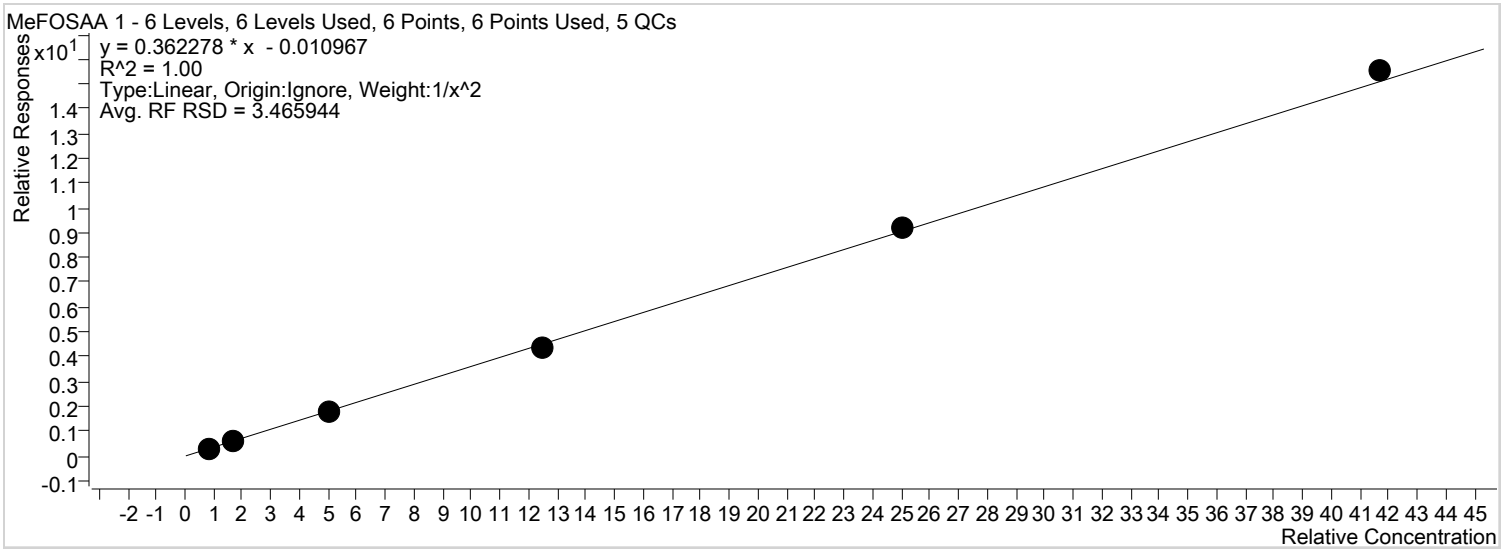
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/08 3:32:49 PM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 12:28:01 PM	0.83	0.84	581	0.3546	187	101.5
STD 2	STD 2	x	2018/02/06 12:30:26 PM	1.70	1.64	1088	0.3437	497	96.7
STD 3	STD 3	x	2018/02/06 12:32:51 PM	5.00	5.09	3380	0.3664	578	101.7
STD 4	STD 4	x	2018/02/06 12:35:16 PM	12.50	11.93	7647	0.3448	1165	95.4
STD 5	STD 5	x	2018/02/06 12:37:42 PM	25.00	25.44	17314	0.3682	913	101.8
STD 6	STD 6	x	2018/02/06 12:40:07 PM	41.70	42.90	27554	0.3725	1045	102.9

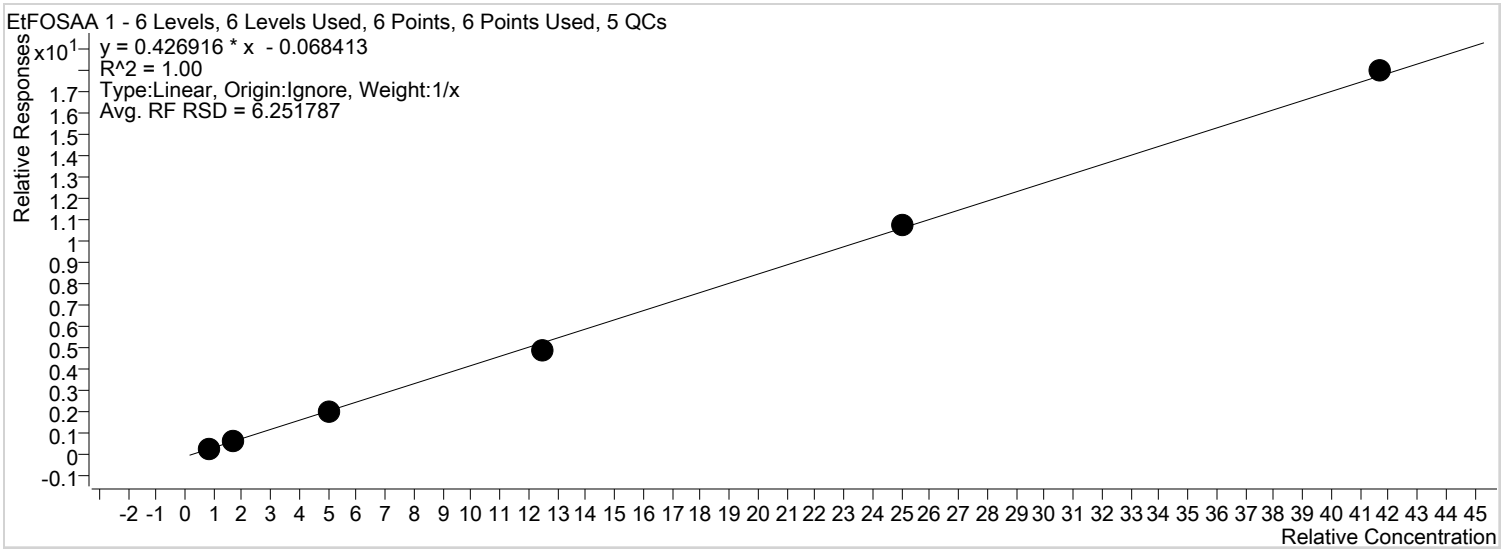
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/08 3:32:49 PM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 12:28:01 PM	0.83	0.89	520	0.3761	76	107.4
STD 2	STD 2	x	2018/02/06 12:30:26 PM	1.70	1.66	1054	0.3778	119	97.9
STD 3	STD 3	x	2018/02/06 12:32:51 PM	5.00	4.97	3261	0.4104	283	99.3
STD 4	STD 4	x	2018/02/06 12:35:16 PM	12.50	11.55	7583	0.3891	591	92.4
STD 5	STD 5	x	2018/02/06 12:37:42 PM	25.00	25.39	17091	0.4308	1008	101.5
STD 6	STD 6	x	2018/02/06 12:40:07 PM	41.70	42.27	27557	0.4311	1223	101.4

Quantitation Results

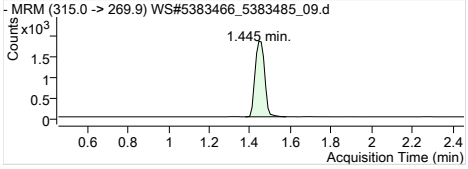
Agilent Technologies

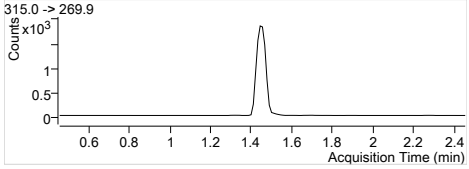
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A9
Acq. Date	2018/02/06 6:46:20 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5913	1.44	1 µg/L		
MPFHxS	1432	1.69	1 µg/L		
MPFHpA	8107	1.71	1 µg/L		
MPFOA	7826	1.89	1 µg/L		
MPFOS	1819	1.99	1 µg/L		
MPFNA	8593	2.04	1 µg/L		
MPFDA	7168	2.15	1 µg/L		
MPFUnA	7767	2.25	1 µg/L		
MPFDoA	10681	2.33	1 µg/L		
MPFTeDA	11576	2.48	1 µg/L		
13C6-PFHxA IS	28001	1.46	1 µg/L		
13C9-PFDA IS	33648	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	14343	1.11	20.80	22.81 µg/L	109.66
PFHxA 1	48319	1.46	20.80	20.49 µg/L	98.51
PFHxS 1	13637	1.69	20.80	21.55 µg/L	103.59
PFHpA 1	63700	1.71	20.80	18.83 µg/L	90.54
PFOA 1	72431	1.89	20.80	21.86 µg/L	105.12
PFOS 1	13253	1.98	20.80	21.21 µg/L	101.95
PFNA 1	61956	2.04	20.80	19.33 µg/L	92.92
PFDA 1	64629	2.15	20.80	19.18 µg/L	92.23
PFUnA 1	75265	2.25	20.80	22.88 µg/L	110.02
PFDoA 1	91414	2.33	20.80	20.94 µg/L	100.69
PFTrDA 1	105639	2.41	20.80	22.07 µg/L	106.10
PFTeDA 1	84131	2.48	20.80	21.11 µg/L	101.49
13C2-PFHxA	5913	1.44	100.00	89.13 µg/L	89.13
18O2-PFHxS	1432	1.69	100.00	88.01 µg/L	88.01
13C4-PFHpA	8107	1.71	100.00	99.10 µg/L	99.10
13C4-PFOA	7826	1.89	100.00	89.04 µg/L	89.04
13C4-PFOS	1819	1.99	100.00	94.12 µg/L	94.12
13C5-PFNA	8538	2.04	100.00	98.59 µg/L	98.59
13C2-PFDA	7010	2.15	100.00	103.82 µg/L	103.82
13C2-PFUnA	7767	2.25	100.00	95.43 µg/L	95.43
13C2-PFDoA	10681	2.33	100.00	98.61 µg/L	98.61
13C2-PFTeDA	11907	2.48	100.00	96.48 µg/L	96.48
13C6-PFHxA	28001	1.46	100.00	98.49 µg/L	98.49
13C9-PFDA	33648	2.15	100.00	94.06 µg/L	94.06





MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	QC

Quantitation Results

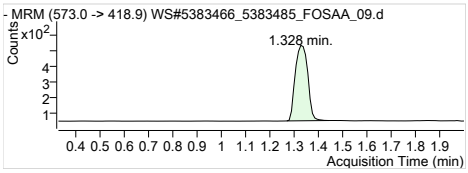
Agilent Technologies

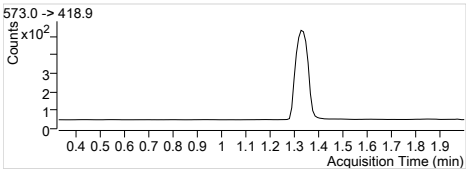
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A9
Acq. Date	2018/02/06 12:44:58 PM	**Injection Volume**	Per Method
Sample Annotation	-		

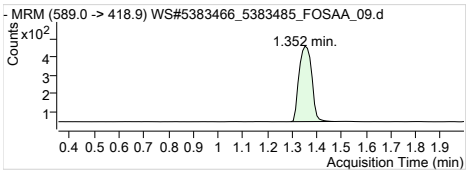
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1727	1.33	1 µg/L		
D5-EtFOSAA IS	1456	1.35	1 µg/L		
13C9-PFDA IS	27223	0.96	1 µg/L		

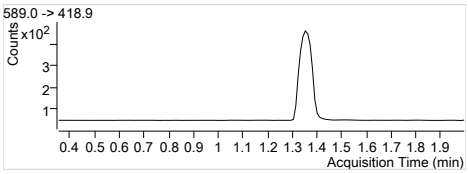
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	12867	1.33	20.80	20.60 µg/L	99.02
EtFOSAA 1	13233	1.35	20.80	21.45 µg/L	103.12
D3-MeFOSAA	1727	1.33	100.00	96.57 µg/L	96.57
D5-EtFOSAA	1456	1.35	100.00	94.50 µg/L	94.50
13C9-PFDA	27331	0.96	100.00	96.95 µg/L	96.95



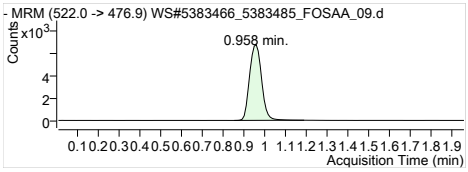


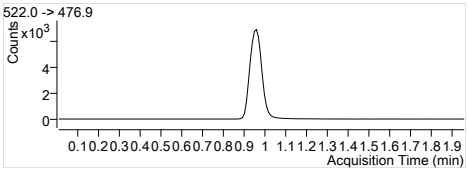
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: QC



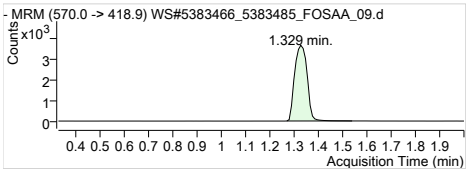


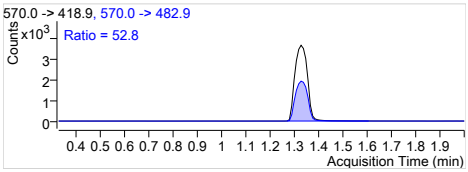
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: QC



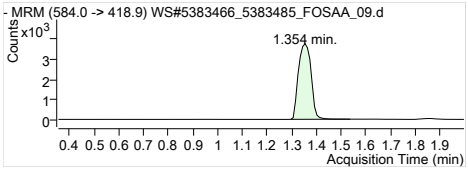


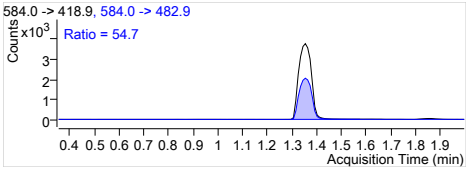
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: QC



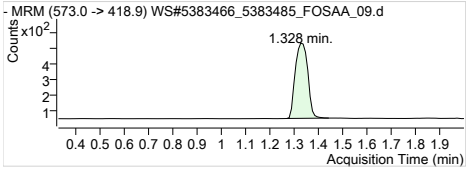


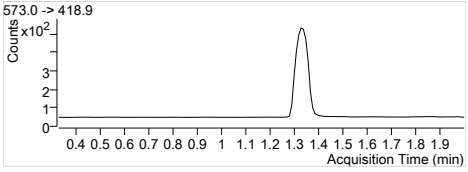
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 20.60 µg/L
Area ratio: 7.45049
Sample type: QC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 21.45 µg/L
Area ratio: 9.08860
Sample type: QC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 96.57 µg/L
Area ratio: 0.06344
Sample type: QC

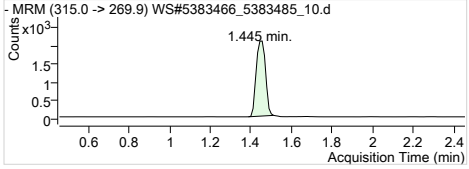
Quantitation Results

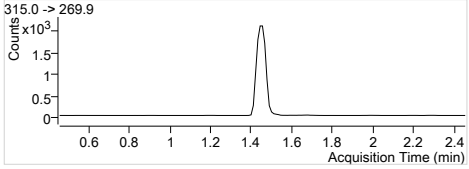
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_ETOxics		
Sample Name	ISC	**Instrument**	LCMS04
Data File	WS#5383466_5383485_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/06 6:51:16 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6584	1.44	1 µg/L		
MPFHxS	1727	1.69	1 µg/L		
MPFHpA	8753	1.71	1 µg/L		
MPFOA	9011	1.89	1 µg/L		
MPFOS	2012	1.99	1 µg/L		
MPFNA	9174	2.04	1 µg/L		
MPFDA	7976	2.15	1 µg/L		
MPFUnA	8831	2.25	1 µg/L		
MPFDoA	11268	2.33	1 µg/L		
MPFTeDA	13509	2.48	1 µg/L		
13C6-PFHxA IS	26497	1.44	1 µg/L		
13C9-PFDA IS	34805	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	578	1.11	0.83	0.90 µg/L	108.98
PFHxA 1	1948	1.46	0.83	1.05 µg/L	126.87
PFHxS 1	567	1.69	0.83	0.99 µg/L	118.71
PFHpA 1	2703	1.71	0.83	0.93 µg/L	111.51
PFOA 1	2981	1.89	0.83	0.95 µg/L	115.04
PFOS 1	550	1.98	0.83	0.85 µg/L	102.71
PFNA 1	2344	2.04	0.83	0.79 µg/L	94.69
PFDA 1	2847	2.15	0.83	0.84 µg/L	101.62
PFUnA 1	3094	2.25	0.83	0.82 µg/L	98.81
PFDoA 1	4022	2.33	0.83	0.99 µg/L	119.52
PFTrDA 1	4356	2.41	0.83	0.82 µg/L	98.22
PFTeDA 1	3525	2.48	0.83	0.80 µg/L	96.28
13C2-PFHxA	6584	1.44	100.00	104.88 µg/L	104.88
18O2-PFHxS	1727	1.69	100.00	112.16 µg/L	112.16
13C4-PFHpA	8753	1.71	100.00	113.07 µg/L	113.07
13C4-PFOA	9011	1.89	100.00	108.34 µg/L	108.34
13C4-PFOS	2012	1.99	100.00	110.01 µg/L	110.01
13C5-PFNA	9154	2.04	100.00	111.70 µg/L	111.70
13C2-PFDA	7930	2.15	100.00	113.54 µg/L	113.54
13C2-PFUnA	8831	2.25	100.00	104.90 µg/L	104.90
13C2-PFDoA	11268	2.33	100.00	100.57 µg/L	100.57
13C2-PFTeDA	13849	2.48	100.00	108.48 µg/L	108.48
13C6-PFHxA	26497	1.44	100.00	93.20 µg/L	93.20
13C9-PFDA	34805	2.15	100.00	97.29 µg/L	97.29





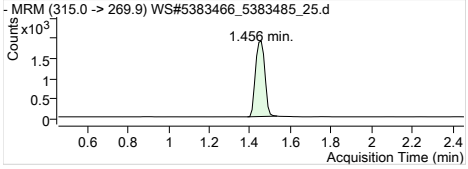
MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	CC

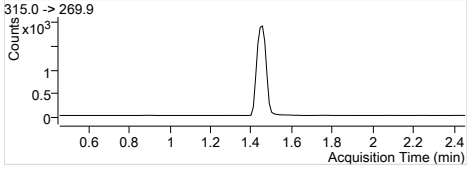
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/06 8:05:24 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6023	1.46	1 µg/L		
MPFHxS	1496	1.69	1 µg/L		
MPFHpA	8389	1.71	1 µg/L		
MPFOA	8761	1.89	1 µg/L		
MPFOS	1951	1.99	1 µg/L		
MPFNA	8720	2.04	1 µg/L		
MPFDA	6932	2.15	1 µg/L		
MPFUnA	8831	2.25	1 µg/L		
MPFDoA	10652	2.33	1 µg/L		
MPFTeDA	13187	2.48	1 µg/L		
13C6-PFHxA IS	26693	1.46	1 µg/L		
13C9-PFDA IS	36124	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7974	1.11	12.50	12.21 µg/L	97.66
PFHxA 1	28486	1.46	12.50	12.00 µg/L	95.96
PFHxS 1	7934	1.69	12.50	12.11 µg/L	96.89
PFHpA 1	38973	1.71	12.50	11.21 µg/L	89.71
PFOA 1	43942	1.89	12.50	11.93 µg/L	95.45
PFOS 1	7815	1.98	12.50	11.69 µg/L	93.48
PFNA 1	37389	2.04	12.50	11.54 µg/L	92.29
PFDA 1	38777	2.15	12.50	11.93 µg/L	95.48
PFUnA 1	43664	2.25	12.50	11.67 µg/L	93.38
PFDoA 1	56352	2.33	12.50	12.99 µg/L	103.94
PFTrDA 1	62695	2.41	12.50	11.52 µg/L	92.12
PFTeDA 1	54785	2.48	12.50	12.09 µg/L	96.69
13C2-PFHxA	6023	1.46	100.00	95.24 µg/L	95.24
18O2-PFHxS	1496	1.69	100.00	96.45 µg/L	96.45
13C4-PFHpA	8389	1.71	100.00	107.57 µg/L	107.57
13C4-PFOA	8761	1.89	100.00	104.56 µg/L	104.56
13C4-PFOS	1951	1.99	100.00	105.89 µg/L	105.89
13C5-PFNA	8646	2.04	100.00	104.73 µg/L	104.73
13C2-PFDA	6832	2.15	100.00	94.25 µg/L	94.25
13C2-PFUnA	8831	2.25	100.00	101.07 µg/L	101.07
13C2-PFDoA	10652	2.33	100.00	91.60 µg/L	91.60
13C2-PFTeDA	13522	2.48	100.00	102.05 µg/L	102.05
13C6-PFHxA	26693	1.46	100.00	93.89 µg/L	93.89
13C9-PFDA	36124	2.15	100.00	100.98 µg/L	100.98





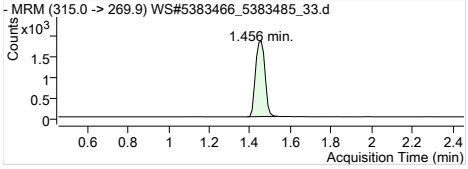
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	CC

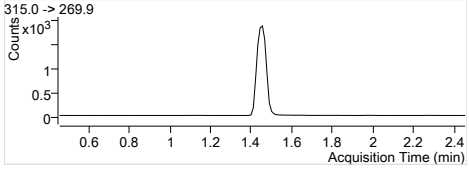
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_WS#5383466_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_33.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/06 8:44:52 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5952	1.46	1 µg/L		
MPFHxS	1479	1.69	1 µg/L		
MPFHpA	8195	1.71	1 µg/L		
MPFOA	8316	1.89	1 µg/L		
MPFOS	1991	1.99	1 µg/L		
MPFNA	8403	2.04	1 µg/L		
MPFDA	7326	2.15	1 µg/L		
MPFUnA	8523	2.25	1 µg/L		
MPFDoA	11402	2.33	1 µg/L		
MPFTeDA	12531	2.48	1 µg/L		
13C6-PFHxA IS	27441	1.46	1 µg/L		
13C9-PFDA IS	35024	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7494	1.11	12.50	11.61 µg/L	92.89
PFHxA 1	28156	1.46	12.50	12.00 µg/L	95.98
PFHxS 1	7812	1.69	12.50	12.06 µg/L	96.51
PFHpA 1	37324	1.71	12.50	11.00 µg/L	87.98
PFOA 1	41978	1.89	12.50	12.01 µg/L	96.06
PFOS 1	8158	1.98	12.50	11.95 µg/L	95.61
PFNA 1	38160	2.04	12.50	12.21 µg/L	97.69
PFDA 1	39337	2.15	12.50	11.46 µg/L	91.68
PFUnA 1	41560	2.25	12.50	11.51 µg/L	92.09
PFDoA 1	54433	2.33	12.50	11.74 µg/L	93.90
PFTrDA 1	61489	2.41	12.50	11.88 µg/L	95.07
PFTeDA 1	54112	2.48	12.50	12.56 µg/L	100.48
13C2-PFHxA	5952	1.46	100.00	91.55 µg/L	91.55
18O2-PFHxS	1479	1.69	100.00	92.75 µg/L	92.75
13C4-PFHpA	8195	1.71	100.00	102.22 µg/L	102.22
13C4-PFOA	8316	1.89	100.00	96.54 µg/L	96.54
13C4-PFOS	1991	1.99	100.00	105.12 µg/L	105.12
13C5-PFNA	8349	2.04	100.00	98.37 µg/L	98.37
13C2-PFDA	7211	2.15	100.00	102.60 µg/L	102.60
13C2-PFUnA	8523	2.25	100.00	100.61 µg/L	100.61
13C2-PFDoA	11402	2.33	100.00	101.13 µg/L	101.13
13C2-PFTeDA	12767	2.48	100.00	99.38 µg/L	99.38
13C6-PFHxA	27441	1.46	100.00	96.52 µg/L	96.52
13C9-PFDA	35024	2.15	100.00	97.90 µg/L	97.90





MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	CC

Quantitation Results

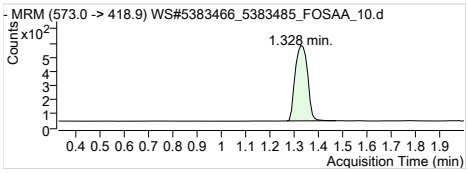
Agilent Technologies

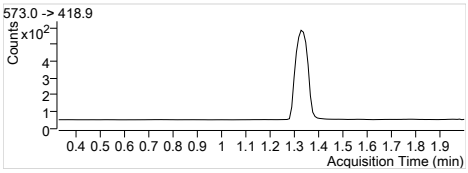
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/06 12:47:23 PM	**Injection Volume**	Per Method
Sample Annotation	-		

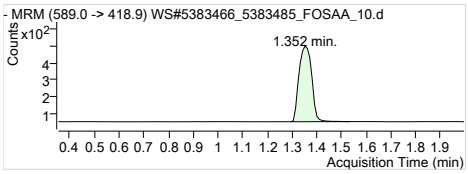
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1894	1.33	1 µg/L		
D5-EtFOSAA IS	1604	1.35	1 µg/L		
13C9-PFDA IS	25890	0.96	1 µg/L		

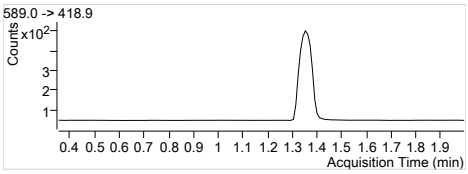
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	559	1.33	0.83	0.84 µg/L	101.80
EtFOSAA 1	528	1.35	0.83	0.93 µg/L	112.21
D3-MeFOSAA	1894	1.33	100.00	111.37 µg/L	111.37
D5-EtFOSAA	1604	1.35	100.00	109.47 µg/L	109.47
13C9-PFDA	25738	0.96	100.00	91.30 µg/L	91.30



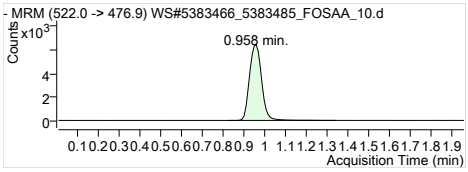


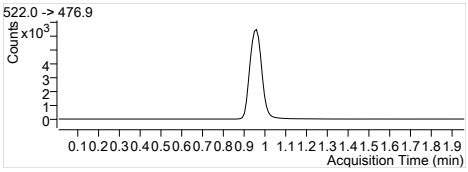
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



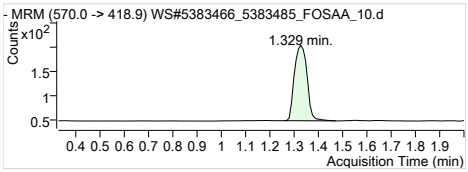


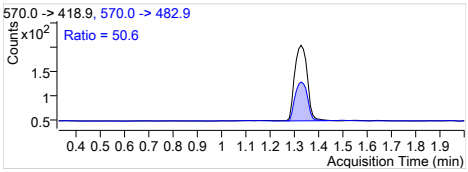
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



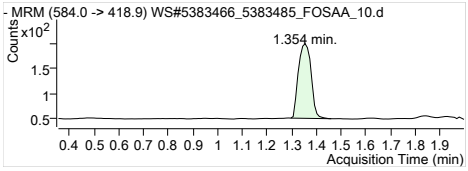


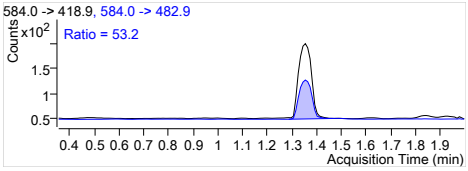
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: CC



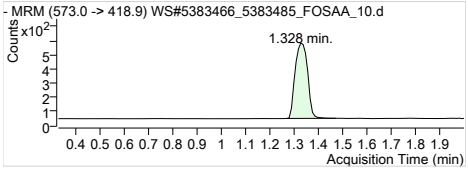


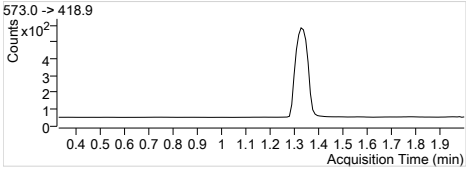
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 0.84 µg/L
Area ratio: 0.29514
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 0.93 µg/L
Area ratio: 0.32918
Sample type: CC





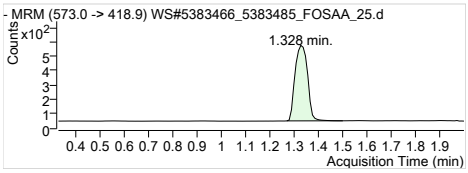
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 111.37 µg/L
Area ratio: 0.07316
Sample type: CC

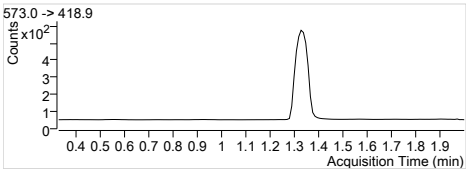
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 1:23:33 PM	**Injection Volume**	Per Method
Sample Annotation	-		

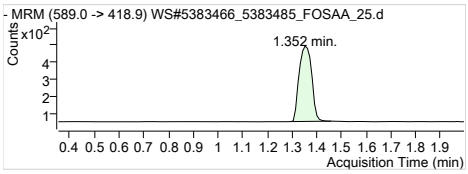
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1876	1.33	1 µg/L		
D5-EtFOSAA IS	1574	1.35	1 µg/L		
13C9-PFDA IS	28320	0.95	1 µg/L		

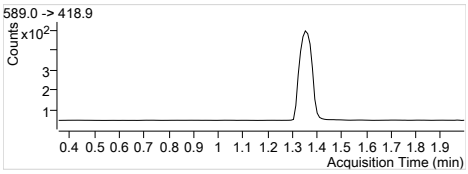
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7752	1.33	12.50	11.44 µg/L	91.49
EtFOSAA 1	7641	1.35	12.50	11.53 µg/L	92.25
D3-MeFOSAA	1876	1.33	100.00	100.84 µg/L	100.84
D5-EtFOSAA	1574	1.35	100.00	98.20 µg/L	98.20
13C9-PFDA	28134	0.95	100.00	99.80 µg/L	99.80



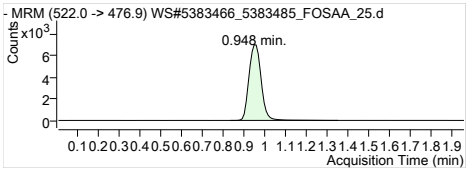


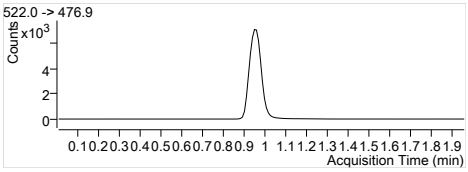
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



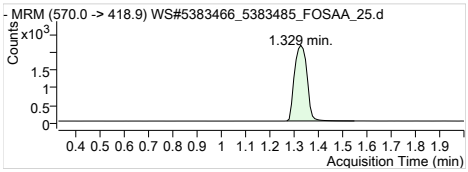


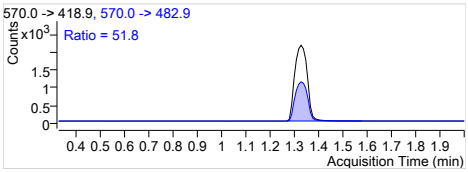
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



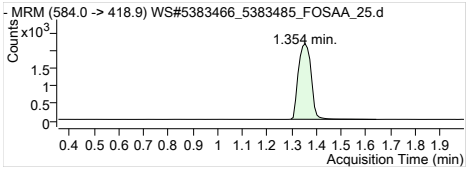


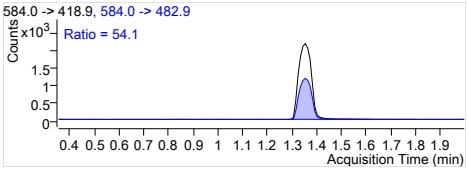
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: CC



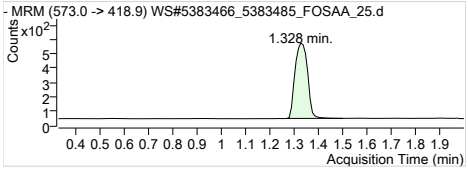


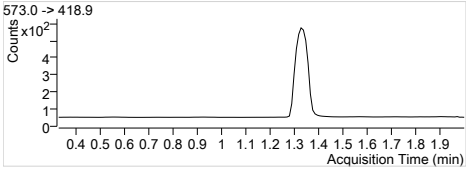
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 11.44 µg/L
Area ratio: 4.13220
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.53 µg/L
Area ratio: 4.85451
Sample type: CC





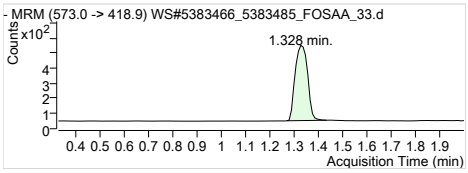
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 100.84 µg/L
Area ratio: 0.06624
Sample type: CC

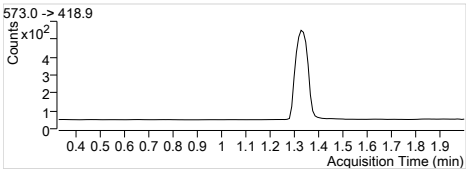
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_33.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 1:42:50 PM	**Injection Volume**	Per Method
Sample Annotation	-		

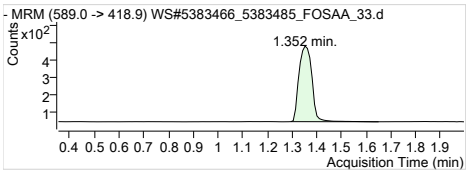
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1776	1.33	1 µg/L		
D5-EtFOSAA IS	1575	1.35	1 µg/L		
13C9-PFDA IS	28229	0.96	1 µg/L		

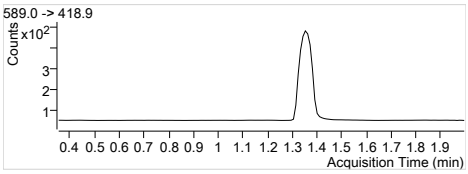
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7618	1.33	12.50	11.87 µg/L	94.96
EtFOSAA 1	7636	1.35	12.50	11.52 µg/L	92.13
D3-MeFOSAA	1776	1.33	100.00	95.77 µg/L	95.77
D5-EtFOSAA	1575	1.35	100.00	98.58 µg/L	98.58
13C9-PFDA	28351	0.96	100.00	100.57 µg/L	100.57



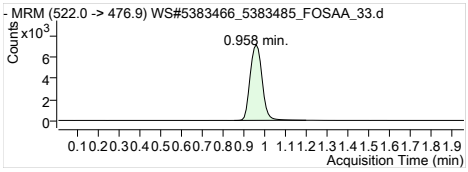


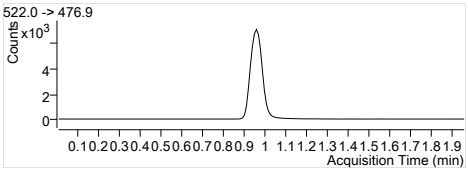
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



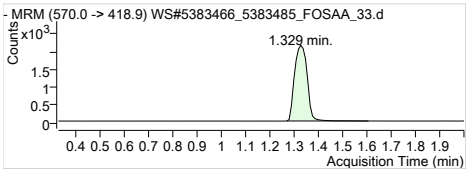


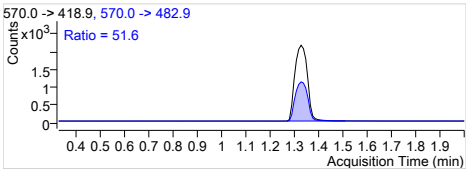
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



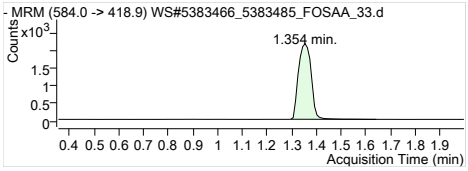


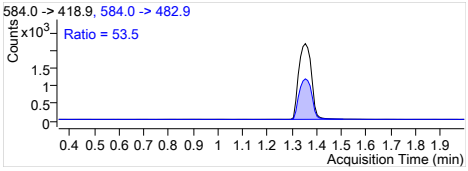
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: CC



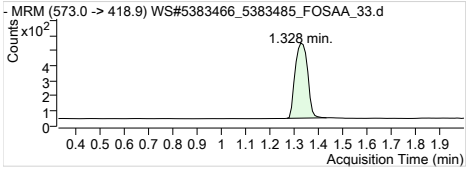


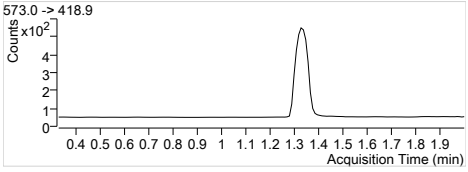
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 11.87 µg/L
Area ratio: 4.28941
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.52 µg/L
Area ratio: 4.84825
Sample type: CC





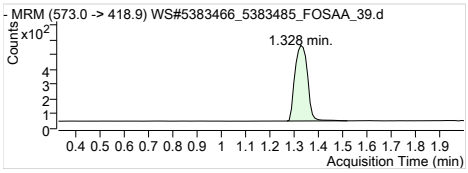
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 95.77 µg/L
Area ratio: 0.06291
Sample type: CC

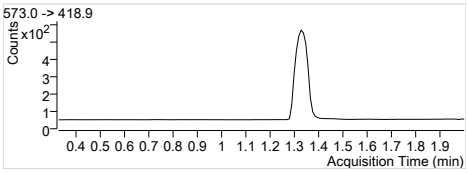
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_39.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 2:52:44 PM	**Injection Volume**	Per Method
Sample Annotation	-		

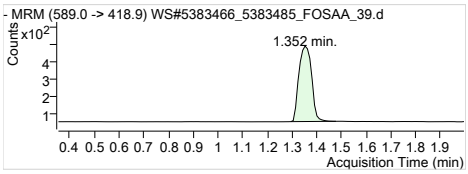
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1857	1.33	1 µg/L		
D5-EtFOSAA IS	1565	1.35	1 µg/L		
13C9-PFDA IS	28622	0.95	1 µg/L		

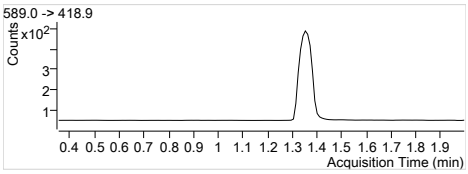
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7748	1.33	12.50	11.55 µg/L	92.38
EtFOSAA 1	7645	1.35	12.50	11.60 µg/L	92.82
D3-MeFOSAA	1857	1.33	100.00	98.77 µg/L	98.77
D5-EtFOSAA	1565	1.35	100.00	96.61 µg/L	96.61
13C9-PFDA	28872	0.95	100.00	102.42 µg/L	102.42



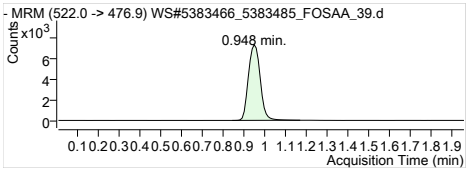


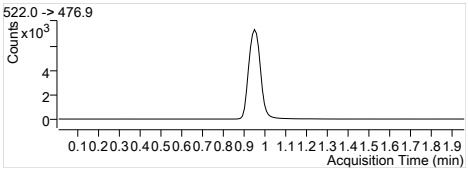
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



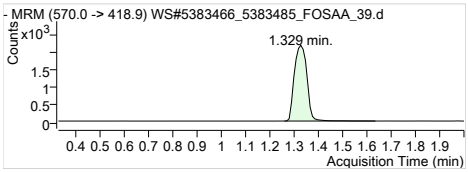


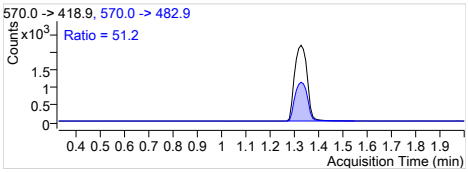
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



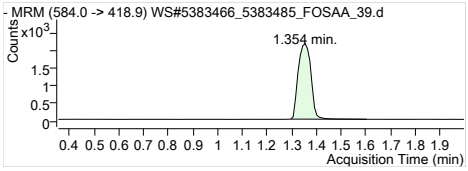


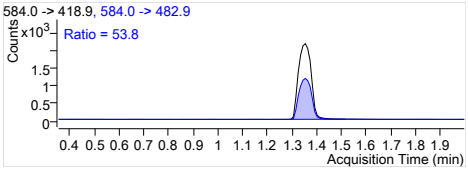
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: CC



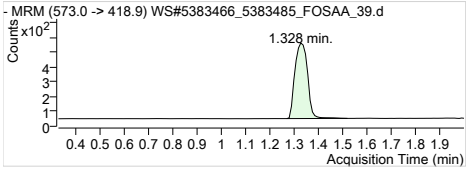


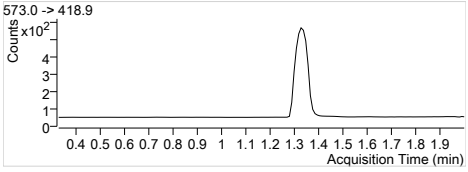
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 11.55 µg/L
Area ratio: 4.17232
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.60 µg/L
Area ratio: 4.88498
Sample type: CC





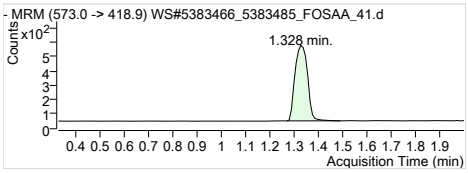
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 98.77 µg/L
Area ratio: 0.06488
Sample type: CC

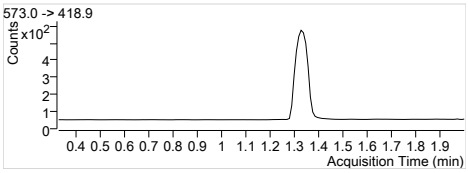
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_WS#5383466_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_41.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 2:57:34 PM	**Injection Volume**	Per Method
Sample Annotation	-		

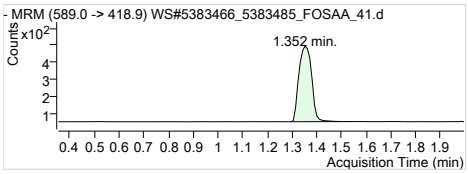
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1885	1.33	1 µg/L		
D5-EtFOSAA IS	1595	1.35	1 µg/L		
13C9-PFDA IS	29001	0.95	1 µg/L		

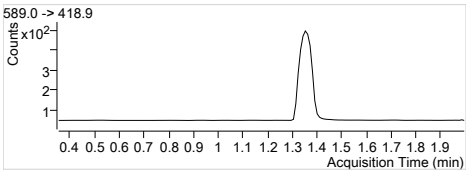
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7711	1.33	12.50	11.32 µg/L	90.58
EtFOSAA 1	7693	1.35	12.50	11.46 µg/L	91.66
D3-MeFOSAA	1885	1.33	100.00	98.95 µg/L	98.95
D5-EtFOSAA	1595	1.35	100.00	97.18 µg/L	97.18
13C9-PFDA	29023	0.95	100.00	102.95 µg/L	102.95



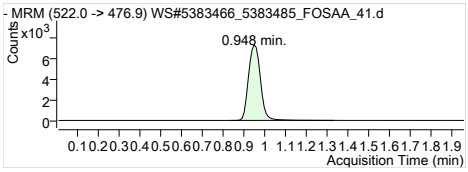


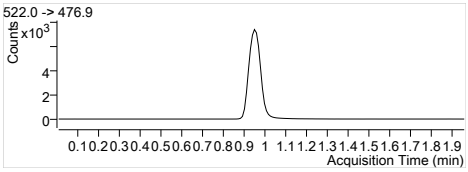
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



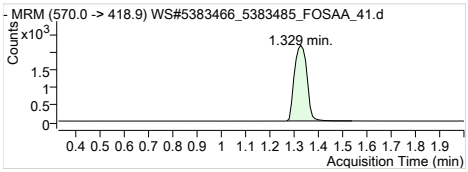


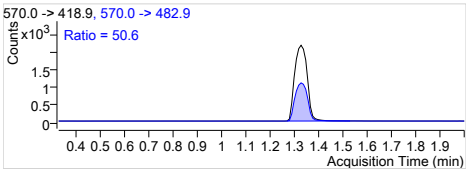
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



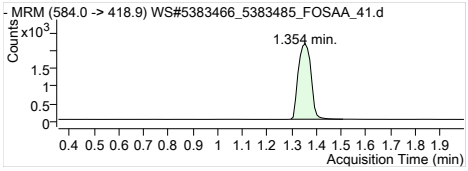


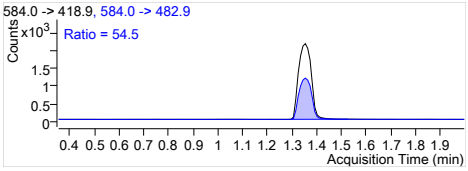
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.948 (0.958)
Concentration: 1 µg/L
Sample type: CC



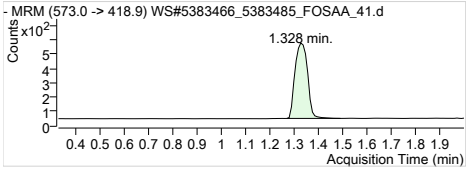


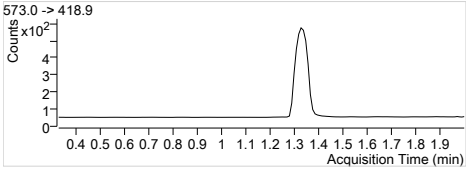
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 11.32 µg/L
Area ratio: 4.09072
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.46 µg/L
Area ratio: 4.82320
Sample type: CC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 98.95 µg/L
Area ratio: 0.06500
Sample type: CC

DoD Projects - Internal Data Validation Checklist

Run date: 2017/02/06

Worksheet # (s): 538 3485

Analysis: PFOSA LCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control			✓	✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria			✓	✓
7	Surrogate Recovery(s) is within acceptance criteria	✓			✓
8	Method Blank meets acceptance criteria	✓		✓	✓
9	Matrix Spike recovery(s) meets acceptance criteria	✓	✓ 2017/02/07		✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed			✓	✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS			✓	✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: [illegible] Date: 2017/02/07

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: AD Date: 2018/02/08

Comments: All samples sent for rework, for 1FDOA, PF1eDA, PFTrDA due to spike failed to meet acceptance criteria. AD 2018/02/08

*Note: 2nd 100% verification review documented by secondary qualified data review

Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # | Testcode: PEOSALCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)			✓
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded			✓
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired); ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)	✓		
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: SAM | Date: 2018/02/07

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: | Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: | Date:

Comments:

WS# : 5383485

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Saturday, February 03, 2018

Assigned to : Shahbaz Ahmad

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

sediment on ml ml SAP 2018/02/03

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	
5,21		MTRX SPK	0	PFOS FZH337-01		<0.1	125	3	1R					2018/02/03	35.0
6,22		MTRX SPK	1	PFOS FZH337-01		<0.1	125	3	1R					2018/02/03	31.0
6,23	B819794	*FZH337-01R		CEF-076-109S-0118		<0.1	125	3	1R	6	2018/02/05	2018/02/09 18:00	DOD	2018/02/03	30.3

SAP 2018/02/03

Remarks: This worksheet is linked with WS # 5383466. Standards, Spiked and blank are also shared.

SAP 2018/02/03

Samples extracted by: Shahbaz Ahmad SAP 2018/02/03

Instrumentation performed by: [signature] Date: 2018/02/07

Calculations performed by: [signature] Date: 2018/02/07

Validated by: AD Date: 2018/02/08

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.)	AECOM

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
B819794	FZH337-01R	

SAD 2018/02/03

Folder: 20180206

Job No.	Rep / Remarks	Client Name / Contact	Client Tier	National
GB818419	[redacted]	[redacted]	[redacted]	[redacted]
GB819794	SP8	Earth Toxics Inc / Rick Carr	Tier 5 (Enviro.)	AECOM

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B818419	FZA783-01R	
B818419	FZA784-01R	
B818419	FZA785-01R	
B818419	FZA786-01R	
B818419	FZA788-01R	
B818419	FZA789-01R	
B818419	FZA790-01R	
B818419	FZA791-01R	
B818419	FZA792-01R	
B819794	FZH336-01R	
B819794	FZH338-01R	
B819794	FZH339-01R	
B819794	FZH340-01R	
B819794	FZH341-01R	
B819794	FZH342-01R	
B819794	FZH343-01R	

Standard	vol of M20H	Amount Spiked	
S1	2825	25	SK7390 1/2
S2	2800	50	
S3	2700	150	
S4	2813	37.5	I-5297
S5	2775	75	
S6			
ICV	2725	125	
ICB	2788 2850	62.5	I-5299

Folder: 20180206

ICV = ICAL info only
2018/02/12

Worksheet Reagent Tracking Record Worksheet # 5383485

Surrogate/Spike solutions	√	Solution ID #	Conc.	Volume (µL) Blk-Spk Solid	Blk-Spk Liquid	MS Solid	MS Liquid	Samples Solid	Samples Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	E-5299 113	1ug/mL	75	21 62.5	75	21 62.5	NA	NA
PFC Internal Standard Solution	✓	SI 6763 2/4	50/125 ng/mL	200	100 150	200	100 150	200	100/150
PFC Injection IS	✓	SI 6716 3/4	400 ng/mL	20	20	20	20	20	20
ICV	✓	I 5299 43							

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHBJ5431	2018/02/02	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol				DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRLRE 108-334		0.2% NH_4OH	✓	PRLRE	108-337
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/2/2
0.05M HCl							

*Spiked by: SAD

Spike Date: 2018/02/03

Spike Syringe/Pipette ID#: I-32773F

Int. Std Syringe/Pipette ID#: K19865F

*Spiking Witnessed by: JPS

Final pH:

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor I-32773F K19865F		SPE Cartridge			QC Balance ID	
		Filter			Thermometer ID &Temp	
Dispenser		Centrifuge				
		Sonicator				

Bottle Tracking ✓

Bottle# 18587

Cap# 18422

Systems plus Lot#: 17-12-11

Comments:

* - SPIKING OF QC'S & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet Number: **5383485**

PFOS and PFOA in water by SPE/LCMS - Water

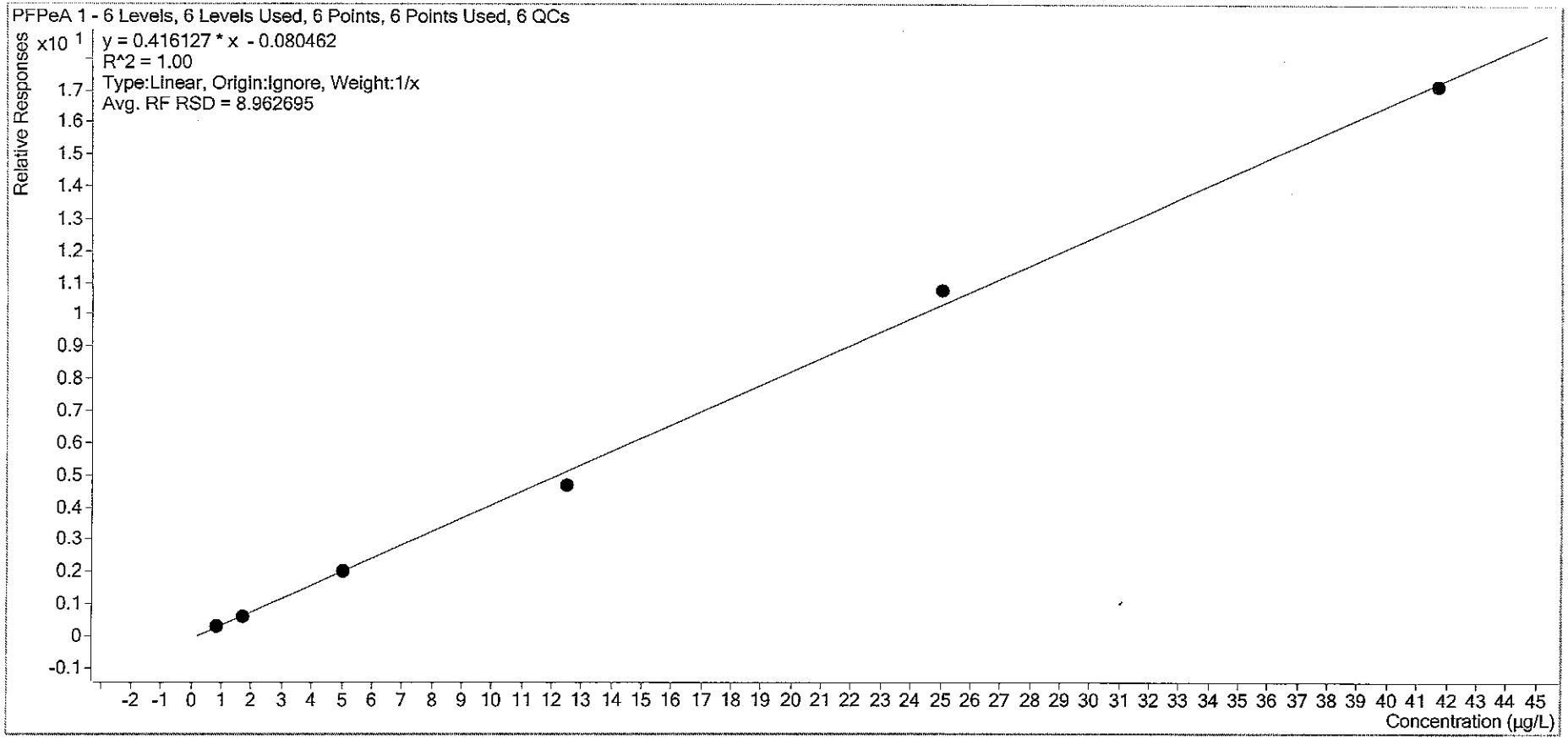
ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	B819794 FZH337	DL	RDL	MDL
6:2 Fluorotelomer sulfonate	ug/L	92.90089	106.43420	N/A*******	0.02	0.02	0.0066
8:2 Fluorotelomer sulfonate	ug/L	91.57953	94.47799	N/A*******	0.02	0.02	0.0066
N-ethylperfluorooctane sulfonamide	ug/L	88.29391	90.07433	N/A*******	0.02	0.02	0.01
EtFOSAA	ug/L	85.24152	97.29326	0	0.02	0.02	0.0033
N-ethylperfluorooctane sulfonamidoe	ug/L	93.65143	92.72259	N/A*******	0.02	0.02	0.0079
N-methylperfluorooctane sulfonamide	ug/L	74.28163	79.39408	N/A*******	0.02	0.02	0.013
MeFOSAA	ug/L	86.88217	95.67009	0	0.02	0.02	0.0029
N-methylperfluorooctanesulfonamidol	ug/L	80.93428	94.87834	N/A*******	0.02	0.02	0.012
Perfluorobutanoic acid	ug/L	85.68236	93.36853	N/A*******	0.02	0.02	0.0055
Perfluorobutane Sulfonate (PFBS)	ug/L	83.09295	99.54725	0	0.02	0.02	0.0054
Perfluorodecane Sulfonate	ug/L	88.88579	92.31065	N/A*******	0.02	0.02	0.006
Perfluoroheptanoic Acid (PFHpA)	ug/L	91.78248	93.54864	0	0.02	0.02	0.0074
Perfluoroheptane sulfonate	ug/L	90.58502	93.11365	N/A*******	0.02	0.02	0.008
Perfluorohexanoic Acid (PFHxA)	ug/L	89.87749	100.71788	0	0.02	0.02	0.0035
Perfluorohexane Sulfonate (PFHxS)	ug/L	86.12055	96.80140	0.00718881	0.02	0.02	0.0056
Perfluorononanoic Acid (PFNA)	ug/L	93.22305	106.00188	0	0.02	0.02	0.0087
Perfluorooctane Sulfonamide (PFOSA)	ug/L	91.71846	99.72041	N/A*******	0.02	0.02	0.0034
Perfluoropentanoic Acid (PFPeA)	ug/L	92.90977	93.23959	N/A*******	0.02	0.02	0.0075
Perfluorotetradecanoic Acid	ug/L	85.60207	104.52728	0	0.02	0.02	0.0027
Perfluorotridecanoic Acid	ug/L	91.85818	109.45764	0	0.02	0.02	0.0038
Perfluoroundecanoic Acid (PFUnA)	ug/L	101.83932	97.62813	0	0.02	0.02	0.0025
Perfluorodecanoic Acid (PFDA)	ug/L	100.01922	98.06476	0	0.02	0.02	0.0061
Perfluorododecanoic Acid (PFDoA)	ug/L	89.19060	101.38775	0	0.02	0.02	0.005
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	89.92872	98.95193	0	0.02	0.02	0.0033
Perfluorooctane Sulfonate (PFOS)	ug/L	94.92083	113.68364	0	0.02	0.02	0.006
13C2-6:2 Fluorotelomer sulfonate	ug/L	119.217434	96.1111072	N/A*******			
13C2-8:2 Fluorotelomer sulfonate	ug/L	123.020139	101.444090	N/A*******			
13C2-perfluorotetradecanoic acid	ug/L	94.7380399	73.6116349	79.9874680			
13C4-Perfluorobutanoic acid	ug/L	118.876984	101.753485	N/A*******			
D3-MeFOSAA	ug/L	97.7114879	82.5791140	91.5901887			
D5-EtFOSAA	ug/L	95.5531574	80.0610648	91.2669448			
N-methyl-d3-perfluorooctane sulfona	ug/L	93.8398210	69.9108887	N/A*******			
N-ethyl-d5-perfluorooctane sulfonam	ug/L	86.1868482	75.4021715	N/A*******			
13C2-Perfluorodecanoic acid	ug/L	98.8383173	87.7483894	99.3200886			
13C2-Perfluorododecanoic acid	ug/L	98.0438127	86.5051191	97.2290674			
13C2-Perfluorohexanoic acid	ug/L	109.737816	93.4159815	99.8711305			
13C2-Perfluoroundecanoic acid	ug/L	97.3444163	90.8864097	96.9361539			
13C4-Perfluoroheptanoic acid	ug/L	116.130443	99.8600920	104.318133			
13C5-Perfluorononanoic acid	ug/L	114.944990	92.7903987	107.880600			
13C4-Perfluorooctanoic acid	ug/L	119.153012	97.0155201	106.040240			
13C4-Perfluorooctanesulfonate	ug/L	116.892845	87.2744686	106.584822			
13C5-Perfluoropentanoic acid	ug/L	111.608819	102.765890	N/A*******			
13C8-Perfluorooctane Sulfonamide	ug/L	97.4945026	78.1209925	N/A*******			
18O2-Perfluorohexanesulfonate	ug/L	123.772037	97.5536127	98.9607506			

2019/02/04

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	IDL						
6:2 Fluorotelomer sulfonate	0						
8:2 Fluorotelomer sulfonate	0						
N-ethylperfluorooctane sulfonamide	0						
EtFOSAA	0						
N-ethylperfluorooctane sulfonamidoe	0						
N-methylperfluorooctane sulfonamide	0						
MeFOSAA	0						
N-methylperfluorooctanesulfonamidol	0						
Perfluorobutanoic acid	0						
Perfluorobutane Sulfonate (PFBS)	0						
Perfluorodecane Sulfonate	0						
Perfluoroheptanoic Acid (PFHpA)	0						
Perfluoroheptane sulfonate	0						
Perfluorohexanoic Acid (PFHxA)	0						
Perfluorohexane Sulfonate (PFHxS)	0						
Perfluorononanoic Acid (PFNA)	0						
Perfluorooctane Sulfonamide (PFOSA)	0						
Perfluoropentanoic Acid (PFPeA)	0						
Perfluorotetradecanoic Acid	0						
Perfluorotridecanoic Acid	0						
Perfluoroundecanoic Acid (PFUnA)	0						
Perfluorodecanoic Acid (PFDA)	0						
Perfluorododecanoic Acid (PFDoA)	0						
Perfluoro-n-Octanoic Acid (PFOA)	0						
Perfluorooctane Sulfonate (PFOS)	0						
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



Manual calculation for MSpK:

7.9742 = 0.416127X - 0.080462

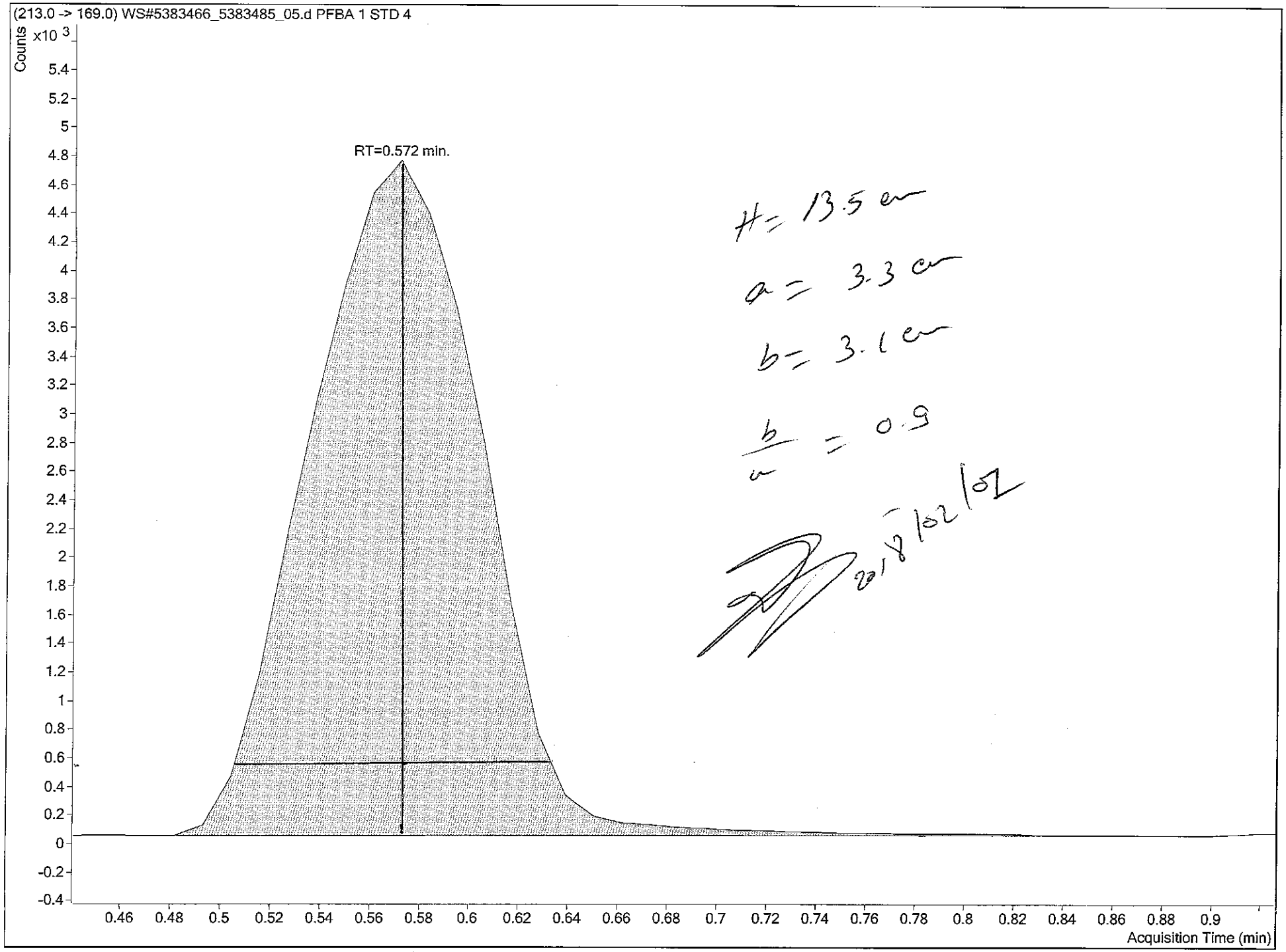
X = 19.35625 x 0.024

= 0.46455 µg/L

$\frac{0.46455}{0.5} \times 100 = 92.9\%$

AD
2018/02/08

2018/02/07



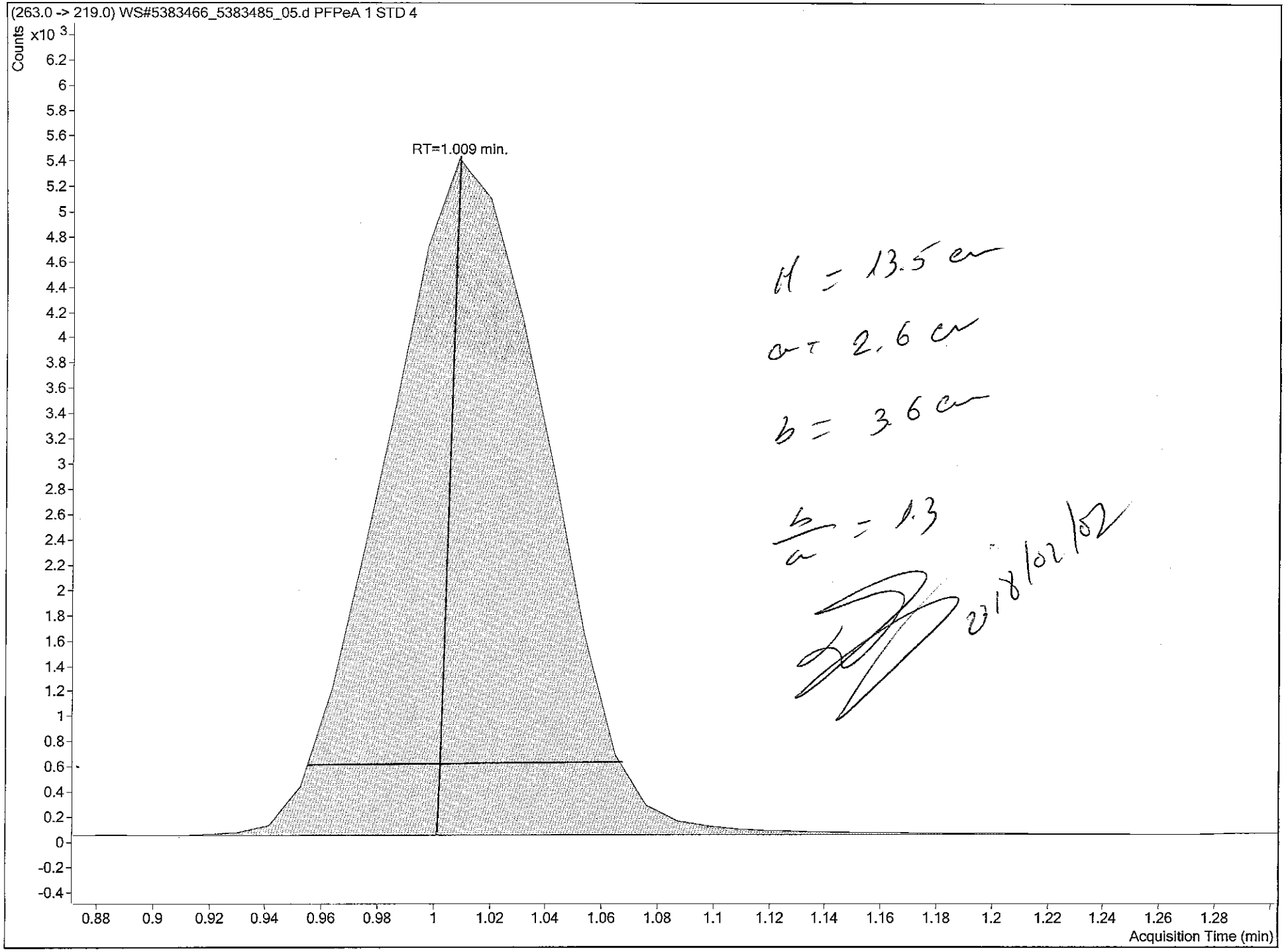
H = 13.5 cm

a = 3.3 cm

b = 3.1 cm

$\frac{b}{a} = 0.9$

2018/02/02


(263.0 -> 219.0) WS#5383466_5383485_05.d PFPeA 1 STD 4
Counts x10 3
RT=1.009 min.
Acquisition Time (min)
H = 13.5 cm
a = 2.6 cm
b = 3.6 cm
b/a = 1.3
2018/02/02

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/03

Test Code: **PFOSALCM-W**

Worksheet Number: **5383485**

Sample Number	Parameter Code	Parameter	
FZH337-01	ETFOSAA	EtFOSAA	*
	MEFOSAA	MeFOSAA	*
	PFBS	Perfluorobutane Sulfonate (PFBS)	
	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	

SA 2018/02/23

* - This parameter is usually off, but will be reported for this group of samples!

1. 5383485:MTRX SPK — MTRX SPK
2. 5383485:MTRX SPK:D1 — MTRX SPK :D1
3. 5383485:FZH337-01 — CEF-076-109S-0118

SK 2/18/03

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180206_Low.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180206\WS#5383466_5383485
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 265 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

20180206 1L

2/8/02 15

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low.m	WS#5383466_5383485_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low.m	WS#5383466_5383485_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low.m	WS#5383466_5383485_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low.m	WS#5383466_5383485_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low.m	WS#5383466_5383485_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low.m	WS#5383466_5383485_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low.m	WS#5383466_5383485_07.d	Calibration	STD 6	As Method	-

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Worklist Report

Agilent Technologies

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P2-A8	PFC_Water_Low.m	WS#5383466_53834 85_08.d	Sample		As Method	-
9	ICV	P2-A9	PFC_Water_Low.m	WS#5383466_53834 85_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low.m	WS#5383466_53834 85_10.d	ConCal	STD 1	As Method	-
11	5383466:BLANK	P2-B1	PFC_Water_Low.m	WS#5383466_53834 85_11.d	Sample		As Method	-
12	5383466:SPIKE	P2-B2	PFC_Water_Low.m	WS#5383466_53834 85_12.d	QC	ICV	As Method	-
13	5383466:MTRX SPK	P2-B3	PFC_Water_Low.m	WS#5383466_53834 85_13.d	QC	ICV	As Method	-
14	5383466:MTRX SPK:D1	P2-B4	PFC_Water_Low.m	WS#5383466_53834 85_14.d	Sample		As Method	-
15	IB	P2-A8	PFC_Water_Low.m	WS#5383466_53834 85_15.d	Sample		As Method	-
16	5383466:FZA783-01	P2-B5	PFC_Water_Low.m	WS#5383466_53834 85_16.d	Sample		As Method	-
17	5383466:FZA784-01	P2-B6	PFC_Water_Low.m	WS#5383466_53834 85_17.d	Sample		As Method	-
18	5383466:FZA785-01	P2-B7	PFC_Water_Low.m	WS#5383466_53834 85_18.d	Sample		As Method	-
19	5383466:FZA786-01	P2-B8	PFC_Water_Low.m	WS#5383466_53834 85_19.d	Sample		As Method	-
20	5383466:FZA788-01	P2-B9	PFC_Water_Low.m	WS#5383466_53834 85_20.d	Sample		As Method	-
21	5383466:FZA789-01	P2-C1	PFC_Water_Low.m	WS#5383466_53834 85_21.d	Sample		As Method	-
22	5383466:FZA790-01	P2-C2	PFC_Water_Low.m	WS#5383466_53834 85_22.d	Sample		As Method	-
23	5383466:FZA791-01	P2-C3	PFC_Water_Low.m	WS#5383466_53834 85_23.d	Sample		As Method	-
24	5383466:FZA792-01	P2-C4	PFC_Water_Low.m	WS#5383466_53834 85_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low.m	WS#5383466_53834 85_25.d	ConCal	STD 4	As Method	-
26	5383466:FZH336-01	P2-C5	PFC_Water_Low.m	WS#5383466_53834 85_26.d	Sample		As Method	-
27	5383466:FZH338-01	P2-C6	PFC_Water_Low.m	WS#5383466_53834 85_27.d	Sample		As Method	-
28	5383466:FZH339-01	P2-C7	PFC_Water_Low.m	WS#5383466_53834 85_28.d	Sample		As Method	-
29	5383466:FZH340-01	P2-C8	PFC_Water_Low.m	WS#5383466_53834 85_29.d	Sample		As Method	-
30	5383466:FZH341-01	P2-C9	PFC_Water_Low.m	WS#5383466_53834 85_30.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5383466:FZH342-01	P2-D1	PFC_Water_Low.m	WS#5383466_53834 85_31.d	Sample		As Method	-
32	5383466:FZH343-01	P2-D2	PFC_Water_Low.m	WS#5383466_53834 85_32.d	Sample		As Method	-
33	CCV	P2-A5	PFC_Water_Low.m	WS#5383466_53834 85_33.d	ConCal	STD 4	As Method	-
34	5383485:FZH337-01	P2-D3	PFC_Water_Low.m	WS#5383466_53834 85_34.d	Sample		As Method	-
35	5383485:MTRX SPK	P2-D4	PFC_Water_Low.m	WS#5383466_53834 85_35.d	Sample		As Method	-
36	5383485:MTRX SPK:D1	P2-D5	PFC_Water_Low.m	WS#5383466_53834 85_36.d	Sample		As Method	-
37	IB	P2-A8	PFC_Water_Low.m	WS#5383466_53834 85_37.d	Sample		As Method	-
38	CCV	P2-A5	PFC_Water_Low.m	WS#5383466_53834 85_38.d	ConCal	STD 4	As Method	-

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180206_Low_FOSAA.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180206\WS#5383466_5383485_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 265 (FSRE18)
MP B2: Solution# 272 [FSRE18]

2018/02/06 MG

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P2-A9	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5383466:BLANK	P2-B1	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_11.d	Sample		As Method	-
12	5383466:SPIKE	P2-B2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_12.d	QC	ICV	As Method	-
13	5383466:MTRX SPK	P2-B3	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_13.d	QC	ICV	As Method	-
14	5383466:MTRX SPK:D1	P2-B4	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_14.d	Sample		As Method	-
15	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_15.d	Sample		As Method	-
16	5383466:FZA783-01	P2-B5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_16.d	Sample		As Method	-
17	5383466:FZA784-01	P2-B6	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_17.d	Sample		As Method	-
18	5383466:FZA785-01	P2-B7	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_18.d	Sample		As Method	-
19	5383466:FZA786-01	P2-B8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_19.d	Sample		As Method	-
20	5383466:FZA788-01	P2-B9	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_20.d	Sample		As Method	-
21	5383466:FZA789-01	P2-C1	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_21.d	Sample		As Method	-
22	5383466:FZA790-01	P2-C2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_22.d	Sample		As Method	-
23	5383466:FZA791-01	P2-C3	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_23.d	Sample		As Method	-
24	5383466:FZA792-01	P2-C4	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_25.d	ConCal	STD 4	As Method	-
26	5383466:FZH336-01	P2-C5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_26.d	Sample		As Method	-
27	5383466:FZH338-01	P2-C6	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_27.d	Sample		As Method	-
28	5383466:FZH339-01	P2-C7	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_28.d	Sample		As Method	-
29	5383466:FZH340-01	P2-C8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_29.d	Sample		As Method	-
30	5383466:FZH341-01	P2-C9	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_30.d	Sample		As Method	-
31	5383466:FZH342-01	P2-D1	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_31.d	Sample		As Method	-
32	5383466:FZH343-01	P2-D2	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_32.d	Sample		As Method	-
33	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_33.d	ConCal	STD 4	As Method	-
34	5383485:FZH337-01	P2-D3	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_34.d	Sample		As Method	-

Maxxam Analytics

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
35	5383485:MTRX SPK	P2-D4	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_35.d	Sample		As Method	-
36	5383485:MTRX SPK:D1	P2-D5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_36.d	Sample		As Method	-
37	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_37.d	Sample		As Method	-
38	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5383466_53834 85_FOSAA_38.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/06 6:11 PM	PFC_Water_Low.m	WS#5383466_5383485_02.d	P2-A2
STD 2	-	2018/02/06 6:16 PM	PFC_Water_Low.m	WS#5383466_5383485_03.d	P2-A3
STD 3	-	2018/02/06 6:21 PM	PFC_Water_Low.m	WS#5383466_5383485_04.d	P2-A4
STD 4	-	2018/02/06 6:26 PM	PFC_Water_Low.m	WS#5383466_5383485_05.d	P2-A5
STD 5	-	2018/02/06 6:31 PM	PFC_Water_Low.m	WS#5383466_5383485_06.d	P2-A6
STD 6	-	2018/02/06 6:36 PM	PFC_Water_Low.m	WS#5383466_5383485_07.d	P2-A7
IB	-	2018/02/06 6:41 PM	PFC_Water_Low.m	WS#5383466_5383485_08.d	P2-A8
ICV	-	2018/02/06 6:46 PM	PFC_Water_Low.m	WS#5383466_5383485_09.d	P2-A9
ISC	-	2018/02/06 6:51 PM	PFC_Water_Low.m	WS#5383466_5383485_10.d	P2-A2
CCV	-	2018/02/06 8:44 PM	PFC_Water_Low.m	WS#5383466_5383485_33.d	P2-A5
5383485:FZH337-01	-	2018/02/06 8:49 PM	PFC_Water_Low.m	WS#5383466_5383485_34.d	P2-D3
5383485:MTRX SPK	FZH337	2018/02/06 8:54 PM	PFC_Water_Low.m	WS#5383466_5383485_35.d	P2-D4
5383485:MTRX SPK:D1	FZH337	2018/02/06 8:59 PM	PFC_Water_Low.m	WS#5383466_5383485_36.d	P2-D5
IB	-	2018/02/06 9:04 PM	PFC_Water_Low.m	WS#5383466_5383485_37.d	P2-A8
CCV	-	2018/02/06 9:09 PM	PFC_Water_Low.m	WS#5383466_5383485_38.d	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/06 12:28 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_02.d	P2-A2
STD 2	-	2018/02/06 12:30 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_03.d	P2-A3
STD 3	-	2018/02/06 12:32 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_04.d	P2-A4
STD 4	-	2018/02/06 12:35 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_05.d	P2-A5
STD 5	-	2018/02/06 12:37 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_06.d	P2-A6
STD 6	-	2018/02/06 12:40 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_07.d	P2-A7
IB	-	2018/02/06 12:42 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_08.d	P2-A8
ICV	-	2018/02/06 12:44 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_09.d	P2-A9
ISC	-	2018/02/06 12:47 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_10.d	P2-A2
CCV	-	2018/02/06 1:42 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_33.d	P2-A5
5383485:FZH337-01	-	2018/02/06 1:45 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_34.d	P2-D3
5383485:MTRX SPK	FZH337	2018/02/06 1:47 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_35.d	P2-D4
5383485:MTRX SPK:D1	FZH337	2018/02/06 1:50 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_36.d	P2-D5
IB	-	2018/02/06 1:52 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_37.d	P2-A8
CCV	-	2018/02/06 1:54 PM	PFC_Water_Low_FOSAA.m	WS#5383466_5383485_FOSAA_38.d	P2-A5

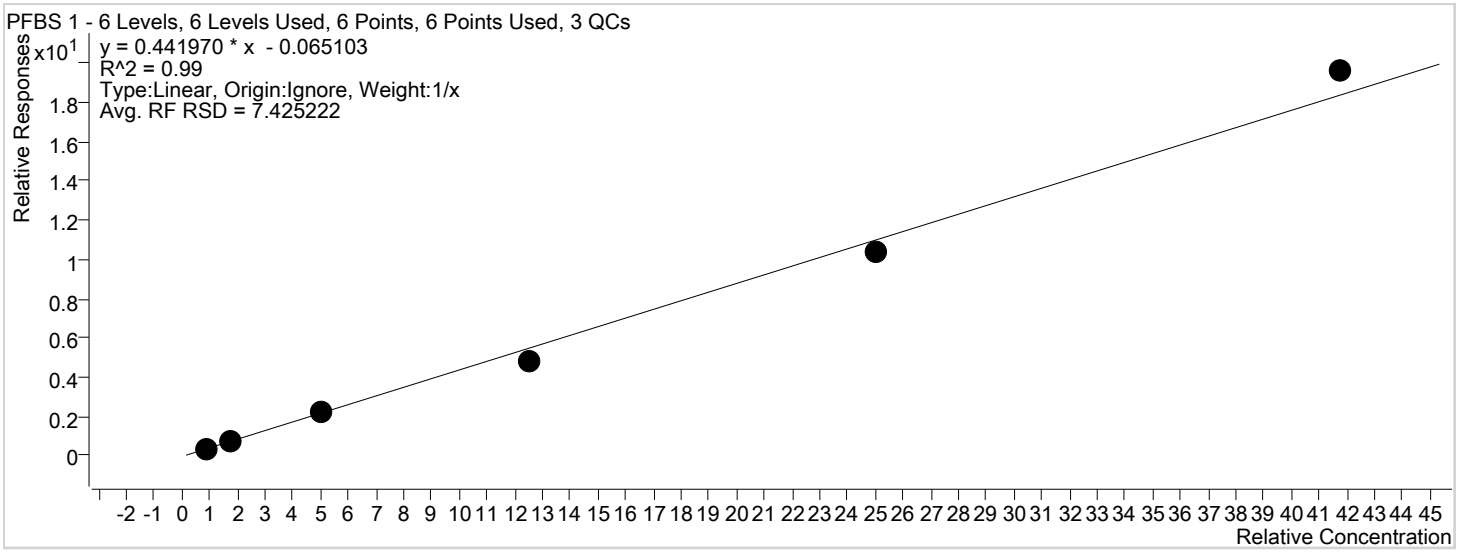
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFBS 1

Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.89	560	0.3948	57	107.1
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.77	1174	0.4229	207	104.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.00	3442	0.4289	103	100.0
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	10.92	7910	0.3810	165	87.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	23.59	18029	0.4145	120	94.4
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	44.55	30068	0.4707	187	106.8

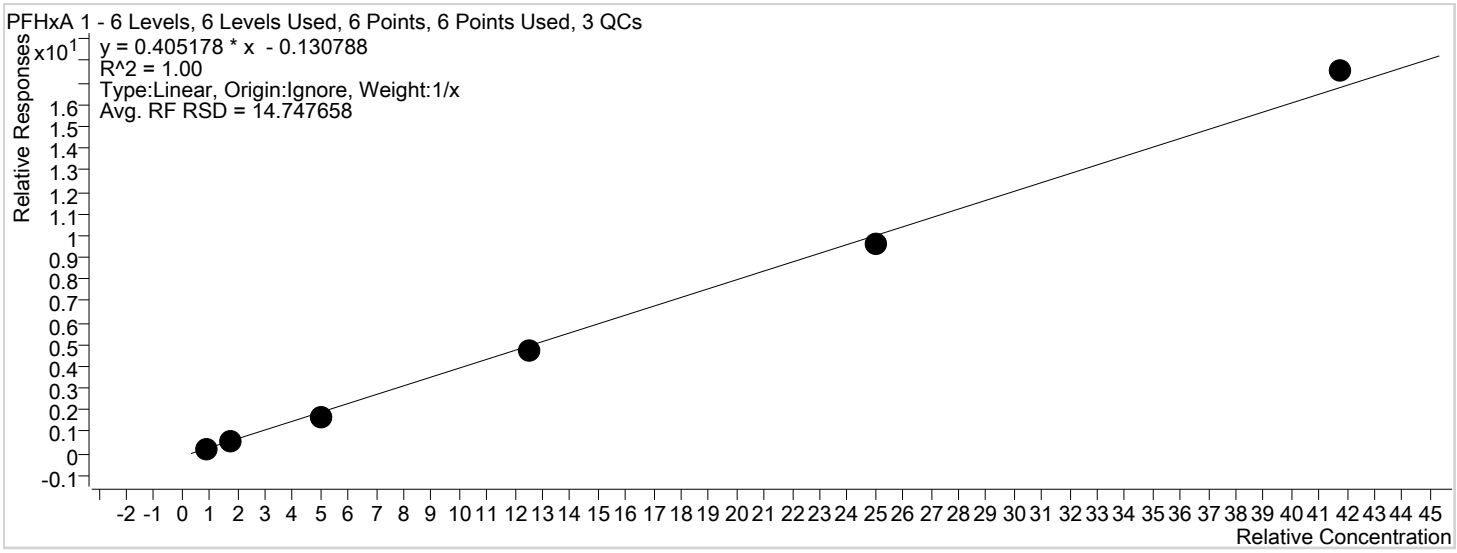
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFHxA 1

Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.86	1612	0.2639	65	104.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.86	4054	0.3665	319	109.5
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.56	11982	0.3431	1042	91.1
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.87	29220	0.3744	3543	95.0
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	23.94	67616	0.3827	2597	95.7
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.64	107039	0.4209	8065	104.6

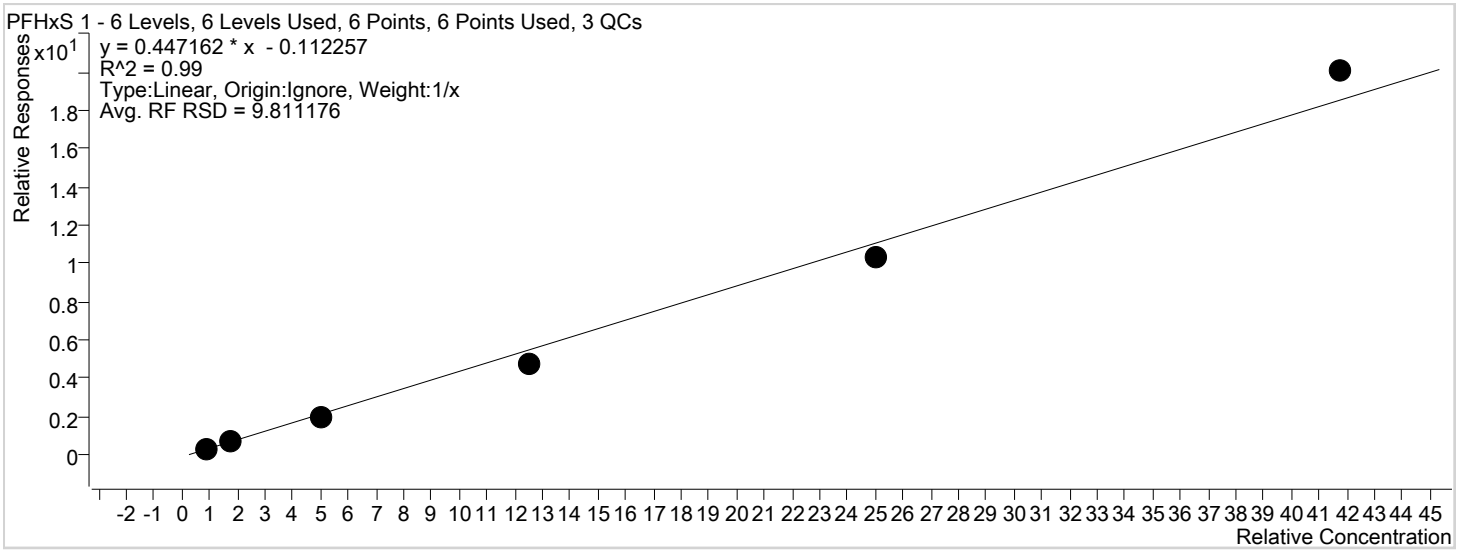
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFHxS 1

Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.94	524	0.3694	114	112.9
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.78	1115	0.4016	66	104.6
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.73	3214	0.4005	429	94.6
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	10.80	7832	0.3772	361	86.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	23.32	17949	0.4126	1264	93.3
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	45.17	30772	0.4817	2986	108.3

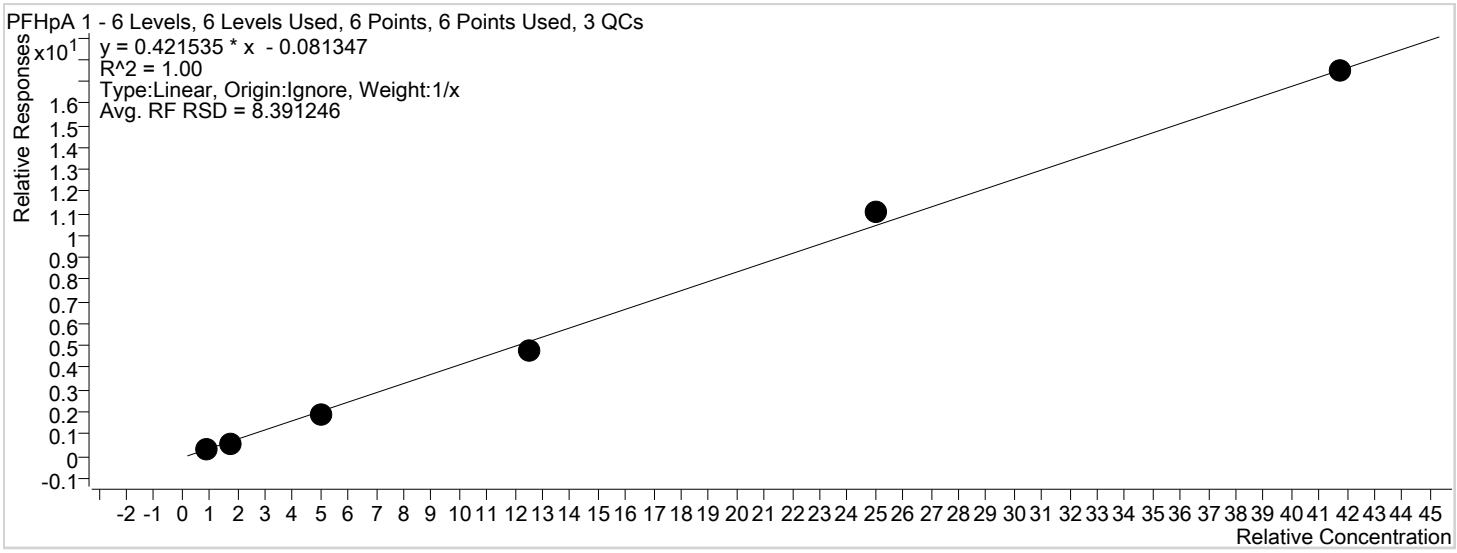
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFHpA 1

Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.96	2769	0.3900	28	115.8
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.63	5056	0.3562	60	95.9
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.55	15761	0.3676	190	91.1
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.43	38005	0.3789	352	91.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	26.49	87578	0.4433	1189	105.9
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	41.67	144581	0.4193	1765	99.9

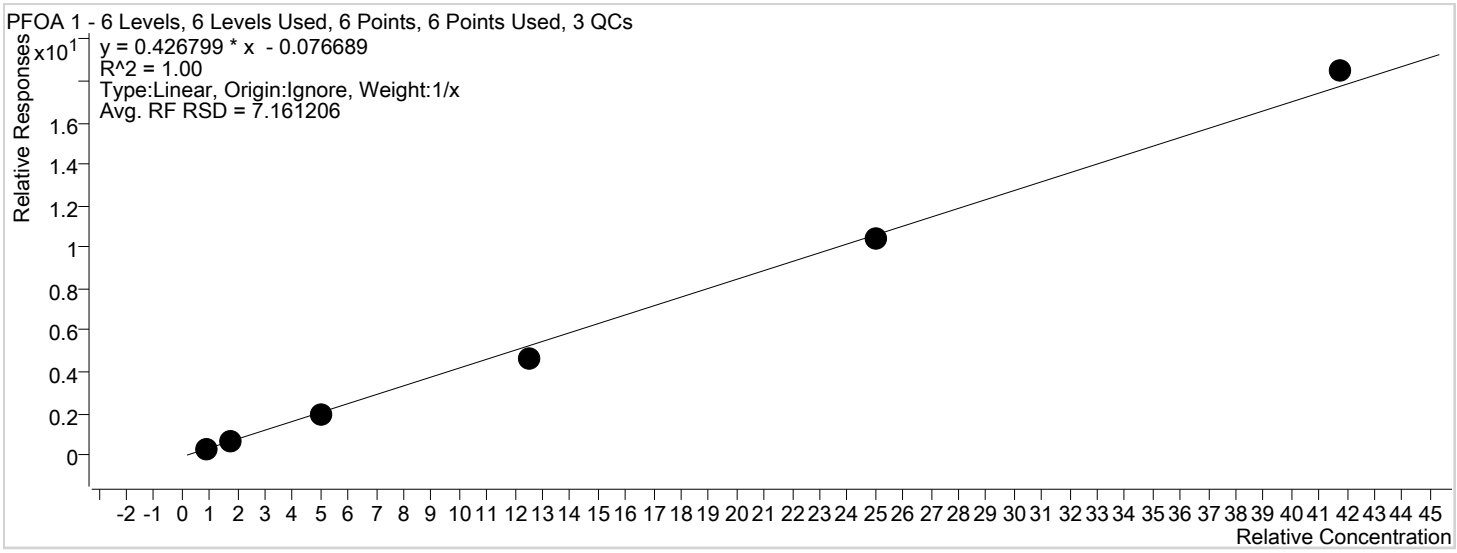
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFOA 1

Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.89	2835	0.3675	27	107.8
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.77	5942	0.4001	55	104.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.82	17315	0.3960	251	96.4
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.06	42523	0.3716	363	88.5
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	24.69	94546	0.4184	1057	98.7
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.49	154971	0.4433	1698	104.3

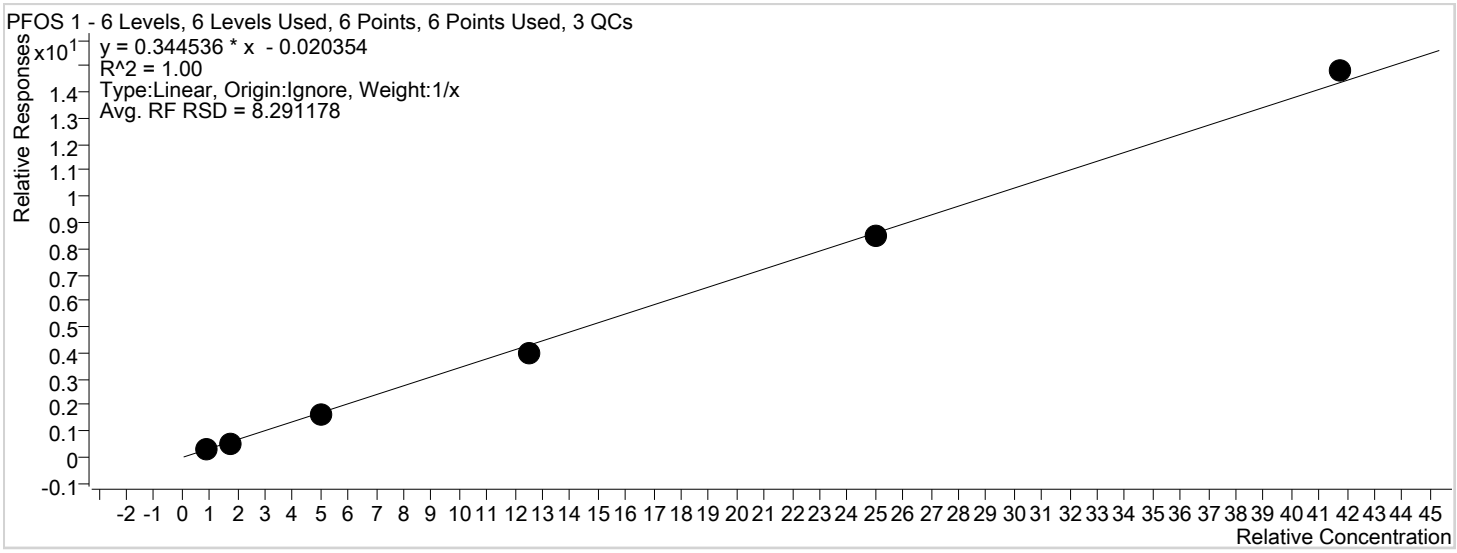
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFOS 1

Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.97	592	0.3794	90	117.2
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.54	961	0.2993	162	90.3
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.87	3310	0.3318	213	97.5
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.63	7727	0.3190	147	93.1
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	24.66	17307	0.3390	292	98.6
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.06	29880	0.3553	242	103.3

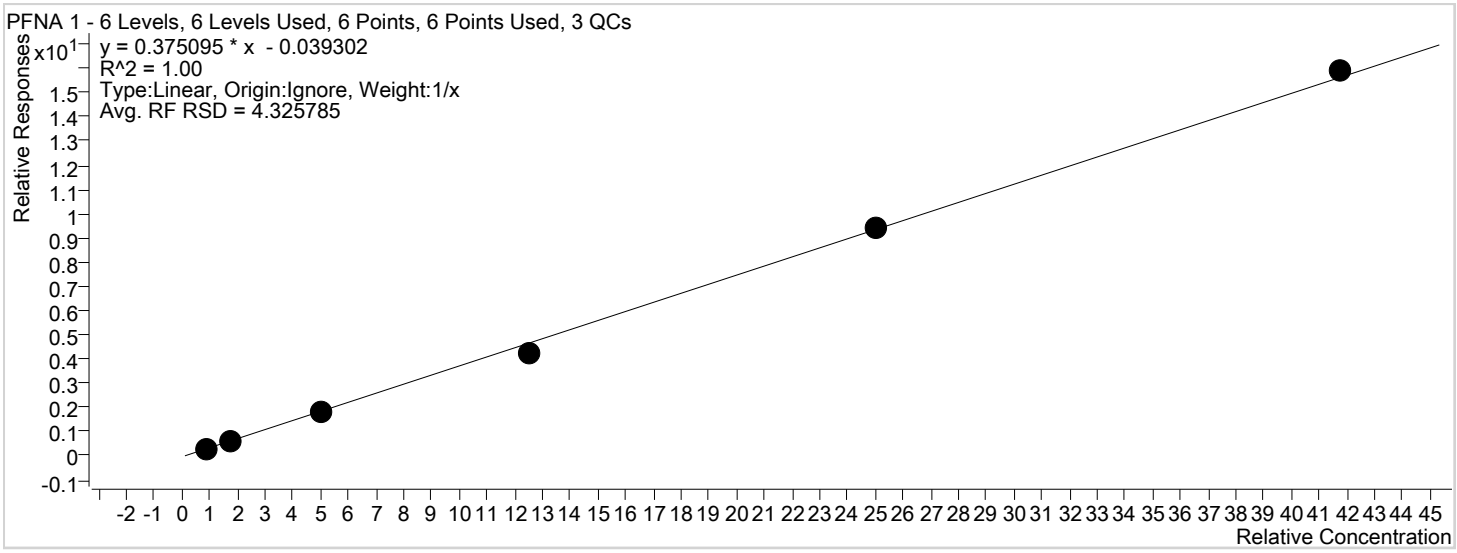
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFNA 1

Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.88	2562	0.3499	48	105.9
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.71	5291	0.3533	151	100.4
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.95	16213	0.3636	293	99.0
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.49	37466	0.3417	727	91.9
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.23	84183	0.3770	1433	100.9
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	42.47	137494	0.3811	1911	101.9

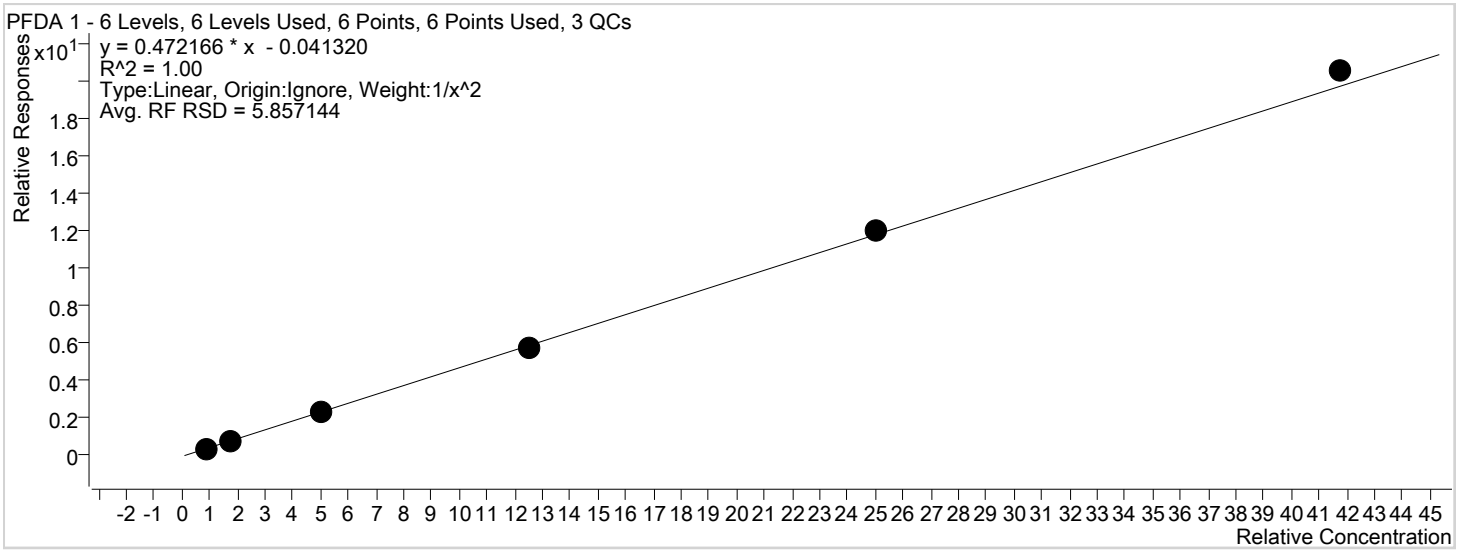
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFDA 1

Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.86	2686	0.4377	29	103.3
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.60	5351	0.4187	62	93.8
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.92	16796	0.4562	188	98.4
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	12.26	39281	0.4599	409	98.1
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.54	87430	0.4806	700	102.1
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	43.49	147759	0.4915	1476	104.3

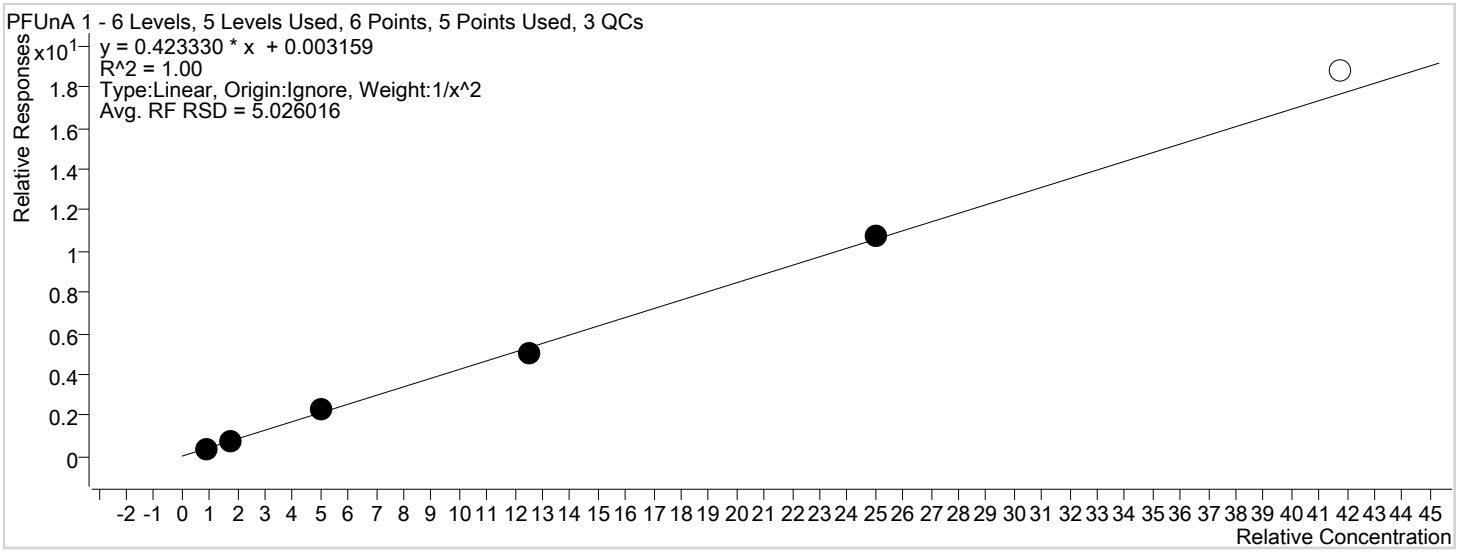
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFUnA 1

Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.85	3117	0.4360	20	102.1
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.60	5994	0.3998	71	94.0
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.32	19129	0.4508	113	106.3
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.98	42745	0.4059	217	95.8
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.43	96084	0.4308	236	101.7
STD 6	STD 6		2018/02/06 6:36:29 PM	41.70	44.42	162248	0.4511	303	106.5

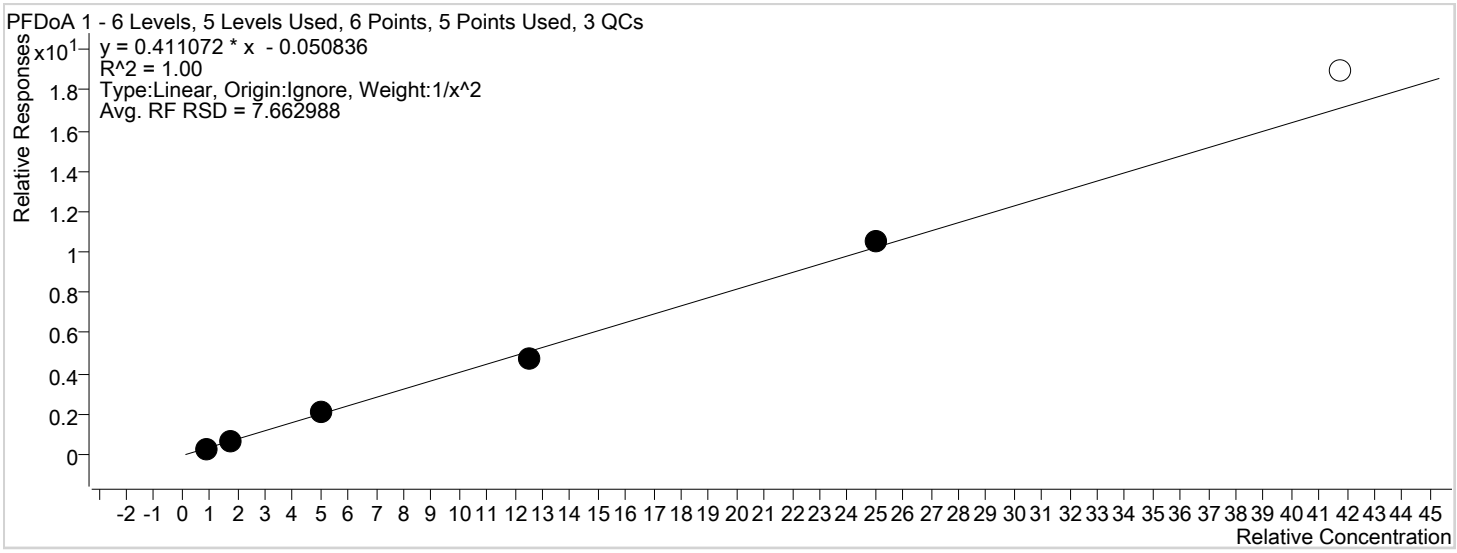
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFDoA 1

Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.82	3531	0.3457	89	99.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.73	7517	0.3894	128	102.0
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.11	23281	0.4097	657	102.1
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.67	54842	0.3799	1503	93.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.87	122186	0.4233	2081	103.5
STD 6	STD 6		2018/02/06 6:36:29 PM	41.70	46.23	206576	0.4545	3325	110.9

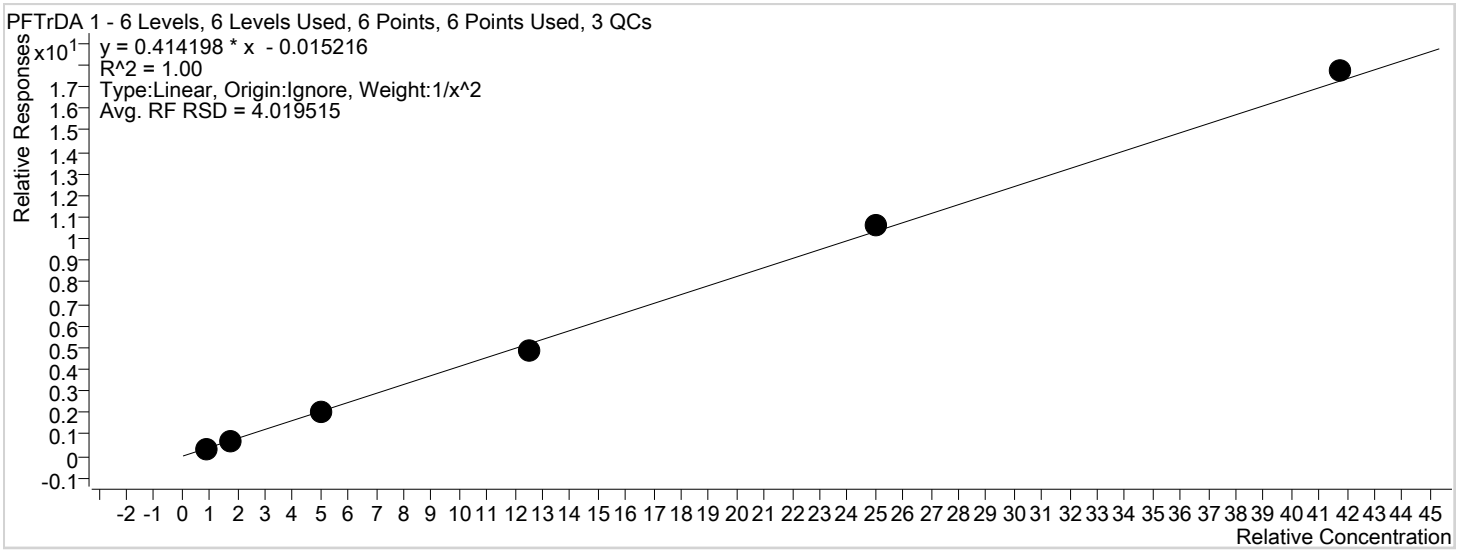
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFTrDA 1

Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.84	4399	0.4002	42	101.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.67	8288	0.3973	53	98.1
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	5.05	27306	0.4149	174	100.9
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.72	61125	0.3871	125	93.8
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	25.85	138442	0.4277	142	103.4
STD 6	STD 6	x	2018/02/06 6:36:29 PM	41.70	42.87	231782	0.4255	161	102.8

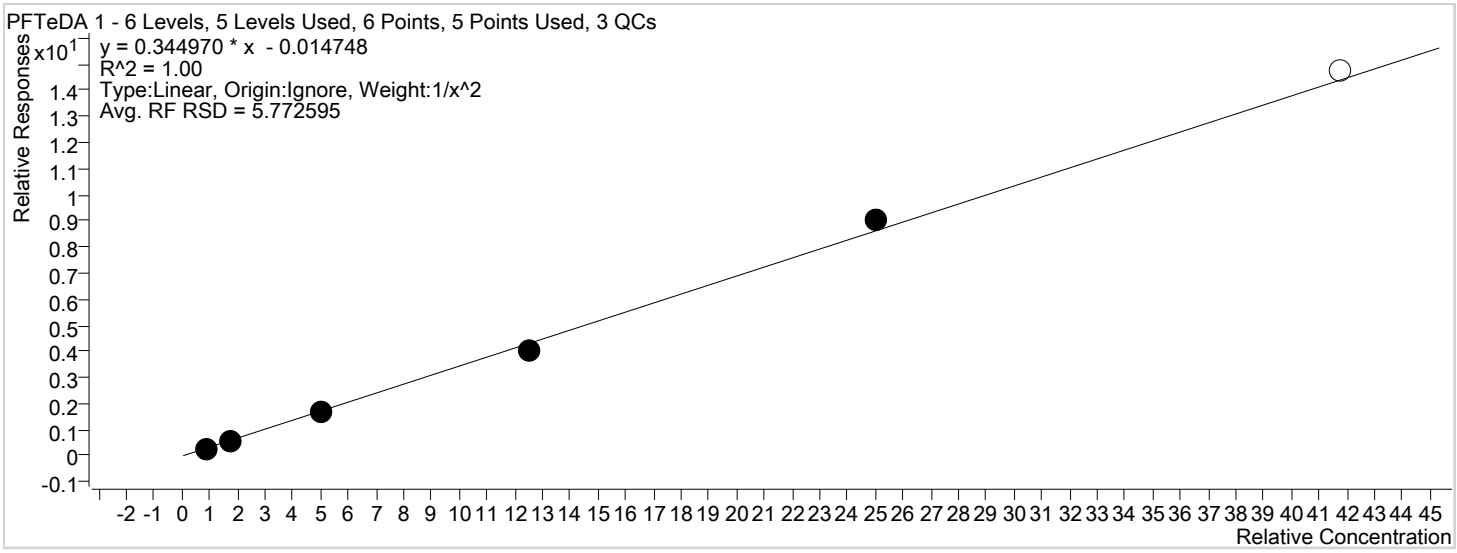
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics.batch.bin

Last Calib Update 2018/02/08 1:26:58 PM

Instrument: LCMS04

Analyte: PFTeDA 1

Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 6:11:47 PM	0.83	0.81	3520	0.3202	18	98.0
STD 2	STD 2	x	2018/02/06 6:16:44 PM	1.70	1.79	7406	0.3550	45	105.4
STD 3	STD 3	x	2018/02/06 6:21:40 PM	5.00	4.89	22027	0.3347	86	97.9
STD 4	STD 4	x	2018/02/06 6:26:36 PM	12.50	11.67	50660	0.3209	113	93.4
STD 5	STD 5	x	2018/02/06 6:31:33 PM	25.00	26.34	117482	0.3629	124	105.4
STD 6	STD 6		2018/02/06 6:36:29 PM	41.70	42.78	192586	0.3535	126	102.6

By Compound Report

Agilent Technologies

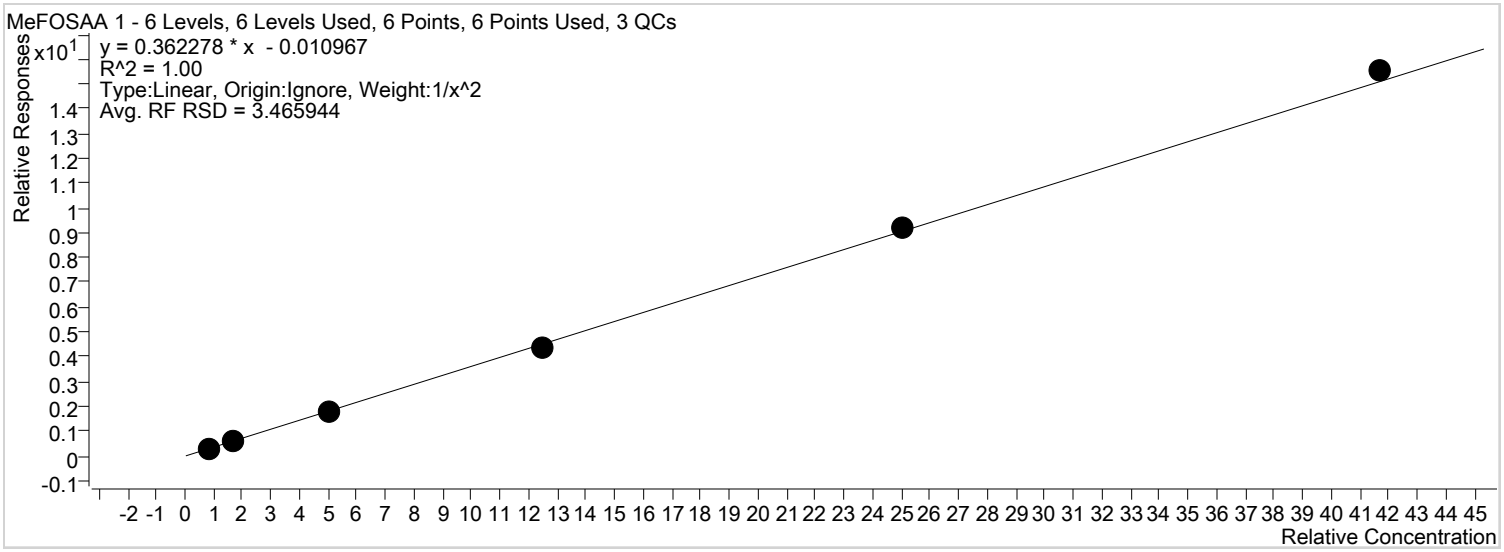
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics.batch.bin

Last Calib Update 2018/02/09 1:42:07 PM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 12:28:01 PM	0.83	0.84	581	0.3546	187	101.5
STD 2	STD 2	x	2018/02/06 12:30:26 PM	1.70	1.64	1088	0.3437	497	96.7
STD 3	STD 3	x	2018/02/06 12:32:51 PM	5.00	5.09	3380	0.3664	578	101.7
STD 4	STD 4	x	2018/02/06 12:35:16 PM	12.50	11.93	7647	0.3448	1165	95.4
STD 5	STD 5	x	2018/02/06 12:37:42 PM	25.00	25.44	17314	0.3682	913	101.8
STD 6	STD 6	x	2018/02/06 12:40:07 PM	41.70	42.90	27554	0.3725	1045	102.9

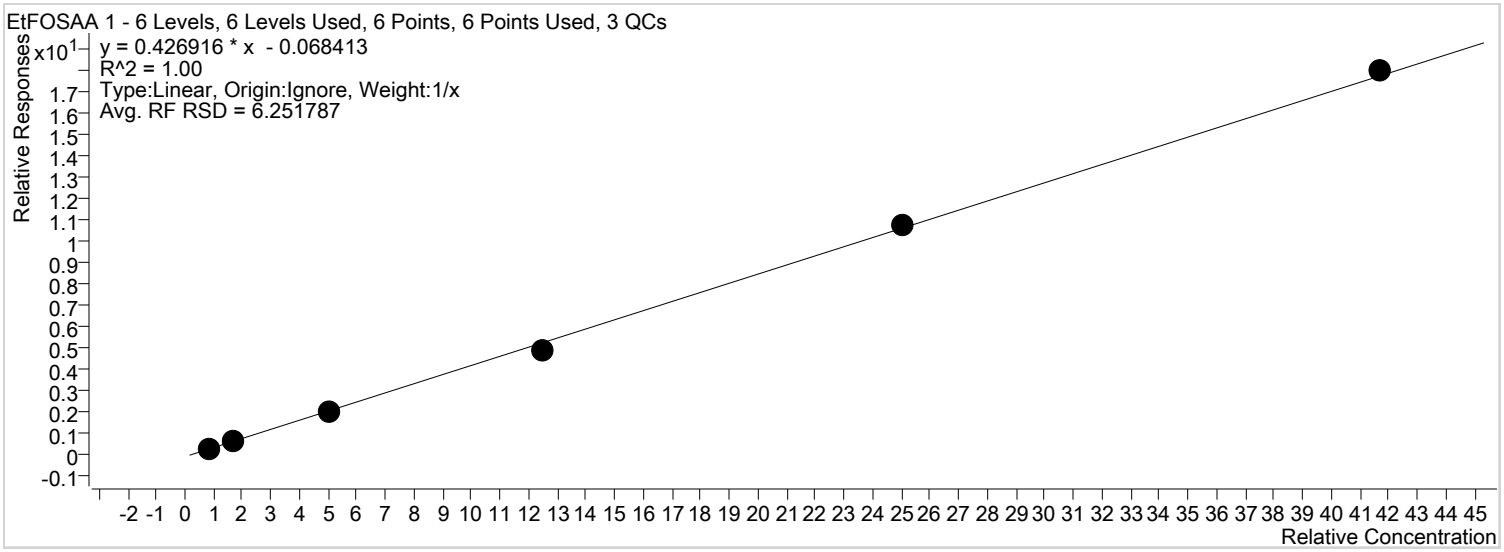
Batch Path T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics.batch.bin

Last Calib Update 2018/02/09 1:42:07 PM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/06 12:28:01 PM	0.83	0.89	520	0.3761	76	107.4
STD 2	STD 2	x	2018/02/06 12:30:26 PM	1.70	1.66	1054	0.3778	119	97.9
STD 3	STD 3	x	2018/02/06 12:32:51 PM	5.00	4.97	3261	0.4104	283	99.3
STD 4	STD 4	x	2018/02/06 12:35:16 PM	12.50	11.55	7583	0.3891	591	92.4
STD 5	STD 5	x	2018/02/06 12:37:42 PM	25.00	25.39	17091	0.4308	1008	101.5
STD 6	STD 6	x	2018/02/06 12:40:07 PM	41.70	42.27	27557	0.4311	1223	101.4

Quantitation Results

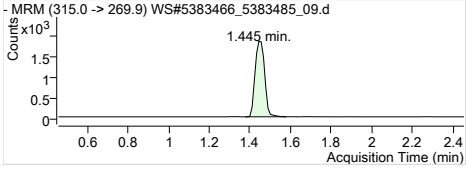
Agilent Technologies

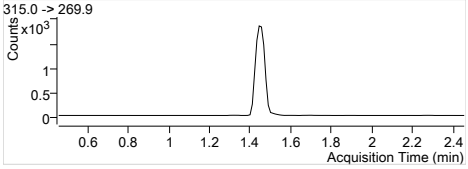
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A9
Acq. Date	2018/02/06 6:46:20 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5913	1.44	1 µg/L		
MPFHxS	1432	1.69	1 µg/L		
MPFHpA	8107	1.71	1 µg/L		
MPFOA	7826	1.89	1 µg/L		
MPFOS	1819	1.99	1 µg/L		
MPFNA	8593	2.04	1 µg/L		
MPFDA	7168	2.15	1 µg/L		
MPFUnA	7767	2.25	1 µg/L		
MPFDoA	10681	2.33	1 µg/L		
MPFTeDA	11576	2.48	1 µg/L		
13C6-PFHxA IS	28001	1.46	1 µg/L		
13C9-PFDA IS	33648	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	14343	1.11	20.80	22.81 µg/L	109.66
PFHxA 1	48319	1.46	20.80	20.49 µg/L	98.51
PFHxS 1	13637	1.69	20.80	21.55 µg/L	103.59
PFHpA 1	63700	1.71	20.80	18.83 µg/L	90.54
PFOA 1	72431	1.89	20.80	21.86 µg/L	105.12
PFOS 1	13253	1.98	20.80	21.21 µg/L	101.95
PFNA 1	61956	2.04	20.80	19.33 µg/L	92.92
PFDA 1	64629	2.15	20.80	19.18 µg/L	92.23
PFUnA 1	75265	2.25	20.80	22.88 µg/L	110.02
PFDoA 1	91414	2.33	20.80	20.94 µg/L	100.69
PFTrDA 1	105639	2.41	20.80	22.07 µg/L	106.10
PFTeDA 1	84131	2.48	20.80	21.11 µg/L	101.49
13C2-PFHxA	5913	1.44	100.00	89.13 µg/L	89.13
18O2-PFHxS	1432	1.69	100.00	88.01 µg/L	88.01
13C4-PFHpA	8107	1.71	100.00	99.10 µg/L	99.10
13C4-PFOA	7826	1.89	100.00	89.04 µg/L	89.04
13C4-PFOS	1819	1.99	100.00	94.12 µg/L	94.12
13C5-PFNA	8538	2.04	100.00	98.59 µg/L	98.59
13C2-PFDA	7010	2.15	100.00	103.82 µg/L	103.82
13C2-PFUnA	7767	2.25	100.00	95.43 µg/L	95.43
13C2-PFDoA	10681	2.33	100.00	98.61 µg/L	98.61
13C2-PFTeDA	11907	2.48	100.00	96.48 µg/L	96.48
13C6-PFHxA	28001	1.46	100.00	98.49 µg/L	98.49
13C9-PFDA	33648	2.15	100.00	94.06 µg/L	94.06





MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	QC

Quantitation Results

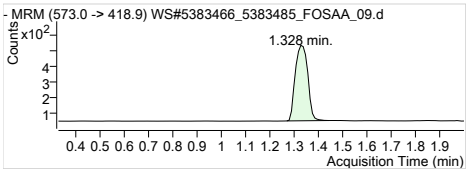
Agilent Technologies

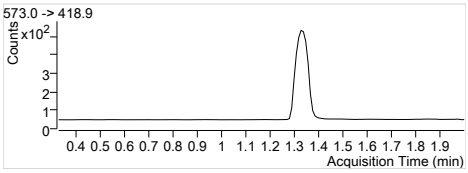
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A9
Acq. Date	2018/02/06 12:44:58 PM	**Injection Volume**	Per Method
Sample Annotation	-		

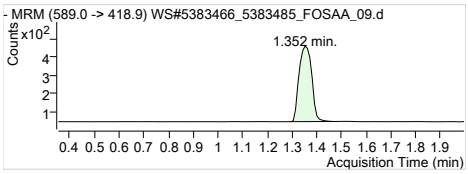
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1727	1.33	1 µg/L		
D5-EtFOSAA IS	1456	1.35	1 µg/L		
13C9-PFDA IS	27223	0.96	1 µg/L		

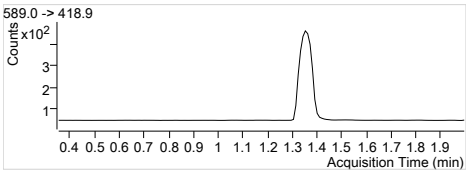
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	12867	1.33	20.80	20.60 µg/L	99.02
EtFOSAA 1	13233	1.35	20.80	21.45 µg/L	103.12
D3-MeFOSAA	1727	1.33	100.00	96.57 µg/L	96.57
D5-EtFOSAA	1456	1.35	100.00	94.50 µg/L	94.50
13C9-PFDA	27331	0.96	100.00	96.95 µg/L	96.95



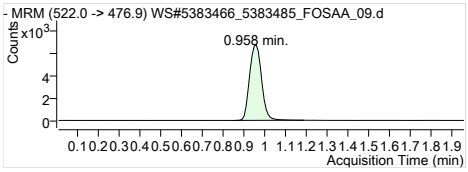


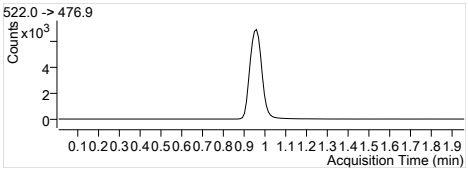
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: QC



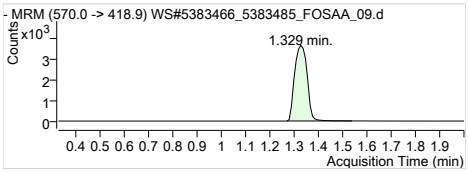


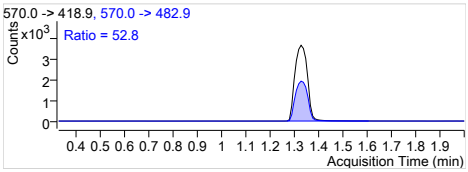
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: QC



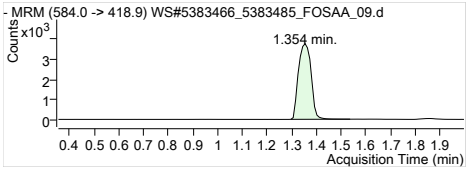


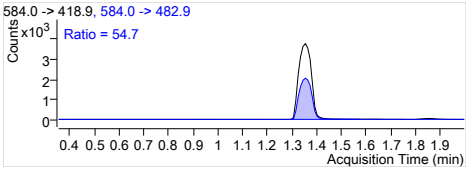
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: QC



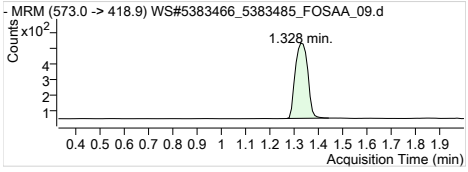


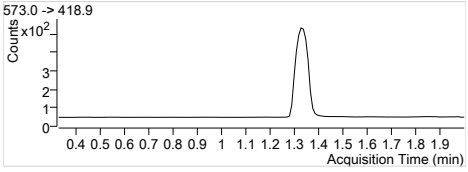
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 20.60 µg/L
Area ratio: 7.45049
Sample type: QC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 21.45 µg/L
Area ratio: 9.08860
Sample type: QC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 96.57 µg/L
Area ratio: 0.06344
Sample type: QC

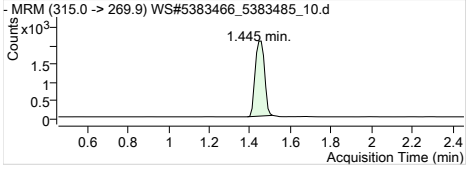
Quantitation Results

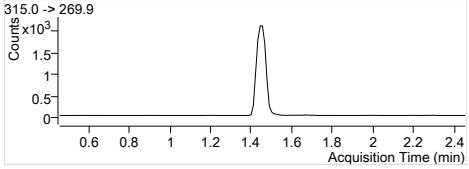
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics		
Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/06 6:51:16 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6584	1.44	1 µg/L		
MPFHxS	1727	1.69	1 µg/L		
MPFHpA	8753	1.71	1 µg/L		
MPFOA	9011	1.89	1 µg/L		
MPFOS	2012	1.99	1 µg/L		
MPFNA	9174	2.04	1 µg/L		
MPFDA	7976	2.15	1 µg/L		
MPFUnA	8831	2.25	1 µg/L		
MPFDoA	11268	2.33	1 µg/L		
MPFTeDA	13509	2.48	1 µg/L		
13C6-PFHxA IS	26497	1.44	1 µg/L		
13C9-PFDA IS	34805	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	578	1.11	0.83	0.90 µg/L	108.98
PFHxA 1	1948	1.46	0.83	1.05 µg/L	126.87
PFHxS 1	567	1.69	0.83	0.99 µg/L	118.71
PFHpA 1	2703	1.71	0.83	0.93 µg/L	111.51
PFOA 1	2981	1.89	0.83	0.95 µg/L	115.04
PFOS 1	550	1.98	0.83	0.85 µg/L	102.71
PFNA 1	2344	2.04	0.83	0.79 µg/L	94.69
PFDA 1	2847	2.15	0.83	0.84 µg/L	101.62
PFUnA 1	3094	2.25	0.83	0.82 µg/L	98.81
PFDoA 1	4022	2.33	0.83	0.99 µg/L	119.52
PFTrDA 1	4356	2.41	0.83	0.82 µg/L	98.22
PFTeDA 1	3525	2.48	0.83	0.80 µg/L	96.28
13C2-PFHxA	6584	1.44	100.00	104.88 µg/L	104.88
18O2-PFHxS	1727	1.69	100.00	112.16 µg/L	112.16
13C4-PFHpA	8753	1.71	100.00	113.07 µg/L	113.07
13C4-PFOA	9011	1.89	100.00	108.34 µg/L	108.34
13C4-PFOS	2012	1.99	100.00	110.01 µg/L	110.01
13C5-PFNA	9154	2.04	100.00	111.70 µg/L	111.70
13C2-PFDA	7930	2.15	100.00	113.54 µg/L	113.54
13C2-PFUnA	8831	2.25	100.00	104.90 µg/L	104.90
13C2-PFDoA	11268	2.33	100.00	100.57 µg/L	100.57
13C2-PFTeDA	13849	2.48	100.00	108.48 µg/L	108.48
13C6-PFHxA	26497	1.44	100.00	93.20 µg/L	93.20
13C9-PFDA	34805	2.15	100.00	97.29 µg/L	97.29





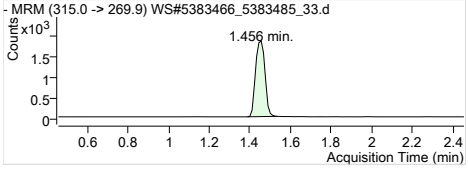
MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.456)
Concentration:	1 µg/L
Sample type:	CC

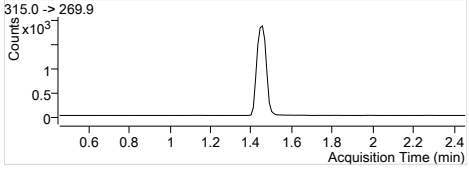
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_33.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/06 8:44:52 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5952	1.46	1 µg/L		
MPFHxS	1479	1.69	1 µg/L		
MPFHpA	8195	1.71	1 µg/L		
MPFOA	8316	1.89	1 µg/L		
MPFOS	1991	1.99	1 µg/L		
MPFNA	8403	2.04	1 µg/L		
MPFDA	7326	2.15	1 µg/L		
MPFUnA	8523	2.25	1 µg/L		
MPFDoA	11402	2.33	1 µg/L		
MPFTeDA	12531	2.48	1 µg/L		
13C6-PFHxA IS	27441	1.46	1 µg/L		
13C9-PFDA IS	35024	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7494	1.11	12.50	11.61 µg/L	92.89
PFHxA 1	28156	1.46	12.50	12.00 µg/L	95.98
PFHxS 1	7812	1.69	12.50	12.06 µg/L	96.51
PFHpA 1	37324	1.71	12.50	11.00 µg/L	87.98
PFOA 1	41978	1.89	12.50	12.01 µg/L	96.06
PFOS 1	8158	1.98	12.50	11.95 µg/L	95.61
PFNA 1	38160	2.04	12.50	12.21 µg/L	97.69
PFDA 1	39337	2.15	12.50	11.46 µg/L	91.68
PFUnA 1	41560	2.25	12.50	11.51 µg/L	92.09
PFDoA 1	54433	2.33	12.50	11.74 µg/L	93.90
PFTrDA 1	61489	2.41	12.50	11.88 µg/L	95.07
PFTeDA 1	54112	2.48	12.50	12.56 µg/L	100.48
13C2-PFHxA	5952	1.46	100.00	91.55 µg/L	91.55
18O2-PFHxS	1479	1.69	100.00	92.75 µg/L	92.75
13C4-PFHpA	8195	1.71	100.00	102.22 µg/L	102.22
13C4-PFOA	8316	1.89	100.00	96.54 µg/L	96.54
13C4-PFOS	1991	1.99	100.00	105.12 µg/L	105.12
13C5-PFNA	8349	2.04	100.00	98.37 µg/L	98.37
13C2-PFDA	7211	2.15	100.00	102.60 µg/L	102.60
13C2-PFUnA	8523	2.25	100.00	100.61 µg/L	100.61
13C2-PFDoA	11402	2.33	100.00	101.13 µg/L	101.13
13C2-PFTeDA	12767	2.48	100.00	99.38 µg/L	99.38
13C6-PFHxA	27441	1.46	100.00	96.52 µg/L	96.52
13C9-PFDA	35024	2.15	100.00	97.90 µg/L	97.90





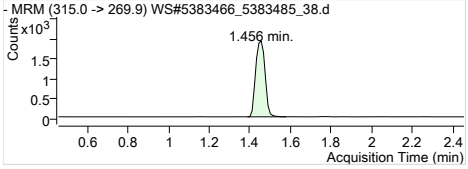
MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	CC

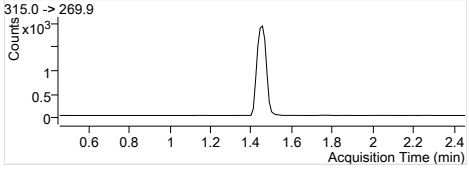
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485\QuantResults\PFC_Water_Low_180206_5383485_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_38.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/06 9:09:32 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6139	1.46	1 µg/L		
MPFHxS	1614	1.69	1 µg/L		
MPFHpA	8503	1.71	1 µg/L		
MPFOA	8311	1.89	1 µg/L		
MPFOS	2047	1.99	1 µg/L		
MPFNA	8310	2.04	1 µg/L		
MPFDA	7262	2.15	1 µg/L		
MPFUnA	8508	2.25	1 µg/L		
MPFDoA	11691	2.33	1 µg/L		
MPFTeDA	13609	2.48	1 µg/L		
13C6-PFHxA IS	27560	1.46	1 µg/L		
13C9-PFDA IS	36811	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7720	1.11	12.50	10.97 µg/L	87.76
PFHxA 1	28914	1.46	12.50	11.95 µg/L	95.58
PFHxS 1	8104	1.69	12.50	11.48 µg/L	91.84
PFHpA 1	38120	1.71	12.50	10.83 µg/L	86.63
PFOA 1	42099	1.89	12.50	12.05 µg/L	96.39
PFOS 1	8146	1.98	12.50	11.61 µg/L	92.87
PFNA 1	37296	2.04	12.50	12.07 µg/L	96.56
PFDA 1	41519	2.15	12.50	12.20 µg/L	97.57
PFUnA 1	41913	2.25	12.50	11.63 µg/L	93.04
PFDoA 1	55703	2.33	12.50	11.71 µg/L	93.71
PFTrDA 1	64129	2.41	12.50	11.41 µg/L	91.31
PFTeDA 1	53280	2.48	12.50	11.39 µg/L	91.13
13C2-PFHxA	6139	1.46	100.00	94.02 µg/L	94.02
18O2-PFHxS	1614	1.69	100.00	100.78 µg/L	100.78
13C4-PFHpA	8503	1.71	100.00	105.61 µg/L	105.61
13C4-PFOA	8311	1.89	100.00	96.07 µg/L	96.07
13C4-PFOS	2047	1.99	100.00	107.61 µg/L	107.61
13C5-PFNA	8310	2.04	100.00	97.49 µg/L	97.49
13C2-PFDA	7168	2.15	100.00	97.04 µg/L	97.04
13C2-PFUnA	8508	2.25	100.00	95.55 µg/L	95.55
13C2-PFDoA	11691	2.33	100.00	98.66 µg/L	98.66
13C2-PFTeDA	13875	2.48	100.00	102.76 µg/L	102.76
13C6-PFHxA	27560	1.46	100.00	96.94 µg/L	96.94
13C9-PFDA	36811	2.15	100.00	102.90 µg/L	102.90





MPFHxA	Internal Standard
RT (Exp. RT):	1.456 (1.456)
Concentration:	1 µg/L
Sample type:	CC

Quantitation Results

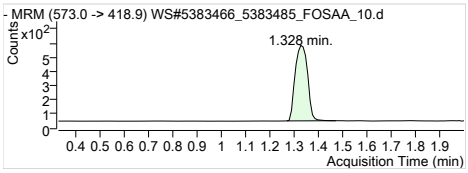
Agilent Technologies

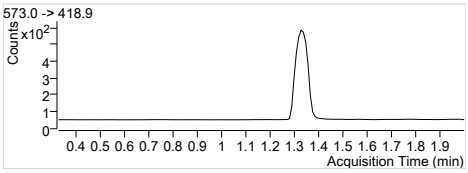
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/06 12:47:23 PM	**Injection Volume**	Per Method
Sample Annotation	-		

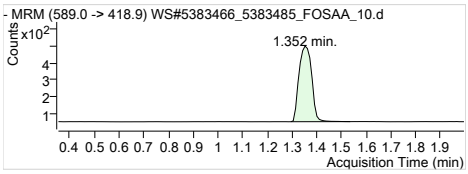
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1894	1.33	1 µg/L		
D5-EtFOSAA IS	1604	1.35	1 µg/L		
13C9-PFDA IS	25890	0.96	1 µg/L		

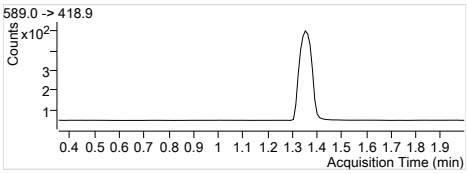
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	559	1.33	0.83	0.84 µg/L	101.80
EtFOSAA 1	528	1.35	0.83	0.93 µg/L	112.21
D3-MeFOSAA	1894	1.33	100.00	111.37 µg/L	111.37
D5-EtFOSAA	1604	1.35	100.00	109.47 µg/L	109.47
13C9-PFDA	25738	0.96	100.00	91.30 µg/L	91.30



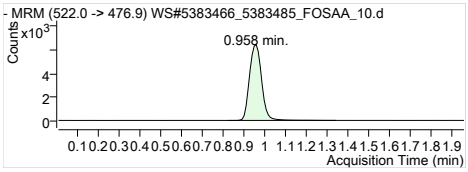


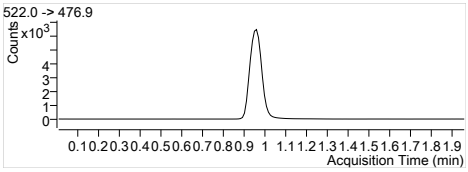
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



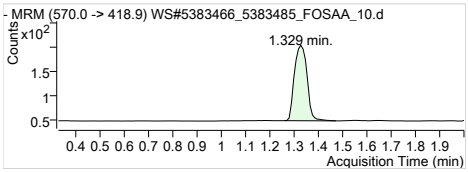


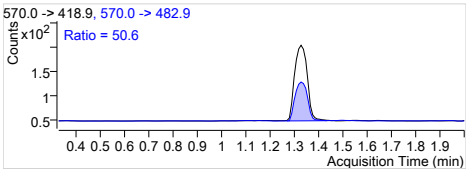
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



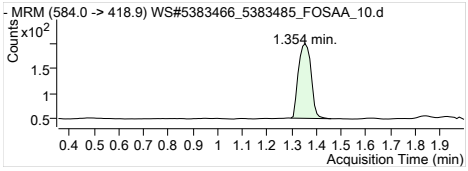


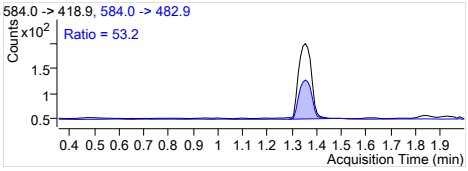
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: CC



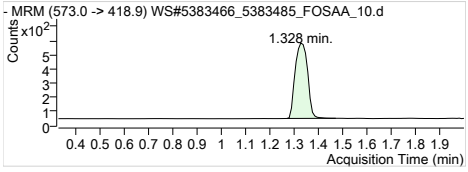


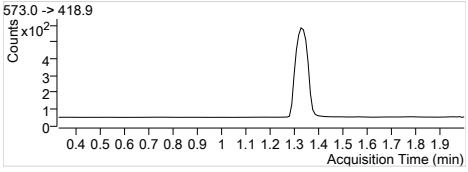
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 0.84 µg/L
Area ratio: 0.29514
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 0.93 µg/L
Area ratio: 0.32918
Sample type: CC





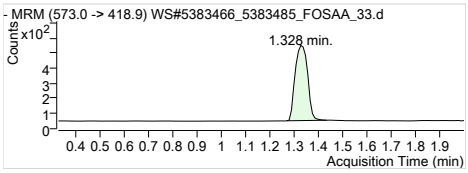
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 111.37 µg/L
Area ratio: 0.07316
Sample type: CC

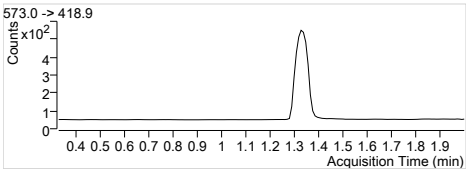
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_33.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 1:42:50 PM	**Injection Volume**	Per Method
Sample Annotation	-		

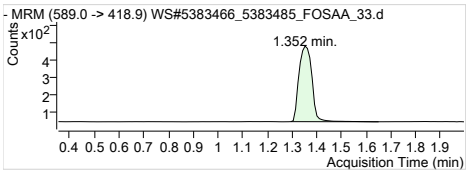
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1776	1.33	1 µg/L		
D5-EtFOSAA IS	1575	1.35	1 µg/L		
13C9-PFDA IS	28229	0.96	1 µg/L		

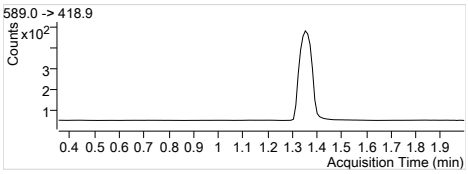
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7618	1.33	12.50	11.87 µg/L	94.96
EtFOSAA 1	7636	1.35	12.50	11.52 µg/L	92.13
D3-MeFOSAA	1776	1.33	100.00	95.77 µg/L	95.77
D5-EtFOSAA	1575	1.35	100.00	98.58 µg/L	98.58
13C9-PFDA	28351	0.96	100.00	100.57 µg/L	100.57



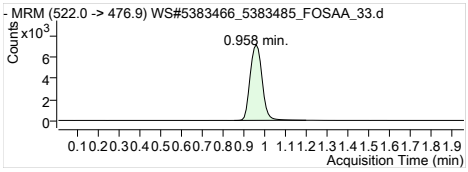


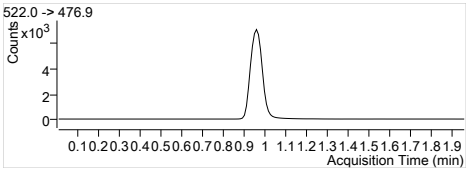
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



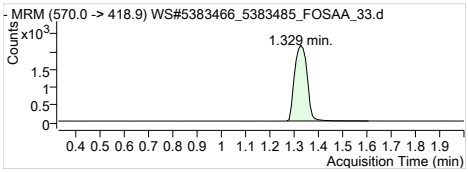


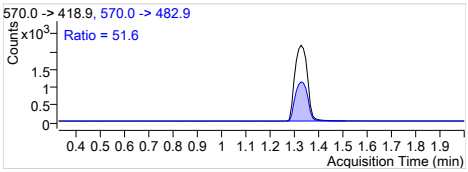
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



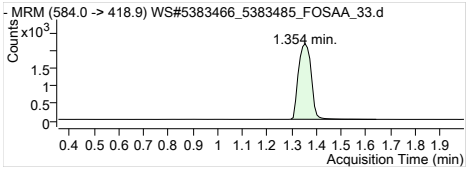


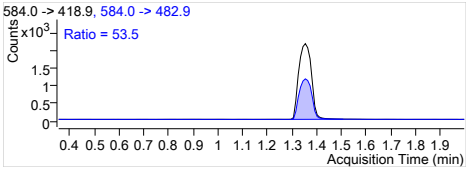
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: CC



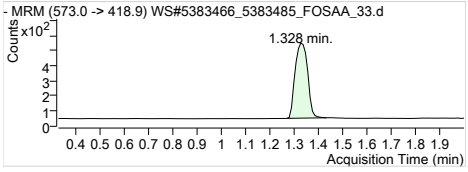


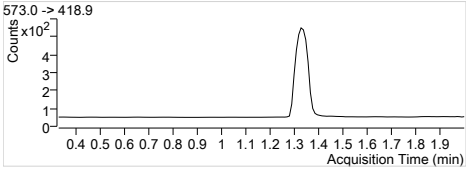
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 11.87 µg/L
Area ratio: 4.28941
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.52 µg/L
Area ratio: 4.84825
Sample type: CC





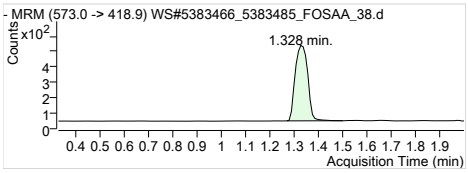
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 95.77 µg/L
Area ratio: 0.06291
Sample type: CC

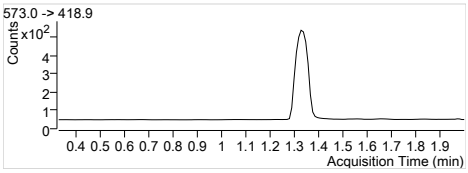
Batch Path	T:\lcms4\PFC\20180206\WS#5383466_5383485_FOSAA\QuantResults\PFC_Water_Low_180205_5383485_FOSAA_Etoxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5383466_5383485_FOSAA_38.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/06 1:54:56 PM	**Injection Volume**	Per Method
Sample Annotation	-		

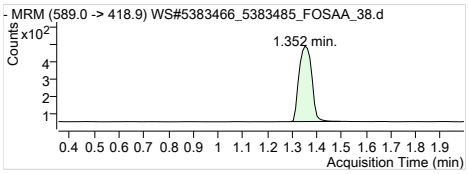
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1753	1.33	1 µg/L		
D5-EtFOSAA IS	1574	1.35	1 µg/L		
13C9-PFDA IS	28421	0.96	1 µg/L		

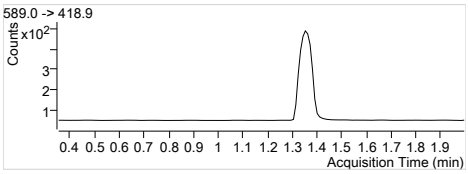
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7662	1.33	12.50	12.10 µg/L	96.76
EtFOSAA 1	7381	1.35	12.50	11.14 µg/L	89.16
D3-MeFOSAA	1753	1.33	100.00	93.90 µg/L	93.90
D5-EtFOSAA	1574	1.35	100.00	97.85 µg/L	97.85
13C9-PFDA	28308	0.96	100.00	100.42 µg/L	100.42



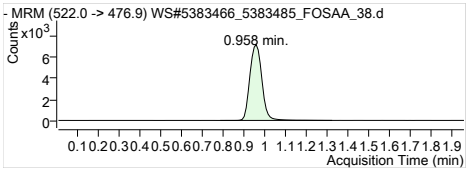


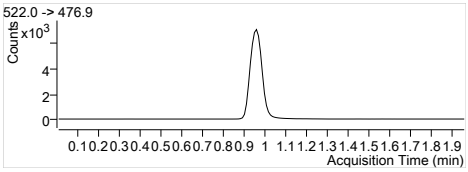
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.328 (1.328)
Concentration: 1 µg/L
Sample type: CC



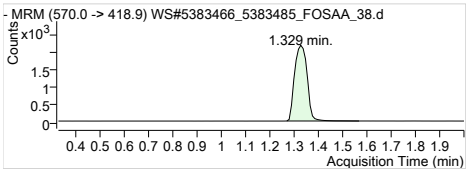


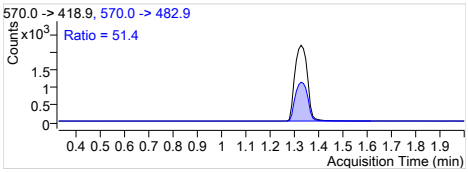
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.352 (1.352)
Concentration: 1 µg/L
Sample type: CC



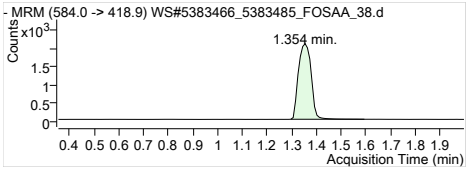


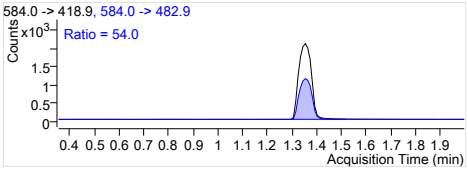
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.958 (0.958)
Concentration: 1 µg/L
Sample type: CC



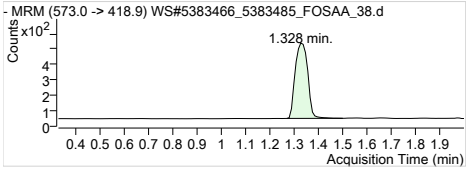


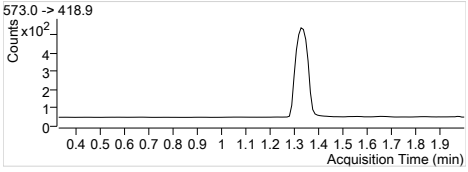
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.329 (1.329)
Calc. conc. 12.10 µg/L
Area ratio: 4.37079
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.354 (1.354)
Calc. conc. 11.14 µg/L
Area ratio: 4.68933
Sample type: CC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.328 (1.328)
Calc. conc. 93.90 µg/L
Area ratio: 0.06168
Sample type: CC

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/08

Worksheet # (s): 5386102

Analysis: PFOSALCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria		✓		✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria		✓		✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed			✓	✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS			✓	✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: [illegible] Date: 2018/02/09

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: Sm Date: 20 18/02/16

Comments: Samples FZJ934 reworked for PFOSA due to low recoveries of extracted IS. Sample FZA802 reworked for all parameters due to low recoveries of extracted IS.

*Note: 2nd 100% verification review documented by secondary qualified data review

Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5386102 Testcode: PFOS4LCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded			✓
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: DM3 Date: 2018/02/06

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.	✓		
20	WS Approval performed in LIMS			

Reviewed by: Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: Date:

Comments:

WS# : 5386102

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Tuesday, February 06, 2018

Assigned to : Daniella McLean

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

	Job Number	Sample Number	D	Sample ID	~~F~~ centrifuged sediments	~~% Moisture~~	Wt or Vol	Final Vol (mL)	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	envi (ABS (mg))
5,5		MTRX SPK	0	PFOS FZH347-01	*	<0.1	125	3	1X					2018/02/06	28
5,6		MTRX SPK	1	PFOS FZH347-01	*	<0.1	125	3	1X					2018/02/06	28
5,3		SPIKE		PFOS		0	125	3	1X					2018/02/06	33
5,1		BLANK				0	125	3	1X					2018/02/06	32
5,8	B818419	*FZA801-01R		[redacted]		0	125	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/01/31	29
5,10	B818419	*FZA802-01R		[redacted]	*	<0.1	125	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/01/31	27
5,12	B818419	*FZA803-01R		[redacted]		0	125	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/01/31	32
5,14	B818419	*FZA804-01R		[redacted]		0	125	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/01/31	29
5,16	B818419	*FZA805-01R		[redacted]		0	120	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/01/31	35
5,18	B818419	*FZA806-01R		[redacted]	*	<0.1	125	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/01/31	25
5,20	B819794	*FZH328-01R		CEF-003-38S-0118	*	<0.1	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/01/31	25
5,22	B819794	*FZH329-01R		CEF-002-04S-0118	*	<0.1	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/01/31	27
5,24	B819794	*FZH330-01R		FB-CEF-002-01231*		0	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/01/31	28
6,1	B819794	*FZH335-01R		FB-CEF-342-01231*		0	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/01/31	29
6,3	B819794	*FZH344-01R		FB-CEF-003-01231*		0	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/05	33
6,5	B819794	*FZH345-01R		EB-CEF-003-01231*		0	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/05	31
6,7	B819794	*FZH346-01R		EB-CEF-17-012218*		0	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/05	27
6,9	B819794	*FZH347-01R		CEF-003-04S-0118	*	<0.1	125	3	1X	6	2018/02/06	2018/02/09 18:00	DOD	2018/02/05	29
6,11	B819794	*FZH348-01R		CEF-003-04S-0118-*	*	<0.1	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/05	27
6,14	B820260	*FZJ934-01R		[redacted]		0	125	3	1X	2	2018/02/06	2018/02/09 23:00	DOD	2018/02/06	28

2018/02/06 DM3

Remarks:

Samples extracted by: Daniella McLean DM3 2018/02/06

Instrumentation performed by: [signature] Date: 2018/02/07

Calculations performed by: [signature] Date: 2018/02/09

Validated by: [signature] Date: 2018/02/16

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB818419	[redacted]			
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.)	AECOM

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

GB820260 [redacted]

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B818419	FZA801-01R	
B818419	FZA802-01R	Sample was clogged; only 90mL of sample passed thru SPE.
B818419	FZA803-01R	
B818419	FZA804-01R	
B818419	FZA805-01R	
B818419	FZA806-01R	
B819794	FZH328-01R	
B819794	FZH329-01R	
B819794	FZH330-01R	
B819794	FZH335-01R	
B819794	FZH344-01R	
B819794	FZH345-01R	
B819794	FZH346-01R	
B819794	FZH347-01R	
B819794	FZH348-01R	
B820260	FZJ934-01R	

S1 25
S2 50
S3 150
} SR-7377

S4 37.5
S5 75
S6 125
} I-5297

ICV 62.5 - I-5299

IB 2850µL MeOH + 150µL IS NPB 2018/02/06

Folder: 20180207 2018/02/09

Worksheet Reagent Tracking Record Worksheet # 5386102

Surrogate/Spike solutions	√	Solution ID #	Conc.	Blk-Spk Volume (µL) Solid	Blk-Spk Volume (µL) Liquid	MS Volume (µL) Solid	MS Volume (µL) Liquid	Samples Volume (µL) Solid	Samples Volume (µL) Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Sterll Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterllants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299 (1/3) KM	1ug/mL	75	21 (62.5)	75	21 (62.5)	NA	NA
PFC Internal Standard Solution	✓	SI-6763 (3/4) KM	50/125 ng/mL	200	100 (150)	200	100 (150)	200	100/(150)
PFC Injection IS	✓	SI-6716 (4/4) KM	400 ng/mL	20	20	20	20	20	20
ICV	✓	I-5299 (1/3)	1ug/mL		62.5				

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHB375	2018/02/06	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRLRE-108-341		DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer	✓	PRLRE-108-340	
2% Formic Acid	✓	PRLRE-105-342		0.2% NH_4OH			
0.2% Formic Acid 2018/02/06	~~✓~~	~~PRLRE-108~~ DM3		Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/02/06
0.05M HCl							

*Spiked by: DM3
Spike Date: 2018/02/06
Spike Syringe/Pipette ID#: G243906
Int. Std Syringe/Pipette ID#: M410117
*Spiking Witnessed by: KM
Final pH:

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor M39732F	✓	SPE Cartridge	007437247A	✓	QC Balance ID	
B	✓	Filter			Thermometer ID &Temp	
Dispenser		Centrifuge	42148683	✓		
		Sonicator				

Bottle Tracking
Bottle# 18587
Cap# 18422
Systems plus Lot#: 17-12-11

Comments: envi CARB Lot # 928061V
250mL cylinder # 3026

Worksheet Number: **5386102**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	MTRX SPK	DL	MTRX SPK Dup1	DL	SPIKE	DL
6:2 Fluorotelomer sulfonate	ug/L	108.15371	0.02	98.76866	0.02	107.55127	0.02
8:2 Fluorotelomer sulfonate	ug/L	105.22500	0.02	87.06656	0.02	107.51525	0.02
N-ethylperfluorooctane sulfonamide	ug/L	99.03512	0.02	90.45965	0.02	98.39542	0.02
EtFOSAA	ug/L	95.33636	0.02	104.42130	0.02	98.09913	0.02
N-ethylperfluorooctane sulfonamidoe	ug/L	93.35678	0.02	87.61801	0.02	113.89912	0.02
N-methylperfluorooctane sulfonamide	ug/L	83.28742	0.02	103.22239	0.02	101.35606	0.02
MeFOSAA	ug/L	101.77684	0.02	99.96694	0.02	97.78099	0.02
N-methylperfluorooctanesulfonamidol	ug/L	100.31349	0.02	87.25771	0.02	104.99119	0.02
Perfluorobutanoic acid	ug/L	68.82NC	0.02	95.70794NC	0.02	101.84148	0.02
Perfluorobutane Sulfonate (PFBS)	ug/L	112.38543	0.02	100.61221	0.02	117.02416	0.02
Perfluorodecane Sulfonate	ug/L	99.05686	0.02	97.41994	0.02	111.92506	0.02
Perfluoroheptanoic Acid (PFHpA)	ug/L	98.26438	0.02	98.22745	0.02	98.49369	0.02
Perfluoroheptane sulfonate	ug/L	107.96692	0.02	107.59832	0.02	104.67055	0.02
Perfluorohexanoic Acid (PFHxA)	ug/L	95.72692	0.02	98.65000	0.02	97.41181	0.02
Perfluorohexane Sulfonate (PFHxS)	ug/L	104.43760	0.02	91.37334	0.02	109.54785	0.02
Perfluorononanoic Acid (PFNA)	ug/L	95.03221	0.02	104.41951	0.02	106.04654	0.02
Perfluorooctane Sulfonamide (PFOSA)	ug/L	98.86020	0.02	93.35572	0.02	103.38504	0.02
Perfluoropentanoic Acid (PFPeA)	ug/L	93.15375	0.02	94.26917	0.02	102.52511	0.02
Perfluorotetradecanoic Acid	ug/L	154.666	0.02	105.22039	0.02	101.94241	0.02
Perfluorotridecanoic Acid	ug/L	158.270	0.02	111.95131	0.02	104.27929	0.02
Perfluoroundecanoic Acid (PFUnA)	ug/L	98.09203	0.02	101.30229	0.02	96.89275	0.02
Perfluorodecanoic Acid (PFDA)	ug/L	98.00575	0.02	100.23781	0.02	110.64655	0.02
Perfluorododecanoic Acid (PFDoA)	ug/L	105.64335	0.02	92.84556	0.02	113.24662	0.02
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	92.42467	0.02	96.20753	0.02	105.00987	0.02
Perfluorooctane Sulfonate (PFOS)	ug/L	91.13972	0.02	86.94286	0.02	103.05140	0.02
13C2-6:2 Fluorotelomer sulfonate	ug/L	68.9613668		67.8108940		71.6481589	
13C2-8:2 Fluorotelomer sulfonate	ug/L	71.1750825		82.3529917		67.0587668	
13C2-perfluorotetradecanoic acid	ug/L	42.8361		66.0475217		63.4891895	
13C4-Perfluorobutanoic acid	ug/L	83.2946400		80.6195048		79.9415155	
D3-MeFOSAA	ug/L	77.9996210		76.4240017		68.4101942	
D5-EtFOSAA	ug/L	81.5928407		74.8411869		68.7955679	
N-methyl-d3-perfluorooctane sulfona	ug/L	N/A*******		N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	ug/L	N/A*******		N/A*******		N/A*******	
13C2-Perfluorodecanoic acid	ug/L	79.6210853		77.0055925		63.7128328	
13C2-Perfluorododecanoic acid	ug/L	69.8211258		75.2559436		58.6480479	
13C2-Perfluorohexanoic acid	ug/L	84.4328542		84.3499986		76.9358520	
13C2-Perfluoroundecanoic acid	ug/L	73.6835901		75.1233196		66.2959591	
13C4-Perfluoroheptanoic acid	ug/L	82.0386836		84.3916216		75.5507180	
13C5-Perfluorononanoic acid	ug/L	85.5040146		75.1054366		71.6273865	
13C4-Perfluorooctanoic acid	ug/L	84.5625375		81.2206057		70.6755999	
13C4-Perfluorooctanesulfonate	ug/L	85.5073478		90.6554285		70.6584673	
13C5-Perfluoropentanoic acid	ug/L	90.5477492		90.4640261		77.2837511	
13C8-Perfluorooctane Sulfonamide	ug/L	51.7356547		58.6377082		49.6039380	
18O2-Perfluorohexanesulfonate	ug/L	84.5611238		102.604631		73.2621991	

Worksheet Number: **5386102**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	BLANK	DL	B818419 FZA801	DL	B818419 FZA802	DL	B818419 FZA803
6:2 Fluorotelomer sulfonate	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
8:2 Fluorotelomer sulfonate	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
N-ethylperfluorooctane sulfonamide	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
EtFOSAA	0	0.02	0	0.02	0	0.02	0
N-ethylperfluorooctane sulfonamidoe	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
N-methylperfluorooctane sulfonamide	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
MeFOSAA	0	0.02	0	0.02	0	0.02	0
N-methylperfluorooctanesulfonamidol	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluorobutanoic acid	0	0.02	0	0.02	N/A*******	0.02	0
Perfluorobutane Sulfonate (PFBS)	0	0.02	0	0.02	0	0.02	0
Perfluorodecane Sulfonate	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluoroheptanoic Acid (PFHpA)	0	0.02	0	0.02	0	0.02	0
Perfluoroheptane sulfonate	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluorohexanoic Acid (PFHxA)	0	0.02	0	0.02	0	0.02	0
Perfluorohexane Sulfonate (PFHxS)	0	0.02	0	0.02	0	0.02	0
Perfluorononanoic Acid (PFNA)	0	0.02	0	0.02	0	0.02	0
Perfluorooctane Sulfonamide (PFOSA)	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluoropentanoic Acid (PFPeA)	0	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluorotetradecanoic Acid	0	0.02	0	0.02	0	0.02	0
Perfluorotridecanoic Acid	0	0.02	0	0.02	0	0.02	0
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.02	0	0.02	0
Perfluorodecanoic Acid (PFDA)	0	0.02	0	0.02	0	0.02	0
Perfluorododecanoic Acid (PFDoA)	0	0.02	0	0.02	0	0.02	0
Perfluoro-n-Octanoic Acid (PFOA)	0	0.02	0	0.02	0	0.02	0
Perfluorooctane Sulfonate (PFOS)	0	0.02	0	0.02	0	0.02	0
13C2-6:2 Fluorotelomer sulfonate	65.6847542		N/A*******		!! 36.5120		N/A*******
13C2-8:2 Fluorotelomer sulfonate	67.7970914		N/A*******		!! 36.4839		N/A*******
13C2-perfluorotetradecanoic acid	53.8165347		68.7721796		!! 33.1980		62.0041684
13C4-Perfluorobutanoic acid	75.1169245		N/A*******		!! 45.1864		N/A*******
D3-MeFOSAA	60.8161991		74.6832419		!! 39.8715		68.9618290
D5-EtFOSAA	58.7596527		70.3220055		!! 38.7706		64.3642347
N-methyl-d3-perfluorooctane sulfona	N/A*******		N/A*******		!! 26.9898		N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******		N/A*******		!! 25.3911		N/A*******
13C2-Perfluorodecanoic acid	58.4992490		78.2132194		!! 41.9528		73.3646314
13C2-Perfluorododecanoic acid	58.3595831		71.6939140		!! 39.2231		68.6477042
13C2-Perfluorohexanoic acid	71.2243373		89.8935351		49.6414834		75.5855252
13C2-Perfluoroundecanoic acid	61.7128372		70.4119226		!! 43.2761		76.8137756
13C4-Perfluoroheptanoic acid	67.3128091		91.1361061		!! 47.3920		70.5279209
13C5-Perfluorononanoic acid	63.4244159		84.0412188		!! 12.7327		75.3138869
13C4-Perfluorooctanoic acid	64.7447075		84.6514064		!! 25.4249		80.3492784
13C4-Perfluorooctanesulfonate	74.1314703		73.1027902		!! 30.7815		73.0334465
13C5-Perfluoropentanoic acid	77.7306686		N/A*******		!! 47.0771		N/A*******
13C8-Perfluorooctane Sulfonamide	!! 44.6478		N/A*******		!! 26.3583		N/A*******
18O2-Perfluorohexanesulfonate	72.0248675		85.2267364		50.8223270		76.2273773

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	DL	B818419 FZA804	DL	B818419 FZA805	DL	B818419 FZA806	DL
6:2 Fluorotelomer sulfonate	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
8:2 Fluorotelomer sulfonate	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
N-ethylperfluorooctane sulfonamide	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
EtFOSAA	0.02	0	0.02	0	0.021	0	0.02
N-ethylperfluorooctane sulfonamidoe	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
N-methylperfluorooctane sulfonamide	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
MeFOSAA	0.02	0	0.02	0	0.021	0	0.02
N-methylperfluorooctanesulfonamidol	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
Perfluorobutanoic acid	0.02	0	0.02	0	0.021	0	0.02
Perfluorobutane Sulfonate (PFBS)	0.02	0	0.02	0	0.021	0	0.02
Perfluorodecane Sulfonate	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
Perfluoroheptanoic Acid (PFHpA)	0.02	0	0.02	0	0.021	0	0.02
Perfluoroheptane sulfonate	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
Perfluorohexanoic Acid (PFHxA)	0.02	0	0.02	0	0.021	0	0.02
Perfluorohexane Sulfonate (PFHxS)	0.02	0	0.02	0	0.021	0	0.02
Perfluorononanoic Acid (PFNA)	0.02	0	0.02	0	0.021	0	0.02
Perfluorooctane Sulfonamide (PFOSA)	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
Perfluoropentanoic Acid (PFPeA)	0.02	N/A*******	0.02	N/A*******	0.021	N/A*******	0.02
Perfluorotetradecanoic Acid	0.02	0	0.02	0	0.021	0	0.02
Perfluorotridecanoic Acid	0.02	0	0.02	0	0.021	0	0.02
Perfluoroundecanoic Acid (PFUnA)	0.02	0	0.02	0	0.021	0	0.02
Perfluorodecanoic Acid (PFDA)	0.02	0	0.02	0	0.021	0	0.02
Perfluorododecanoic Acid (PFDoA)	0.02	0	0.02	0	0.021	0	0.02
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0	0.02	0	0.021	0	0.02
Perfluorooctane Sulfonate (PFOS)	0.02	0	0.02	0	0.021	0	0.02
13C2-6:2 Fluorotelomer sulfonate		N/A*******		N/A*******		N/A*******	
13C2-8:2 Fluorotelomer sulfonate		N/A*******		N/A*******		N/A*******	
13C2-perfluorotetradecanoic acid		65.1107643		63.8042546		63.2599500	
13C4-Perfluorobutanoic acid		N/A*******		N/A*******		N/A*******	
D3-MeFOSAA		62.5297766		79.7525963		72.9527681	
D5-EtFOSAA		62.8210790		77.5283919		72.4039477	
N-methyl-d3-perfluorooctane sulfona		N/A*******		N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam		N/A*******		N/A*******		N/A*******	
13C2-Perfluorodecanoic acid		71.6273041		74.5336956		64.4915902	
13C2-Perfluorododecanoic acid		68.2987872		71.6636355		61.8666515	
13C2-Perfluorohexanoic acid		74.9423693		78.9856587		79.0768120	
13C2-Perfluoroundecanoic acid		67.2387275		73.6624333		68.0480823	
13C4-Perfluoroheptanoic acid		71.9233144		83.4077403		71.5851695	
13C5-Perfluorononanoic acid		71.4496653		78.9271859		78.0173095	
13C4-Perfluorooctanoic acid		70.4543610		80.9202477		69.1029365	
13C4-Perfluorooctanesulfonate		74.3789575		79.7149216		85.5302278	
13C5-Perfluoropentanoic acid		N/A*******		N/A*******		N/A*******	
13C8-Perfluorooctane Sulfonamide		N/A*******		N/A*******		N/A*******	
18O2-Perfluorohexanesulfonate		81.3970501		84.9029632		85.3024362	

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B819794 FZH328	DL	B819794 FZH329	DL	B819794 FZH330	DL	B819794 FZH335
6:2 Fluorotelomer sulfonate	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
8:2 Fluorotelomer sulfonate	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
N-ethylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
EtFOSAA	0	0.02	0	0.02	0	0.02	0
N-ethylperfluorooctane sulfonamidoe	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
MeFOSAA	0	0.02	0	0.02	0	0.02	0
N-methylperfluorooctanesulfonamidol	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluorobutanoic acid	0.20338904	0.02	0	0.02	N/A*******	0.02	N/A*******
Perfluorobutane Sulfonate (PFBS)	0	0.02	0	0.02	0	0.02	0
Perfluorodecane Sulfonate	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluoroheptanoic Acid (PFHpA)	0.01521830	0.02	0	0.02	0	0.02	0
Perfluoroheptane sulfonate	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluorohexanoic Acid (PFHxA)	0.01675640	0.02	0	0.02	0	0.02	0
Perfluorohexane Sulfonate (PFHxS)	0.01105225	0.02	0	0.02	0	0.02	0
Perfluorononanoic Acid (PFNA)	0.01251015	0.02	0	0.02	0	0.02	0
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******
Perfluorotetradecanoic Acid	0	0.02	0	0.02	0	0.02	0
Perfluorotridecanoic Acid	0	0.02	0	0.02	0	0.02	0
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.02	0	0.02	0
Perfluorodecanoic Acid (PFDA)	0	0.02	0	0.02	0	0.02	0
Perfluorododecanoic Acid (PFDoA)	0	0.02	0	0.02	0	0.02	0
Perfluoro-n-Octanoic Acid (PFOA)	0.03051730	0.02	0.02421777	0.02	0	0.02	0
Perfluorooctane Sulfonate (PFOS)	0.11228609	0.02	0.01980499	0.02	0	0.02	0
13C2-6:2 Fluorotelomer sulfonate	N/A*******		N/A*******		N/A*******		N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******		N/A*******		N/A*******		N/A*******
13C2-perfluorotetradecanoic acid	69.3238825		73.1791544		72.2186854		80.5329504
13C4-Perfluorobutanoic acid	N/A*******		N/A*******		N/A*******		N/A*******
D3-MeFOSAA	68.1789647		84.8842256		89.5181511		88.5315272
D5-EtFOSAA	68.1285820		81.9677088		86.4902034		89.6064453
N-methyl-d3-perfluorooctane sulfona	N/A*******		N/A*******		N/A*******		N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******		N/A*******		N/A*******		N/A*******
13C2-Perfluorodecanoic acid	85.2662479		81.8715336		89.1963263		97.3521106
13C2-Perfluorododecanoic acid	75.2444161		78.6059749		76.6205993		86.1558264
13C2-Perfluorohexanoic acid	86.9107761		86.0640809		96.6662949		103.074728
13C2-Perfluoroundecanoic acid	78.5645985		81.4177000		89.7516126		101.636981
13C4-Perfluoroheptanoic acid	89.0740404		86.0220603		94.1360707		97.7206945
13C5-Perfluorononanoic acid	81.6591979		89.9121539		98.6014041		95.1522073
13C4-Perfluorooctanoic acid	86.8717496		87.4723603		87.5751390		102.573025
13C4-Perfluorooctanesulfonate	89.3562435		94.9509994		93.4441346		103.195959
13C5-Perfluoropentanoic acid	N/A*******		92.9505695		97.8079154		N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******		78.9004503		64.2276292		N/A*******
18O2-Perfluorohexanesulfonate	89.0931969		101.473836		100.667364		100.286521

Worksheet Number: **5386102**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	DL	B819794 FZH344	DL	B819794 FZH345	DL	B819794 FZH346	DL
6:2 Fluorotelomer sulfonate	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
8:2 Fluorotelomer sulfonate	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
N-ethylperfluorooctane sulfonamide	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
EtFOSAA	0.02	0	0.02	0	0.02	0	0.02
N-ethylperfluorooctane sulfonamidoe	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
N-methylperfluorooctane sulfonamide	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
MeFOSAA	0.02	0	0.02	0	0.02	0	0.02
N-methylperfluorooctanesulfonamidol	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
Perfluorobutanoic acid	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
Perfluorobutane Sulfonate (PFBS)	0.02	0	0.02	0	0.02	0	0.02
Perfluorodecane Sulfonate	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
Perfluoroheptanoic Acid (PFHpA)	0.02	0	0.02	0	0.02	0	0.02
Perfluoroheptane sulfonate	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
Perfluorohexanoic Acid (PFHxA)	0.02	0	0.02	0	0.02	0	0.02
Perfluorohexane Sulfonate (PFHxS)	0.02	0	0.02	0	0.02	0	0.02
Perfluorononanoic Acid (PFNA)	0.02	0	0.02	0	0.02	0	0.02
Perfluorooctane Sulfonamide (PFOSA)	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
Perfluoropentanoic Acid (PFPeA)	0.02	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02
Perfluorotetradecanoic Acid	0.02	0	0.02	0	0.02	0	0.02
Perfluorotridecanoic Acid	0.02	0	0.02	0	0.02	0	0.02
Perfluoroundecanoic Acid (PFUnA)	0.02	0	0.02	0	0.02	0	0.02
Perfluorodecanoic Acid (PFDA)	0.02	0	0.02	0	0.02	0	0.02
Perfluorododecanoic Acid (PFDoA)	0.02	0	0.02	0	0.02	0	0.02
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0	0.02	0	0.02	0	0.02
Perfluorooctane Sulfonate (PFOS)	0.02	0	0.02	0	0.02	0	0.02
13C2-6:2 Fluorotelomer sulfonate		N/A*******		N/A*******		N/A*******	
13C2-8:2 Fluorotelomer sulfonate		N/A*******		N/A*******		N/A*******	
13C2-perfluorotetradecanoic acid		77.1908524		71.9470181		75.3855990	
13C4-Perfluorobutanoic acid		N/A*******		N/A*******		N/A*******	
D3-MeFOSAA		84.7396178		73.5421858		81.3894851	
D5-EtFOSAA		86.1073348		75.8329929		80.2984169	
N-methyl-d3-perfluorooctane sulfona		N/A*******		N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam		N/A*******		N/A*******		N/A*******	
13C2-Perfluorodecanoic acid		99.0546764		82.1760373		94.9012927	
13C2-Perfluorododecanoic acid		84.1751686		73.8662504		76.5459481	
13C2-Perfluorohexanoic acid		103.981453		89.5273662		98.6190842	
13C2-Perfluoroundecanoic acid		90.4203887		76.5271325		94.6068299	
13C4-Perfluoroheptanoic acid		99.2321321		88.3159353		96.4711965	
13C5-Perfluorononanoic acid		96.3452767		86.2244037		96.3752530	
13C4-Perfluorooctanoic acid		98.5254289		86.2726611		102.455275	
13C4-Perfluorooctanesulfonate		100.342167		86.1902780		90.6185606	
13C5-Perfluoropentanoic acid		97.1968980		91.5038071		101.174284	
13C8-Perfluorooctane Sulfonamide		76.1132788		62.8588376		67.2981523	
18O2-Perfluorohexanesulfonate		97.7587480		91.2758797		97.1877814	

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

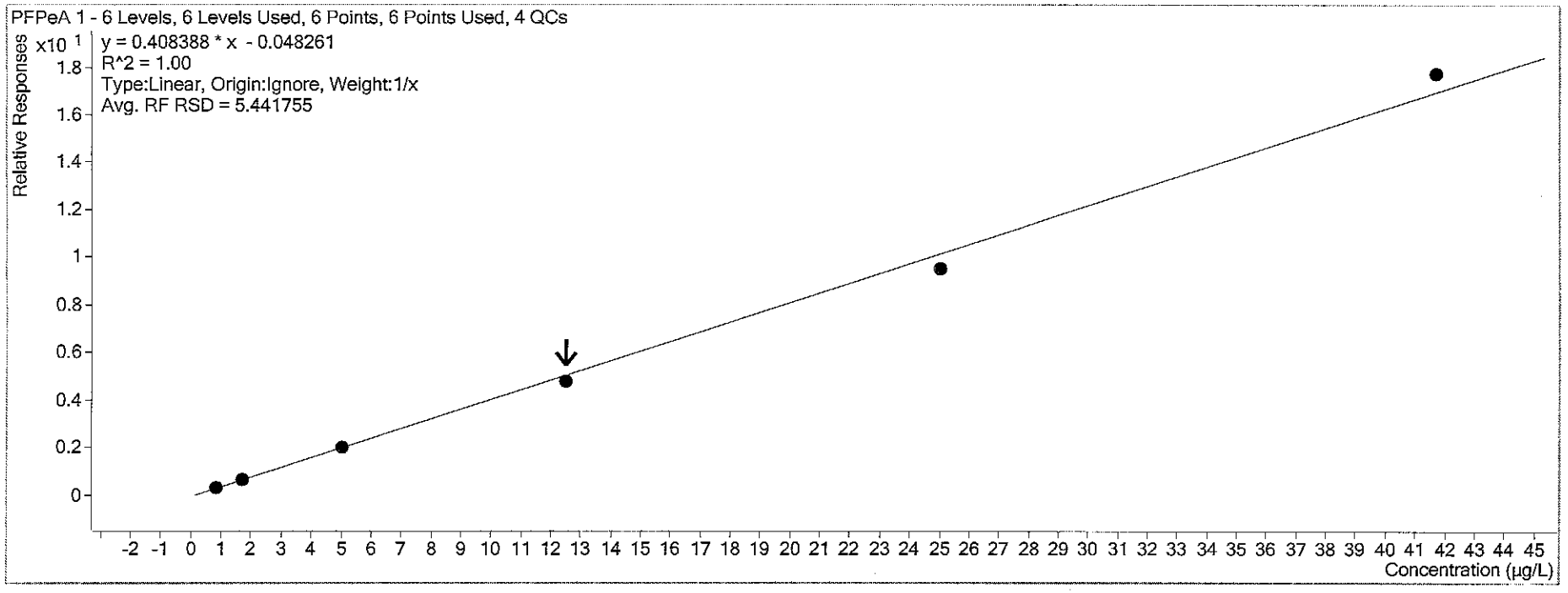
Parameter Name	B819794 FZH347	DL	B819794 FZH348	DL	B820260 FZJ934	DL	RDL
6:2 Fluorotelomer sulfonate	N/A*******	0.02	N/A*******	0.02	0	0.02	0.02
8:2 Fluorotelomer sulfonate	N/A*******	0.02	N/A*******	0.02	0	0.02	0.02
N-ethylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	0.02
EtFOSAA	0	0.02	0	0.02	N/A*******	0.02	0.02
N-ethylperfluorooctane sulfonamidoe	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	0.02
N-methylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	0.02
MeFOSAA	0	0.02	0	0.02	N/A*******	0.02	0.02
N-methylperfluorooctanesulfonamidoi	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	0.02
Perfluorobutanoic acid	1.32435011	0.02	N/A*******	0.02	0	0.02	0.02
Perfluorobutane Sulfonate (PFBS)	0	0.02	0	0.02	0	0.02	0.02
Perfluorodecane Sulfonate	N/A*******	0.02	N/A*******	0.02	0	0.02	0.02
Perfluoroheptanoic Acid (PFHpA)	0.01259488	0.02	0.01117351	0.02	0	0.02	0.02
Perfluoroheptane sulfonate	N/A*******	0.02	N/A*******	0.02	N/A*******	0.02	0.02
Perfluorohexanoic Acid (PFHxA)	0.01407001	0.02	0.01319642	0.02	0	0.02	0.02
Perfluorohexane Sulfonate (PFHxS)	0.00977400	0.02	0.00778421	0.02	0	0.02	0.02
Perfluorononanoic Acid (PFNA)	0	0.02	0	0.02	0	0.02	0.02
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	0.02	N/A*******	0.02	0	0.02	0.02
Perfluoropentanoic Acid (PFPeA)	N/A*******	0.02	N/A*******	0.02	0	0.02	0.02
Perfluorotetradecanoic Acid	0	0.02	0	0.02	0	0.02	0.02
Perfluorotridecanoic Acid	0	0.02	0	0.02	0	0.02	0.02
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.02	0	0.02	0.02
Perfluorodecanoic Acid (PFDA)	0	0.02	0	0.02	0	0.02	0.02
Perfluorododecanoic Acid (PFDoA)	0	0.02	0	0.02	0	0.02	0.02
Perfluoro-n-Octanoic Acid (PFOA)	0.03076766	0.02	0.02327353	0.02	0	0.02	0.02
Perfluorooctane Sulfonate (PFOS)	0.02087630	0.02	0.01707903	0.02	0	0.02	0.02
13C2-6:2 Fluorotelomer sulfonate	N/A*******		N/A*******		83.7850573		
13C2-8:2 Fluorotelomer sulfonate	N/A*******		N/A*******		81.4629185		
13C2-perfluorotetradecanoic acid	65.2261649		66.6786894		64.7172540		
13C4-Perfluorobutanoic acid	N/A*******		N/A*******		89.2547297		
D3-MeFOSAA	73.7337370		83.8622985		N/A*******		
D5-EtFOSAA	71.9622175		81.6914136		N/A*******		
N-methyl-d3-perfluorooctane sulfona	N/A*******		N/A*******		N/A*******		
N-ethyl-d5-perfluorooctane sulfonam	N/A*******		N/A*******		N/A*******		
13C2-Perfluorodecanoic acid	68.0330052		79.8067445		67.9065261		
13C2-Perfluorododecanoic acid	67.6070511		71.7300881		63.2119014		
13C2-Perfluorohexanoic acid	74.8592925		76.5367429		86.4727994		
13C2-Perfluoroundecanoic acid	69.7976855		75.6814541		68.4996292		
13C4-Perfluoroheptanoic acid	69.1457833		87.0723268		81.1903390		
13C5-Perfluorononanoic acid	72.5916047		82.8828909		85.0057938		
13C4-Perfluorooctanoic acid	70.8560945		82.3483394		86.5523980		
13C4-Perfluorooctanesulfonate	77.7487498		87.3949690		82.5559714		
13C5-Perfluoropentanoic acid	N/A*******		N/A*******		88.3457088		
13C8-Perfluorooctane Sulfonamide	N/A*******		N/A*******		148.6323		
18O2-Perfluorohexanesulfonate	87.4774020		82.3917817		95.0887111		

Worksheet Number: **5386102**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	MDL	IDL					
6:2 Fluorotelomer sulfonate	0.0066	0					
8:2 Fluorotelomer sulfonate	0.0066	0					
N-ethylperfluorooctane sulfonamide	0.01	0					
EtFOSAA	0.0033	0					
N-ethylperfluorooctane sulfonamidoe	0.0079	0					
N-methylperfluorooctane sulfonamide	0.013	0					
MeFOSAA	0.0029	0					
N-methylperfluorooctanesulfonamidol	0.012	0					
Perfluorobutanoic acid	0.0055	0					
Perfluorobutane Sulfonate (PFBS)	0.0054	0					
Perfluorodecane Sulfonate	0.006	0					
Perfluoroheptanoic Acid (PFHpA)	0.0074	0					
Perfluoroheptane sulfonate	0.008	0					
Perfluorohexanoic Acid (PFHxA)	0.0035	0					
Perfluorohexane Sulfonate (PFHxS)	0.0056	0					
Perfluorononanoic Acid (PFNA)	0.0087	0					
Perfluorooctane Sulfonamide (PFOSA)	0.0034	0					
Perfluoropentanoic Acid (PFPeA)	0.0075	0					
Perfluorotetradecanoic Acid	0.0027	0					
Perfluorotridecanoic Acid	0.0038	0					
Perfluoroundecanoic Acid (PFUnA)	0.0025	0					
Perfluorodecanoic Acid (PFDA)	0.0061	0					
Perfluorododecanoic Acid (PFDoA)	0.005	0					
Perfluoro-n-Octanoic Acid (PFOA)	0.0033	0					
Perfluorooctane Sulfonate (PFOS)	0.006	0					
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



manual calculation for Spike:

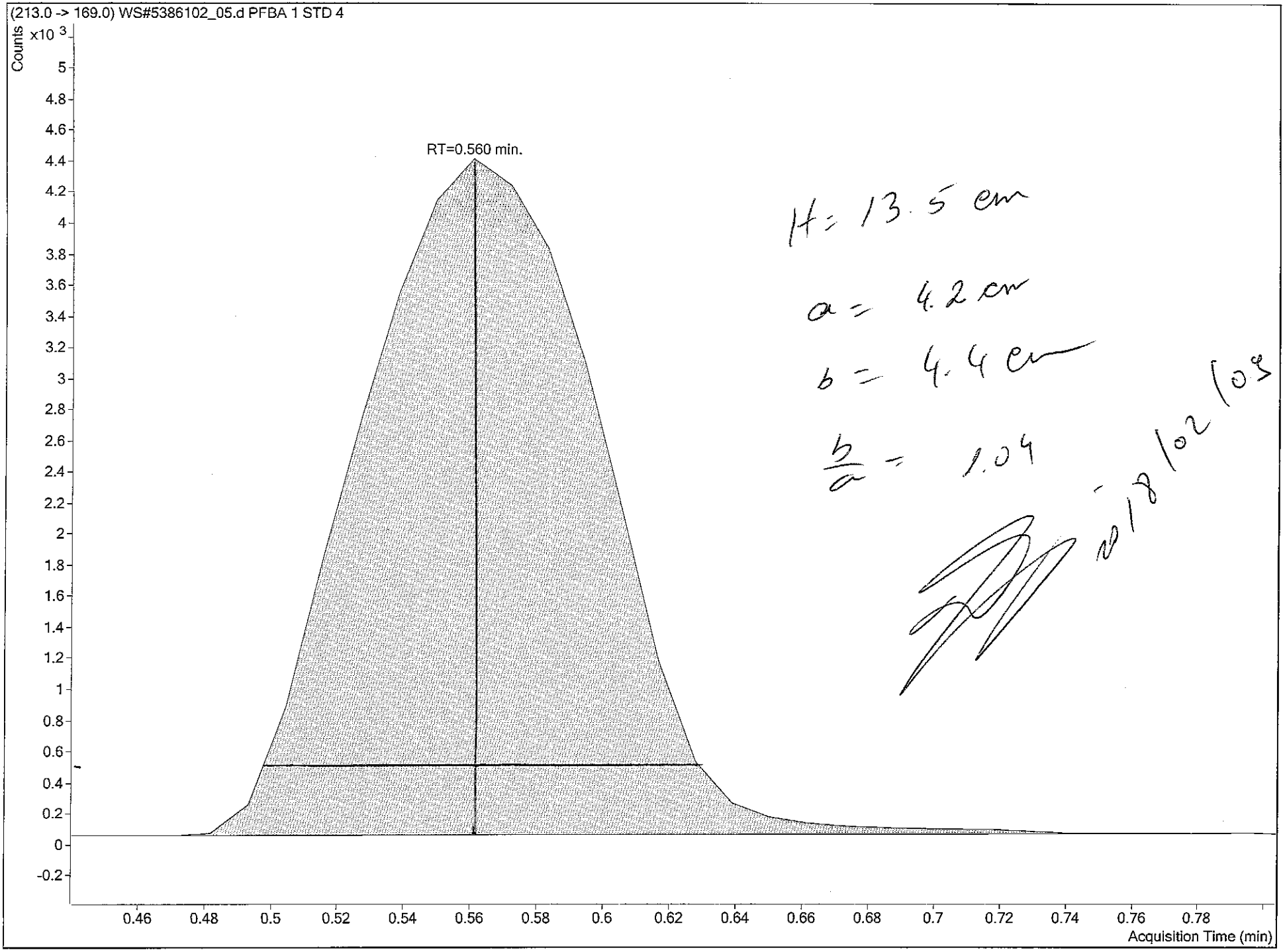
$8.6747 = 0.408388x - 0.048261$

$x = 21.359 \times 0.024$

$= 0.5126\ \mu g/L$

$\frac{0.5126}{0.5} \times 100 = 102.5\%$

2018/02/09



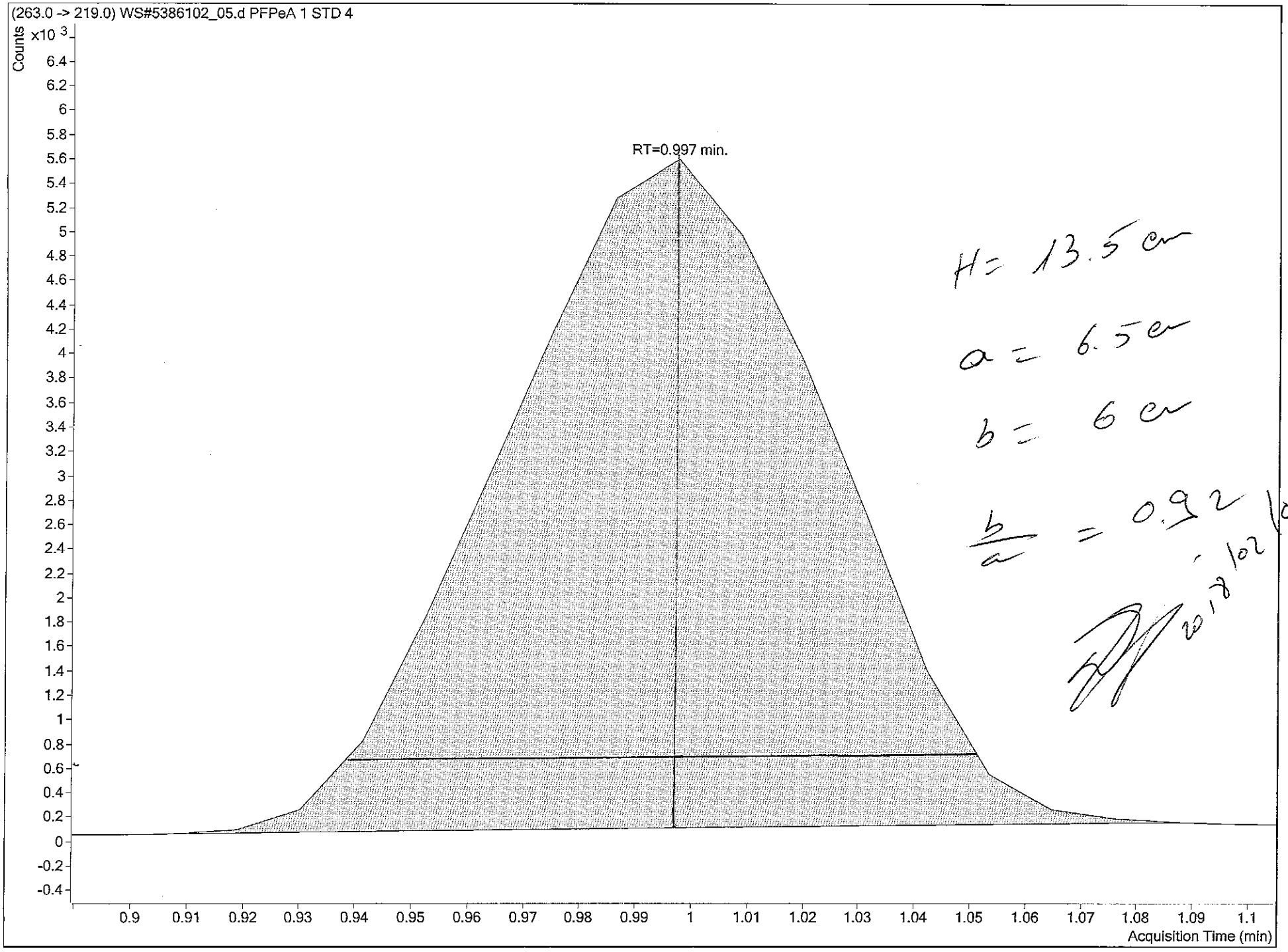
H = 13.5 cm

a = 4.2 cm

b = 4.4 cm

$\frac{b}{a}$ = 1.04

2018/02/09



Maxxam Analytics

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/06

Test Code: **PFOSALCM-W**

Worksheet Number: **5386102**

Sample Number	Parameter Code	Parameter	
FZA801-01	ETFOSAA	EtFOSAA	*
FZA802-01	MEFOSAA	MeFOSAA	*
FZA803-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FZA804-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
FZA805-01	PFHXA	Perfluorohexanoic Acid (PFHxA)	
FZA806-01	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
FZH328-01	PFNA	Perfluorononanoic Acid (PFNA)	
FZH329-01	PFTEDA	Perfluorotetradecanoic Acid	
FZH335-01	PFTRDA	Perfluorotridecanoic Acid	
FZH347-01	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
FZH348-01	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	
FZH330-01	NONE	NONE	
FZH344-01			
FZH345-01			
FZH346-01			
FZJ934-01	6:2FTS	6:2 Fluorotelomer sulfonate	*
	8:2FTS	8:2 Fluorotelomer sulfonate	*
	PFBA	Perfluorobutanoic acid	
	PFBS	Perfluorobutane Sulfonate (PFBS)	
	PFDS	Perfluorodecane Sulfonate	
	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	

* - This parameter is usually off, but will be reported for this group of samples!

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/06

Test Code: **PFOSALCM-W**

Worksheet Number: **5386102**

Sample Number	Parameter Code	Parameter
	PFNA	Perfluorononanoic Acid (PFNA)
	PFOSA	Perfluorooctane Sulfonamide (PFOSA)
	PFPEA	Perfluoropentanoic Acid (PFPeA)
	PFTEDA	Perfluorotetradecanoic Acid
	PFTRDA	Perfluorotridecanoic Acid
	PFUNA	Perfluoroundecanoic Acid (PFUnA)
	PFDA	Perfluorodecanoic Acid (PFDA)
	PFDOA	Perfluorododecanoic Acid (PFDoA)
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)
	PFOS	Perfluorooctane Sulfonate (PFOS)

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5386102 Instrument Sequences

1.	5386102:MTRX SPK	MTRX SPK
2.	5386102:MTRX SPK:D1	MTRX SPK :D1
3.	5386102:SPIKE	SPIKE
4.	5386102:BLANK	BLANK
5.	5386102:FZA801-01	[redacted]
6.	5386102:FZA802-01	[redacted]
7.	5386102:FZA803-01	[redacted]
8.	5386102:FZA804-01	[redacted]
9.	5386102:FZA805-01	[redacted]
10.	5386102:FZA806-01	[redacted]
11.	5386102:FZH328-01	CEF-003-38S-0118
12.	5386102:FZH329-01	CEF-002-04S-0118
13.	5386102:FZH330-01	FB-CEF-002-012318-5
14.	5386102:FZH335-01	FB-CEF-342-012318-4
15.	5386102:FZH344-01	FB-CEF-003-012318-3
16.	5386102:FZH345-01	EB-CEF-003-012318-2
17.	5386102:FZH346-01	EB-CEF-17-012218-1
18.	5386102:FZH347-01	CEF-003-04S-0118
19.	5386102:FZH348-01	CEF-003-04S-0118-D
20.	5386102:FZJ934-01	[redacted]

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180207_Low_A.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180207\WS#5386102
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

20180207 verified by AD 2018/02/07

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P1-A1	PFC_Water_Low.m	WS#5386102_01.d	Sample		As Method	-
2	STD 1	P1-C8	PFC_Water_Low.m	WS#5386102_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-C9	PFC_Water_Low.m	WS#5386102_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-D1	PFC_Water_Low.m	WS#5386102_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-D2	PFC_Water_Low.m	WS#5386102_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-D3	PFC_Water_Low.m	WS#5386102_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-D4	PFC_Water_Low.m	WS#5386102_07.d	Calibration	STD 6	As Method	-

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Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P1-D5	PFC_Water_Low.m	WS#5386102_08.d	Sample		As Method	-
9	ICV	P1-D6	PFC_Water_Low.m	WS#5386102_09.d	QC	ICV	As Method	-
10	ISC	P1-C8	PFC_Water_Low.m	WS#5386102_10.d	ConCal	STD 1	As Method	-
11	5386102:BLANK	P1-D7	PFC_Water_Low.m	WS#5386102_11.d	Sample		As Method	-
12	5386102:SPIKE	P1-D8	PFC_Water_Low.m	WS#5386102_12.d	QC	ICV	As Method	-
13	5386102:MTRX SPK	P1-D9	PFC_Water_Low.m	WS#5386102_13.d	QC	ICV	As Method	-
14	5386102:MTRX SPK:D1	P1-E1	PFC_Water_Low.m	WS#5386102_14.d	Sample		As Method	-
15	IB	P1-D5	PFC_Water_Low.m	WS#5386102_15.d	Sample		As Method	-
16	5386102:FZA801-01	P1-E2	PFC_Water_Low.m	WS#5386102_16.d	Sample		As Method	-
17	5386102:FZA802-01	P1-E3	PFC_Water_Low.m	WS#5386102_17.d	Sample		As Method	-
18	5386102:FZA803-01	P1-E4	PFC_Water_Low.m	WS#5386102_18.d	Sample		As Method	-
19	5386102:FZA804-01	P1-E5	PFC_Water_Low.m	WS#5386102_19.d	Sample		As Method	-
20	5386102:FZA805-01	P1-E6	PFC_Water_Low.m	WS#5386102_20.d	Sample		As Method	-
21	5386102:FZA806-01	P1-E7	PFC_Water_Low.m	WS#5386102_21.d	Sample		As Method	-
22	5386102:FZH328-01	P1-E8	PFC_Water_Low.m	WS#5386102_22.d	Sample		As Method	-
23	5386102:FZH329-01	P1-E9	PFC_Water_Low.m	WS#5386102_23.d	Sample		As Method	-
24	5386102:FZH330-01	P1-F1	PFC_Water_Low.m	WS#5386102_24.d	Sample		As Method	-
25	5386102:FZH335-01	P1-F2	PFC_Water_Low.m	WS#5386102_25.d	Sample		As Method	-
26	CCV	P1-D2	PFC_Water_Low.m	WS#5386102_26.d	ConCal	STD 4	As Method	-
27	5386102:FZH344-01	P1-F3	PFC_Water_Low.m	WS#5386102_27.d	Sample		As Method	-
28	5386102:FZH345-01	P1-F4	PFC_Water_Low.m	WS#5386102_28.d	Sample		As Method	-
29	5386102:FZH346-01	P1-F5	PFC_Water_Low.m	WS#5386102_29.d	Sample		As Method	-
30	5386102:FZH347-01	P1-F6	PFC_Water_Low.m	WS#5386102_30.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5386102:FZH348-01	P1-F7	PFC_Water_Low.m	WS#5386102_31.d	Sample		As Method	-
32	5386102:FZJ934-01	P1-F8	PFC_Water_Low.m	WS#5386102_32.d	Sample		As Method	-
33	CCV	P1-D2	PFC_Water_Low.m	WS#5386102_33.d	ConCal	STD 4	As Method	-

Maxxam Analytics

Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180207_Low_A_FOSAA.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180207\WS#5386102_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B2:Solution# 272 (FSRE18)

20180207uG

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P1-A1	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_01.d	Sample		As Method	-
2	STD 1	P1-C8	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-C9	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-D1	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-D2	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-D3	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-D4	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P1-D5	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P1-D6	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P1-C8	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5386102:BLANK	P1-D7	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_11.d	Sample		As Method	-
12	5386102:SPIKE	P1-D8	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_12.d	QC	ICV	As Method	-
13	5386102:MTRX SPK	P1-D9	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_13.d	QC	ICV	As Method	-
14	5386102:MTRX SPK:D1	P1-E1	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_14.d	Sample		As Method	-
15	IB	P1-D5	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_15.d	Sample		As Method	-
16	5386102:FZA801-01	P1-E2	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_16.d	Sample		As Method	-
17	5386102:FZA802-01	P1-E3	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_17.d	Sample		As Method	-
18	5386102:FZA803-01	P1-E4	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_18.d	Sample		As Method	-
19	5386102:FZA804-01	P1-E5	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_19.d	Sample		As Method	-
20	5386102:FZA805-01	P1-E6	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_20.d	Sample		As Method	-
21	5386102:FZA806-01	P1-E7	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_21.d	Sample		As Method	-
22	5386102:FZH328-01	P1-E8	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_22.d	Sample		As Method	-
23	5386102:FZH329-01	P1-E9	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_23.d	Sample		As Method	-
24	5386102:FZH330-01	P1-F1	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_24.d	Sample		As Method	-
25	5386102:FZH335-01	P1-F2	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_25.d	Sample		As Method	-
26	CCV	P1-D2	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_26.d	ConCal	STD 4	As Method	-
27	5386102:FZH344-01	P1-F3	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_27.d	Sample		As Method	-
28	5386102:FZH345-01	P1-F4	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_28.d	Sample		As Method	-
29	5386102:FZH346-01	P1-F5	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_29.d	Sample		As Method	-
30	5386102:FZH347-01	P1-F6	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_30.d	Sample		As Method	-
31	5386102:FZH348-01	P1-F7	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_31.d	Sample		As Method	-
32	5386102:FZJ934-01	P1-F8	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_32.d	Sample		As Method	-
33	CCV	P1-D2	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_33.d	ConCal	STD 4	As Method	-

Maxxam Analytics

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FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/08 3:11 AM	PFC_Water_Low.m	WS#5386102_02.d	P1-C8
STD 2	-	2018/02/08 3:16 AM	PFC_Water_Low.m	WS#5386102_03.d	P1-C9
STD 3	-	2018/02/08 3:21 AM	PFC_Water_Low.m	WS#5386102_04.d	P1-D1
STD 4	-	2018/02/08 3:26 AM	PFC_Water_Low.m	WS#5386102_05.d	P1-D2
STD 5	-	2018/02/08 3:31 AM	PFC_Water_Low.m	WS#5386102_06.d	P1-D3
STD 6	-	2018/02/08 3:36 AM	PFC_Water_Low.m	WS#5386102_07.d	P1-D4
IB	-	2018/02/08 3:41 AM	PFC_Water_Low.m	WS#5386102_08.d	P1-D5
ICV	-	2018/02/08 3:46 AM	PFC_Water_Low.m	WS#5386102_09.d	P1-D6
ISC	-	2018/02/08 3:51 AM	PFC_Water_Low.m	WS#5386102_10.d	P1-C8
5386102:BLANK	-	2018/02/08 3:56 AM	PFC_Water_Low.m	WS#5386102_11.d	P1-D7
5386102:SPIKE	-	2018/02/08 4:01 AM	PFC_Water_Low.m	WS#5386102_12.d	P1-D8
5386102:MTRX SPK	FZH347	2018/02/08 4:06 AM	PFC_Water_Low.m	WS#5386102_13.d	P1-D9
5386102:MTRX SPK:D1	FZH347	2018/02/08 4:11 AM	PFC_Water_Low.m	WS#5386102_14.d	P1-E1
IB	-	2018/02/08 4:15 AM	PFC_Water_Low.m	WS#5386102_15.d	P1-D5
5386102:FZA801-01	-	2018/02/08 4:20 AM	PFC_Water_Low.m	WS#5386102_16.d	P1-E2
5386102:FZA802-01	Reanalyzed due to low ext IS recovery	2018/02/08 4:25 AM	PFC_Water_Low.m	WS#5386102_17.d	P1-E3
5386102:FZA803-01	-	2018/02/08 4:30 AM	PFC_Water_Low.m	WS#5386102_18.d	P1-E4
5386102:FZA804-01	-	2018/02/08 4:35 AM	PFC_Water_Low.m	WS#5386102_19.d	P1-E5
5386102:FZA805-01	-	2018/02/08 4:40 AM	PFC_Water_Low.m	WS#5386102_20.d	P1-E6
5386102:FZA806-01	-	2018/02/08 4:45 AM	PFC_Water_Low.m	WS#5386102_21.d	P1-E7
5386102:FZH328-01	-	2018/02/08 4:50 AM	PFC_Water_Low.m	WS#5386102_22.d	P1-E8
5386102:FZH329-01	-	2018/02/08 4:55 AM	PFC_Water_Low.m	WS#5386102_23.d	P1-E9
5386102:FZH330-01	-	2018/02/08 5:00 AM	PFC_Water_Low.m	WS#5386102_24.d	P1-F1
5386102:FZH335-01	-	2018/02/08 5:05 AM	PFC_Water_Low.m	WS#5386102_25.d	P1-F2
CCV	-	2018/02/08 5:10 AM	PFC_Water_Low.m	WS#5386102_26.d	P1-D2
5386102:FZH344-01	-	2018/02/08 5:15 AM	PFC_Water_Low.m	WS#5386102_27.d	P1-F3
5386102:FZH345-01	-	2018/02/08 5:20 AM	PFC_Water_Low.m	WS#5386102_28.d	P1-F4
5386102:FZH346-01	-	2018/02/08 5:25 AM	PFC_Water_Low.m	WS#5386102_29.d	P1-F5
5386102:FZH347-01	-	2018/02/08 5:29 AM	PFC_Water_Low.m	WS#5386102_30.d	P1-F6
5386102:FZH348-01	-	2018/02/08 5:34 AM	PFC_Water_Low.m	WS#5386102_31.d	P1-F7
5386102:FZJ934-01	Reinjected to check recovery	2018/02/08 5:39 AM	PFC_Water_Low.m	WS#5386102_32.d	P1-F8
CCV	-	2018/02/08 5:44 AM	PFC_Water_Low.m	WS#5386102_33.d	P1-D2
ISC	-	2018/02/08 3:47 PM	PFC_Water_Low.m	WS#5386102_34.d	P1-C8

FINAL INJECTION SEQUENCE

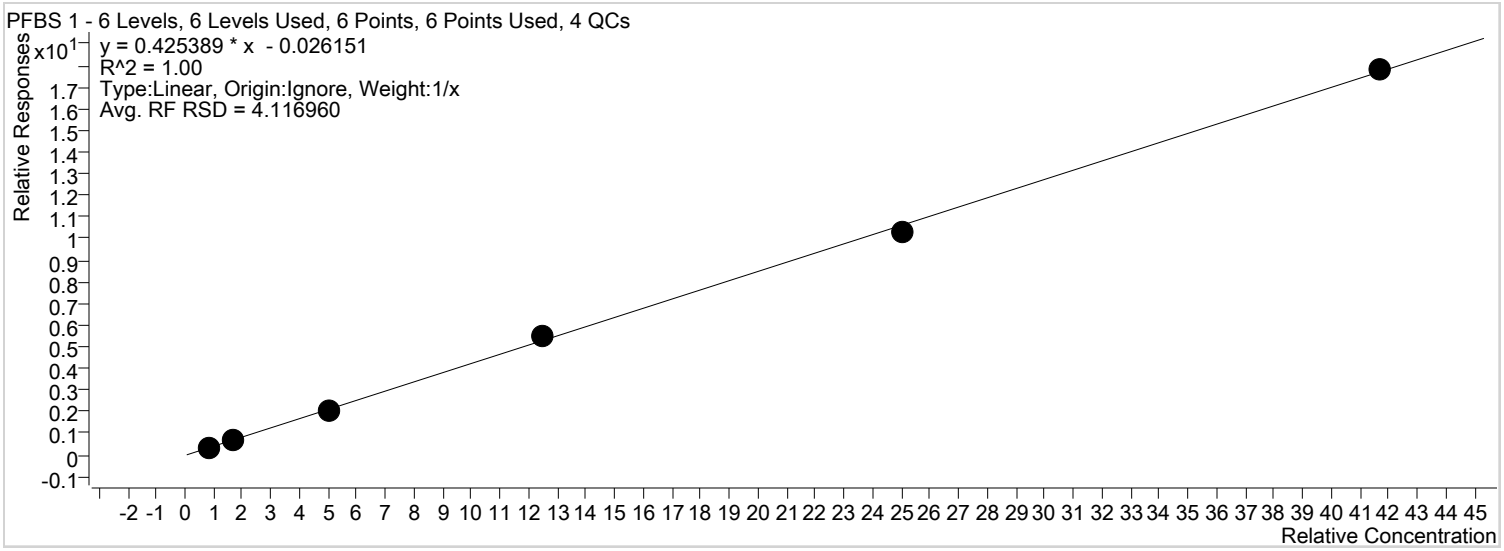
Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
IB	-	2018/02/08 3:52 PM	PFC_Water_Low.m	WS#5386102_35.d	P1-D5
5386102:FZJ934-01	Reinjection, reported	2018/02/08 3:57 PM	PFC_Water_Low.m	WS#5386102_36.d	P1-F8
CCV	-	2018/02/08 4:01 PM	PFC_Water_Low.m	WS#5386102_37.d	P1-D2

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/08 9:36 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_02.d	P1-C8
STD 2	-	2018/02/08 9:38 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_03.d	P1-C9
STD 3	-	2018/02/08 9:41 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_04.d	P1-D1
STD 4	-	2018/02/08 9:43 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_05.d	P1-D2
STD 5	-	2018/02/08 9:46 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_06.d	P1-D3
STD 6	-	2018/02/08 9:48 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_07.d	P1-D4
IB	-	2018/02/08 9:50 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_08.d	P1-D5
ICV	-	2018/02/08 9:53 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_09.d	P1-D6
ISC	-	2018/02/08 9:55 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_10.d	P1-C8
5386102:BLANK	-	2018/02/08 9:58 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_11.d	P1-D7
5386102:SPIKE	-	2018/02/08 10:00 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_12.d	P1-D8
5386102:MTRX SPK	FZH347	2018/02/08 10:02 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_13.d	P1-D9
5386102:MTRX SPK:D1	FZH347	2018/02/08 10:05 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_14.d	P1-E1
IB	-	2018/02/08 10:07 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_15.d	P1-D5
5386102:FZA801-01	-	2018/02/08 10:10 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_16.d	P1-E2
5386102:FZA802-01	-	2018/02/08 10:12 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_17.d	P1-E3
5386102:FZA803-01	-	2018/02/08 10:14 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_18.d	P1-E4
5386102:FZA804-01	-	2018/02/08 10:17 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_19.d	P1-E5
5386102:FZA805-01	-	2018/02/08 10:19 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_20.d	P1-E6
5386102:FZA806-01	-	2018/02/08 10:22 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_21.d	P1-E7
5386102:FZH328-01	-	2018/02/08 10:24 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_22.d	P1-E8
5386102:FZH329-01	-	2018/02/08 10:27 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_23.d	P1-E9
5386102:FZH330-01	-	2018/02/08 10:29 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_24.d	P1-F1
5386102:FZH335-01	-	2018/02/08 10:31 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_25.d	P1-F2
CCV	-	2018/02/08 10:34 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_26.d	P1-D2
5386102:FZH344-01	-	2018/02/08 10:36 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_27.d	P1-F3
5386102:FZH345-01	-	2018/02/08 10:39 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_28.d	P1-F4
5386102:FZH346-01	-	2018/02/08 10:41 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_29.d	P1-F5
5386102:FZH347-01	-	2018/02/08 10:43 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_30.d	P1-F6
5386102:FZH348-01	-	2018/02/08 10:46 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_31.d	P1-F7
5386102:FZJ934-01	-	2018/02/08 10:48 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_32.d	P1-F8
CCV	-	2018/02/08 10:51 AM	PFC_Water_Low_FOSAA.m	WS#5386102_FOSAA_33.d	P1-D2

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

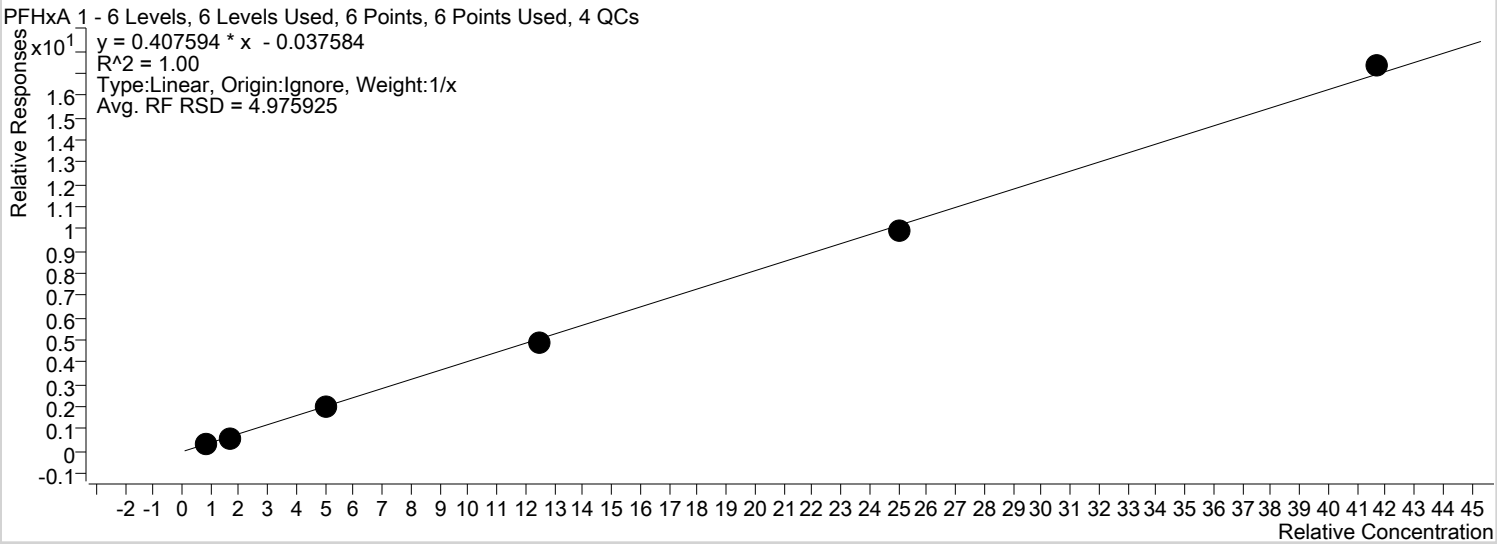
Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.85	497	0.4065	97	103.0
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.63	1093	0.3928	150	95.9
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	4.94	3474	0.4148	439	98.7
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	13.07	8497	0.4426	1039	104.5
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.32	16101	0.4128	837	97.3
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	41.92	28114	0.4270	125	100.5

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

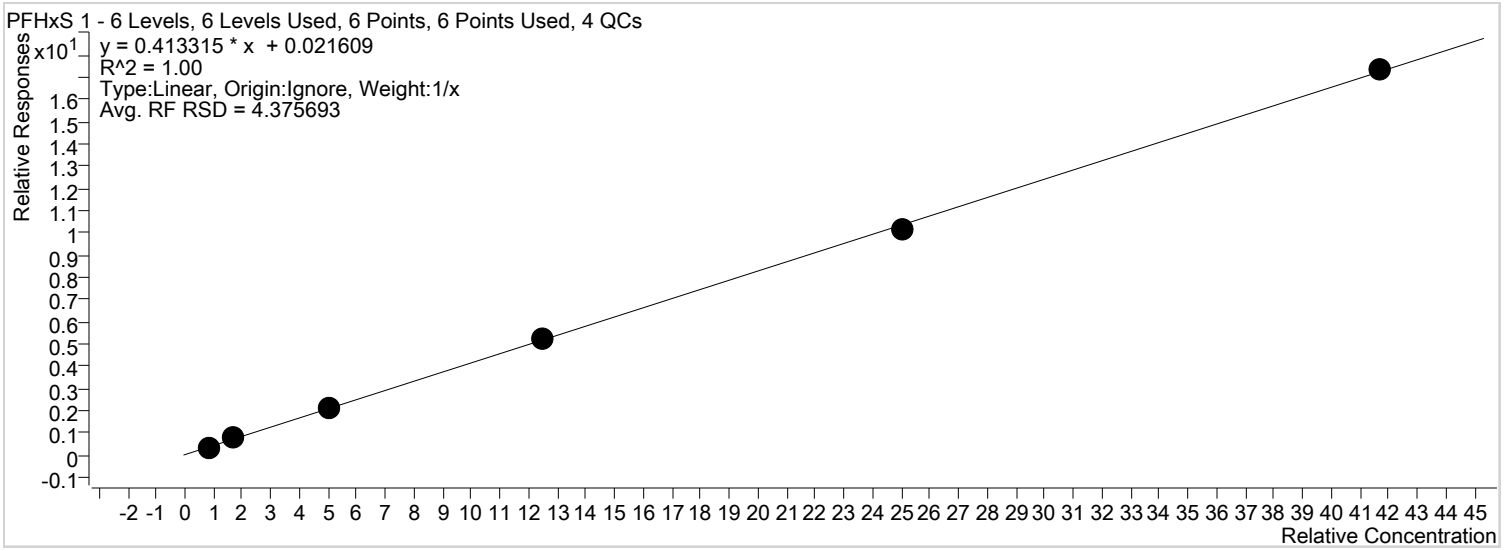
Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.90	2077	0.3981	145	108.8
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.59	3838	0.3591	502	93.5
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	5.07	13004	0.4060	1085	101.5
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	11.97	29662	0.3874	1794	95.8
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.55	59203	0.3987	2807	98.2
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.64	103000	0.4159	5713	102.3

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

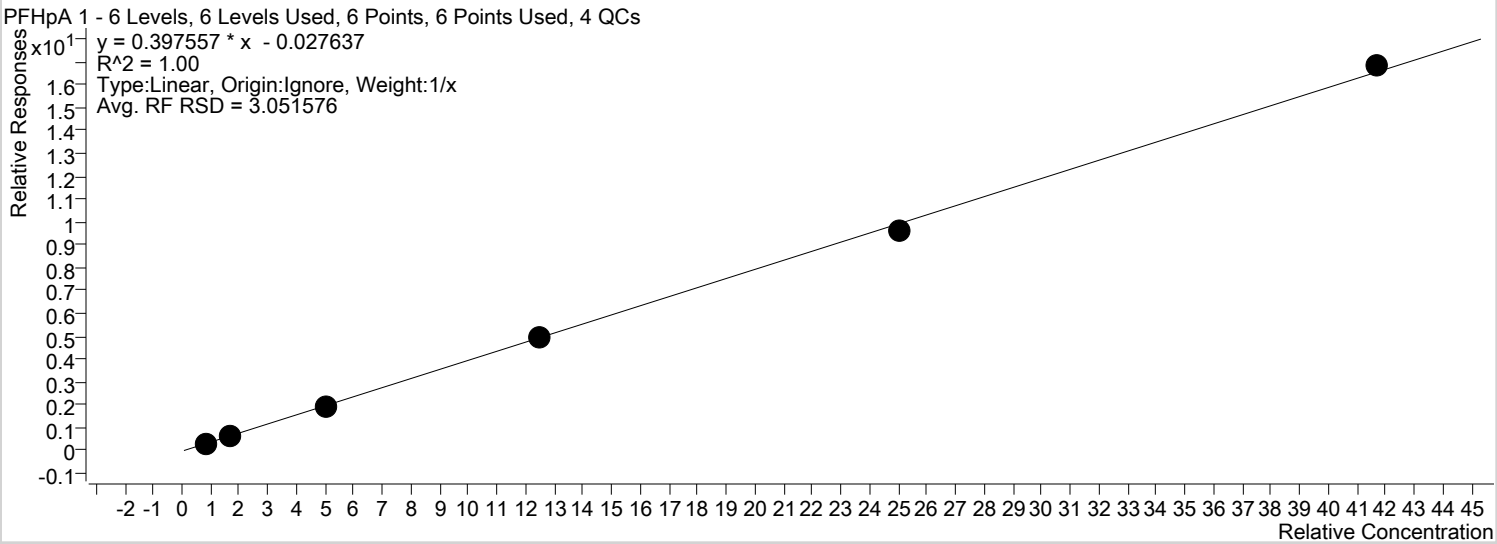
Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.77	500	0.4090	121	92.6
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.83	1272	0.4571	183	107.5
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	4.98	3485	0.4161	326	99.6
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	12.68	8086	0.4211	269	101.5
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.55	15866	0.4068	634	98.2
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	41.91	27387	0.4159	785	100.5

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

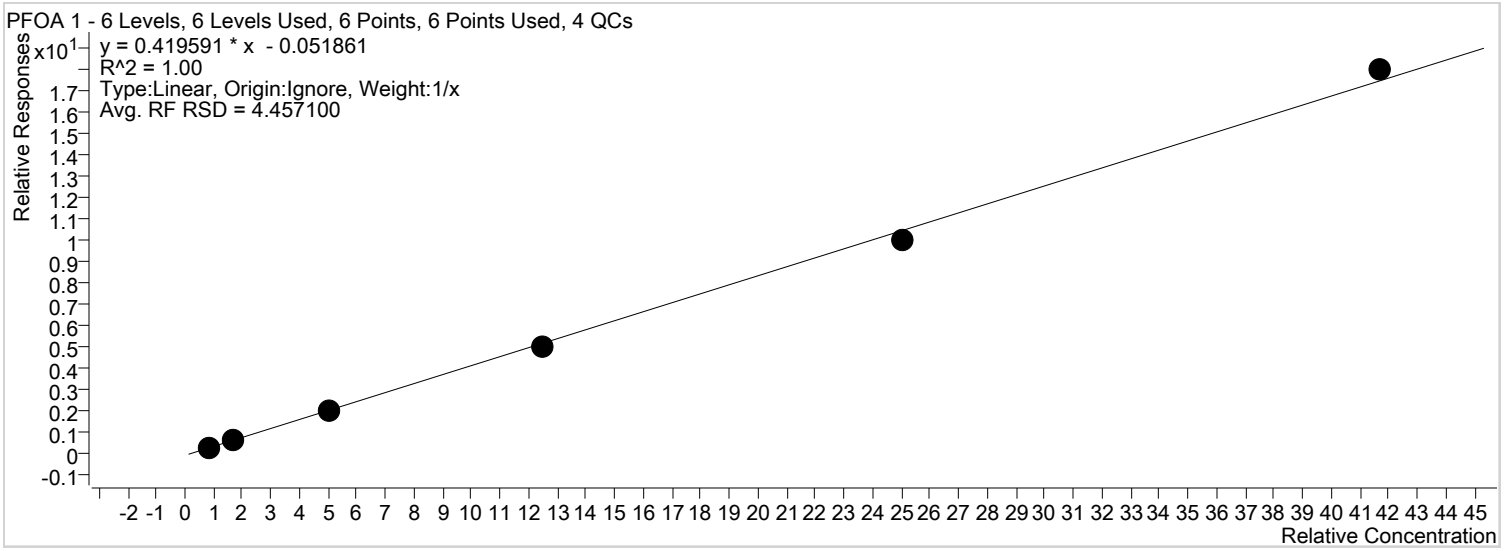
Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.84	2450	0.3681	25	101.0
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.71	5287	0.3832	38	100.5
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	5.01	16931	0.3926	167	100.2
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	12.40	39741	0.3922	257	99.2
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.38	75218	0.3866	310	97.5
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.39	131039	0.4035	312	101.7

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

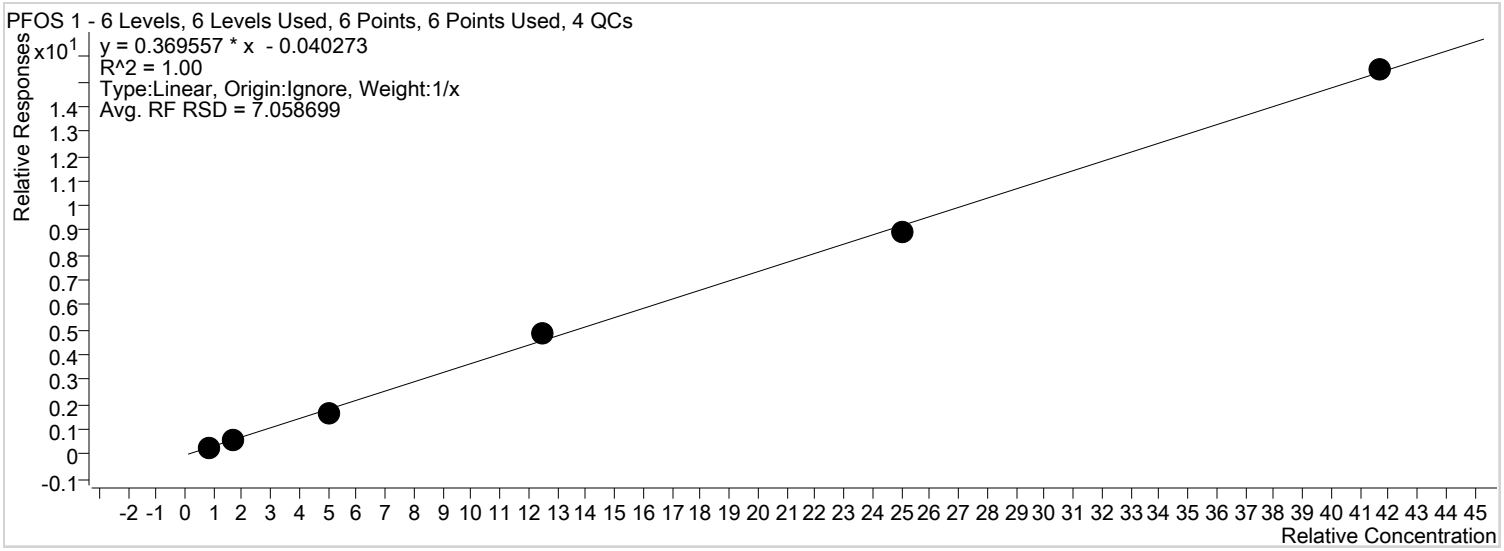
Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.87	2739	0.3781	28	105.0
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.70	5595	0.3882	57	99.8
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	4.91	17877	0.4013	168	98.1
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	12.21	42181	0.4057	343	97.7
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.12	85357	0.4027	922	96.5
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.93	146836	0.4307	850	103.0

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

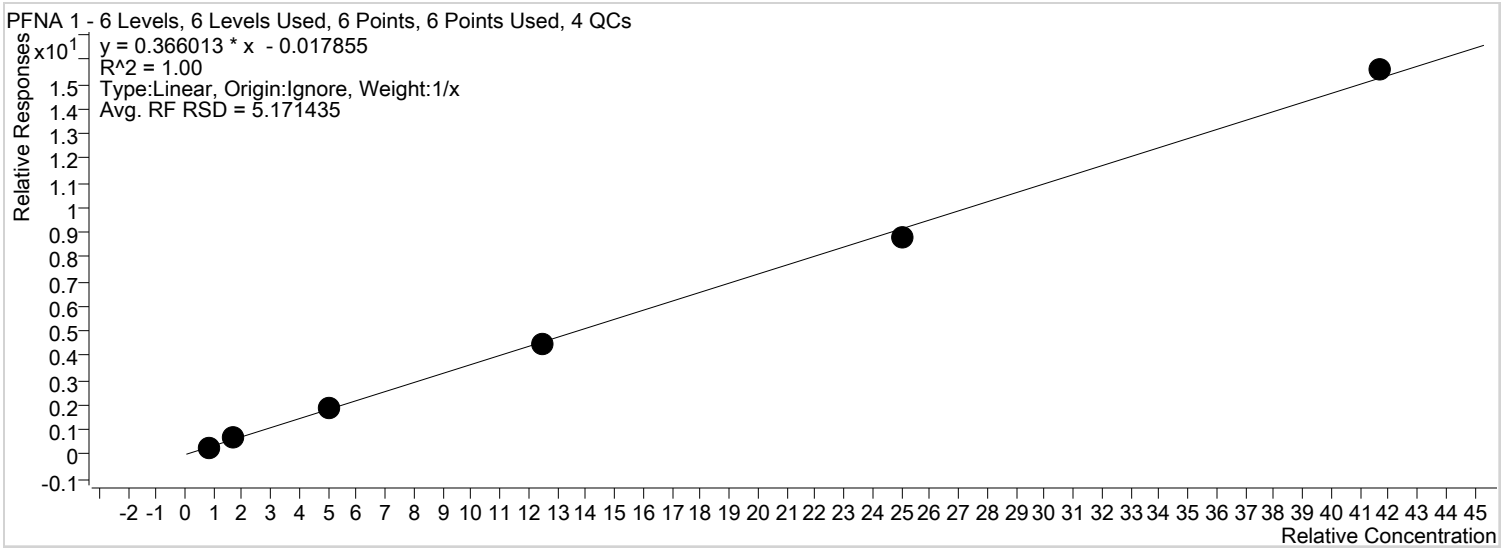
Analyte: PFOS 1
Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.83	497	0.3219	43	100.2
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.76	1227	0.3600	164	103.8
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	4.59	3588	0.3315	201	91.9
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	13.29	8472	0.3897	245	106.3
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.26	16897	0.3570	166	97.0
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	41.99	28723	0.3711	249	100.7

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

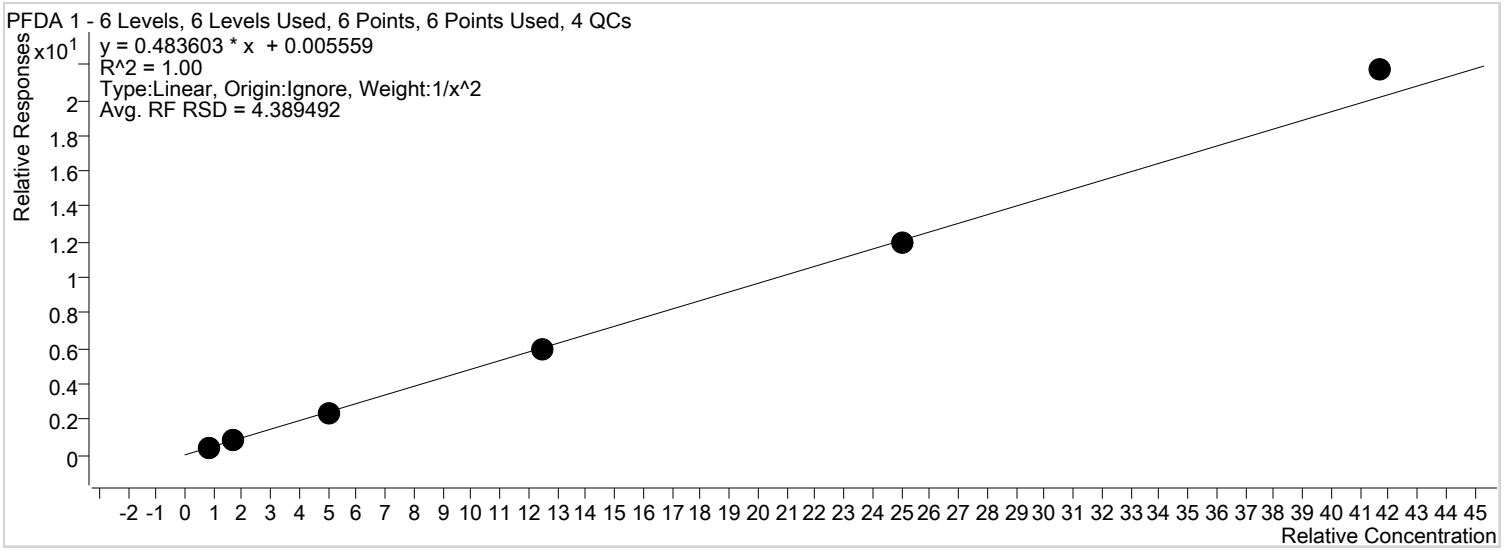
Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.79	2263	0.3264	24	95.1
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.79	5567	0.3747	69	105.2
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	5.12	16539	0.3712	383	102.4
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	12.36	37275	0.3606	450	98.9
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.05	74127	0.3514	1100	96.2
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.62	128982	0.3737	3317	102.2

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

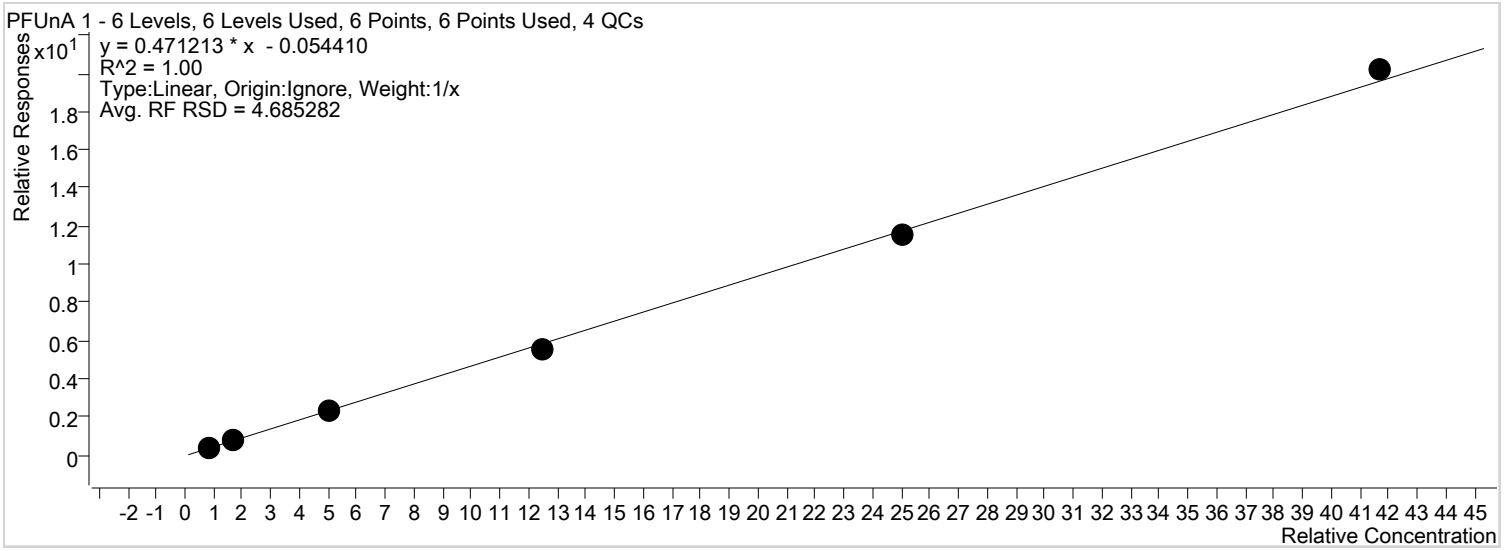
Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.85	2942	0.5016	38	102.3
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.64	5859	0.4699	49	96.5
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	4.80	17246	0.4654	191	96.0
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	12.35	42674	0.4781	616	98.8
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.68	82723	0.4775	830	98.7
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	44.90	138781	0.5208	1271	107.7

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

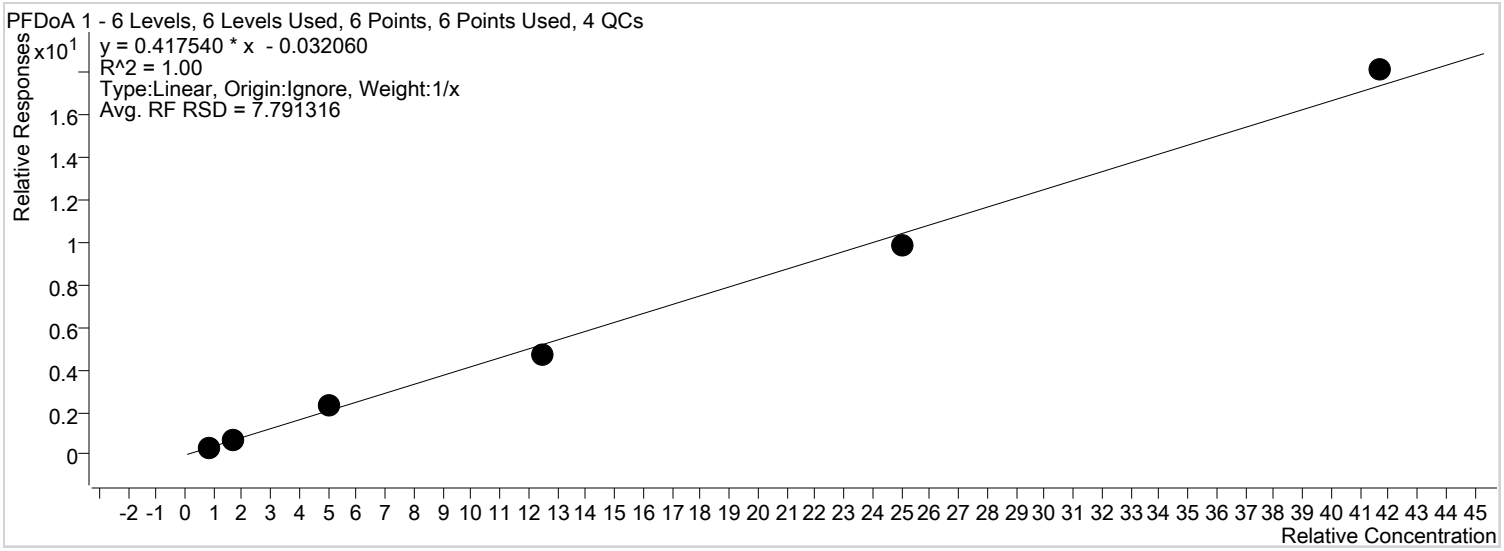
Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.92	3263	0.4545	30	110.4
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.64	6188	0.4214	43	96.2
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	4.91	19018	0.4518	111	98.2
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	11.74	44484	0.4384	149	94.0
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.56	87330	0.4608	157	98.2
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.96	155746	0.4842	175	103.0

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

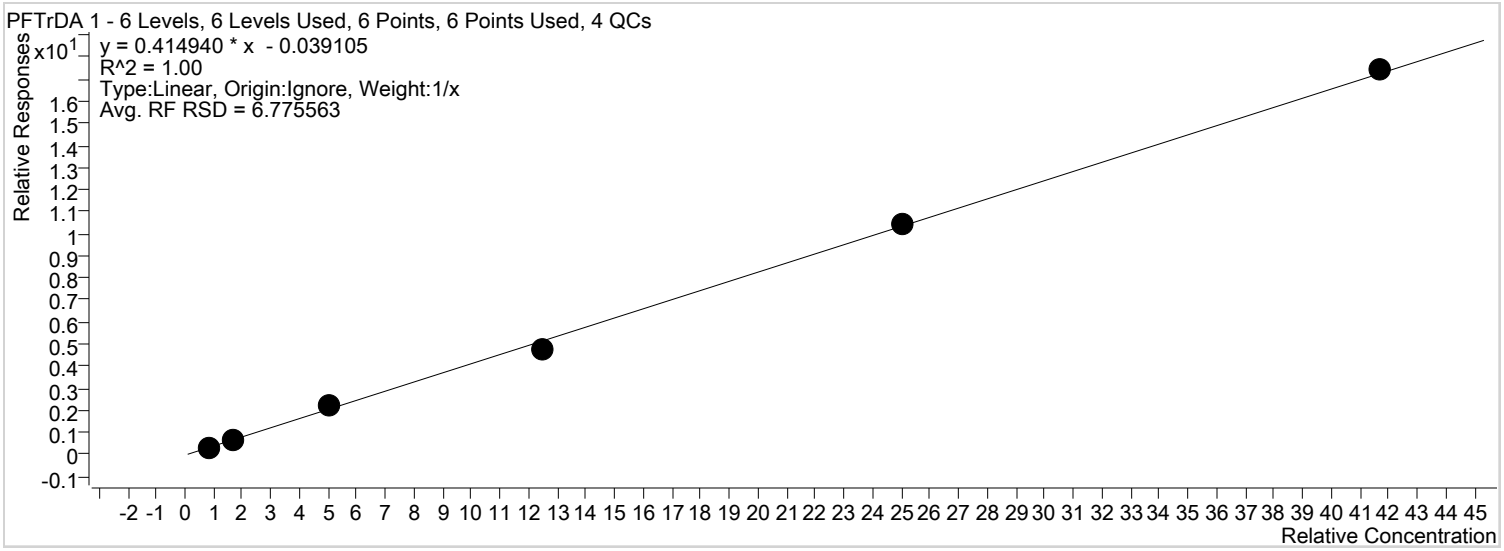
Analyte: PFDoA 1
Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.86	3755	0.3923	89	103.2
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.62	7818	0.3779	330	95.0
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	5.53	25147	0.4555	596	110.6
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	11.48	57101	0.3810	1427	91.9
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	23.73	108804	0.3951	2236	94.9
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	43.51	189906	0.4349	3216	104.3

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

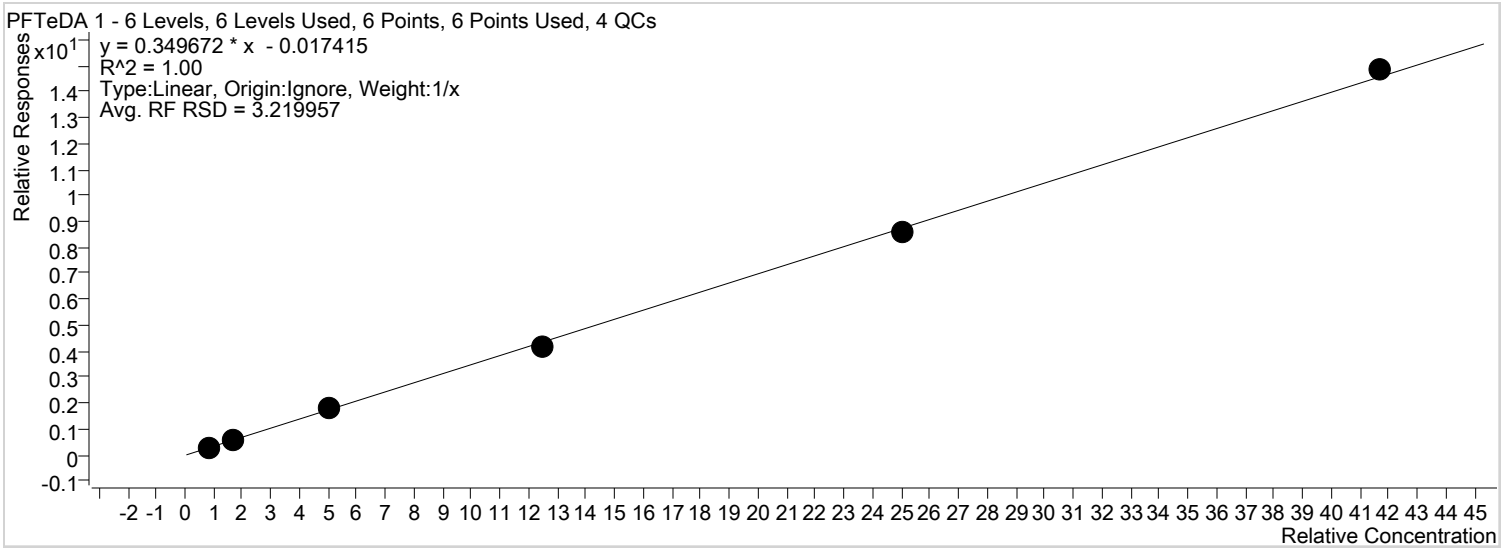
Analyte: PFTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.83	3880	0.3675	35	99.9
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.68	8552	0.3863	73	98.6
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	5.37	28657	0.4377	178	107.4
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	11.53	62931	0.3795	200	92.2
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	25.22	124952	0.4170	220	100.9
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.11	216546	0.4181	253	101.0

Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics.batch.bin
Last Calib Update 2018/02/21 11:18:21 AM
Instrument: LCMS04

Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 3:11:49 AM	0.83	0.86	3584	0.3395	18	103.1
STD 2	STD 2	x	2018/02/08 3:16:45 AM	1.70	1.65	7309	0.3301	57	97.3
STD 3	STD 3	x	2018/02/08 3:21:40 AM	5.00	5.16	23410	0.3575	121	103.2
STD 4	STD 4	x	2018/02/08 3:26:36 AM	12.50	12.04	55599	0.3353	223	96.3
STD 5	STD 5	x	2018/02/08 3:31:32 AM	25.00	24.54	102650	0.3425	190	98.2
STD 6	STD 6	x	2018/02/08 3:36:28 AM	41.70	42.48	184279	0.3558	237	101.9

By Compound Report

Agilent Technologies

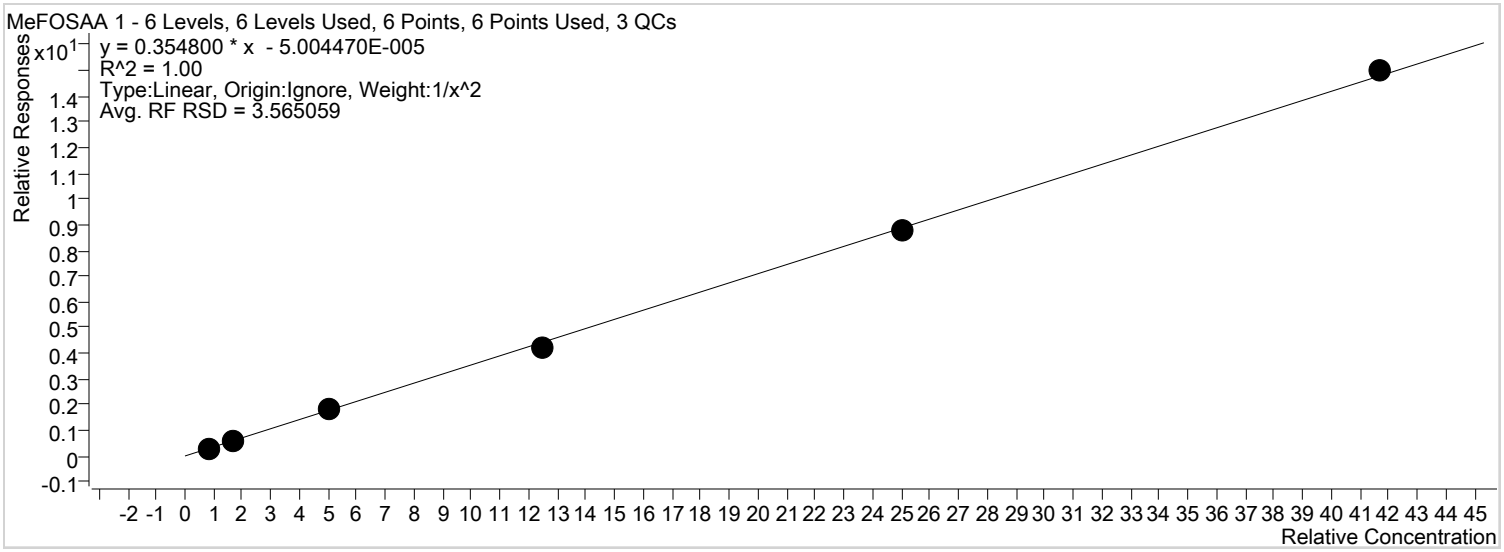
Batch Path T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 11:12:38 AM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 9:36:26 AM	0.83	0.82	533	0.3484	100	98.2
STD 2	STD 2	x	2018/02/08 9:38:51 AM	1.70	1.75	1154	0.3654	146	103.0
STD 3	STD 3	x	2018/02/08 9:41:15 AM	5.00	5.21	3426	0.3698	138	104.2
STD 4	STD 4	x	2018/02/08 9:43:38 AM	12.50	11.81	7653	0.3353	130	94.5
STD 5	STD 5	x	2018/02/08 9:46:01 AM	25.00	24.68	14992	0.3503	346	98.7
STD 6	STD 6	x	2018/02/08 9:48:24 AM	41.70	42.26	25594	0.3596	140	101.3

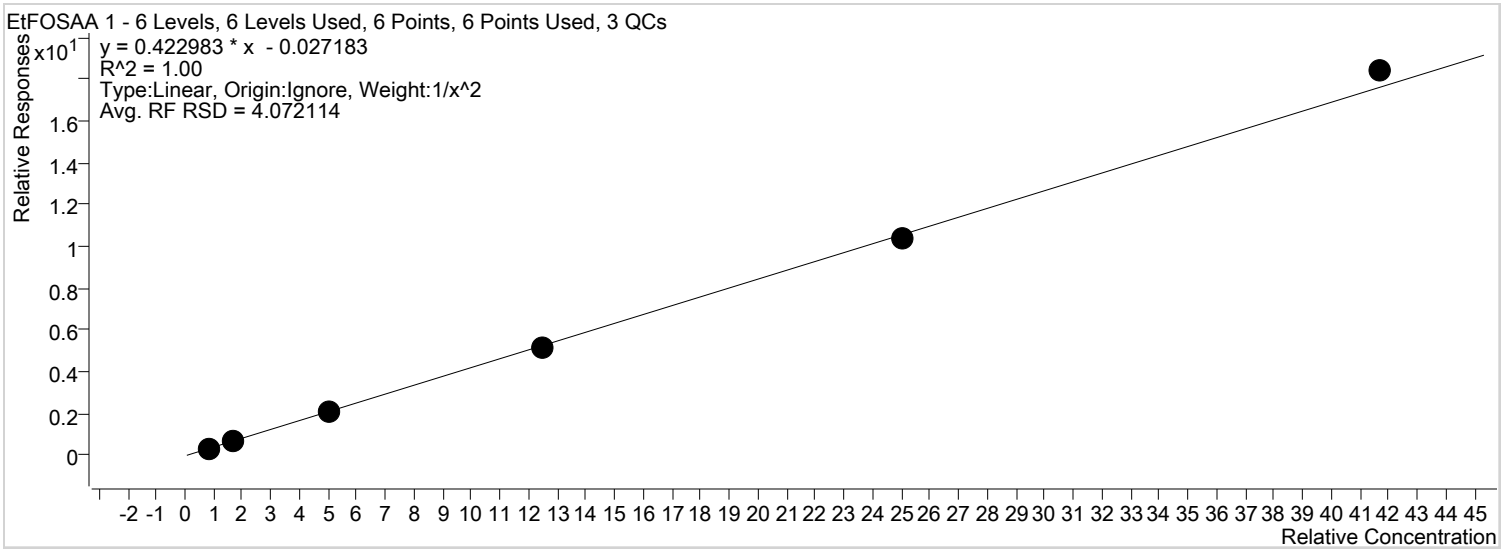
Batch Path T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 11:12:38 AM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 9:36:26 AM	0.83	0.83	524	0.3895	79	99.8
STD 2	STD 2	x	2018/02/08 9:38:51 AM	1.70	1.71	1119	0.4101	137	100.7
STD 3	STD 3	x	2018/02/08 9:41:15 AM	5.00	5.00	3469	0.4177	380	100.0
STD 4	STD 4	x	2018/02/08 9:43:38 AM	12.50	12.10	7698	0.4073	1011	96.8
STD 5	STD 5	x	2018/02/08 9:46:01 AM	25.00	24.53	15337	0.4140	614	98.1
STD 6	STD 6	x	2018/02/08 9:48:24 AM	41.70	43.57	26939	0.4413	1621	104.5

Quantitation Results

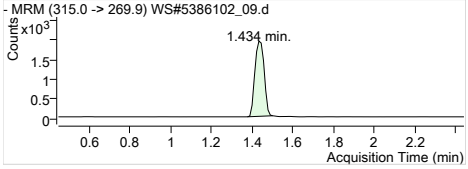
Agilent Technologies

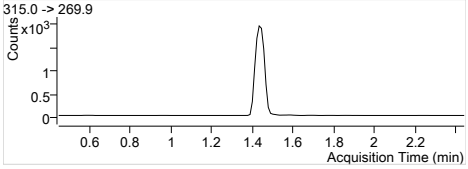
Batch Path	T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5386102_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-D6
Acq. Date	2018/02/08 3:46:20 AM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6048	1.43	1 µg/L		
MPFHxS	1614	1.69	1 µg/L		
MPFHpA	8500	1.70	1 µg/L		
MPFOA	8705	1.88	1 µg/L		
MPFOS	1904	1.98	1 µg/L		
MPFNA	8980	2.02	1 µg/L		
MPFDA	7107	2.14	1 µg/L		
MPFUnA	8669	2.23	1 µg/L		
MPFDoA	10810	2.32	1 µg/L		
MPFTeDA	12959	2.47	1 µg/L		
13C6-PFHxA IS	32370	1.43	1 µg/L		
13C9-PFDA IS	43532	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	14439	1.10	20.80	21.09 µg/L	101.40
PFHxA 1	53482	1.43	20.80	21.79 µg/L	104.75
PFHxS 1	13939	1.69	20.80	20.84 µg/L	100.21
PFHpA 1	66922	1.70	20.80	19.87 µg/L	95.55
PFOA 1	76407	1.88	20.80	21.04 µg/L	101.17
PFOS 1	14029	1.98	20.80	20.05 µg/L	96.38
PFNA 1	67620	2.03	20.80	20.62 µg/L	99.14
PFDA 1	71762	2.14	20.80	20.87 µg/L	100.33
PFUnA 1	80595	2.23	20.80	19.85 µg/L	95.41
PFDoA 1	94359	2.32	20.80	20.98 µg/L	100.88
PFTrDA 1	115761	2.40	20.80	21.62 µg/L	103.95
PFTeDA 1	93875	2.47	20.80	20.77 µg/L	99.84
13C2-PFHxA	6048	1.43	100.00	96.15 µg/L	96.15
18O2-PFHxS	1614	1.69	100.00	100.29 µg/L	100.29
13C4-PFHpA	8500	1.70	100.00	103.19 µg/L	103.19
13C4-PFOA	8705	1.88	100.00	100.17 µg/L	100.17
13C4-PFOS	1904	1.98	100.00	97.15 µg/L	97.15
13C5-PFNA	8980	2.02	100.00	103.53 µg/L	103.53
13C2-PFDA	7008	2.14	100.00	94.58 µg/L	94.58
13C2-PFUnA	8669	2.23	100.00	98.66 µg/L	98.66
13C2-PFDoA	10810	2.32	100.00	88.62 µg/L	88.62
13C2-PFTeDA	13163	2.47	100.00	94.60 µg/L	94.60
13C6-PFHxA	32370	1.43	100.00	102.04 µg/L	102.04
13C9-PFDA	43532	2.13	100.00	107.34 µg/L	107.34





MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	QC

Quantitation Results

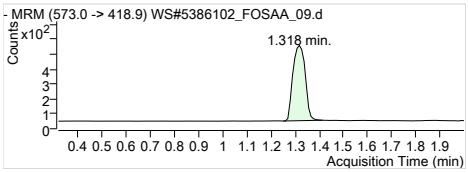
Agilent Technologies

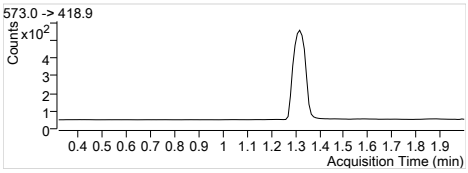
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D6
Acq. Date	2018/02/08 9:53:14 AM	**Injection Volume**	Per Method
Sample Annotation	-		

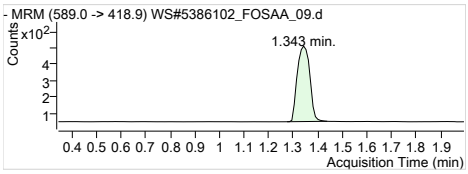
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1796	1.32	1 µg/L		
D5-EtFOSAA IS	1637	1.34	1 µg/L		
13C9-PFDA IS	36367	0.92	1 µg/L		

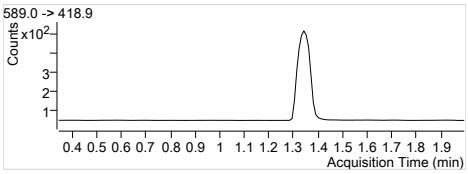
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13815	1.32	20.80	21.68 µg/L	104.23
EtFOSAA 1	14632	1.34	20.80	21.20 µg/L	101.90
D3-MeFOSAA	1808	1.32	100.00	93.43 µg/L	93.43
D5-EtFOSAA	1641	1.34	100.00	97.73 µg/L	97.73
13C9-PFDA	35298	0.92	100.00	105.66 µg/L	105.66



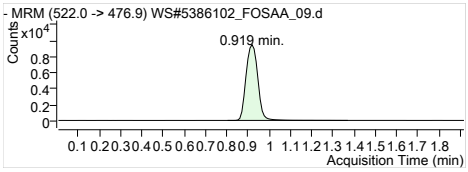


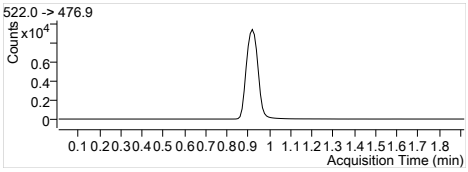
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: QC



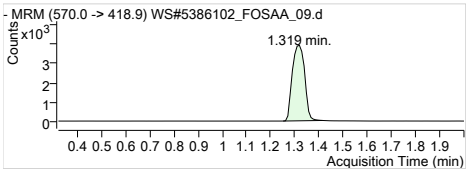


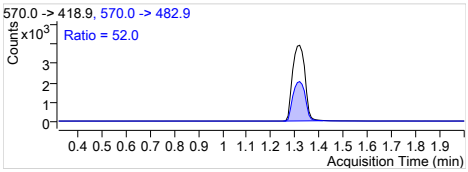
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: QC



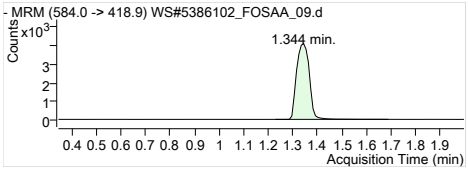


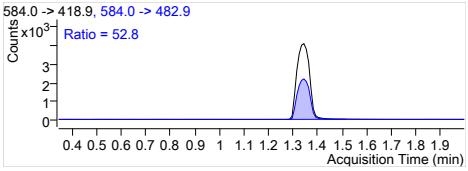
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: QC



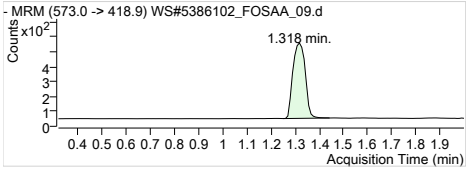


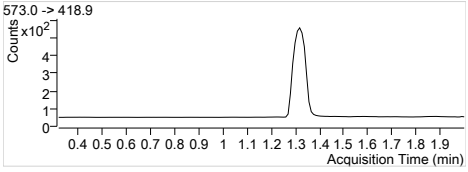
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 21.68 µg/L
Area ratio: 7.69209
Sample type: QC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 21.20 µg/L
Area ratio: 8.93830
Sample type: QC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 93.43 µg/L
Area ratio: 0.04972
Sample type: QC

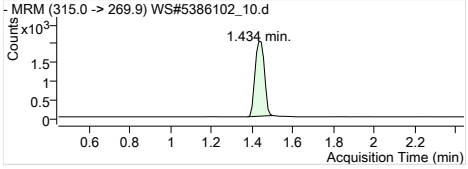
Quantitation Results

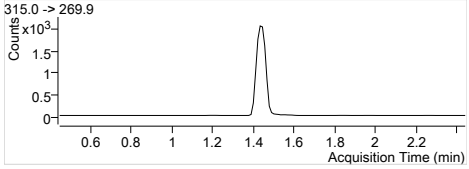
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics		
Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5386102_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C8
Acq. Date	2018/02/08 3:51:17 AM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6401	1.43	1 µg/L		
MPFHxS	1558	1.69	1 µg/L		
MPFHpA	7910	1.70	1 µg/L		
MPFOA	8320	1.88	1 µg/L		
MPFOS	1920	1.98	1 µg/L		
MPFNA	8655	2.02	1 µg/L		
MPFDA	7196	2.14	1 µg/L		
MPFUnA	8481	2.23	1 µg/L		
MPFDoA	11855	2.32	1 µg/L		
MPFTeDA	12712	2.47	1 µg/L		
13C6-PFHxA IS	32150	1.43	1 µg/L		
13C9-PFDA IS	41525	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	513	1.09	0.83	0.84 µg/L	100.66
PFHxA 1	1900	1.43	0.83	0.82 µg/L	98.85
PFHxS 1	472	1.69	0.83	0.68 µg/L	82.01
PFHpA 1	2414	1.70	0.83	0.84 µg/L	100.86
PFOA 1	2863	1.88	0.83	0.94 µg/L	113.70
PFOS 1	593	1.98	0.83	0.94 µg/L	113.82
PFNA 1	2412	2.03	0.83	0.81 µg/L	97.61
PFDA 1	2787	2.14	0.83	0.79 µg/L	95.10
PFUnA 1	2888	2.23	0.83	0.84 µg/L	100.98
PFDoA 1	3466	2.32	0.83	0.78 µg/L	93.61
PFTrDA 1	4415	2.40	0.83	0.93 µg/L	112.20
PFTeDA 1	3792	2.47	0.83	0.90 µg/L	108.78
13C2-PFHxA	6401	1.43	100.00	102.45 µg/L	102.45
18O2-PFHxS	1558	1.69	100.00	97.47 µg/L	97.47
13C4-PFHpA	7910	1.70	100.00	96.68 µg/L	96.68
13C4-PFOA	8320	1.88	100.00	96.39 µg/L	96.39
13C4-PFOS	1920	1.98	100.00	98.63 µg/L	98.63
13C5-PFNA	8656	2.02	100.00	100.48 µg/L	100.48
13C2-PFDA	6981	2.14	100.00	98.77 µg/L	98.77
13C2-PFUnA	8481	2.23	100.00	101.19 µg/L	101.19
13C2-PFDoA	11855	2.32	100.00	101.88 µg/L	101.88
13C2-PFTeDA	13021	2.47	100.00	98.10 µg/L	98.10
13C6-PFHxA	32150	1.43	100.00	101.35 µg/L	101.35
13C9-PFDA	41525	2.13	100.00	102.39 µg/L	102.39





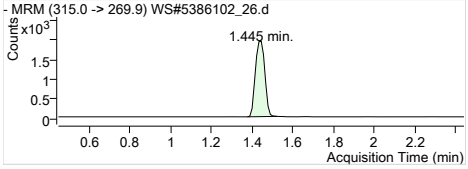
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	CC

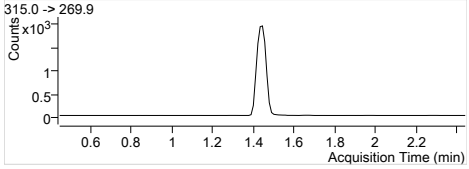
Batch Path	T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5386102_26.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-D2
Acq. Date	2018/02/08 5:10:13 AM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6212	1.44	1 µg/L		
MPFHxS	1630	1.69	1 µg/L		
MPFHpA	8094	1.70	1 µg/L		
MPFOA	8918	1.88	1 µg/L		
MPFOS	1863	1.98	1 µg/L		
MPFNA	8635	2.02	1 µg/L		
MPFDA	7264	2.15	1 µg/L		
MPFUnA	8228	2.25	1 µg/L		
MPFDoA	10776	2.32	1 µg/L		
MPFTeDA	12927	2.47	1 µg/L		
13C6-PFHxA IS	33413	1.44	1 µg/L		
13C9-PFDA IS	42329	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8588	1.10	12.50	12.45 µg/L	99.58
PFHxA 1	30130	1.45	12.50	11.99 µg/L	95.94
PFHxS 1	8023	1.68	12.50	11.86 µg/L	94.85
PFHpA 1	38378	1.70	12.50	12.00 µg/L	95.97
PFOA 1	42614	1.88	12.50	11.51 µg/L	92.10
PFOS 1	8167	1.98	12.50	11.97 µg/L	95.77
PFNA 1	37896	2.03	12.50	12.04 µg/L	96.31
PFDA 1	40871	2.15	12.50	11.62 µg/L	92.98
PFUnA 1	44297	2.25	12.50	11.54 µg/L	92.33
PFDoA 1	57343	2.32	12.50	12.82 µg/L	102.57
PFTrDA 1	63954	2.40	12.50	12.02 µg/L	96.14
PFTeDA 1	55279	2.47	12.50	12.28 µg/L	98.23
13C2-PFHxA	6212	1.44	100.00	95.67 µg/L	95.67
18O2-PFHxS	1630	1.69	100.00	98.12 µg/L	98.12
13C4-PFHpA	8094	1.70	100.00	95.19 µg/L	95.19
13C4-PFOA	8918	1.88	100.00	99.42 µg/L	99.42
13C4-PFOS	1863	1.98	100.00	92.09 µg/L	92.09
13C5-PFNA	8635	2.02	100.00	96.45 µg/L	96.45
13C2-PFDA	7108	2.15	100.00	98.66 µg/L	98.66
13C2-PFUnA	8228	2.25	100.00	96.30 µg/L	96.30
13C2-PFDoA	10776	2.32	100.00	90.85 µg/L	90.85
13C2-PFTeDA	13120	2.47	100.00	96.97 µg/L	96.97
13C6-PFHxA	33413	1.44	100.00	105.33 µg/L	105.33
13C9-PFDA	42329	2.15	100.00	104.37 µg/L	104.37





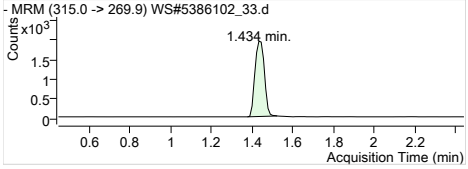
MPFHxA	Internal Standard
RT (Exp. RT):	1.445 (1.445)
Concentration:	1 µg/L
Sample type:	CC

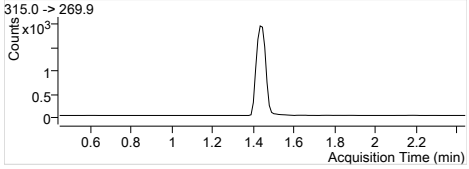
Batch Path	T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5386102_33.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-D2
Acq. Date	2018/02/08 5:44:45 AM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6168	1.43	1 µg/L		
MPFHxS	1571	1.69	1 µg/L		
MPFHpA	8387	1.70	1 µg/L		
MPFOA	8961	1.88	1 µg/L		
MPFOS	1864	1.98	1 µg/L		
MPFNA	8761	2.02	1 µg/L		
MPFDA	6818	2.15	1 µg/L		
MPFUnA	8456	2.23	1 µg/L		
MPFDoA	11590	2.32	1 µg/L		
MPFTeDA	12009	2.47	1 µg/L		
13C6-PFHxA IS	32937	1.43	1 µg/L		
13C9-PFDA IS	44706	2.15	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	7701	1.10	12.50	11.58 µg/L	92.68
PFHxA 1	30556	1.43	12.50	12.25 µg/L	97.97
PFHxS 1	7973	1.68	12.50	12.23 µg/L	97.81
PFHpA 1	37171	1.70	12.50	11.22 µg/L	89.74
PFOA 1	41537	1.88	12.50	11.17 µg/L	89.37
PFOS 1	7884	1.98	12.50	11.55 µg/L	92.43
PFNA 1	38655	2.03	12.50	12.10 µg/L	96.83
PFDA 1	41735	2.14	12.50	12.65 µg/L	101.17
PFUnA 1	44591	2.23	12.50	11.31 µg/L	90.45
PFDoA 1	56589	2.32	12.50	11.77 µg/L	94.16
PFTrDA 1	60995	2.40	12.50	12.33 µg/L	98.68
PFTeDA 1	54366	2.47	12.50	13.00 µg/L	103.97
13C2-PFHxA	6168	1.43	100.00	96.37 µg/L	96.37
18O2-PFHxS	1571	1.69	100.00	95.93 µg/L	95.93
13C4-PFHpA	8387	1.70	100.00	100.06 µg/L	100.06
13C4-PFOA	8961	1.88	100.00	101.34 µg/L	101.34
13C4-PFOS	1864	1.98	100.00	93.47 µg/L	93.47
13C5-PFNA	8760	2.02	100.00	99.26 µg/L	99.26
13C2-PFDA	6675	2.15	100.00	87.72 µg/L	87.72
13C2-PFUnA	8456	2.23	100.00	93.71 µg/L	93.71
13C2-PFDoA	11590	2.32	100.00	92.52 µg/L	92.52
13C2-PFTeDA	12184	2.47	100.00	85.26 µg/L	85.26
13C6-PFHxA	32937	1.43	100.00	103.83 µg/L	103.83
13C9-PFDA	44706	2.15	100.00	110.24 µg/L	110.24





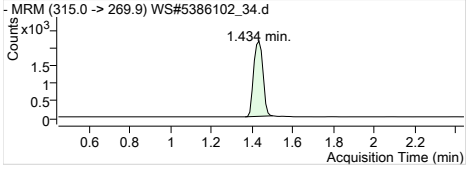
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	CC

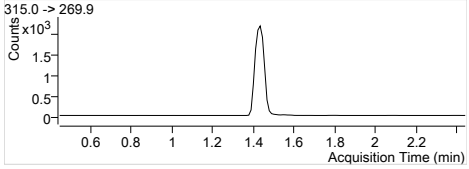
Batch Path T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5386102_34.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C8
Acq. Date	2018/02/08 3:47:11 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6824	1.43	1 µg/L		
MPFHxS	1577	1.68	1 µg/L		
MPFHpA	8844	1.69	1 µg/L		
MPFOA	8986	1.88	1 µg/L		
MPFOS	2166	1.98	1 µg/L		
MPFNA	10142	2.02	1 µg/L		
MPFDA	7734	2.14	1 µg/L		
MPFUnA	8702	2.23	1 µg/L		
MPFDoA	11944	2.32	1 µg/L		
MPFTeDA	14298	2.47	1 µg/L		
13C6-PFHxA IS	34491	1.43	1 µg/L		
13C9-PFDA IS	43455	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	642	1.09	0.83	1.02 µg/L	122.71
PFHxA 1	1851	1.43	0.83	0.76 µg/L	91.29
PFHxS 1	534	1.68	0.83	0.77 µg/L	92.41
PFHpA 1	2888	1.69	0.83	0.89 µg/L	107.34
PFOA 1	3343	1.88	0.83	1.01 µg/L	121.71
PFOS 1	579	1.97	0.83	0.83 µg/L	100.28
PFNA 1	2723	2.01	0.83	0.78 µg/L	94.26
PFDA 1	2908	2.14	0.83	0.77 µg/L	92.29
PFUnA 1	2999	2.23	0.83	0.85 µg/L	102.03
PFDoA 1	4144	2.32	0.83	0.91 µg/L	109.36
PFTrDA 1	4355	2.40	0.83	0.83 µg/L	99.79
PFTeDA 1	3818	2.47	0.83	0.81 µg/L	98.01
13C2-PFHxA	6824	1.43	100.00	101.81 µg/L	101.81
18O2-PFHxS	1577	1.68	100.00	91.96 µg/L	91.96
13C4-PFHpA	8844	1.69	100.00	100.76 µg/L	100.76
13C4-PFOA	8986	1.88	100.00	97.04 µg/L	97.04
13C4-PFOS	2166	1.98	100.00	103.72 µg/L	103.72
13C5-PFNA	10047	2.02	100.00	108.71 µg/L	108.71
13C2-PFDA	7567	2.14	100.00	102.31 µg/L	102.31
13C2-PFUnA	8702	2.23	100.00	99.21 µg/L	99.21
13C2-PFDoA	11944	2.32	100.00	98.09 µg/L	98.09
13C2-PFTeDA	14299	2.47	100.00	102.94 µg/L	102.94
13C6-PFHxA	34491	1.43	100.00	108.73 µg/L	108.73
13C9-PFDA	43455	2.13	100.00	107.15 µg/L	107.15





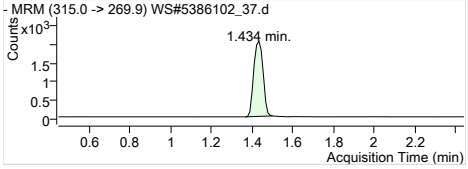
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	CC

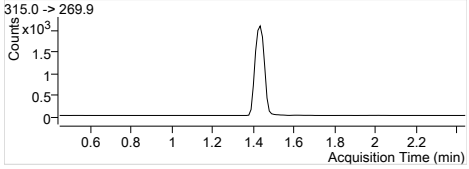
Batch Path	T:\lcms4\PFC\20180207\WS#5386102\QuantResults\PFC_Water_Low_180207_WS#5386102_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5386102_37.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-D2
Acq. Date	2018/02/08 4:01:57 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6476	1.43	1 µg/L		
MPFHxS	1498	1.68	1 µg/L		
MPFHpA	8243	1.69	1 µg/L		
MPFOA	9595	1.88	1 µg/L		
MPFOS	1878	1.98	1 µg/L		
MPFNA	8637	2.02	1 µg/L		
MPFDA	6880	2.14	1 µg/L		
MPFUnA	8813	2.23	1 µg/L		
MPFDoA	11599	2.32	1 µg/L		
MPFTeDA	13627	2.47	1 µg/L		
13C6-PFHxA IS	35453	1.43	1 µg/L		
13C9-PFDA IS	44102	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8462	1.09	12.50	13.34 µg/L	106.73
PFHxA 1	30830	1.43	12.50	11.77 µg/L	94.18
PFHxS 1	8007	1.68	12.50	12.88 µg/L	103.04
PFHpA 1	41975	1.69	12.50	12.88 µg/L	103.03
PFOA 1	45630	1.88	12.50	11.46 µg/L	91.66
PFOS 1	8451	1.97	12.50	12.29 µg/L	98.29
PFNA 1	38345	2.03	12.50	12.18 µg/L	97.43
PFDA 1	42970	2.14	12.50	12.90 µg/L	103.23
PFUnA 1	46137	2.23	12.50	11.23 µg/L	89.80
PFDoA 1	58450	2.32	12.50	12.15 µg/L	97.17
PFTrDA 1	69208	2.40	12.50	12.33 µg/L	98.67
PFTeDA 1	55720	2.47	12.50	11.74 µg/L	93.95
13C2-PFHxA	6476	1.43	100.00	94.00 µg/L	94.00
18O2-PFHxS	1498	1.68	100.00	84.98 µg/L	84.98
13C4-PFHpA	8243	1.69	100.00	91.37 µg/L	91.37
13C4-PFOA	9595	1.88	100.00	100.81 µg/L	100.81
13C4-PFOS	1878	1.98	100.00	87.49 µg/L	87.49
13C5-PFNA	8581	2.02	100.00	90.33 µg/L	90.33
13C2-PFDA	6799	2.14	100.00	90.57 µg/L	90.57
13C2-PFUnA	8813	2.23	100.00	99.00 µg/L	99.00
13C2-PFDoA	11599	2.32	100.00	93.86 µg/L	93.86
13C2-PFTeDA	13838	2.47	100.00	98.16 µg/L	98.16
13C6-PFHxA	35453	1.43	100.00	111.76 µg/L	111.76
13C9-PFDA	44102	2.13	100.00	108.75 µg/L	108.75





MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.445)
Concentration:	1 µg/L
Sample type:	CC

Quantitation Results

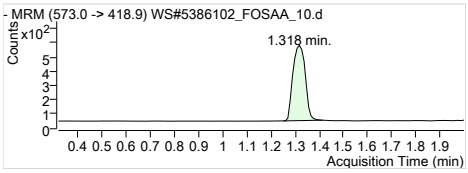
Agilent Technologies

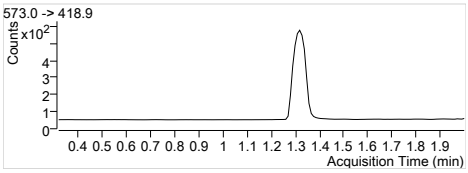
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C8
Acq. Date	2018/02/08 9:55:40 AM	**Injection Volume**	Per Method
Sample Annotation	-		

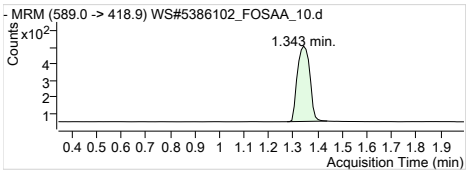
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1882	1.32	1 µg/L		
D5-EtFOSAA IS	1622	1.34	1 µg/L		
13C9-PFDA IS	35225	0.92	1 µg/L		

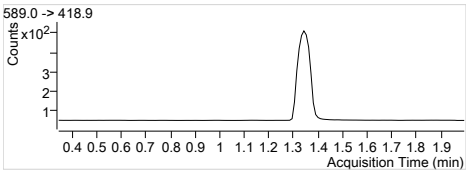
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	545	1.31	0.83	0.82 µg/L	98.35
EtFOSAA 1	551	1.34	0.83	0.87 µg/L	104.50
D3-MeFOSAA	1904	1.32	100.00	101.58 µg/L	101.58
D5-EtFOSAA	1633	1.34	100.00	100.41 µg/L	100.41
13C9-PFDA	34350	0.92	100.00	102.82 µg/L	102.82



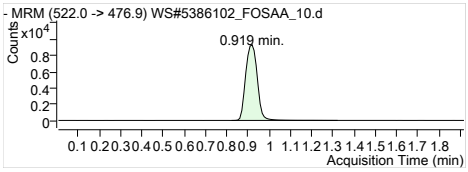


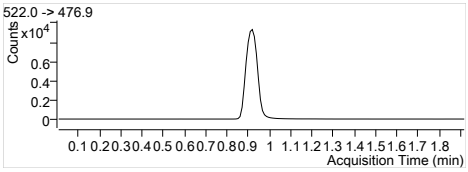
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



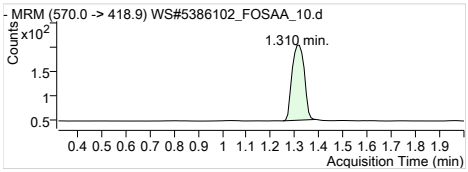


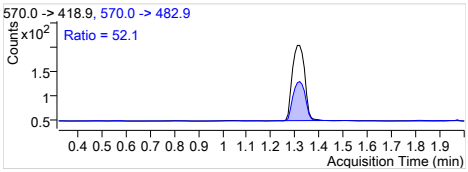
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



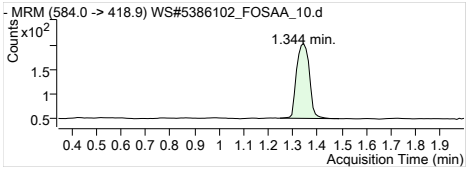


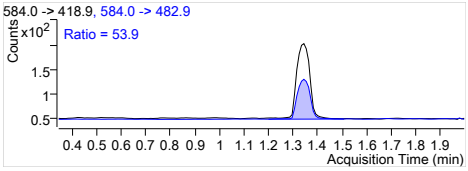
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: CC



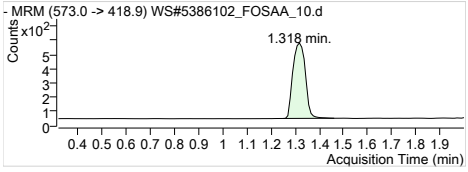


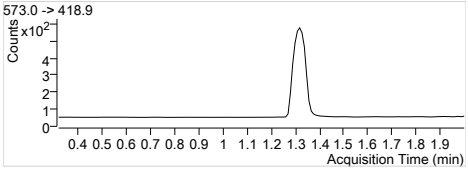
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.319)
Calc. conc. 0.82 µg/L
Area ratio: 0.28959
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.87 µg/L
Area ratio: 0.33970
Sample type: CC





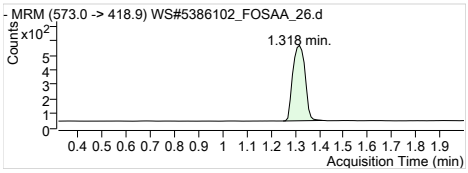
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 101.58 µg/L
Area ratio: 0.05405
Sample type: CC

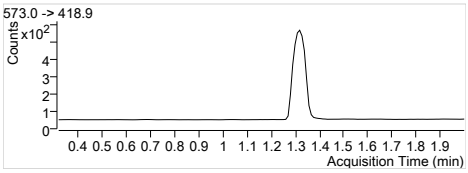
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_26.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D2
Acq. Date	2018/02/08 10:34:12 AM	**Injection Volume**	Per Method
Sample Annotation	-		

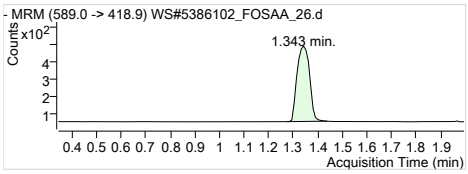
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1825	1.32	1 µg/L		
D5-EtFOSAA IS	1565	1.34	1 µg/L		
13C9-PFDA IS	35972	0.92	1 µg/L		

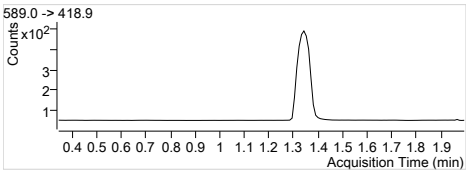
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7785	1.32	12.50	12.02 µg/L	96.18
EtFOSAA 1	7832	1.34	12.50	11.90 µg/L	95.17
D3-MeFOSAA	1835	1.32	100.00	95.87 µg/L	95.87
D5-EtFOSAA	1576	1.34	100.00	94.89 µg/L	94.89
13C9-PFDA	35131	0.92	100.00	105.16 µg/L	105.16



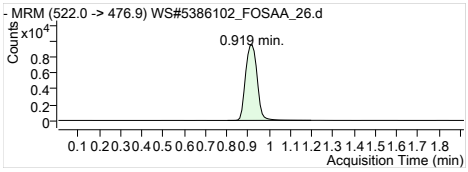


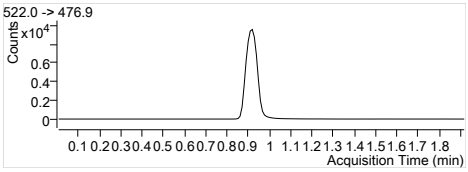
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



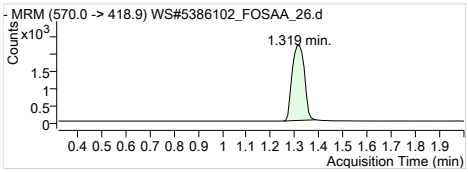


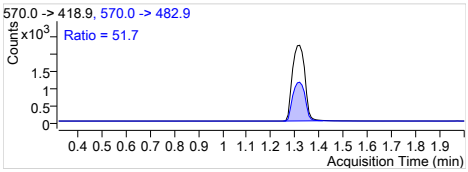
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



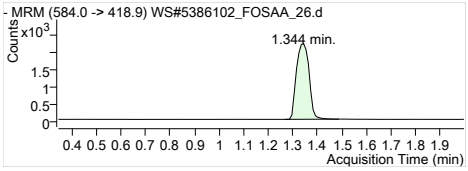


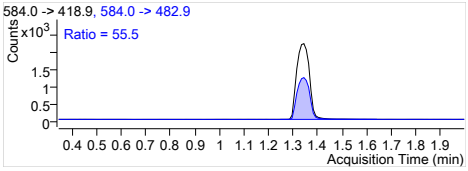
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: CC



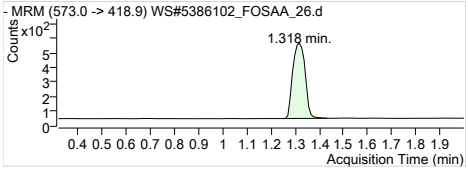


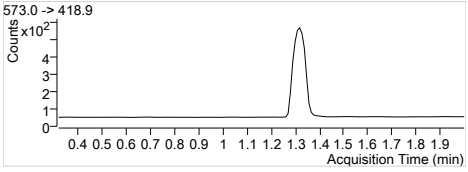
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 12.02 µg/L
Area ratio: 4.26575
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 11.90 µg/L
Area ratio: 5.00447
Sample type: CC





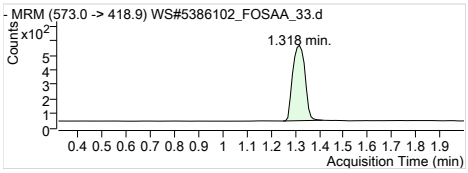
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 95.87 µg/L
Area ratio: 0.05101
Sample type: CC

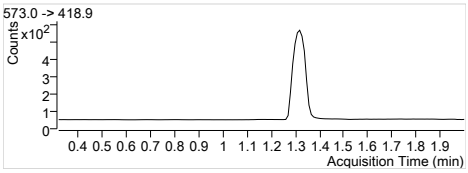
Batch Path	T:\lcms4\PFC\20180207\WS#5386102_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5386102_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5386102_FOSAA_33.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-D2
Acq. Date	2018/02/08 10:51:05 AM	**Injection Volume**	Per Method
Sample Annotation	-		

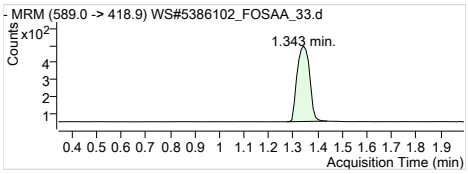
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1832	1.32	1 µg/L		
D5-EtFOSAA IS	1580	1.34	1 µg/L		
13C9-PFDA IS	35917	0.92	1 µg/L		

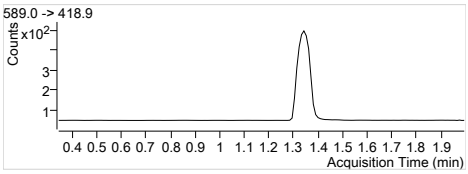
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	7693	1.32	12.50	11.84 µg/L	94.69
EtFOSAA 1	7730	1.34	12.50	11.63 µg/L	93.05
D3-MeFOSAA	1846	1.32	100.00	96.59 µg/L	96.59
D5-EtFOSAA	1585	1.34	100.00	95.58 µg/L	95.58
13C9-PFDA	35154	0.92	100.00	105.23 µg/L	105.23



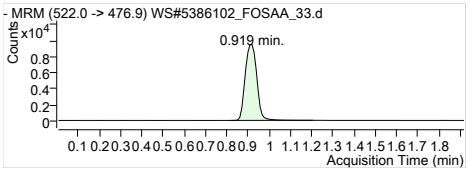


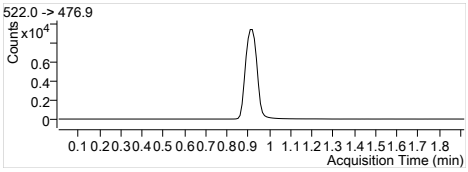
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



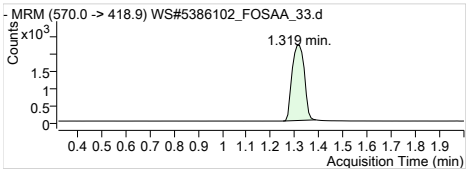


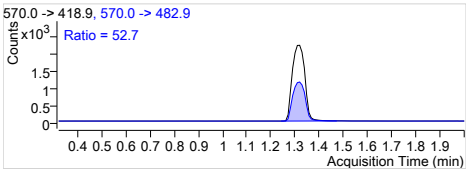
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



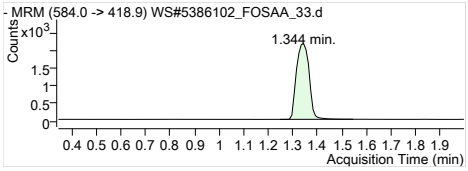


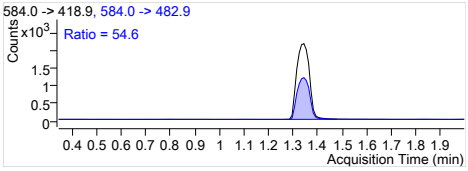
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: CC



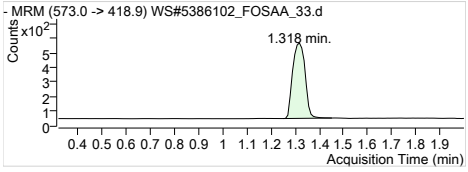


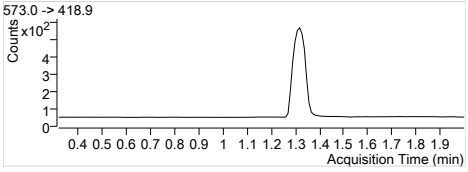
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 11.84 µg/L
Area ratio: 4.19924
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 11.63 µg/L
Area ratio: 4.89241
Sample type: CC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 96.59 µg/L
Area ratio: 0.05140
Sample type: CC

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/08

Worksheet # (s): 537452

Analysis: PFOSALCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria	✓			✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria			✓	✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed	✓			✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS			✓	✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: AT Date: 2018/02/12

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: AD Date: 2018/02/12

Comments: Sample ID FZH332 and FZH334 sent for re-work for PFTeDA, PFTrDA due to low extracted IS recovery. AD 2018/02/12

*Note: 2nd 100% verification review documented by secondary qualified data review

Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5387452 Testcode: PFOSACCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: SSV Date: 2018/02/06

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: Date:

Comments:

WS# : 5387452

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Tuesday, February 06, 2018

Assigned to : Shivani Shivani

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

	Job Number	Sample Number	D	Sample ID	F	sediment (cm) Moisture	(ml) Wt or Vol	(ml) Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	(mg)
5-3		SPIKE		PFOS		0	125	3	1X					2018/02/06	27
5-1		BLANK				0	125	3	1X					2018/02/06	28
5-5	B819794	*FZH318-01R		FB-CEF-008-01241*		0	125	3	1X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/06	26
5-7	B819794	*FZH319-01R		EB-CEF-PUBLIX D*		0	125	3	1X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/06	25
5-9	B819794	*FZH320-01R		EB-CEF-LABCHE*		0	125	3	1X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/06	29
5-11	B819794	*FZH321-01R		EB-CEF-008-01241*		0	125	3	1X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/06	32
5-13	B819794	*FZH322-01R		EB-CEF-008-01241*		0	125	3	1X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/06	30
5-15	B819794	*FZH323-01R		EB-CEF-008-01241*		0	125	3	1X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/06	28
5-16,17	B819794	*FZH331-01R		CEF-342-06S-0118		<0.1	62.5/6.25	3	2X/20X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/06	27
5-18,19	B819794	*FZH332-01R		CEF-342-06S-0118-*		<0.1	12.5/12.5	3	1X/10X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/06	31
5-20,21	B819794	*FZH333-01R		CEF-342-12S-0118		<0.1	12.5/1.25	3	10X/100X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/06	30
5-23	B819794	*FZH334-01R	0	CEF-343-03S-0118		<0.1	12.5	3	10X	6	2018/02/06	2018/02/09 18:00	DOD	2018/02/06	26
5-24	B819794	*FZH334-01R	1	CEF-343-03S-0118		<0.1	12.5	3	10X	6	2018/02/06	2018/02/09 18:00	DOD	2018/02/06	25

2018/02/06 SSV

Remarks:
- Carbon clean up done.
- All standards cross Reference to 5387446.
- Sample/sample Dup prepared because requested sample for MS/MSD is foamy, dark brown in colour.

Samples extracted by: Shivani Shivani

Instrumentation performed by: [signature] Date: 2018/02/07

Calculations performed by: DE Date: 2018/02/12

Validated by: AD Date: 2018/02/12

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.)	AECOM

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

Job	Sample	Lab Comments
	SPIKE	
	BLANK	
B819794	FZH318-01R	
B819794	FZH319-01R	
B819794	FZH320-01R	
B819794	FZH321-01R	
B819794	FZH322-01R	
B819794	FZH323-01R	
B819794	FZH331-01R	Centrifuged sample at 4000 rpm.
B819794	FZH332-01R	"
B819794	FZH333-01R	"
B819794	FZH334-01R	"
B819794	FZH334-01R:DUP	"

Folder : 20180202

2018/02/12

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB819554	[redacted]			

Job	Sample	Lab Comments
	SPIKE	
	SPIKE	
	BLANK	
B819554	FZG260-01R	
B819554	FZG261-01R	
B819554	FZG262-01R	
B819554	FZG263-01R	
B819554	FZG264-01R	
B819554	FZG266-01R	
B819554	FZG268-01R	

Calibration Standard Preparation #

	mean (ul)	Spk (ul)	IS
S_1	2825	25	SK-7377
S_2	2800	50	
S_3	2700	150	
S_4	2813	37.5	I-5297
S_5	2775	75	
S_6	2725	125	
ICV	2788	62.5 — I-5299	
ICB	2850		

JPB 2018/02/06

50 (ul)

ICAL and ICV info only.

ME 2018/02/13

Worksheet Reagent Tracking Record Worksheet # 5387452

Volume (µL)

Surrogate/Spike solutions	√	Solution ID #	Conc.	Blk-Spk Solid	Blk-Spk Liquid	MS Solid	MS Liquid	Samples Solid	Samples Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299(1/3)	1ug/mL	75	21 62.5	75	21 62.5	NA	NA
PFC Internal Standard Solution	✓	SI-6763(3/4) HB	50/125 ng/mL	200	100 150	200	100 150	200	100 150
PFC Injection IS	✓	SI-6716(4/4) HB	~~400~~ 100 ng/mL	20	20	20	20	20	20
ICV	✓	I-5299(1/3)	ug/ml		62.5				

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHB37527	2018/02/06	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRLRE-108-341		DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRLRE-108-342		0.2% NH_4OH	✓	PRLRE-108-340	
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	S7297	2018/02/06
0.05M HCl							

*Spiked by: SSV

Spike Date: 2018/02/06

Spike Syringe/Pipette ID#: G24390G

Int. Std Syringe/Pipette ID#: Internal Std# K19865F Injection IS# G24390G

*Spiking Witnessed by: JPB

Final pH

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor K55191G K39732F/K19865F	✓	SPE Cartridge	003437247A	✓	QC Balance ID	FC-1
	✓	Filter			Thermometer ID &Temp	
Dispenser		Centrifuge	42148683	10:05-10:10		
		Sonicator				

Bottle Tracking
Bottle# 18381
Cap# 18352
Systems plus Lot# 17/10/30

Comments: Envi Carb # 92806V
250ml volumetric cylinder # 3026

* - SPIKING OF QC's & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet: 5387452

Dilution and Column Cleanup Worksheet

Maxxam Analytics

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added uL	New Effective Final Volume	INITIAL SSU DATE	Column Clean Up
B819794	F2N331	—	2X	62.5	—	150	62.5	2018/02/06	—
	F2N331	—	20X	6.25	—	150	6.25	2018/02/06	—
	F2N332	—	10X	12.5	—	150	12.5	2018/02/06	—
	F2N333	—	10X	12.5	—	150	12.5	2018/02/06	—
	F2N333	—	100X	1.25	123.75	150	125	2018/02/06	—
	F2N334	—	10X	12.5	—	150	12.5	2018/02/06	—
	F2N335	—	10X	12.5	—	150	12.5	2018/02/06	—
				2018/02/06 SSU					

10ml # K551916
250 ml volumetric cylinder # 3026

Worksheet Number: **5387452**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	SPIKE	BLANK	B819794 FZH318	B819794 FZH319	B819794 FZH320	B819794 FZH321
6:2 Fluorotelomer sulfonate	ug/L	84.69828	0	N/A*******	N/A*******	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	ug/L	99.77153	0	N/A*******	N/A*******	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	ug/L	106.18315	0	N/A*******	N/A*******	N/A*******	N/A*******
EtFOSAA	ug/L	87.96041	0	N/A*******	N/A*******	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamidoe	ug/L	87.15807	0	N/A*******	N/A*******	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	ug/L	82.35551	0	N/A*******	N/A*******	N/A*******	N/A*******
MeFOSAA	ug/L	87.93901	0	N/A*******	N/A*******	N/A*******	N/A*******
N-methylperfluorooctanesulfonamidol	ug/L	78.36499	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutanoic acid	ug/L	92.61835	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	ug/L	78.15168	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorodecane Sulfonate	ug/L	78.48687	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	ug/L	85.74965	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptane sulfonate	ug/L	79.68148	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	ug/L	91.50441	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexane Sulfonate (PFHxS)	ug/L	79.33989	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorononanoic Acid (PFNA)	ug/L	95.54106	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	ug/L	95.87527	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	ug/L	94.67622	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorotetradecanoic Acid	ug/L	93.39079	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorotridecanoic Acid	ug/L	88.45611	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroundecanoic Acid (PFUnA)	ug/L	94.57789	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorodecanoic Acid (PFDA)	ug/L	93.77766	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorododecanoic Acid (PFDoA)	ug/L	88.51589	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	86.41654	0	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorooctane Sulfonate (PFOS)	ug/L	82.04147	0	N/A*******	N/A*******	N/A*******	N/A*******
13C2-6:2 Fluorotelomer sulfonate	ug/L	90.2417140	100.897726	N/A*******	N/A*******	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	ug/L	83.0931759	87.4766186	N/A*******	N/A*******	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	ug/L	77.9124064	72.2350146	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorobutanoic acid	ug/L	88.2687666	91.7521747	N/A*******	N/A*******	N/A*******	N/A*******
D3-MeFOSAA	ug/L	86.2597634	75.0926670	N/A*******	N/A*******	N/A*******	N/A*******
D5-EtFOSAA	ug/L	85.4187946	77.6235022	N/A*******	N/A*******	N/A*******	N/A*******
N-methyl-d3-perfluorooctane sulfona	ug/L	81.9643851	79.9067669	N/A*******	N/A*******	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	ug/L	74.2264838	60.2250506	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	ug/L	89.3040609	80.2042129	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorododecanoic acid	ug/L	85.9423037	74.6255891	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorohexanoic acid	ug/L	88.3902599	90.2055496	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluoroundecanoic acid	ug/L	88.4322525	76.9809685	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluoroheptanoic acid	ug/L	100.241620	91.4946176	N/A*******	N/A*******	N/A*******	N/A*******
13C5-Perfluorononanoic acid	ug/L	87.7332017	85.9959748	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorooctanoic acid	ug/L	96.5687039	95.3247993	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorooctanesulfonate	ug/L	91.0956806	81.8727785	N/A*******	N/A*******	N/A*******	N/A*******
13C5-Perfluoropentanoic acid	ug/L	87.3338858	83.4456584	N/A*******	N/A*******	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	ug/L	80.1558510	75.8621538	N/A*******	N/A*******	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	ug/L	88.6556527	84.4011453	N/A*******	N/A*******	N/A*******	N/A*******

2018/12/12

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

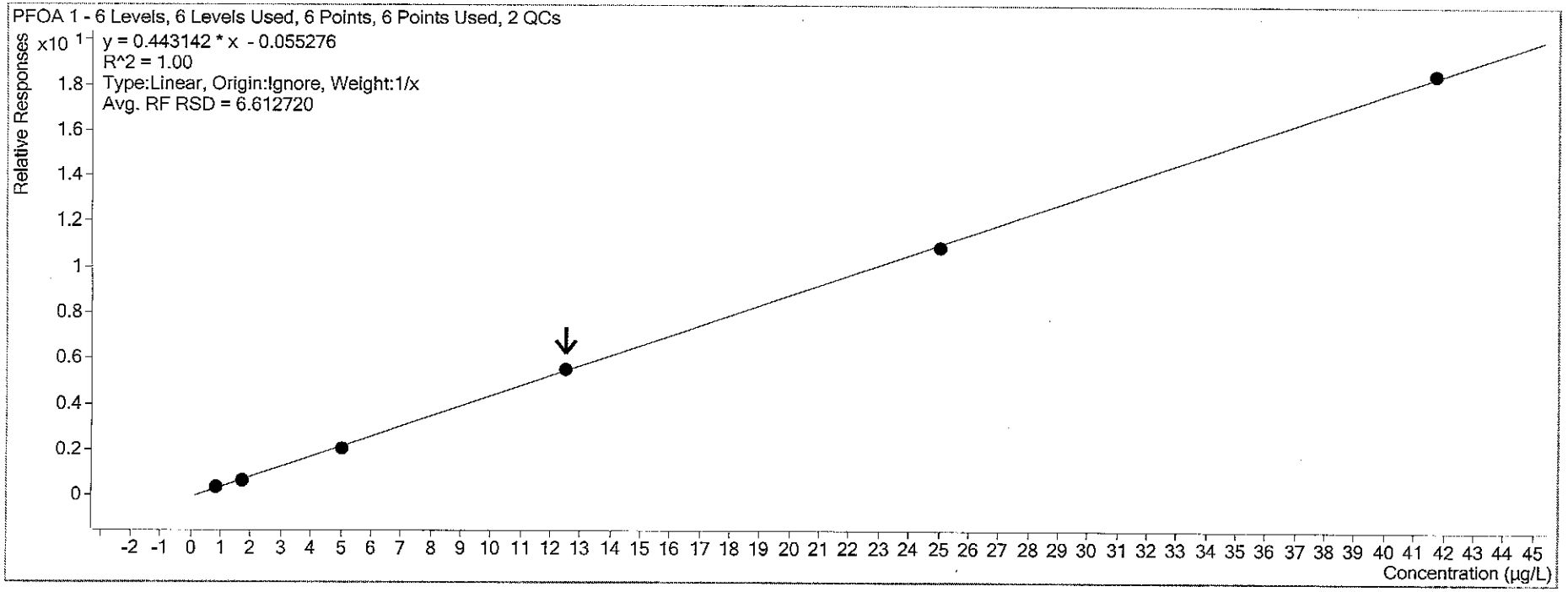
Parameter Name	B819794 FZH322	B819794 FZH323	DL	B819794 FZH331	DL	B819794 FZH332	DL
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
EtFOSAA	N/A*******	N/A*******	0.02	0	0.04	0	0.02
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
MeFOSAA	N/A*******	N/A*******	0.02	0	0.04	0	0.02
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
Perfluorobutanoic acid	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
Perfluorobutane Sulfonate (PFBS)	N/A*******	N/A*******	0.02	0.05287864	0.04	0.05011357	0.02
Perfluorodecane Sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
Perfluoroheptanoic Acid (PFHpA)	N/A*******	N/A*******	0.02	0.57538027	0.04	0.35117999	0.02
Perfluoroheptane sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
Perfluorohexanoic Acid (PFHxA)	N/A*******	N/A*******	0.02	0.61612286	0.04	0.40596374	0.02
Perfluorohexane Sulfonate (PFHxS)	N/A*******	N/A*******	0.02	0.85950655	0.04	0.68468232	0.02
Perfluorononanoic Acid (PFNA)	N/A*******	N/A*******	0.02	0.09607193	0.04	0.06274421	0.02
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	0.02	N/A*******	0.04	N/A*******	0.02
Perfluorotetradecanoic Acid	N/A*******	N/A*******	0.02	0	0.04	0	0.02
Perfluorotridecanoic Acid	N/A*******	N/A*******	0.02	0	0.04	0	0.02
Perfluoroundecanoic Acid (PFUnA)	N/A*******	N/A*******	0.02	0	0.04	0.00955661	0.02
Perfluorodecanoic Acid (PFDA)	N/A*******	N/A*******	0.02	0.02519121	0.04	0.01509757	0.02
Perfluorododecanoic Acid (PFDoA)	N/A*******	N/A*******	0.02	0	0.04	0	0.02
Perfluoro-n-Octanoic Acid (PFOA)	N/A*******	N/A*******	0.02	0.45218216	0.04	0.32867231	0.02
Perfluorooctane Sulfonate (PFOS)	N/A*******	N/A*******	0.02	5.39165929	0.4	3.67401778	0.2
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******		N/A*******		N/A*******	
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******		N/A*******		N/A*******	
13C2-perfluorotetradecanoic acid	N/A*******	N/A*******		71.0519663		!! 43.9854	
13C4-Perfluorobutanoic acid	N/A*******	N/A*******		N/A*******		N/A*******	
D3-MeFOSAA	N/A*******	N/A*******		88.2945440		76.7214922	
D5-EtFOSAA	N/A*******	N/A*******		83.3826383		74.5642656	
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******		N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******		N/A*******		N/A*******	
13C2-Perfluorodecanoic acid	N/A*******	N/A*******		94.2777769		84.8857559	
13C2-Perfluorododecanoic acid	N/A*******	N/A*******		88.2999124		70.5522410	
13C2-Perfluorohexanoic acid	N/A*******	N/A*******		97.5431956		87.9215792	
13C2-Perfluoroundecanoic acid	N/A*******	N/A*******		81.9725819		78.7328608	
13C4-Perfluoroheptanoic acid	N/A*******	N/A*******		101.967859		94.4461849	
13C5-Perfluorononanoic acid	N/A*******	N/A*******		98.4945861		91.1722433	
13C4-Perfluorooctanoic acid	N/A*******	N/A*******		101.057203		95.1708404	
13C4-Perfluorooctanesulfonate	N/A*******	N/A*******		76.8831039		88.0041872	
13C5-Perfluoropentanoic acid	N/A*******	N/A*******		N/A*******		N/A*******	
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******		N/A*******		N/A*******	
18O2-Perfluorohexanesulfonate	N/A*******	N/A*******		94.6505778		82.4807682	

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B819794 FZH333	DL	B819794 FZH334	B819794 FZH334 Dup1	DL	RDL	MDL
6:2 Fluorotelomer sulfonate	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.0066
8:2 Fluorotelomer sulfonate	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.0066
N-ethylperfluorooctane sulfonamide	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.01
EtFOSAA	0	0.2	0	0	0.2	0.02	0.0033
N-ethylperfluorooctane sulfonamidoe	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.0079
N-methylperfluorooctane sulfonamide	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.013
MeFOSAA	0	0.2	0	0	0.2	0.02	0.0029
N-methylperfluorooctanesulfonamidol	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.012
Perfluorobutanoic acid	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.0055
Perfluorobutane Sulfonate (PFBS)	0.07238154	0.2	0	0	0.2	0.02	0.0054
Perfluorodecane Sulfonate	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.006
Perfluoroheptanoic Acid (PFHpA)	6.97405083	0.2	0	0	0.2	0.02	0.0074
Perfluoroheptane sulfonate	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.008
Perfluorohexanoic Acid (PFHxA)	4.36144216	0.2	0	0	0.2	0.02	0.0035
Perfluorohexane Sulfonate (PFHxS)	3.48578063	0.2	0	0	0.2	0.02	0.0056
Perfluorononanoic Acid (PFNA)	1.17502848	0.2	0	0	0.2	0.02	0.0087
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.0034
Perfluoropentanoic Acid (PFPeA)	N/A*******	0.2	N/A*******	N/A*******	0.2	0.02	0.0075
Perfluorotetradecanoic Acid	0	0.2	0	0	0.2	0.02	0.0027
Perfluorotridecanoic Acid	0	0.2	0	0	0.2	0.02	0.0038
Perfluoroundecanoic Acid (PFUnA)	0	0.2	0	0	0.2	0.02	0.0025
Perfluorodecanoic Acid (PFDA)	0	0.2	0	0	0.2	0.02	0.0061
Perfluorododecanoic Acid (PFDoA)	0	0.2	0	0	0.2	0.02	0.005
Perfluoro-n-Octanoic Acid (PFOA)	5.65906794	0.2	0.10633224	0.13389526	0.2	0.02	0.0033
Perfluorooctane Sulfonate (PFOS)	59.5605918	2.0	0	0	0.2	0.02	0.006
13C2-6:2 Fluorotelomer sulfonate	N/A*******		N/A*******	N/A*******			
13C2-8:2 Fluorotelomer sulfonate	N/A*******		N/A*******	N/A*******			
13C2-perfluorotetradecanoic acid	86.2974522		!! 32.5613	!! 31.7930			
13C4-Perfluorobutanoic acid	N/A*******		N/A*******	N/A*******			
D3-MeFOSAA	98.2189534		74.3572655	71.6940988			
D5-EtFOSAA	99.3684049		72.5409881	71.8213264			
N-methyl-d3-perfluorooctane sulfona	N/A*******		N/A*******	N/A*******			
N-ethyl-d5-perfluorooctane sulfonam	N/A*******		N/A*******	N/A*******			
13C2-Perfluorodecanoic acid	99.0013254		79.8811586	80.7716421			
13C2-Perfluorododecanoic acid	95.4663645		61.8110433	59.5212838			
13C2-Perfluorohexanoic acid	92.8508340		86.2108141	85.2464988			
13C2-Perfluoroundecanoic acid	96.0998058		75.6381885	71.1825272			
13C4-Perfluoroheptanoic acid	101.198436		88.7967672	91.5827862			
13C5-Perfluorononanoic acid	94.9109518		79.0802179	80.9907893			
13C4-Perfluorooctanoic acid	97.2016564		93.6990137	86.8141628			
13C4-Perfluorooctanesulfonate	94.2908070		73.1887535	81.4499144			
13C5-Perfluoropentanoic acid	N/A*******		N/A*******	N/A*******			
13C8-Perfluorooctane Sulfonamide	N/A*******		N/A*******	N/A*******			
18O2-Perfluorohexanesulfonate	98.5292750		85.2911449	83.2791260			

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	IDL						
6:2 Fluorotelomer sulfonate	0						
8:2 Fluorotelomer sulfonate	0						
N-ethylperfluorooctane sulfonamide	0						
EtFOSAA	0						
N-ethylperfluorooctane sulfonamidoe	0						
N-methylperfluorooctane sulfonamide	0						
MeFOSAA	0						
N-methylperfluorooctanesulfonamidol	0						
Perfluorobutanoic acid	0						
Perfluorobutane Sulfonate (PFBS)	0						
Perfluorodecane Sulfonate	0						
Perfluoroheptanoic Acid (PFHpA)	0						
Perfluoroheptane sulfonate	0						
Perfluorohexanoic Acid (PFHxA)	0						
Perfluorohexane Sulfonate (PFHxS)	0						
Perfluorononanoic Acid (PFNA)	0						
Perfluorooctane Sulfonamide (PFOSA)	0						
Perfluoropentanoic Acid (PFPeA)	0						
Perfluorotetradecanoic Acid	0						
Perfluorotridecanoic Acid	0						
Perfluoroundecanoic Acid (PFUnA)	0						
Perfluorodecanoic Acid (PFDA)	0						
Perfluorododecanoic Acid (PFDoA)	0						
Perfluoro-n-Octanoic Acid (PFOA)	0						
Perfluorooctane Sulfonate (PFOS)	0						
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



Manual calculation for Spk:

$7.922 = 0.443142x - 0.055276$

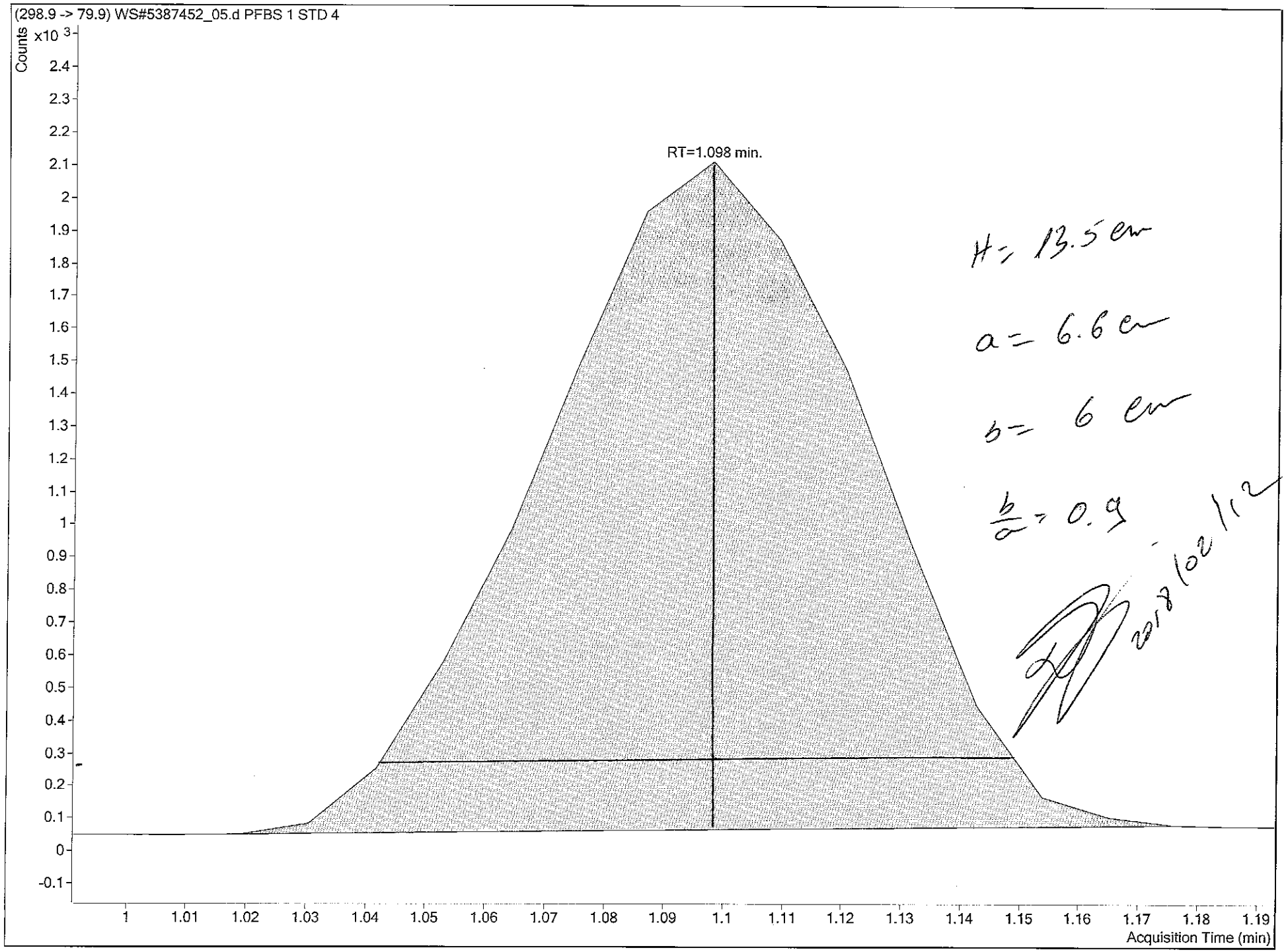
$x = 17.9034 \times 0.029$

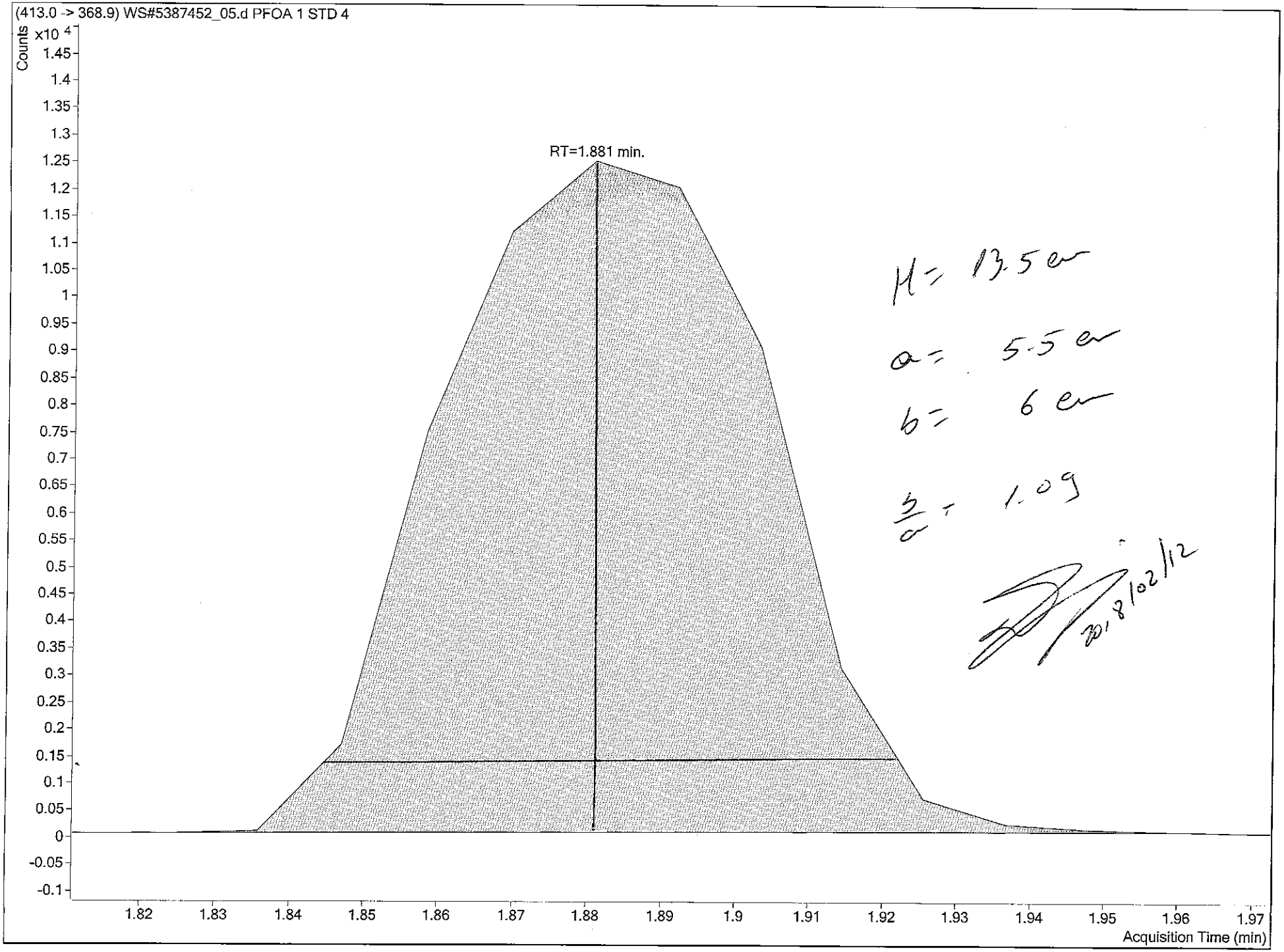
$= 0.5320\ \mu g/L$

$\frac{0.5320}{0.5} \times 100 = 86.4\%$

2018/02/12

AD
2018/02/12


(298.9 -> 79.9) WS#5387452_05.d PFBS 1 STD 4
Counts
x10 3
RT=1.098 min.
Acquisition Time (min)
H= 13.5 cm
a= 6.6 cm
b= 6 cm
b/a = 0.9


(413.0 -> 368.9) WS#5387452_05.d PFOA 1 STD 4
Counts
x10 4
RT=1.881 min.
Acquisition Time (min)
H= 13.5 cm
a= 5.5 cm
b= 6 cm
b/a = 1.09
20/8/02/12

Report Name: Worksheet - Parameter Lists
Report Date: 2018/02/06

Test Code: **PFOSALCM-W**
Worksheet Number: **5387452**

Sample Number	Parameter Code	Parameter	
FZH318-01	NONE	NONE	
FZH319-01			
FZH320-01			
FZH321-01			
FZH322-01			
FZH323-01			
FZH331-01	ETFOSAA	EtFOSAA	*
FZH332-01	MEFOSAA	MeFOSAA	*
FZH333-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FZH334-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5387452 Instrument Sequences

1.	 5387452:SPIKE	SPIKE
2.	 5387452:BLANK	BLANK
3.	 5387452:FZH318-01	FB-CEF-008-012418-6
4.	 5387452:FZH319-01	EB-CEF-PUBLIX DI-012418-3
5.	 5387452:FZH320-01	EB-CEF-LABCHEM DI-012418-
6.	 5387452:FZH321-01	EB-CEF-008-012418-5
7.	 5387452:FZH322-01	EB-CEF-008-012418-6
8.	 5387452:FZH323-01	EB-CEF-008-012418-7
9.	 5387452:FZH331-01	CEF-342-06S-0118
10.	 5387452:FZH332-01	CEF-342-06S-0118-D
11.	 5387452:FZH333-01	CEF-342-12S-0118
12.	 5387452:FZH334-01	CEF-343-03S-0118
13.	 5387452:FZH334-01:D1	CEF-343-03S-0118 :D1

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180207_Low.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180207\WS#5387452
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

2018/02/7 WE

verified by AD 2018/02/07

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P1-A1	PFC_Water_Low.m	WS#5387452_01.d	Sample		As Method	-
2	STD 1	P1-A2	PFC_Water_Low.m	WS#5387452_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-A3	PFC_Water_Low.m	WS#5387452_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-A4	PFC_Water_Low.m	WS#5387452_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-A5	PFC_Water_Low.m	WS#5387452_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-A6	PFC_Water_Low.m	WS#5387452_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-A7	PFC_Water_Low.m	WS#5387452_07.d	Calibration	STD 6	As Method	-

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Worklist Report

Agilent Technologies

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P1-A8	PFC_Water_Low.m	WS#5387452_08.d	Sample		As Method	-
9	ICV	P1-A9	PFC_Water_Low.m	WS#5387452_09.d	QC	ICV	As Method	-
10	ISC	P1-A2	PFC_Water_Low.m	WS#5387452_10.d	ConCal	STD 1	As Method	-
11	5387452:BLANK	P1-B1	PFC_Water_Low.m	WS#5387452_11.d	Sample		As Method	-
12	5387452:SPIKE	P1-B2	PFC_Water_Low.m	WS#5387452_12.d	QC	ICV	As Method	-
13	5387452:FZH318-01	P1-B3	PFC_Water_Low.m	WS#5387452_13.d	QC	ICV	As Method	-
14	5387452:FZH319-01	P1-B4	PFC_Water_Low.m	WS#5387452_14.d	Sample		As Method	-
15	5387452:FZH320-01	P1-B5	PFC_Water_Low.m	WS#5387452_15.d	Sample		As Method	-
16	5387452:FZH321-01	P1-B6	PFC_Water_Low.m	WS#5387452_16.d	Sample		As Method	-
17	5387452:FZH322-01	P1-B7	PFC_Water_Low.m	WS#5387452_17.d	Sample		As Method	-
18	5387452:FZH323-01	P1-B8	PFC_Water_Low.m	WS#5387452_18.d	Sample		As Method	-
19	5387452:FZH331-01:20x	P1-B9	PFC_Water_Low.m	WS#5387452_19.d	Sample		As Method	-
20	5387452:FZH331-01:2x	P1-C1	PFC_Water_Low.m	WS#5387452_20.d	Sample		As Method	-
21	IB	P1-A8	PFC_Water_Low.m	WS#5387452_21.d	Sample		As Method	-
22	5387452:FZH332-01:10x	P1-C2	PFC_Water_Low.m	WS#5387452_22.d	Sample		As Method	-
23	5387452:FZH332-01	P1-C3	PFC_Water_Low.m	WS#5387452_23.d	Sample		As Method	-
24	IB	P1-A8	PFC_Water_Low.m	WS#5387452_24.d	Sample		As Method	-
25	CCV	P1-A5	PFC_Water_Low.m	WS#5387452_25.d	ConCal	STD 4	As Method	-
26	5387452:FZH333-01:100x	P1-C4	PFC_Water_Low.m	WS#5387452_26.d	Sample		As Method	-
27	5387452:FZH333-01:10x	P1-C5	PFC_Water_Low.m	WS#5387452_27.d	Sample		As Method	-
28	IB	P1-A8	PFC_Water_Low.m	WS#5387452_28.d	Sample		As Method	-
29	5387452:FZH334-01:10x	P1-C6	PFC_Water_Low.m	WS#5387452_29.d	Sample		As Method	-
30	5387452:FZH334-01:D1:10x	P1-C7	PFC_Water_Low.m	WS#5387452_30.d	Sample		As Method	-

D:\MassHunter\Worklists\PFCs\PFC_180207_Low.wkl

Report generation date: 07-Feb-2018 04:20:36 PM

Worklist Report

Agilent Technologies

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	IB	P1-A8	PFC_Water_Low.m	WS#5387452_31.d	Sample		As Method	-
32	CCV	P1-A5	PFC_Water_Low.m	WS#5387452_32.d	ConCal	STD 4	As Method	-

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Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180207_Low_FOSAA.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180207\WS#5387452_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B2: Solution# 272 (FSRE18)

20180207 1 7 MS

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P1-A1	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_01.d	Sample		As Method	-
2	STD 1	P1-A2	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-A3	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-A4	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-A5	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-A6	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-A7	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P1-A8	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P1-A9	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P1-A2	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5387452:BLANK	P1-B1	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_11.d	Sample		As Method	-
12	5387452:SPIKE	P1-B2	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_12.d	QC	ICV	As Method	-
13	5387452:FZH318-01	P1-B3	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_13.d	QC	ICV	As Method	-
14	5387452:FZH319-01	P1-B4	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_14.d	Sample		As Method	-
15	5387452:FZH320-01	P1-B5	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_15.d	Sample		As Method	-
16	5387452:FZH321-01	P1-B6	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_16.d	Sample		As Method	-
17	5387452:FZH322-01	P1-B7	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_17.d	Sample		As Method	-
18	5387452:FZH323-01	P1-B8	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_18.d	Sample		As Method	-
19	5387452:FZH331-01:20x	P1-B9	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_19.d	Sample		As Method	-
20	5387452:FZH331-01:2x	P1-C1	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_20.d	Sample		As Method	-
21	IB	P1-A8	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_21.d	Sample		As Method	-
22	5387452:FZH332-01:10x	P1-C2	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_22.d	Sample		As Method	-
23	5387452:FZH332-01	P1-C3	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_23.d	Sample		As Method	-
24	IB	P1-A8	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_24.d	Sample		As Method	-
25	CCV	P1-A5	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_25.d	ConCal	STD 4	As Method	-
26	5387452:FZH333-01:100x	P1-C4	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_26.d	Sample		As Method	-
27	5387452:FZH333-01:10x	P1-C5	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_27.d	Sample		As Method	-
28	IB	P1-A8	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_28.d	Sample		As Method	-
29	5387452:FZH334-01:10x	P1-C6	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_29.d	Sample		As Method	-
30	5387452:FZH334-01:D1:10x	P1-C7	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_30.d	Sample		As Method	-
31	IB	P1-A8	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_31.d	Sample		As Method	-
32	CCV	P1-A5	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_32.d	ConCal	STD 4	As Method	-

Maxxam Analytics

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/08 12:33 AM	PFC_Water_Low.m	WS#5387452_02.d	P1-A2
STD 2	-	2018/02/08 12:38 AM	PFC_Water_Low.m	WS#5387452_03.d	P1-A3
STD 3	-	2018/02/08 12:43 AM	PFC_Water_Low.m	WS#5387452_04.d	P1-A4
STD 4	-	2018/02/08 12:48 AM	PFC_Water_Low.m	WS#5387452_05.d	P1-A5
STD 5	-	2018/02/08 12:53 AM	PFC_Water_Low.m	WS#5387452_06.d	P1-A6
STD 6	-	2018/02/08 12:58 AM	PFC_Water_Low.m	WS#5387452_07.d	P1-A7
IB	-	2018/02/08 1:03 AM	PFC_Water_Low.m	WS#5387452_08.d	P1-A8
ICV	-	2018/02/08 1:08 AM	PFC_Water_Low.m	WS#5387452_09.d	P1-A9
ISC	-	2018/02/08 1:13 AM	PFC_Water_Low.m	WS#5387452_10.d	P1-A2
5387452:BLANK	-	2018/02/08 1:18 AM	PFC_Water_Low.m	WS#5387452_11.d	P1-B1
5387452:SPIKE	-	2018/02/08 1:23 AM	PFC_Water_Low.m	WS#5387452_12.d	P1-B2
5387452:FZH318-01	Not reported	2018/02/08 1:28 AM	PFC_Water_Low.m	WS#5387452_13.d	P1-B3
5387452:FZH319-01	Not reported	2018/02/08 1:33 AM	PFC_Water_Low.m	WS#5387452_14.d	P1-B4
5387452:FZH320-01	Not reported	2018/02/08 1:38 AM	PFC_Water_Low.m	WS#5387452_15.d	P1-B5
5387452:FZH321-01	Not reported	2018/02/08 1:43 AM	PFC_Water_Low.m	WS#5387452_16.d	P1-B6
5387452:FZH322-01	Not reported	2018/02/08 1:47 AM	PFC_Water_Low.m	WS#5387452_17.d	P1-B7
5387452:FZH323-01	Not reported	2018/02/08 1:52 AM	PFC_Water_Low.m	WS#5387452_18.d	P1-B8
5387452:FZH331-01:20x	Reported for PFOS only	2018/02/08 1:57 AM	PFC_Water_Low.m	WS#5387452_19.d	P1-B9
5387452:FZH331-01:2x	Reported for all, except PFOS	2018/02/08 2:02 AM	PFC_Water_Low.m	WS#5387452_20.d	P1-C1
IB	-	2018/02/08 2:07 AM	PFC_Water_Low.m	WS#5387452_21.d	P1-A8
5387452:FZH332-01:10x	Reported for PFOS only	2018/02/08 2:12 AM	PFC_Water_Low.m	WS#5387452_22.d	P1-C2
5387452:FZH332-01	Reported for all, except PFOS	2018/02/08 2:17 AM	PFC_Water_Low.m	WS#5387452_23.d	P1-C3
IB	-	2018/02/08 2:22 AM	PFC_Water_Low.m	WS#5387452_24.d	P1-A8
CCV	-	2018/02/08 2:27 AM	PFC_Water_Low.m	WS#5387452_25.d	P1-A5
5387452:FZH333-01:100x	Reported for PFOS only	2018/02/08 2:32 AM	PFC_Water_Low.m	WS#5387452_26.d	P1-C4
5387452:FZH333-01:10x	Reported for all, except PFOS	2018/02/08 2:37 AM	PFC_Water_Low.m	WS#5387452_27.d	P1-C5
IB	-	2018/02/08 2:42 AM	PFC_Water_Low.m	WS#5387452_28.d	P1-A8
5387452:FZH334-01:10x	-	2018/02/08 2:47 AM	PFC_Water_Low.m	WS#5387452_29.d	P1-C6
5387452:FZH334-01:D1:10x	-	2018/02/08 2:52 AM	PFC_Water_Low.m	WS#5387452_30.d	P1-C7
IB	-	2018/02/08 2:57 AM	PFC_Water_Low.m	WS#5387452_31.d	P1-A8
CCV	-	2018/02/08 3:01 AM	PFC_Water_Low.m	WS#5387452_32.d	P1-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/08 8:19 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_02.d	P1-A2
STD 2	-	2018/02/08 8:21 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_03.d	P1-A3
STD 3	-	2018/02/08 8:24 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_04.d	P1-A4
STD 4	-	2018/02/08 8:26 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_05.d	P1-A5
STD 5	-	2018/02/08 8:28 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_06.d	P1-A6
STD 6	-	2018/02/08 8:31 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_07.d	P1-A7
IB	-	2018/02/08 8:33 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_08.d	P1-A8
ICV	-	2018/02/08 8:36 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_09.d	P1-A9
ISC	-	2018/02/08 8:38 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_10.d	P1-A2
5387452:BLANK	-	2018/02/08 8:40 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_11.d	P1-B1
5387452:SPIKE	-	2018/02/08 8:43 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_12.d	P1-B2
5387452:FZH318-01	Not reported	2018/02/08 8:45 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_13.d	P1-B3
5387452:FZH319-01	Not reported	2018/02/08 8:48 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_14.d	P1-B4
5387452:FZH320-01	Not reported	2018/02/08 8:50 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_15.d	P1-B5
5387452:FZH321-01	Not reported	2018/02/08 8:52 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_16.d	P1-B6
5387452:FZH322-01	Not reported	2018/02/08 8:55 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_17.d	P1-B7
5387452:FZH323-01	Not reported	2018/02/08 8:57 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_18.d	P1-B8
5387452:FZH331-01:20x	Not used	2018/02/08 9:00 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_19.d	P1-B9
5387452:FZH331-01:2x	-	2018/02/08 9:02 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_20.d	P1-C1
IB	-	2018/02/08 9:05 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_21.d	P1-A8
5387452:FZH332-01:10x	Not used	2018/02/08 9:07 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_22.d	P1-C2
5387452:FZH332-01	-	2018/02/08 9:09 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_23.d	P1-C3
IB	-	2018/02/08 9:12 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_24.d	P1-A8
CCV	-	2018/02/08 9:14 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_25.d	P1-A5
5387452:FZH333-01:100x	Not used	2018/02/08 9:17 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_26.d	P1-C4
5387452:FZH333-01:10x	-	2018/02/08 9:19 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_27.d	P1-C5
IB	-	2018/02/08 9:21 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_28.d	P1-A8
5387452:FZH334-01:10x	-	2018/02/08 9:24 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_29.d	P1-C6
5387452:FZH334-01:D1:10x	-	2018/02/08 9:26 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_30.d	P1-C7
IB	-	2018/02/08 9:29 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_31.d	P1-A8
CCV	-	2018/02/08 9:31 AM	PFC_Water_Low_FOSAA.m	WS#5387452_FOSAA_32.d	P1-A5

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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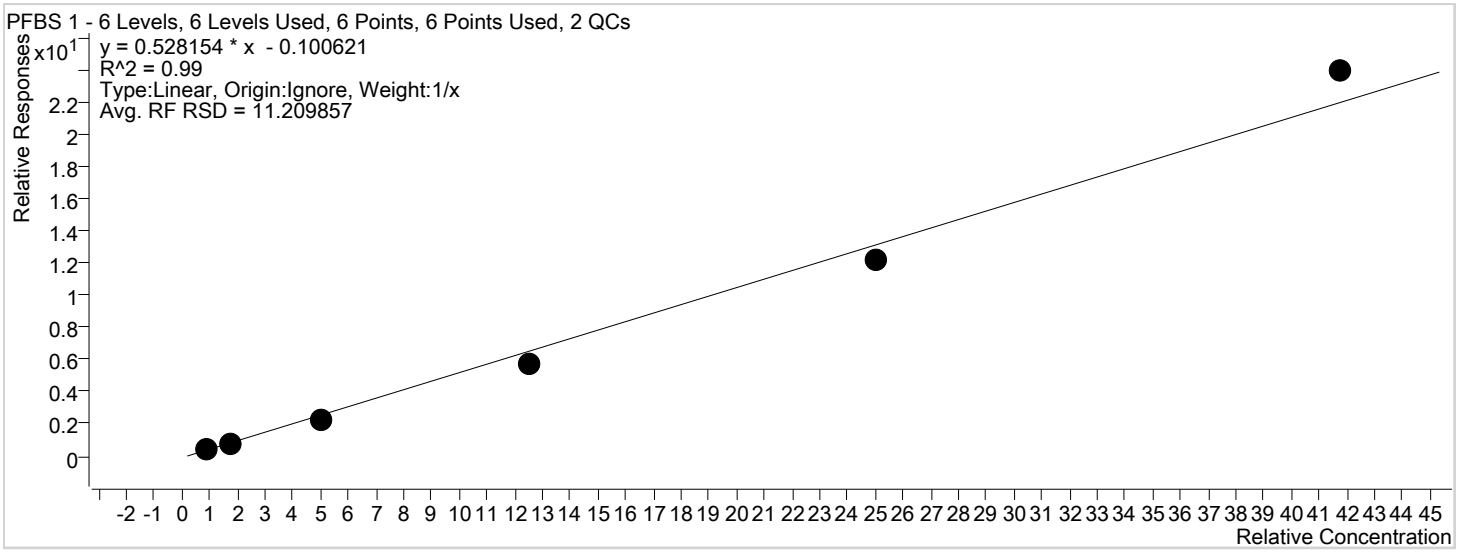
Instrument: LCMS04

Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	1.04	630	0.5437	97	125.9
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.68	1025	0.4613	158	98.6
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.30	3326	0.4345	233	86.1
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	10.87	7848	0.4514	140	87.0
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	23.36	16055	0.4895	624	93.4
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	45.47	27647	0.5735	897	109.0

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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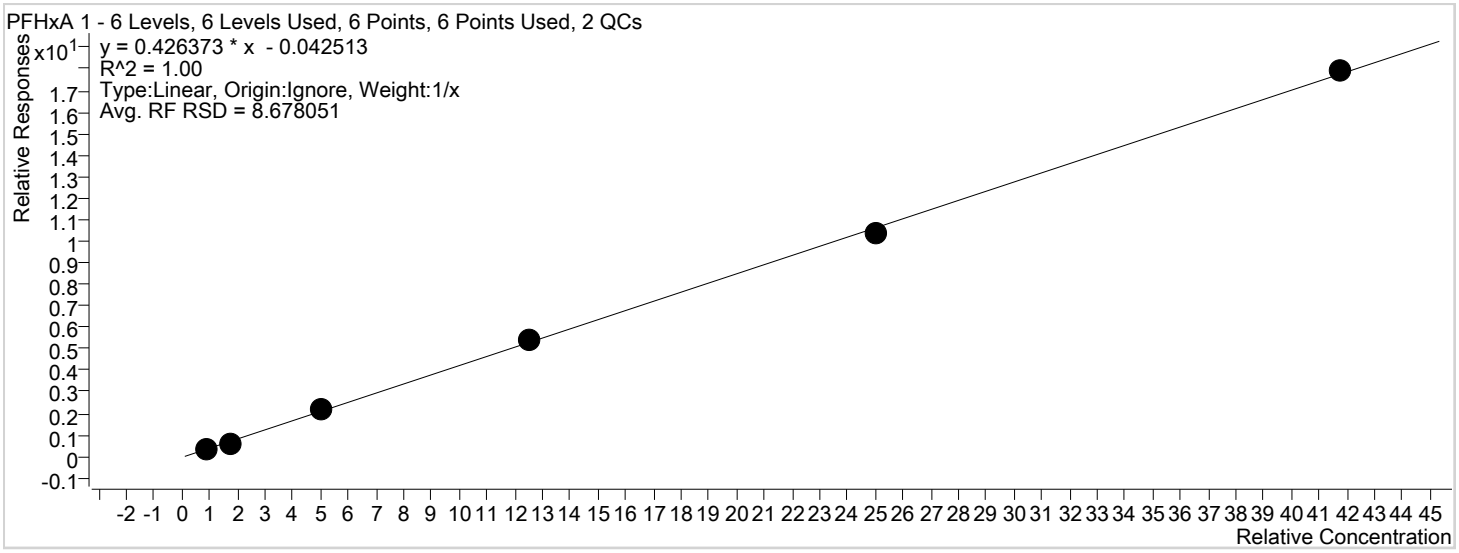
Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.93	1615	0.4268	65	112.1
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.45	2979	0.3393	82	85.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	5.10	10403	0.4267	351	102.1
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	12.71	26901	0.4302	715	101.7
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	24.43	53000	0.4149	965	97.7
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	42.10	90803	0.4295	4832	101.0

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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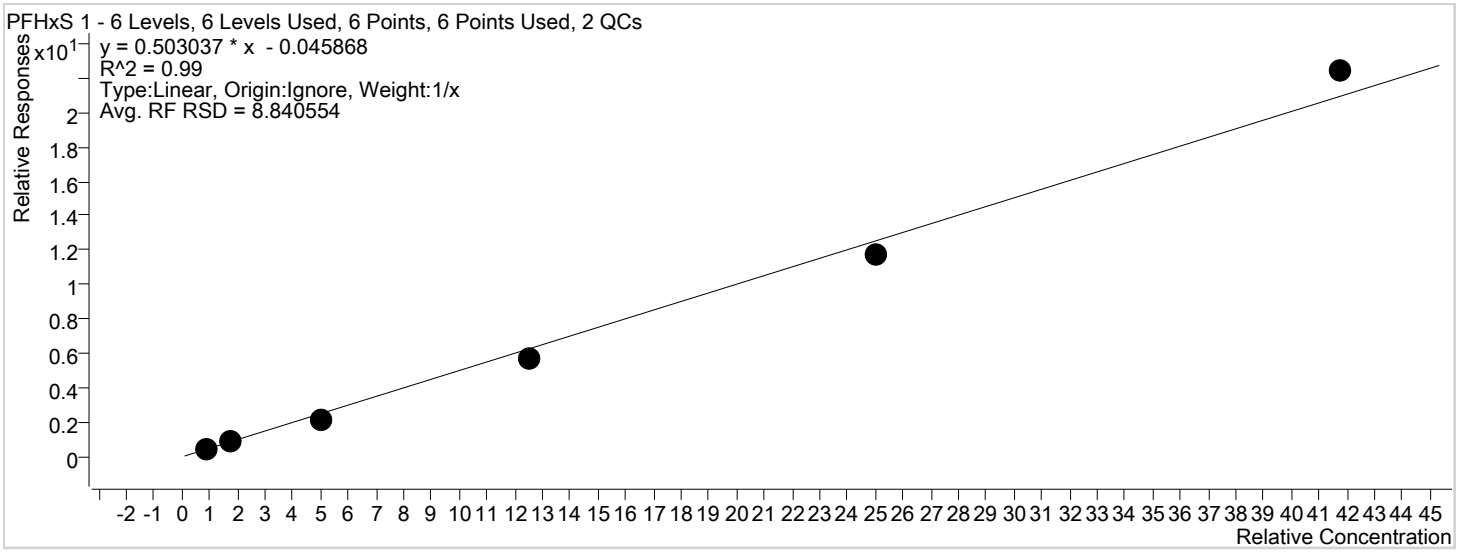
Instrument: LCMS04

Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.93	592	0.5109	89	112.6
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.84	1152	0.5185	139	108.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.30	3244	0.4238	345	86.1
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	11.49	7975	0.4587	405	91.9
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	23.46	15424	0.4702	779	93.8
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	44.70	25940	0.5381	556	107.2

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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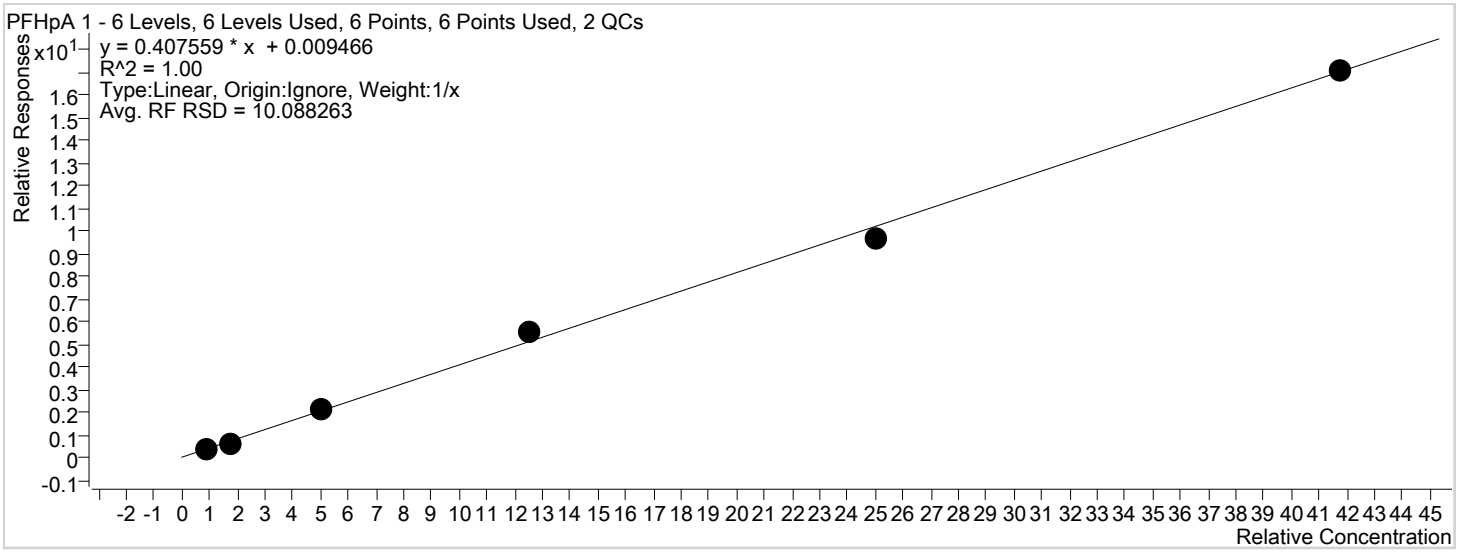
Instrument: LCMS04

Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.91	2416	0.4567	19	109.3
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.41	3810	0.3435	31	82.9
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	5.16	12860	0.4222	105	103.1
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	13.67	34432	0.4465	183	109.4
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	23.74	65942	0.3874	268	95.0
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	41.85	111191	0.4092	243	100.4

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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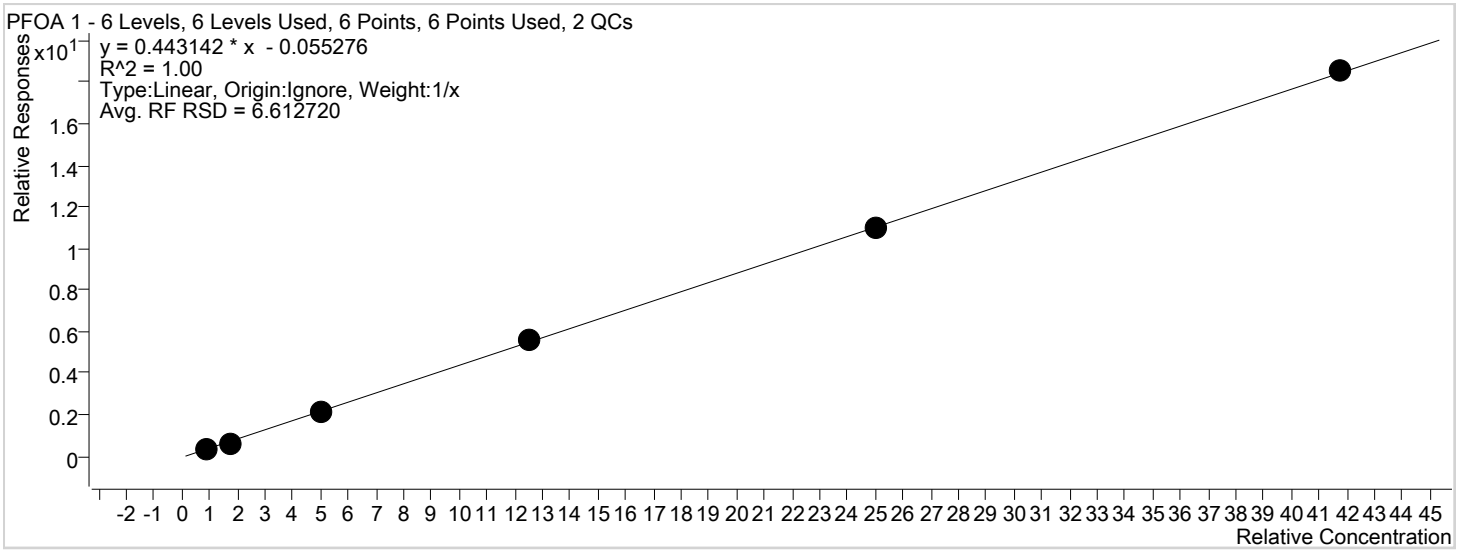
Instrument: LCMS04

Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.93	2435	0.4279	27	111.6
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.55	4296	0.3709	50	91.0
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.81	14324	0.4155	200	96.3
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	12.65	38695	0.4440	257	101.2
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	24.80	75645	0.4374	249	99.2
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	41.99	128958	0.4449	275	100.7

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
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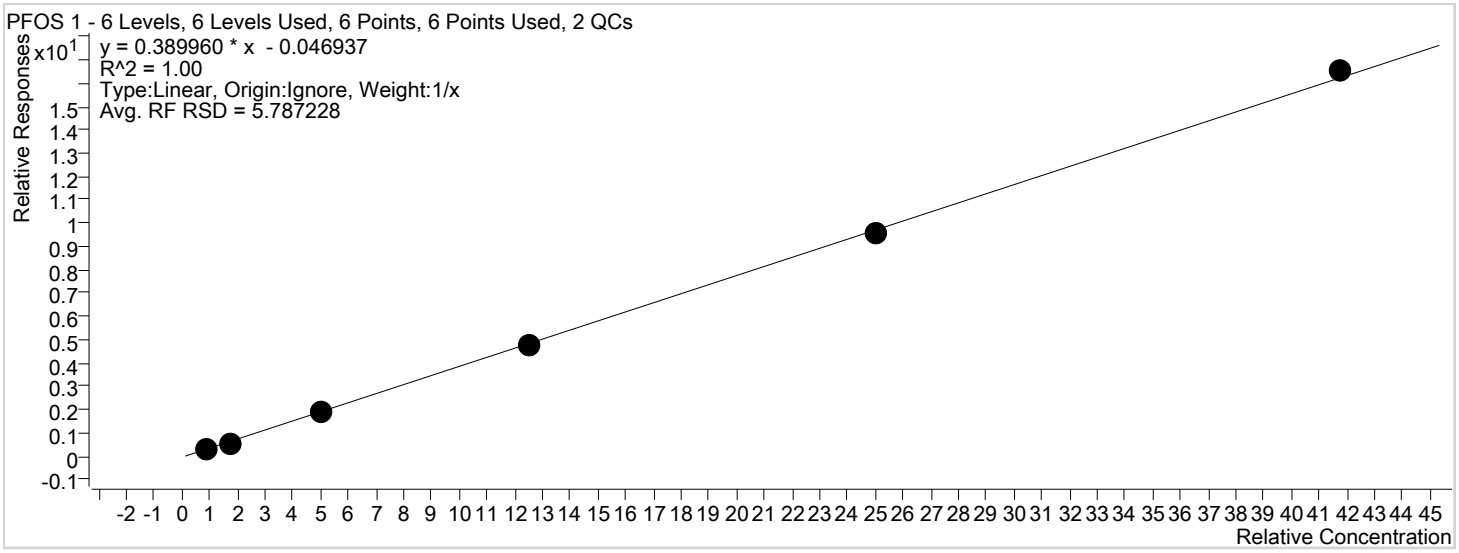
Instrument: LCMS04

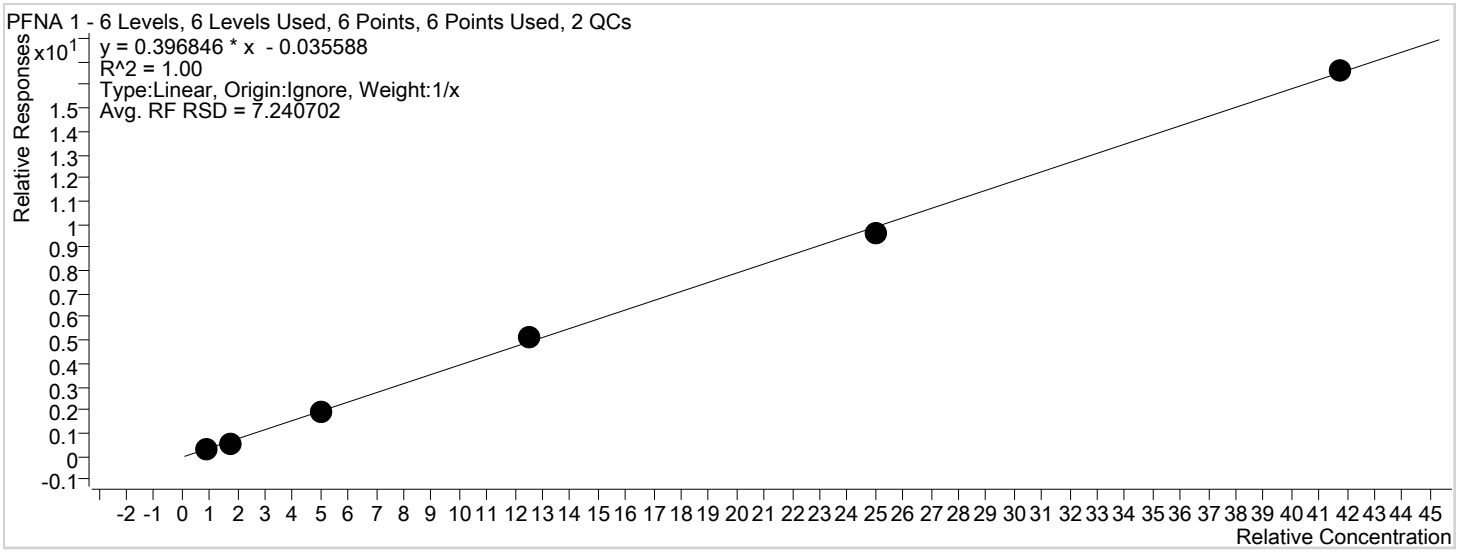
Analyte: PFOS 1
Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.93	533	0.3789	75	111.7
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.57	969	0.3327	92	92.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.86	3069	0.3700	184	97.3
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	12.32	7951	0.3807	209	98.6
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	24.53	15086	0.3807	195	98.1
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	42.52	27280	0.3965	243	102.0

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
Last Calib Update 2018/02/15 12:13:08 PM
Instrument: LCMS04

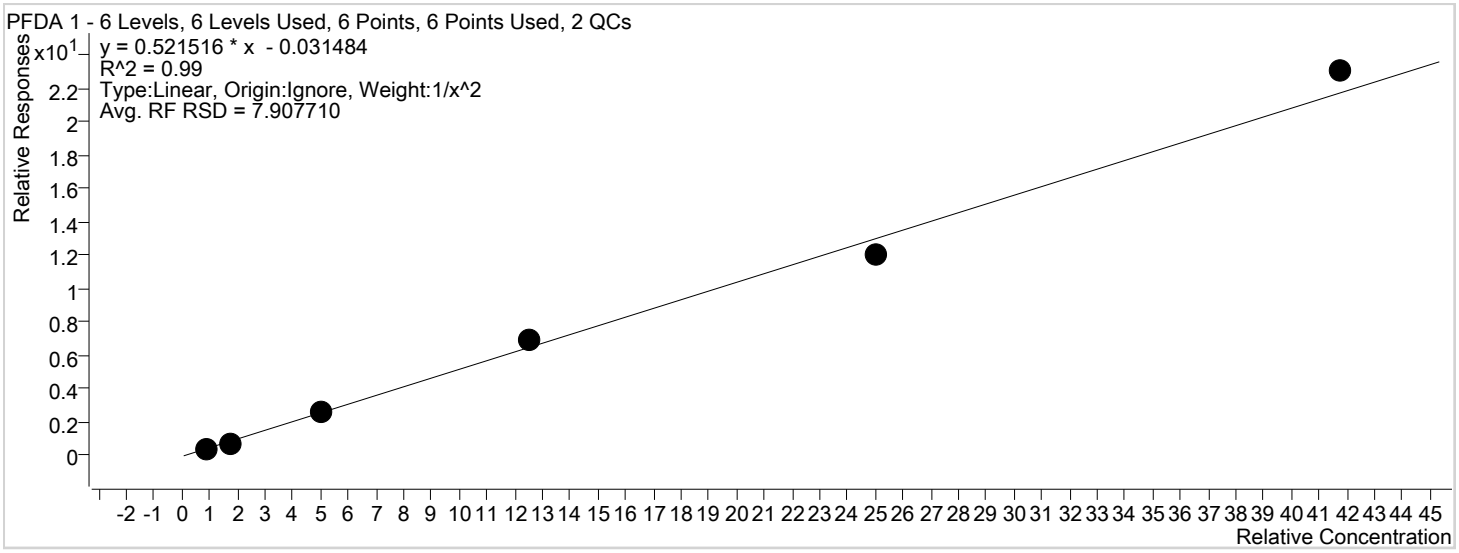
Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.92	2333	0.3950	41	110.3
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.51	3975	0.3308	122	88.6
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.93	13268	0.3844	247	98.6
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	13.02	35389	0.4105	780	104.2
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	24.41	69362	0.3860	1219	97.6
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	41.95	118639	0.3984	1755	100.6

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
Last Calib Update 2018/02/15 12:13:08 PM
Instrument: LCMS04

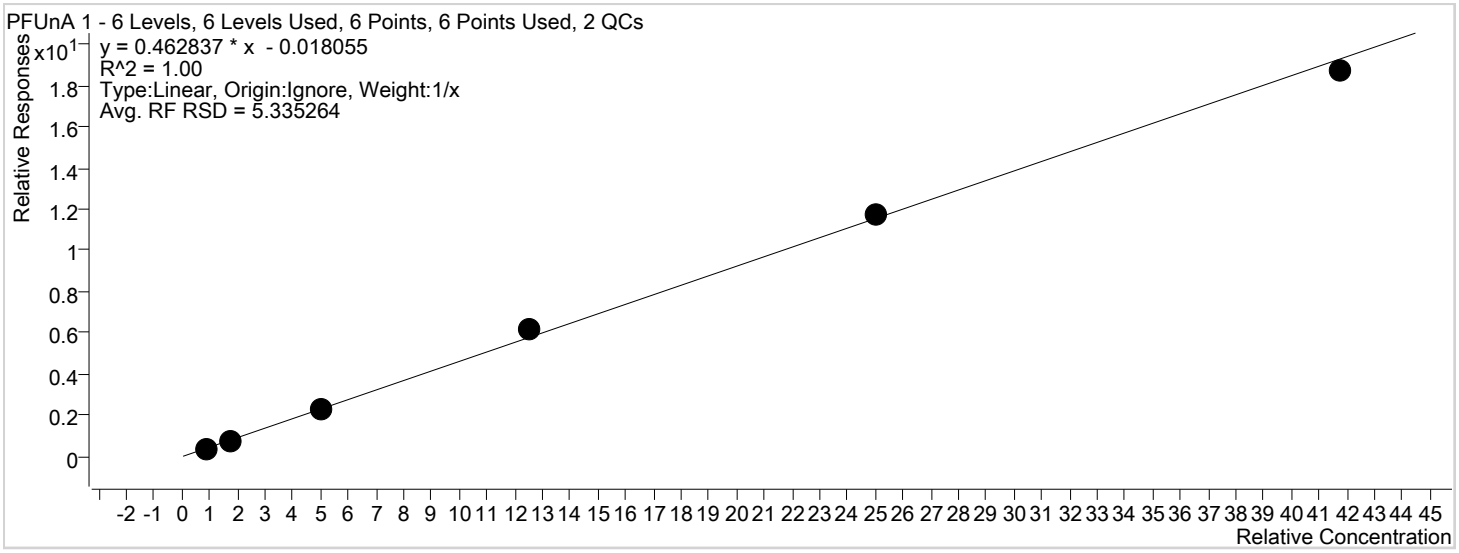
Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.87	2525	0.5087	27	104.8
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.52	4490	0.4491	45	89.7
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.96	14891	0.5113	187	99.2
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	13.35	39015	0.5543	425	106.8
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	23.32	76350	0.4853	837	93.3
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	44.29	128311	0.5531	1025	106.2

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
Last Calib Update 2018/02/15 12:13:08 PM
Instrument: LCMS04

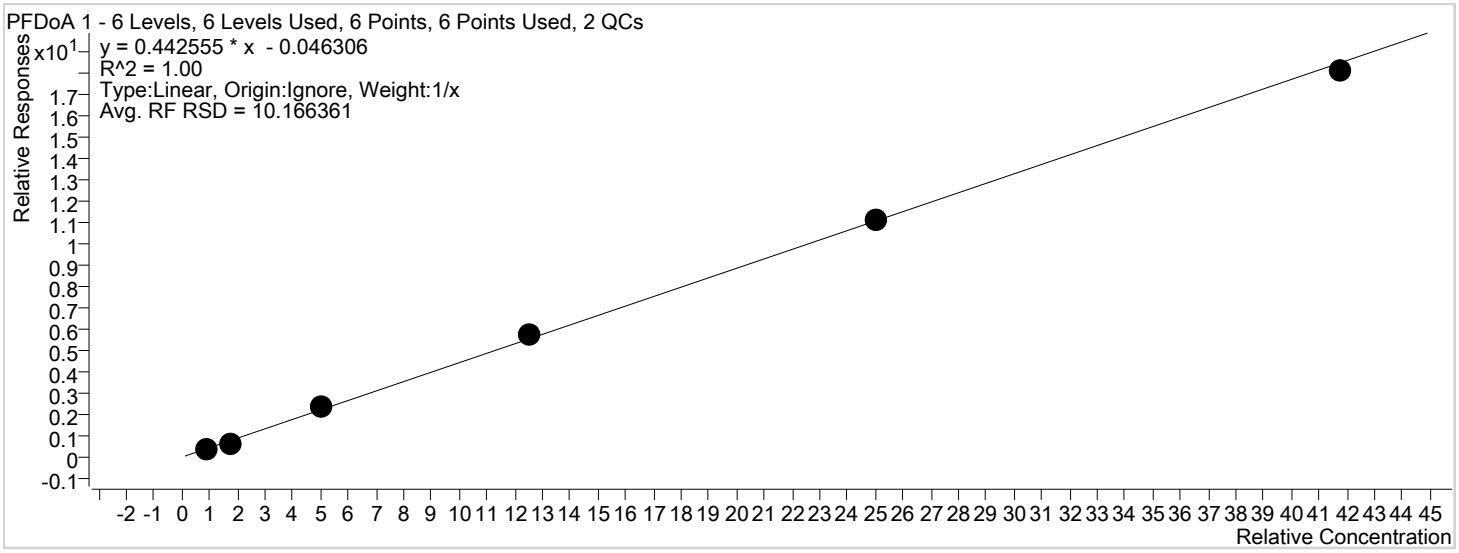
Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.83	2601	0.4388	23	99.5
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.60	5095	0.4247	55	94.1
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	5.04	16380	0.4628	119	100.8
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	13.37	44426	0.4936	168	107.0
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	25.39	84983	0.4694	159	101.6
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	40.50	140199	0.4491	160	97.1

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
Last Calib Update 2018/02/15 12:13:08 PM
Instrument: LCMS04

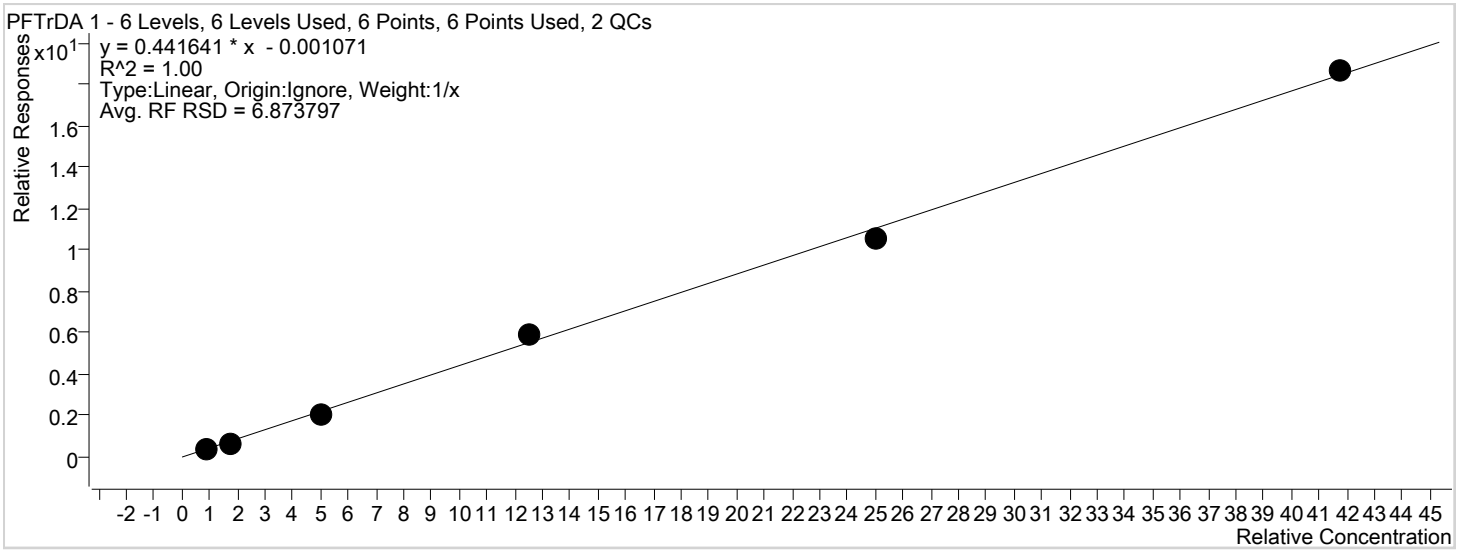
Analyte: PFDoA 1
Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.88	3371	0.4116	47	105.6
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.44	5925	0.3465	119	84.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	5.38	21231	0.4671	359	107.6
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	12.92	56739	0.4537	930	103.4
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	25.21	108150	0.4445	2256	100.9
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	40.90	179777	0.4330	5209	98.1

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
Last Calib Update 2018/02/15 12:13:08 PM
Instrument: LCMS04

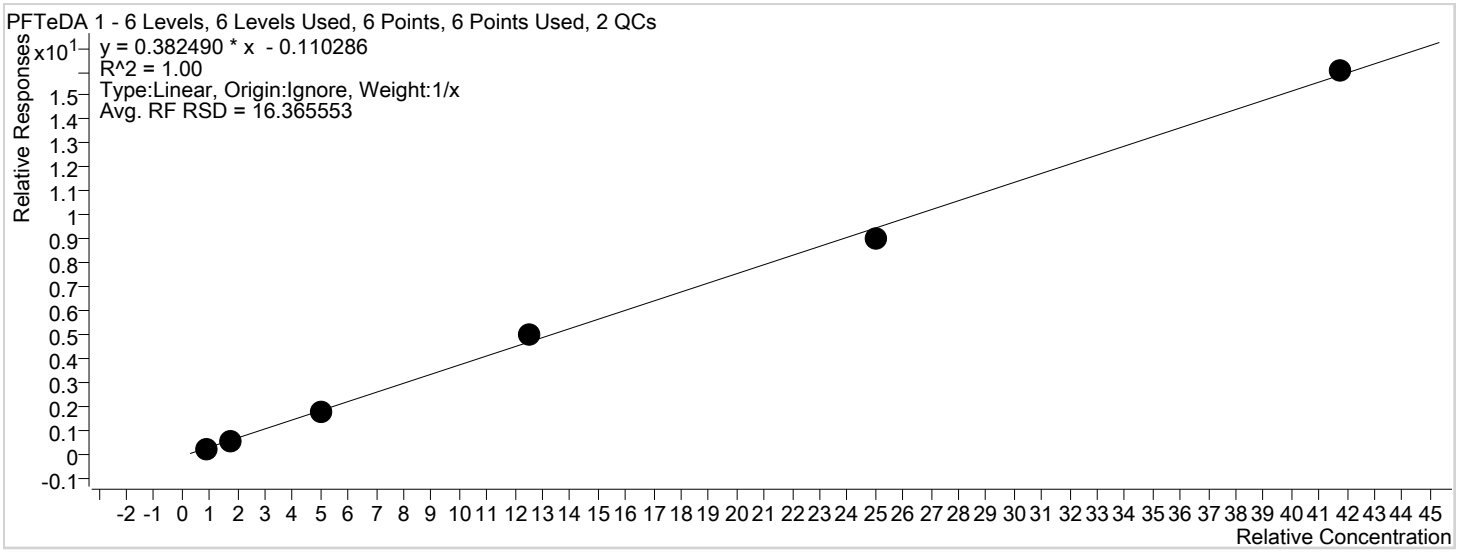
Analyte: PFTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.91	4438	0.4815	32	109.3
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.55	7973	0.4031	56	91.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.79	24953	0.4225	126	95.7
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	13.30	64586	0.4700	189	106.4
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	23.98	121362	0.4236	242	95.9
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	42.20	207931	0.4469	246	101.2

Batch Path T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics.batch.bin
Last Calib Update 2018/02/15 12:13:08 PM
Instrument: LCMS04

Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 12:33:57 AM	0.83	0.81	2231	0.2421	11	98.0
STD 2	STD 2	x	2018/02/08 12:38:53 AM	1.70	1.72	6388	0.3230	49	101.4
STD 3	STD 3	x	2018/02/08 12:43:49 AM	5.00	4.88	20767	0.3516	134	97.7
STD 4	STD 4	x	2018/02/08 12:48:45 AM	12.50	13.32	54810	0.3988	436	106.6
STD 5	STD 5	x	2018/02/08 12:53:41 AM	25.00	23.76	102897	0.3592	563	95.1
STD 6	STD 6	x	2018/02/08 12:58:37 AM	41.70	42.22	178968	0.3846	1039	101.3

By Compound Report

Agilent Technologies

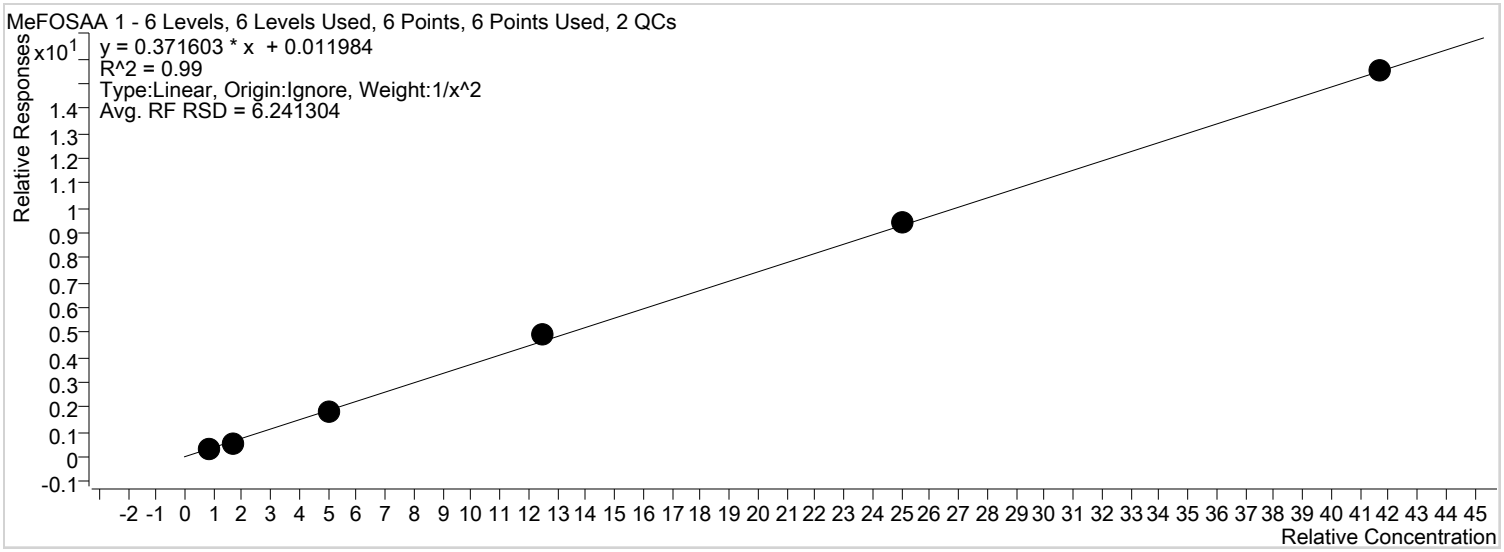
Batch Path T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 8:40:17 AM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 8:19:12 AM	0.83	0.87	600	0.4054	139	105.2
STD 2	STD 2	x	2018/02/08 8:21:37 AM	1.70	1.51	989	0.3375	211	88.9
STD 3	STD 3	x	2018/02/08 8:24:02 AM	5.00	4.93	3091	0.3686	365	98.6
STD 4	STD 4	x	2018/02/08 8:26:27 AM	12.50	13.23	7953	0.3942	338	105.8
STD 5	STD 5	x	2018/02/08 8:28:51 AM	25.00	25.33	15271	0.3771	309	101.3
STD 6	STD 6	x	2018/02/08 8:31:15 AM	41.70	41.76	25300	0.3724	345	100.1

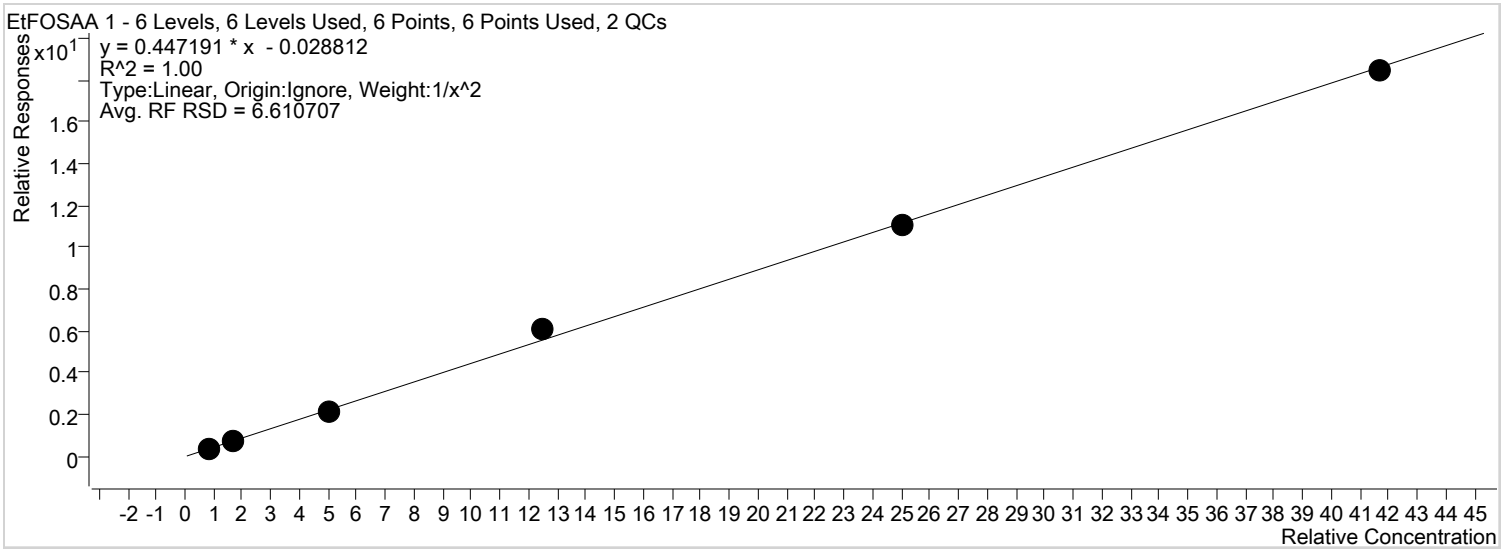
Batch Path T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 8:40:17 AM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 8:19:12 AM	0.83	0.86	546	0.4297	61	103.8
STD 2	STD 2	x	2018/02/08 8:21:37 AM	1.70	1.57	993	0.3952	130	92.2
STD 3	STD 3	x	2018/02/08 8:24:02 AM	5.00	4.83	3026	0.4262	297	96.6
STD 4	STD 4	x	2018/02/08 8:26:27 AM	12.50	13.58	7991	0.4836	666	108.7
STD 5	STD 5	x	2018/02/08 8:28:51 AM	25.00	24.92	15525	0.4445	1431	99.7
STD 6	STD 6	x	2018/02/08 8:31:15 AM	41.70	41.32	26270	0.4424	2527	99.1

Quantitation Results

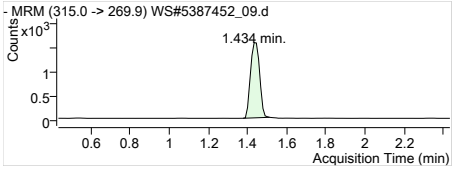
Agilent Technologies

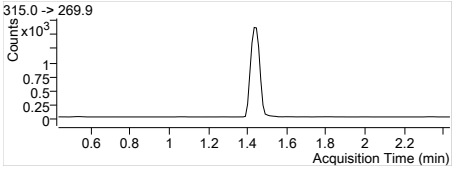
Batch Path	T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5387452_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A9
Acq. Date	2018/02/08 1:08:29 AM	**Injection Volume**	Per Method
Sample Annotation	-		

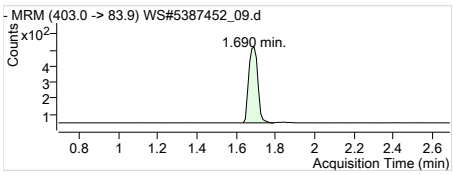
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5055	1.43	1 µg/L		
MPFHxS	1507	1.69	1 µg/L		
MPFHpA	6809	1.70	1 µg/L		
MPFOA	7884	1.88	1 µg/L		
MPFOS	1709	1.98	1 µg/L		
MPFNA	7748	2.02	1 µg/L		
MPFDA	6391	2.15	1 µg/L		
MPFUnA	7643	2.25	1 µg/L		
MPFDoA	10221	2.32	1 µg/L		
MPFTeDA	11256	2.47	1 µg/L		
13C6-PFHxA IS	25129	1.43	1 µg/L		
13C9-PFDA IS	34664	2.15	1 µg/L		

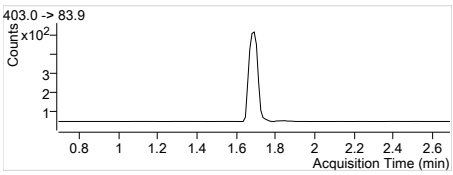
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	14383	1.10	20.80	18.26 µg/L	87.79
PFHxA 1	46903	1.43	20.80	21.86 µg/L	105.10
PFHxS 1	13468	1.68	20.80	17.86 µg/L	85.85
PFHpA 1	60517	1.70	20.80	21.78 µg/L	104.73
PFOA 1	68291	1.88	20.80	19.67 µg/L	94.57
PFOS 1	13618	1.98	20.80	20.55 µg/L	98.82
PFNA 1	63798	2.03	20.80	20.84 µg/L	100.19
PFDA 1	70515	2.15	20.80	21.22 µg/L	102.00
PFUnA 1	78650	2.25	20.80	22.27 µg/L	107.08
PFDoA 1	95601	2.32	20.80	21.24 µg/L	102.11
PFTrDA 1	108642	2.40	20.80	21.86 µg/L	105.08
PFTeDA 1	90226	2.47	20.80	21.25 µg/L	102.14
13C2-PFHxA	5055	1.43	100.00	94.13 µg/L	94.13
18O2-PFHxS	1507	1.69	100.00	103.41 µg/L	103.41
13C4-PFHpA	6809	1.70	100.00	98.27 µg/L	98.27
13C4-PFOA	7884	1.88	100.00	105.75 µg/L	105.75
13C4-PFOS	1709	1.98	100.00	95.12 µg/L	95.12
13C5-PFNA	7748	2.02	100.00	101.70 µg/L	101.70
13C2-PFDA	6292	2.15	100.00	99.57 µg/L	99.57
13C2-PFUnA	7643	2.25	100.00	96.41 µg/L	96.41
13C2-PFDoA	10221	2.32	100.00	94.93 µg/L	94.93
13C2-PFTeDA	11488	2.47	100.00	90.30 µg/L	90.30
13C6-PFHxA	25129	1.43	100.00	107.80 µg/L	107.80
13C9-PFDA	34664	2.15	100.00	109.99 µg/L	109.99





MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: QC





MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: QC

Quantitation Results

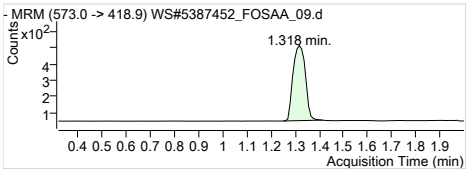
Agilent Technologies

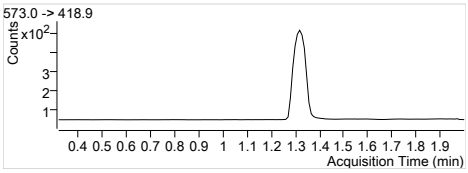
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A9
Acq. Date	2018/02/08 8:36:06 AM	**Injection Volume**	Per Method
Sample Annotation	-		

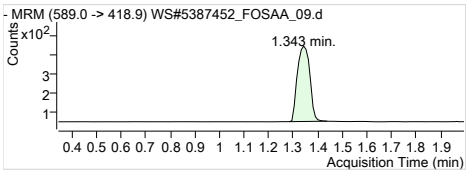
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1638	1.32	1 µg/L		
D5-EtFOSAA IS	1405	1.34	1 µg/L		
13C9-PFDA IS	30042	0.92	1 µg/L		

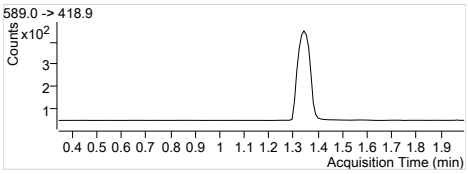
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13247	1.32	20.80	21.73 µg/L	104.48
EtFOSAA 1	13742	1.34	20.80	21.94 µg/L	105.46
D3-MeFOSAA	1653	1.32	100.00	98.12 µg/L	98.12
D5-EtFOSAA	1407	1.34	100.00	97.54 µg/L	97.54
13C9-PFDA	29357	0.92	100.00	99.40 µg/L	99.40



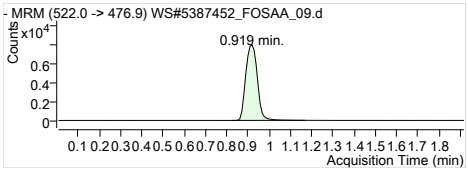


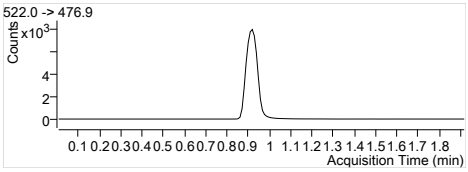
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: QC



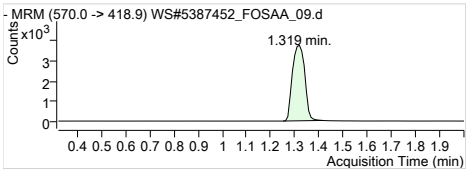


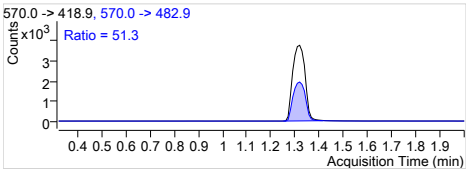
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: QC



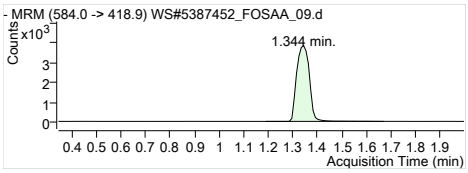


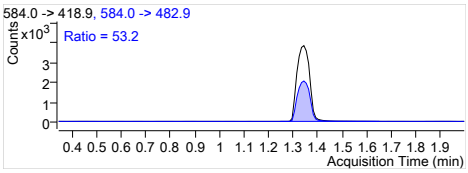
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: QC



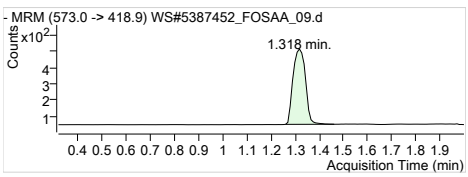


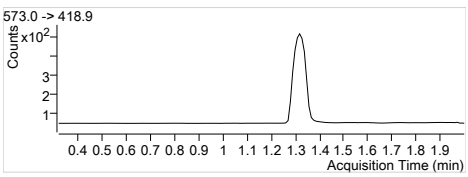
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 21.73 µg/L
Area ratio: 8.08730
Sample type: QC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 21.94 µg/L
Area ratio: 9.78078
Sample type: QC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 98.12 µg/L
Area ratio: 0.05502
Sample type: QC

Quantitation Results

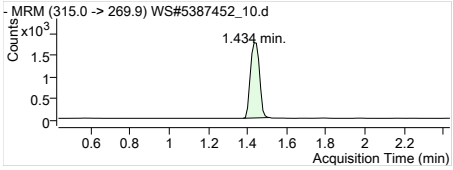
Agilent Technologies

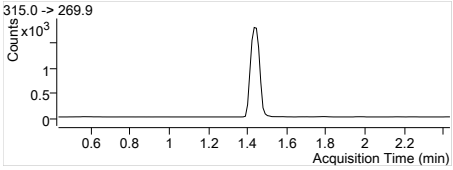
Batch Path	T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5387452_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A2
Acq. Date	2018/02/08 1:13:25 AM	**Injection Volume**	Per Method
Sample Annotation	-		

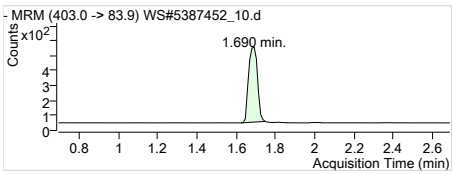
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5576	1.43	1 µg/L		
MPFHxS	1598	1.69	1 µg/L		
MPFHpA	7891	1.70	1 µg/L		
MPFOA	7963	1.88	1 µg/L		
MPFOS	2027	1.98	1 µg/L		
MPFNA	8305	2.02	1 µg/L		
MPFDA	7086	2.15	1 µg/L		
MPFUnA	8318	2.23	1 µg/L		
MPFDoA	11326	2.32	1 µg/L		
MPFTeDA	12993	2.47	1 µg/L		
13C6-PFHxA IS	29289	1.43	1 µg/L		
13C9-PFDA IS	39482	2.15	1 µg/L		

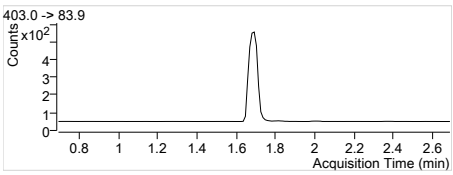
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	567	1.09	0.83	0.86 µg/L	103.89
PFHxA 1	2163	1.43	0.83	1.01 µg/L	121.63
PFHxS 1	575	1.68	0.83	0.81 µg/L	97.17
PFHpA 1	2803	1.70	0.83	0.85 µg/L	102.21
PFOA 1	3219	1.88	0.83	1.04 µg/L	124.94
PFOS 1	604	1.98	0.83	0.88 µg/L	106.56
PFNA 1	2806	2.03	0.83	0.94 µg/L	113.38
PFDA 1	2934	2.15	0.83	0.85 µg/L	102.93
PFUnA 1	3551	2.25	0.83	0.96 µg/L	115.83
PFDoA 1	4022	2.32	0.83	0.91 µg/L	109.28
PFTrDA 1	4756	2.40	0.83	0.83 µg/L	100.15
PFTeDA 1	3899	2.47	0.83	1.07 µg/L	129.26
13C2-PFHxA	5576	1.43	100.00	89.08 µg/L	89.08
18O2-PFHxS	1598	1.69	100.00	94.08 µg/L	94.08
13C4-PFHpA	7891	1.70	100.00	97.71 µg/L	97.71
13C4-PFOA	7963	1.88	100.00	91.64 µg/L	91.64
13C4-PFOS	2027	1.98	100.00	96.80 µg/L	96.80
13C5-PFNA	8306	2.02	100.00	93.54 µg/L	93.54
13C2-PFDA	6917	2.15	100.00	96.10 µg/L	96.10
13C2-PFUnA	8318	2.23	100.00	92.12 µg/L	92.12
13C2-PFDoA	11326	2.32	100.00	92.36 µg/L	92.36
13C2-PFTeDA	12995	2.47	100.00	89.68 µg/L	89.68
13C6-PFHxA	29289	1.43	100.00	125.65 µg/L	125.65
13C9-PFDA	39482	2.15	100.00	125.28 µg/L	125.28





MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC





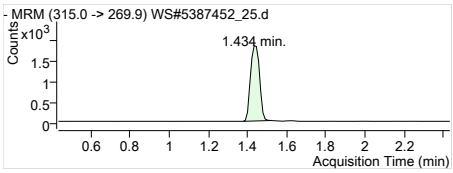
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC

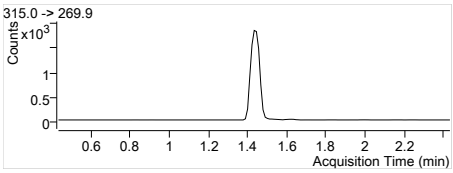
Batch Path	T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5387452_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A5
Acq. Date	2018/02/08 2:27:25 AM	**Injection Volume**	Per Method
Sample Annotation	-		

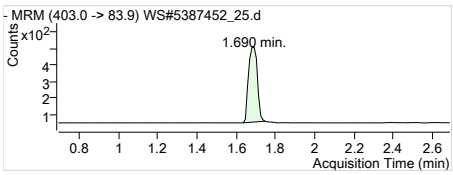
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5804	1.43	1 µg/L		
MPFHxS	1434	1.69	1 µg/L		
MPFHpA	8336	1.70	1 µg/L		
MPFOA	8092	1.88	1 µg/L		
MPFOS	1685	1.98	1 µg/L		
MPFNA	8110	2.02	1 µg/L		
MPFDA	6765	2.15	1 µg/L		
MPFUnA	7493	2.25	1 µg/L		
MPFDoA	10607	2.32	1 µg/L		
MPFTeDA	11802	2.47	1 µg/L		
13C6-PFHxA IS	27894	1.43	1 µg/L		
13C9-PFDA IS	36656	2.15	1 µg/L		

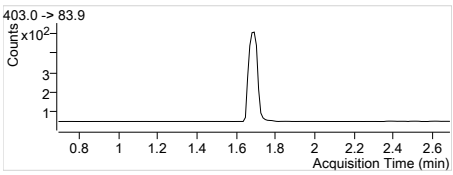
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8553	1.10	12.50	11.48 µg/L	91.87
PFHxA 1	32032	1.43	12.50	13.04 µg/L	104.35
PFHxS 1	8235	1.68	12.50	11.51 µg/L	92.06
PFHpA 1	39783	1.70	12.50	11.69 µg/L	93.49
PFOA 1	44702	1.88	12.50	12.59 µg/L	100.73
PFOS 1	9055	1.98	12.50	13.90 µg/L	111.21
PFNA 1	40737	2.03	12.50	12.75 µg/L	101.98
PFDA 1	44033	2.14	12.50	12.54 µg/L	100.33
PFUnA 1	47619	2.23	12.50	13.77 µg/L	110.16
PFDoA 1	58197	2.32	12.50	12.50 µg/L	100.02
PFTrDA 1	67570	2.40	12.50	12.97 µg/L	103.73
PFTeDA 1	59584	2.47	12.50	13.49 µg/L	107.90
13C2-PFHxA	5804	1.43	100.00	97.36 µg/L	97.36
18O2-PFHxS	1434	1.69	100.00	88.64 µg/L	88.64
13C4-PFHpA	8336	1.70	100.00	108.38 µg/L	108.38
13C4-PFOA	8092	1.88	100.00	97.79 µg/L	97.79
13C4-PFOS	1685	1.98	100.00	84.49 µg/L	84.49
13C5-PFNA	8111	2.02	100.00	95.91 µg/L	95.91
13C2-PFDA	6694	2.15	100.00	100.17 µg/L	100.17
13C2-PFUnA	7493	2.25	100.00	89.38 µg/L	89.38
13C2-PFDoA	10607	2.32	100.00	93.16 µg/L	93.16
13C2-PFTeDA	12017	2.47	100.00	89.33 µg/L	89.33
13C6-PFHxA	27894	1.43	100.00	119.66 µg/L	119.66
13C9-PFDA	36656	2.15	100.00	116.32 µg/L	116.32





MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC





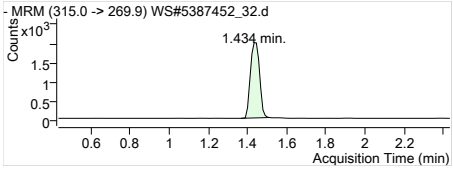
MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC

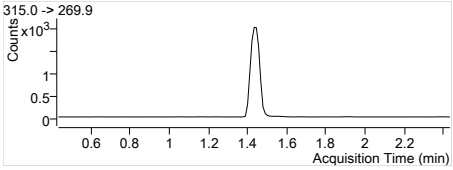
Batch Path	T:\lcms4\PFC\20180207\WS#5387452\QuantResults\PFC_Water_Low_180207_WS#5387452_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5387452_32.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A5
Acq. Date	2018/02/08 3:01:57 AM	**Injection Volume**	Per Method
Sample Annotation	-		

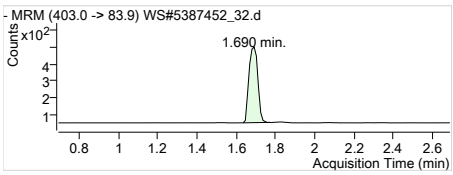
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6376	1.43	1 µg/L		
MPFHxS	1426	1.69	1 µg/L		
MPFHpA	7325	1.70	1 µg/L		
MPFOA	7898	1.88	1 µg/L		
MPFOS	1768	1.98	1 µg/L		
MPFNA	8397	2.02	1 µg/L		
MPFDA	6674	2.15	1 µg/L		
MPFUnA	7962	2.25	1 µg/L		
MPFDoA	10503	2.32	1 µg/L		
MPFTeDA	12098	2.47	1 µg/L		
13C6-PFHxA IS	29863	1.43	1 µg/L		
13C9-PFDA IS	38016	2.15	1 µg/L		

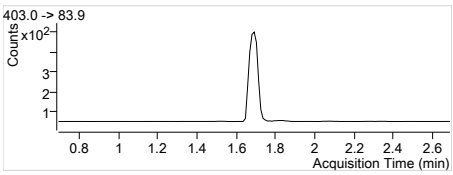
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8617	1.10	12.50	11.63 µg/L	93.05
PFHxA 1	32292	1.43	12.50	11.98 µg/L	95.82
PFHxS 1	8701	1.69	12.50	12.22 µg/L	97.77
PFHpA 1	42513	1.70	12.50	14.22 µg/L	113.74
PFOA 1	45728	1.88	12.50	13.19 µg/L	105.52
PFOS 1	8376	1.98	12.50	12.27 µg/L	98.15
PFNA 1	41010	2.03	12.50	12.40 µg/L	99.17
PFDA 1	46681	2.15	12.50	13.47 µg/L	107.78
PFUnA 1	48497	2.25	12.50	13.20 µg/L	105.59
PFDoA 1	62190	2.32	12.50	13.48 µg/L	107.87
PFTrDA 1	68405	2.40	12.50	12.81 µg/L	102.44
PFTeDA 1	57569	2.47	12.50	12.73 µg/L	101.83
13C2-PFHxA	6376	1.43	100.00	99.90 µg/L	99.90
18O2-PFHxS	1426	1.69	100.00	82.34 µg/L	82.34
13C4-PFHpA	7325	1.70	100.00	88.96 µg/L	88.96
13C4-PFOA	7898	1.88	100.00	89.15 µg/L	89.15
13C4-PFOS	1768	1.98	100.00	82.81 µg/L	82.81
13C5-PFNA	8396	2.02	100.00	92.73 µg/L	92.73
13C2-PFDA	6492	2.15	100.00	93.67 µg/L	93.67
13C2-PFUnA	7962	2.25	100.00	91.58 µg/L	91.58
13C2-PFDoA	10503	2.32	100.00	88.95 µg/L	88.95
13C2-PFTeDA	12275	2.47	100.00	87.98 µg/L	87.98
13C6-PFHxA	29863	1.43	100.00	128.11 µg/L	128.11
13C9-PFDA	38016	2.15	100.00	120.63 µg/L	120.63





MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC





MPFHxS Internal Standard
RT (Exp. RT): 1.690 (1.690)
Concentration: 1 µg/L
Sample type: CC

Quantitation Results

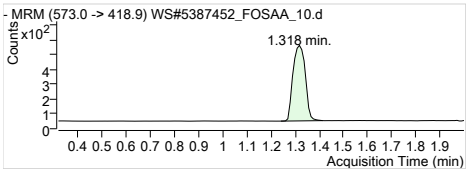
Agilent Technologies

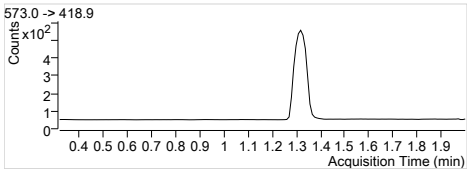
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A2
Acq. Date	2018/02/08 8:38:30 AM	**Injection Volume**	Per Method
Sample Annotation	-		

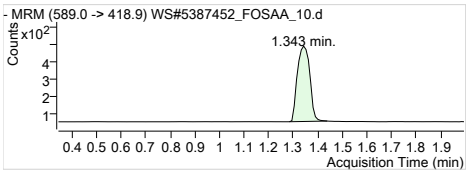
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1810	1.32	1 µg/L		
D5-EtFOSAA IS	1545	1.34	1 µg/L		
13C9-PFDA IS	33316	0.92	1 µg/L		

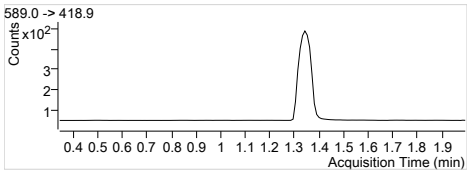
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	613	1.32	0.83	0.88 µg/L	105.92
EtFOSAA 1	607	1.34	0.83	0.94 µg/L	113.61
D3-MeFOSAA	1808	1.32	100.00	96.77 µg/L	96.77
D5-EtFOSAA	1555	1.34	100.00	97.21 µg/L	97.21
13C9-PFDA	32624	0.92	100.00	110.46 µg/L	110.46



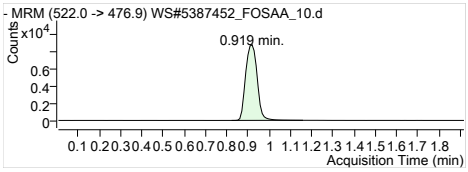


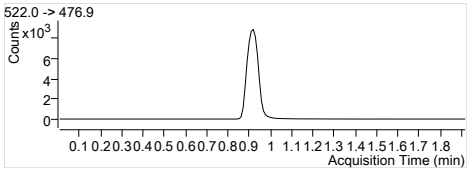
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



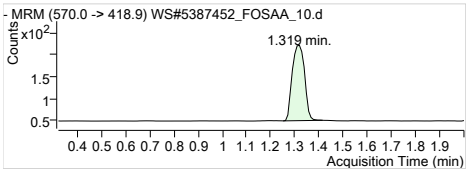


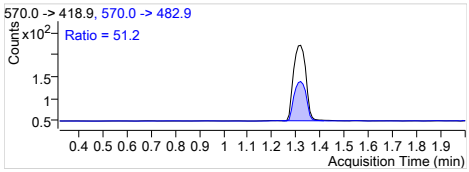
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



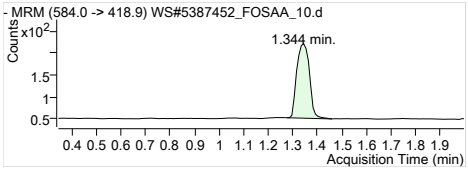


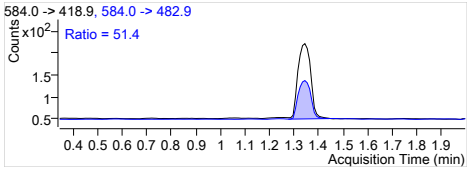
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: CC



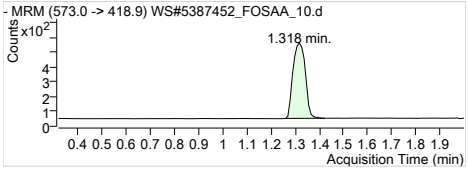


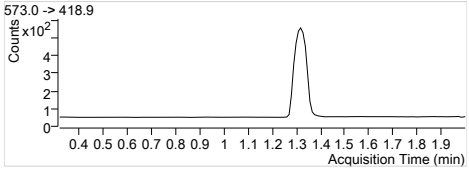
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 0.88 µg/L
Area ratio: 0.33867
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.94 µg/L
Area ratio: 0.39288
Sample type: CC





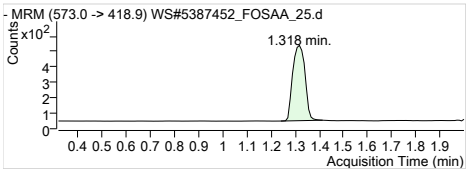
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 96.77 µg/L
Area ratio: 0.05427
Sample type: CC

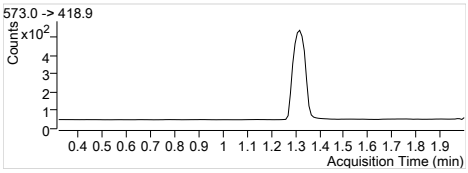
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A5
Acq. Date	2018/02/08 9:14:41 AM	**Injection Volume**	Per Method
Sample Annotation	-		

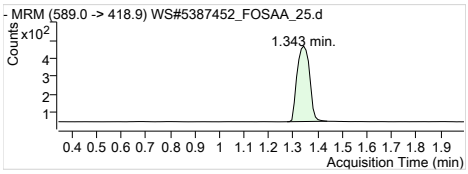
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1732	1.32	1 µg/L		
D5-EtFOSAA IS	1479	1.34	1 µg/L		
13C9-PFDA IS	30623	0.92	1 µg/L		

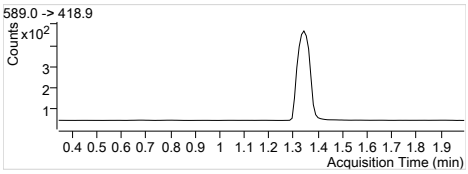
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8199	1.32	12.50	12.71 µg/L	101.65
EtFOSAA 1	8367	1.34	12.50	12.71 µg/L	101.72
D3-MeFOSAA	1753	1.32	100.00	102.08 µg/L	102.08
D5-EtFOSAA	1495	1.34	100.00	101.68 µg/L	101.68
13C9-PFDA	29985	0.92	100.00	101.52 µg/L	101.52



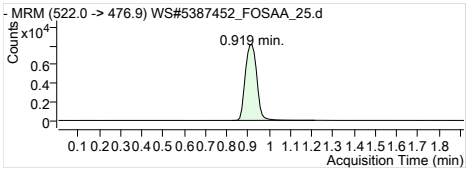


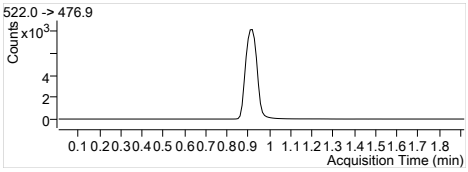
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



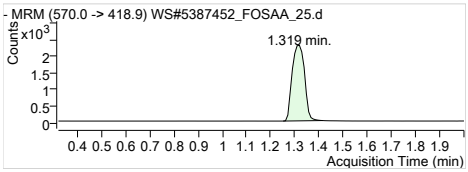


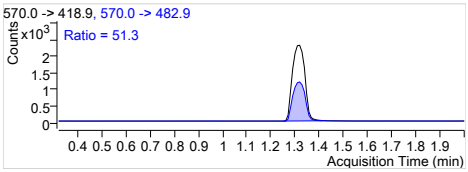
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



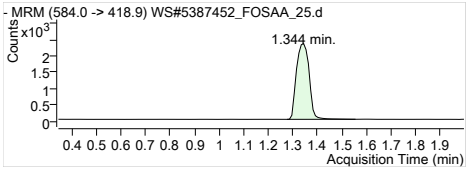


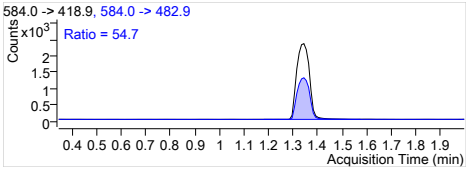
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.919 (0.919)
Concentration: 1 µg/L
Sample type: CC



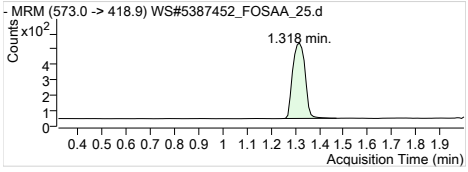


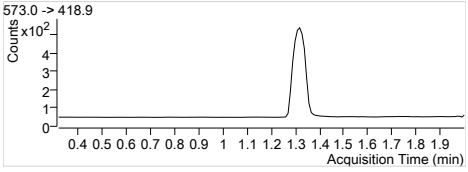
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.319 (1.319)
Calc. conc. 12.71 µg/L
Area ratio: 4.73383
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 12.71 µg/L
Area ratio: 5.65720
Sample type: CC





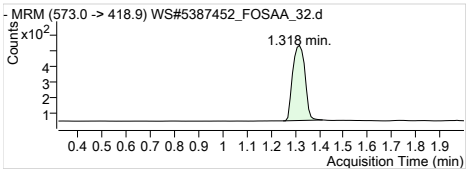
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 102.08 µg/L
Area ratio: 0.05724
Sample type: CC

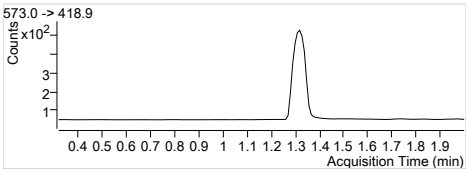
Batch Path	T:\lcms4\PFC\20180207\WS#5387452_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5387452_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5387452_FOSAA_32.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A5
Acq. Date	2018/02/08 9:31:36 AM	**Injection Volume**	Per Method
Sample Annotation	-		

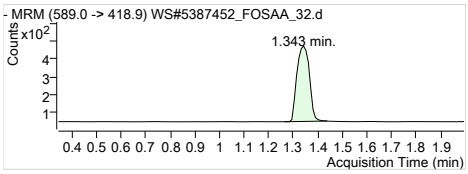
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1697	1.32	1 µg/L		
D5-EtFOSAA IS	1486	1.34	1 µg/L		
13C9-PFDA IS	30566	0.91	1 µg/L		

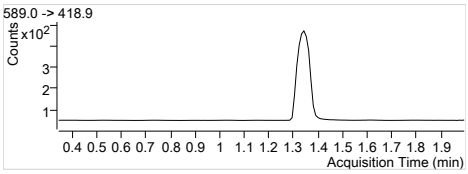
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8131	1.31	12.50	12.86 µg/L	102.89
EtFOSAA 1	8462	1.34	12.50	12.80 µg/L	102.39
D3-MeFOSAA	1717	1.32	100.00	100.17 µg/L	100.17
D5-EtFOSAA	1509	1.34	100.00	102.82 µg/L	102.82
13C9-PFDA	30756	0.91	100.00	104.13 µg/L	104.13



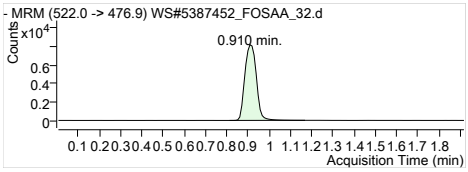


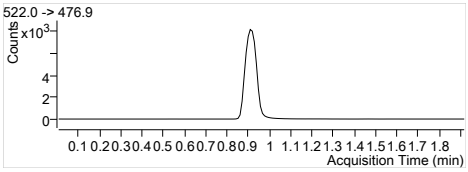
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



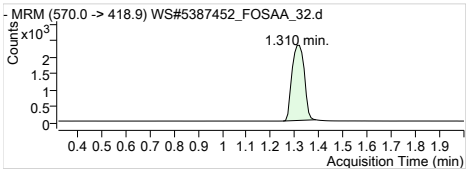


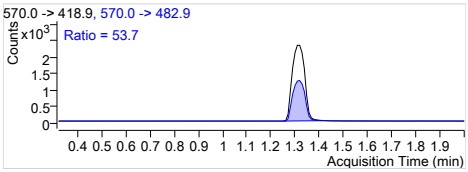
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



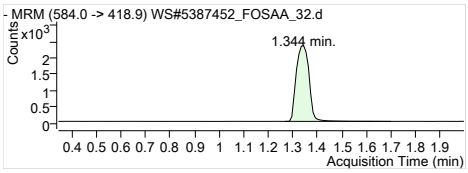


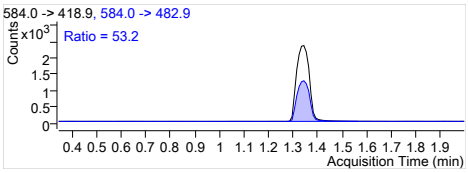
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.919)
Concentration: 1 µg/L
Sample type: CC



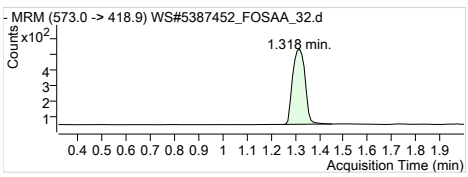


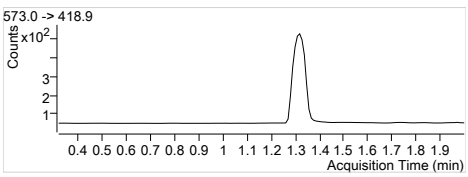
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.319)
Calc. conc. 12.86 µg/L
Area ratio: 4.79140
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 12.80 µg/L
Area ratio: 5.69448
Sample type: CC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 100.17 µg/L
Area ratio: 0.05617
Sample type: CC

DoD Projects - Internal Data Validation Checklist

Run date: 20181002109

Worksheet # (s): 5389177

Analysis: PFDSA(CM-W)

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria	✓			✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria			✓	✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed	✓			✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS	✓			✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: MG Date: 20181002109

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a	
1	Repeats documented and referenced			✓	
2	Method and sample deviations noted, anomalies described (if applicable)			✓	
3	Data and QC validated in LIMS	✓			
4	Random calculation checked	✓			
5	Benchsheet (s) signed and dated	✓			
6	Data Package (if required) checked for completeness	✓			

Reviewed by: AM Date: 2019/02/16

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5389177 Testcode: PFOSACCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: SSV Date: 2018/02/07

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: Date:

Comments:

Refer to BRL-FCD-00000 2018/02/09 WG

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: Date:

Comments:

WS# : 5389177

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Wednesday, February 07, 2018

Assigned to : Shivani Shivani

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

Job Number	Sample Number	D	Sample ID	R	Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	(ng)
7-5		SPIKE	0 PFOS		0	125	3	1X					2018/02/07	27
7-3		SPIKE	1 PFOS		0	125	3	1X					2018/02/07	26
7-1		BLANK			0	125	3	1X					2018/02/07	25
7-7	B818419	*FZA807-01R	[redacted]		0	115	3	1X	2	2018/02/07	2018/02/07 23:00	DOD	2018/02/07	30
7-8	B818419	*FZA808-01R	[redacted]		0	115	3	1X	2	2018/02/07	2018/02/07 23:00	DOD	2018/02/07	32
7-10	B818419	*FZA809-01R	[redacted]		0	125	3	1X	2	2018/02/07	2018/02/07 23:00	DOD	2018/02/07	31
7-11,12	B819794	*FZH324-01R	CEF-008-TW02-01*		<0.1	12.5/12.5	3	10X/10X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/07	29
7-13,14	B819794	*FZH325-01R	CEF-008-TW01-01*		<0.1	12.5/12.5	3	10X/10X	2	2018/02/07	2018/02/09 18:00	DOD	2018/02/07	28
7-15	B820260	*FZJ938-01R	[redacted]		0	125	3	1X	2	2018/02/07	2018/02/09 23:00	DOD	2018/02/07	27
7-17,18	B820260	*FZJ941-01R	[redacted]		0	12.5/12.5	3	1X/10X	2	2018/02/07	2018/02/09 23:00	DOD	2018/02/07	26
7-20,21	B820260	*FZJ953-01R	[redacted]		<0.1	12.5/25	3	10X/5X	2	2018/02/07	2018/02/09 23:00	DOD	2018/02/07	25
7-23,24	B820260	*FZJ954-01R	[redacted]		<0.1	25/5	3	5X/25X	2	2018/02/07	2018/02/09 23:00	DOD	2018/02/07	28

2018/02/07 SSV

Remarks: • Carbon clean up done. Shivani 2018/02/07

Samples extracted by: Shivani Shivani

Instrumentation performed by:

Calculations performed by:

Validated by:

Date: 2018/02/08 WE 2018/02/09 LLG

Date: 2018/02/09

Date: 2018/02/16

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB818419	[redacted]			
GB819794	**SP8 Earth Toxics Inc** NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL	**Rick Carr**	**Tier 5 (Enviro.) AECOM**	
GB820260	[redacted]			

Job	Sample	Lab Comments
	SPIKE	
	SPIKE	
	BLANK	
B818419	FZA807-01R	
B818419	FZA808-01R	
B818419	FZA809-01R	
B819794	FZH324-01R	
B819794	FZH325-01R	
B820260	FZJ938-01R	
B820260	FZJ941-01R	
B820260	FZJ953-01R	
B820260	FZJ954-01R	

Calibration Standard Preparation #

	mean (ue)	Spk (ue)		IS
S1	2825	25	SK-7377	
S2	2800	50		
S3	2700	150		
S4	2813	37.5	I-5297	
S5	2775	75		
S6	2725	125		
ICV	2788			
ICB	2852			

62.5 — I-5299 — 150 (ue)

JHS 2018/02/07

Folder: 20181021108

Worksheet Reagent Tracking Record Worksheet # 5389177

Volume (µL)

Surrogate/Spike solutions	√	Solution ID #	Conc.	Blk-Spk Solid	Blk-Spk Liquid	MS Solid	MS Liquid	Samples Solid	Samples Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299(1/3)	1ug/mL	75	21 / 62.5	75	21 / 62.5	NA	NA
PFC Internal Standard Solution	✓	SI-6763(3/4) JPB	50/125 ng/mL	200	100 / 150	200	100 / 150	200	100/150
PFC Injection IS	✓	SI-6770(1/2) JPB	~~400~~ 100 ng/mL	20	20	20	20	20	20
ICV	✓	I-5299(1/3)	1ug/ml		62.5				

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SMB05451	2018/02/07	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRLRE	108-341	DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRLRE	108-342	0.2% NH_4OH	✓	PRLRE	108-343
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/02/07
0.05M HCl							

*Spiked by: SSV

Spike Date SSV 2018/02/07

Spike Syringe/Pipette ID# G24390G

Int. Std Syringe/Pipette ID# Internal Std# K19865F Injection IS# G24390G

*Spiking Witnessed by: JPB

Final pH

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor K55191G I47987G K19865F	✓	SPE Cartridge	003437247A		QC Balance ID	FC-1
	✓	Filter			Thermometer ID &Temp	
Dispenser		Centrifuge	42148683	10:00-10:05		
		Sonicator				

Bottle Tracking
Bottle# 18587
Cap# 18422
Systems plus Lot# 17/12/11

Comments: Encoi Carb# 92806V
250ml volumetric Cylinder # 3026

* - SPIKING OF QC's & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet: 5389177

Dilution and Column Cleanup Worksheet

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added uL	New Effective Final Volume	INITIAL SSU DATE	Column Clean Up
B819794	F2H324	–	X10	12.5	–	150	12.5	2 18/02/07	–
	"	–	X100	1.25	123.75	150	125	2 18/02/07	–
	F2H325	–	X10	12.5	–	150	12.5	2 18/02/07	–
	"	–	X100	1.25	123.75	150	125	2 18/02/07	–
B820260	F2J941	–	X10	12.5	–	150	12.5	2 18/02/07	–
	F2J953	–	10X	12.5	–	150	12.5	2 18/02/07	–
	"	–	50X	2.5	122.5	150	125	2 18/02/07	–
	F2J954	✓	5X	25	–	150	25	2 18/02/07	–
	"	–	25X	5	–	150	5	2 18/02/07	–
				2 18/02/07	SSU				

CCMS H_2O # 57297
10ml # K55191G
250ml volumetric cylinder # 3026

Worksheet Number: **5389177**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	SPIKE	SPIKE Dup1	BLANK	B818419 FZA807	B818419 FZA808	DL
6:2 Fluorotelomer sulfonate	ug/L	101.80715	97.25684	0	N/A*******	N/A*******	0.022
8:2 Fluorotelomer sulfonate	ug/L	105.09873	105.75934	0	N/A*******	N/A*******	0.022
N-ethylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.022
EtFOSAA	ug/L	99.82537	101.40709	0	0	0	0.022
N-ethylperfluorooctane sulfonamidoe	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.022
N-methylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.022
MeFOSAA	ug/L	92.00553	90.56484	0	0	0	0.022
N-methylperfluorooctanesulfonamidol	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.022
Perfluorobutanoic acid	ug/L	98.98256	101.59396	0	N/A*******	N/A*******	0.022
Perfluorobutane Sulfonate (PFBS)	ug/L	101.35585	102.21542	0	0	0	0.022
Perfluorodecane Sulfonate	ug/L	97.26271	91.72273	0	N/A*******	N/A*******	0.022
Perfluoroheptanoic Acid (PFHpA)	ug/L	94.38391	95.01436	0	0	0	0.022
Perfluoroheptane sulfonate	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.022
Perfluorohexanoic Acid (PFHxA)	ug/L	95.27639	93.55771	0	0	0	0.022
Perfluorohexane Sulfonate (PFHxS)	ug/L	97.53899	95.54233	0	0	0	0.022
Perfluorononanoic Acid (PFNA)	ug/L	96.71681	102.44410	0	0	0	0.022
Perfluorooctane Sulfonamide (PFOSA)	ug/L	94.32576	94.92057	0	N/A*******	N/A*******	0.022
Perfluoropentanoic Acid (PFPeA)	ug/L	104.84296	97.89165	0	N/A*******	N/A*******	0.022
Perfluorotetradecanoic Acid	ug/L	99.95152	102.63101	0	0	0	0.022
Perfluorotridecanoic Acid	ug/L	103.21430	102.45102	0	0	0	0.022
Perfluoroundecanoic Acid (PFUnA)	ug/L	97.83899	98.45232	0	0	0	0.022
Perfluorodecanoic Acid (PFDA)	ug/L	100.27056	97.32217	0	0	0	0.022
Perfluorododecanoic Acid (PFDoA)	ug/L	98.21714	96.31629	0	0	0	0.022
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	101.05693	98.38524	0	0	0	0.022
Perfluorooctane Sulfonate (PFOS)	ug/L	96.02830	93.40478	0	0	0	0.022
13C2-6:2 Fluorotelomer sulfonate	ug/L	84.2579093	91.1834076	88.5914478	N/A*******	N/A*******	
13C2-8:2 Fluorotelomer sulfonate	ug/L	77.6822957	80.3026024	83.2478597	N/A*******	N/A*******	
13C2-perfluorotetradecanoic acid	ug/L	77.8619602	76.4229416	79.6388689	79.1938918	71.1684513	
13C4-Perfluorobutanoic acid	ug/L	85.6166200	95.4945019	93.8318766	N/A*******	N/A*******	
D3-MeFOSAA	ug/L	80.9965791	82.3685635	75.9548576	78.5883706	75.5661875	
D5-EtFOSAA	ug/L	76.3541647	77.1910162	71.5946155	77.8870648	74.7353765	
N-methyl-d3-perfluorooctane sulfona	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	
13C2-Perfluorodecanoic acid	ug/L	86.0572668	90.6666485	79.3079824	86.9790659	90.3520047	
13C2-Perfluorododecanoic acid	ug/L	79.7079549	80.4222814	75.5121447	87.7607614	78.4026526	
13C2-Perfluorohexanoic acid	ug/L	86.5951556	98.1675626	92.1894303	93.1344289	95.7329591	
13C2-Perfluoroundecanoic acid	ug/L	91.9196802	90.9093368	77.7263782	92.5200201	80.6273673	
13C4-Perfluoroheptanoic acid	ug/L	87.2189564	93.7752732	92.6745393	99.3597899	95.7721484	
13C5-Perfluorononanoic acid	ug/L	86.1114262	89.9042797	87.2363757	91.5948469	94.4461451	
13C4-Perfluorooctanoic acid	ug/L	83.7392679	94.0137907	95.6961759	92.1639745	90.0889514	
13C4-Perfluorooctanesulfonate	ug/L	82.1054936	89.1690305	86.2777091	92.2570241	89.9473927	
13C5-Perfluoropentanoic acid	ug/L	82.2489947	98.9429635	94.9732240	N/A*******	N/A*******	
13C8-Perfluorooctane Sulfonamide	ug/L	81.6151025	87.7555783	90.6434078	N/A*******	N/A*******	
18O2-Perfluorohexanesulfonate	ug/L	83.8086429	91.0614714	92.8910351	90.3874231	93.3468109	

2018/02/09 MP

PFOS and PFOA in water by SPE/LCMS - Water
ug/L

Parameter Name	B818419 FZA809	DL	B819794 FZH324	DL	B819794 FZH325	DL	B820260 FZJ938
6:2 Fluorotelomer sulfonate	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	0
8:2 Fluorotelomer sulfonate	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	0
N-ethylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	N/A*******
EtFOSAA	0	0.02	0	0.2	0	0.2	N/A*******
N-ethylperfluorooctane sulfonamidoe	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	N/A*******
MeFOSAA	0	0.02	0	0.2	0	0.2	N/A*******
N-methylperfluorooctanesulfonamidol	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	N/A*******
Perfluorobutanoic acid	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	0
Perfluorobutane Sulfonate (PFBS)	0	0.02	0.12710653	0.2	0.19178362	0.2	0
Perfluorodecane Sulfonate	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	0
Perfluoroheptanoic Acid (PFHpA)	0	0.02	1.00024440	0.2	2.02929068	0.2	0
Perfluoroheptane sulfonate	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	N/A*******
Perfluorohexanoic Acid (PFHxA)	0	0.02	1.33343420	0.2	2.55547512	0.2	0
Perfluorohexane Sulfonate (PFHxS)	0	0.02	2.17941727	0.2	11.7352984	2.0	0
Perfluorononanoic Acid (PFNA)	0	0.02	0.18465743	0.2	0.89610086	0.2	0
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	0
Perfluoropentanoic Acid (PFPeA)	N/A*******	0.02	N/A*******	0.2	N/A*******	0.2	0
Perfluorotetradecanoic Acid	0	0.02	0	0.2	0	0.2	0
Perfluorotridecanoic Acid	0	0.02	0	0.2	0	0.2	0
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.2	0	0.2	0
Perfluorodecanoic Acid (PFDA)	0	0.02	0	0.2	0	0.2	0
Perfluorododecanoic Acid (PFDoA)	0	0.02	0	0.2	0.12329213	0.2	0
Perfluoro-n-Octanoic Acid (PFOA)	0	0.02	0.99128265	0.2	1.57523688	0.2	0
Perfluorooctane Sulfonate (PFOS)	0	0.02	21.3862748	2.0	36.6776718	2.0	0
13C2-6:2 Fluorotelomer sulfonate	N/A*******		N/A*******		N/A*******		98.4288899
13C2-8:2 Fluorotelomer sulfonate	N/A*******		N/A*******		N/A*******		95.9028421
13C2-perfluorotetradecanoic acid	83.1097274		78.1644631		79.7725519		79.8119339
13C4-Perfluorobutanoic acid	N/A*******		N/A*******		N/A*******		105.366702
D3-MeFOSAA	86.7620362		88.5879800		87.1735670		N/A*******
D5-EtFOSAA	82.9776497		85.1779772		84.2579715		N/A*******
N-methyl-d3-perfluorooctane sulfona	N/A*******		N/A*******		N/A*******		N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******		N/A*******		N/A*******		N/A*******
13C2-Perfluorodecanoic acid	101.488771		87.2581674		83.9740926		86.9311187
13C2-Perfluorododecanoic acid	91.1675816		87.5341590		82.4763545		85.6046715
13C2-Perfluorohexanoic acid	100.556952		104.282774		91.5480588		100.797580
13C2-Perfluoroundecanoic acid	93.7296466		90.7920819		81.6997659		84.4639171
13C4-Perfluoroheptanoic acid	99.8684596		106.412944		88.9735314		99.2293432
13C5-Perfluorononanoic acid	96.5654260		97.6929904		85.1224857		96.0227830
13C4-Perfluorooctanoic acid	96.0506627		93.5394505		91.6404110		98.0682319
13C4-Perfluorooctanesulfonate	105.133320		109.347422		86.0014663		92.4389783
13C5-Perfluoropentanoic acid	N/A*******		N/A*******		N/A*******		105.574959
13C8-Perfluorooctane Sulfonamide	N/A*******		N/A*******		N/A*******		89.8830369
18O2-Perfluorohexanesulfonate	96.9587190		89.6638138		104.125730		102.256757

Worksheet Number: **5389177**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

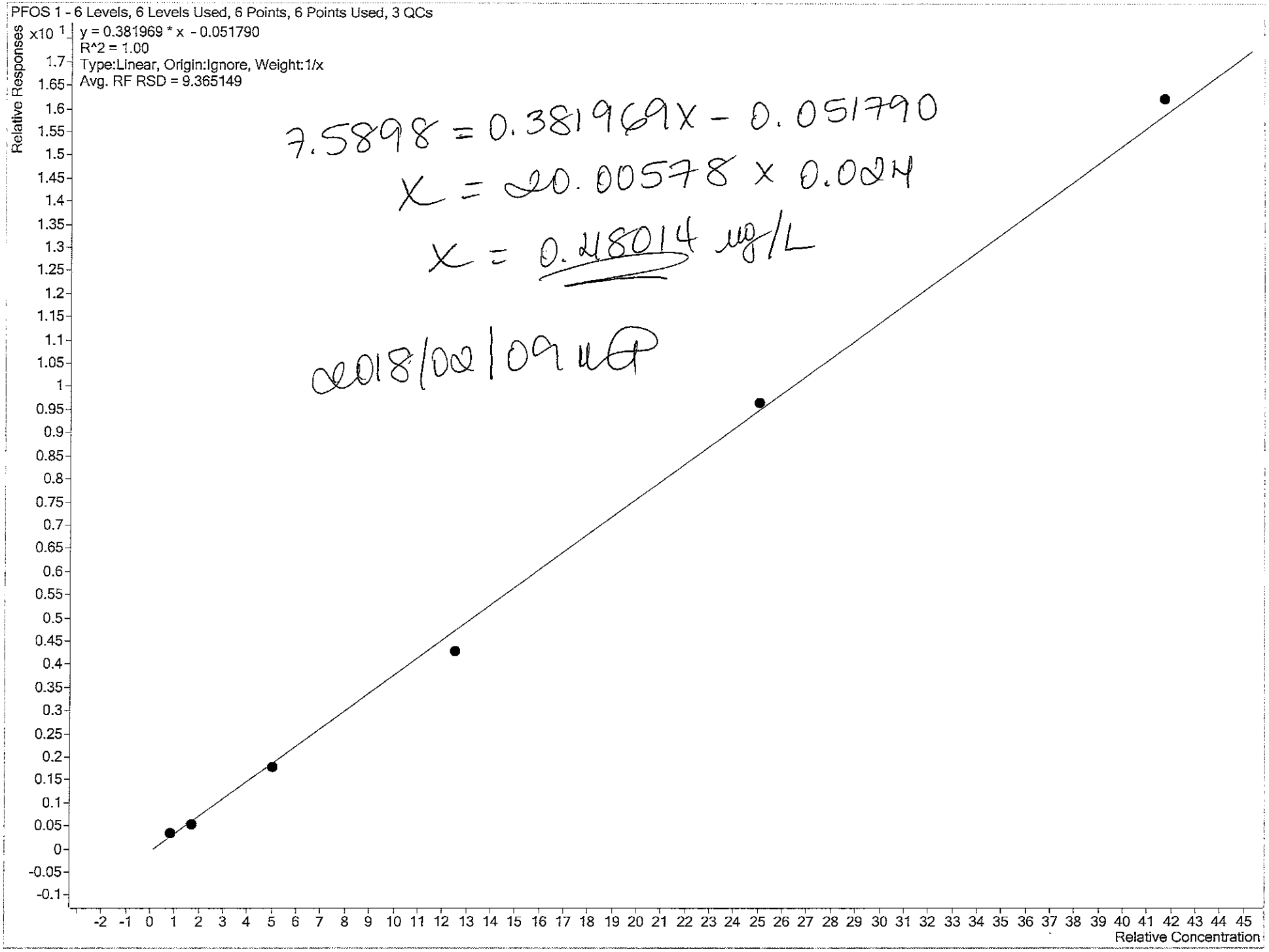
Parameter Name	DL	B820260 FZJ941	DL	B820260 FZJ953	DL	B820260 FZJ954	DL
6:2 Fluorotelomer sulfonate	0.02	0.64277813	0.2	0	0.2	0	0.1
8:2 Fluorotelomer sulfonate	0.02	0	0.02	0	0.2	0	0.1
N-ethylperfluorooctane sulfonamide	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
EtFOSAA	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
N-ethylperfluorooctane sulfonamidoe	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
N-methylperfluorooctane sulfonamide	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
MeFOSAA	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
N-methylperfluorooctanesulfonamidol	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
Perfluorobutanoic acid	0.02	0.01789437	0.02	0	0.2	0.41201254	0.1
Perfluorobutane Sulfonate (PFBS)	0.02	0	0.02	0.08503510	0.2	0.06335875	0.1
Perfluorodecane Sulfonate	0.02	0	0.02	0	0.2	0	0.1
Perfluoroheptanoic Acid (PFHpA)	0.02	0.00943613	0.02	0.20751695	0.2	0.33398366	0.1
Perfluoroheptane sulfonate	0.02	N/A*******	0.02	N/A*******	0.2	N/A*******	0.1
Perfluorohexanoic Acid (PFHxA)	0.02	0.26703462	0.02	1.59456642	0.2	3.92541783	0.1
Perfluorohexane Sulfonate (PFHxS)	0.02	0.01131403	0.02	8.50537070	0.2	11.5441861	0.5
Perfluorononanoic Acid (PFNA)	0.02	0	0.02	0	0.2	0.05250739	0.1
Perfluorooctane Sulfonamide (PFOSA)	0.02	0.01617505	0.02	0	0.2	0	0.1
Perfluoropentanoic Acid (PFPeA)	0.02	0.01648651	0.02	0.31172276	0.2	0.78441645	0.1
Perfluorotetradecanoic Acid	0.02	0	0.02	0	0.2	0	0.1
Perfluorotridecanoic Acid	0.02	0	0.02	0	0.2	0	0.1
Perfluoroundecanoic Acid (PFUnA)	0.02	0	0.02	0	0.2	0	0.1
Perfluorodecanoic Acid (PFDA)	0.02	0	0.02	0	0.2	0	0.1
Perfluorododecanoic Acid (PFDoA)	0.02	0	0.02	0	0.2	0	0.1
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0.00563552	0.02	0.88021969	0.2	2.92577126	0.1
Perfluorooctane Sulfonate (PFOS)	0.02	0.83905751	0.2	26.0520123	1.0	5.40598684	0.5
13C2-6:2 Fluorotelomer sulfonate		79.5795584		93.3136458		85.7303165	
13C2-8:2 Fluorotelomer sulfonate		87.9408829		85.8833507		87.4445116	
13C2-perfluorotetradecanoic acid		78.8231745		55.2433613		54.2082950	
13C4-Perfluorobutanoic acid		98.6046999		97.2302986		96.6611460	
D3-MeFOSAA		N/A*******		N/A*******		N/A*******	
D5-EtFOSAA		N/A*******		N/A*******		N/A*******	
N-methyl-d3-perfluorooctane sulfona		71.7444527		N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam		66.4657803		N/A*******		N/A*******	
13C2-Perfluorodecanoic acid		97.7208315		92.5450972		85.9661640	
13C2-Perfluorododecanoic acid		81.3619855		78.5172803		81.5215968	
13C2-Perfluorohexanoic acid		96.8865302		102.467661		104.236432	
13C2-Perfluoroundecanoic acid		82.4094788		85.4727361		86.4738408	
13C4-Perfluoroheptanoic acid		95.6543955		87.7616279		92.3044413	
13C5-Perfluorononanoic acid		91.4111481		83.9166446		90.5446618	
13C4-Perfluorooctanoic acid		92.8314937		94.7030951		95.2159699	
13C4-Perfluorooctanesulfonate		82.4158378		93.0837522		92.4213338	
13C5-Perfluoropentanoic acid		96.3795463		93.6920871		93.5649676	
13C8-Perfluorooctane Sulfonamide		94.1222883		85.5425855		87.0887821	
18O2-Perfluorohexanesulfonate		91.0623557		90.5654177		93.1582697	

Worksheet Number: **5389177**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	RDL	MDL	IDL				
6:2 Fluorotelomer sulfonate	0.02	0.0066	0				
8:2 Fluorotelomer sulfonate	0.02	0.0066	0				
N-ethylperfluorooctane sulfonamide	0.02	0.01	0				
EtFOSAA	0.02	0.0033	0				
N-ethylperfluorooctane sulfonamidoe	0.02	0.0079	0				
N-methylperfluorooctane sulfonamide	0.02	0.013	0				
MeFOSAA	0.02	0.0029	0				
N-methylperfluorooctanesulfonamidol	0.02	0.012	0				
Perfluorobutanoic acid	0.02	0.0055	0				
Perfluorobutane Sulfonate (PFBS)	0.02	0.0054	0				
Perfluorodecane Sulfonate	0.02	0.006	0				
Perfluoroheptanoic Acid (PFHpA)	0.02	0.0074	0				
Perfluoroheptane sulfonate	0.02	0.008	0				
Perfluorohexanoic Acid (PFHxA)	0.02	0.0035	0				
Perfluorohexane Sulfonate (PFHxS)	0.02	0.0056	0				
Perfluorononanoic Acid (PFNA)	0.02	0.0087	0				
Perfluorooctane Sulfonamide (PFOSA)	0.02	0.0034	0				
Perfluoropentanoic Acid (PFPeA)	0.02	0.0075	0				
Perfluorotetradecanoic Acid	0.02	0.0027	0				
Perfluorotridecanoic Acid	0.02	0.0038	0				
Perfluoroundecanoic Acid (PFUnA)	0.02	0.0025	0				
Perfluorodecanoic Acid (PFDA)	0.02	0.0061	0				
Perfluorododecanoic Acid (PFDoA)	0.02	0.005	0				
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0.0033	0				
Perfluorooctane Sulfonate (PFOS)	0.02	0.006	0				
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							

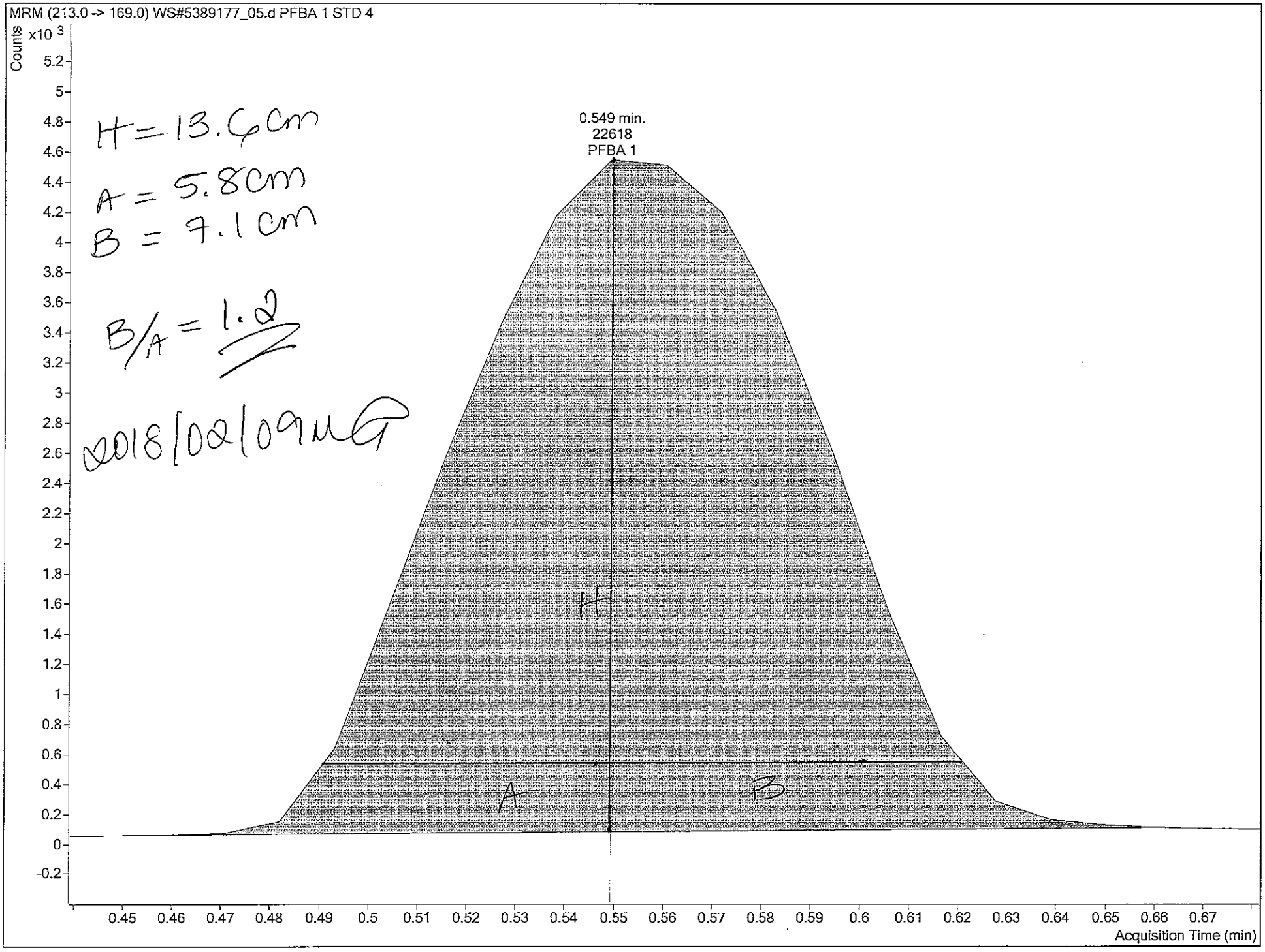


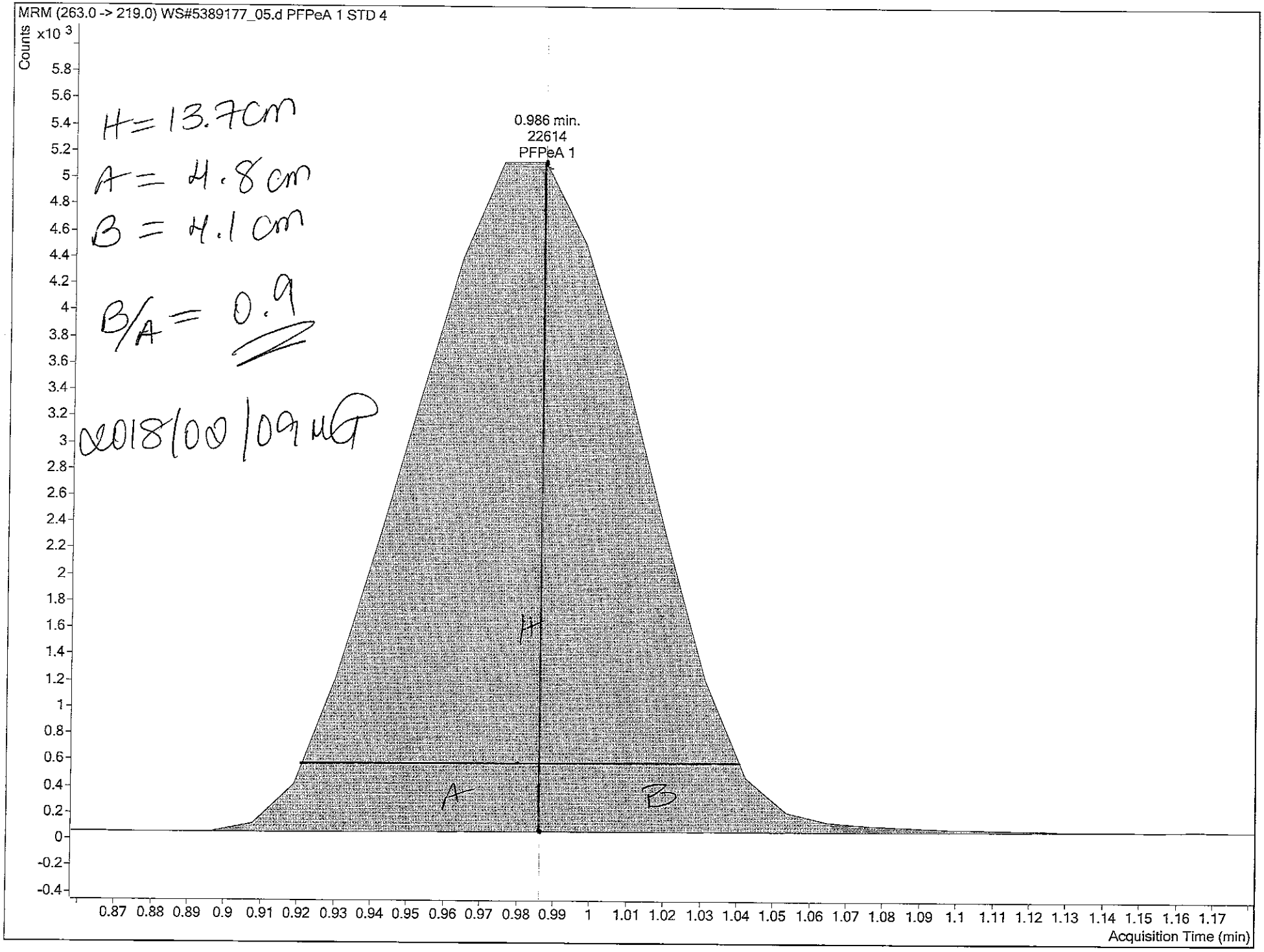
$7.5898 = 0.381969X - 0.051790$

$X = 20.00578 \times 0.024$

$X = 0.48014$ ug/L

2018/02/09 MP


MRM (213.0 -> 169.0) WS#5389177_05.d PFBA 1 STD 4
Counts
x10 3
0.549 min.
22618
PFBA 1
H=13.6cm
A=5.8cm
B=7.1cm
B/A=1.2
2018/02/09 MG
H
A
B
Acquisition Time (min)


MRM (263.0 -> 219.0) WS#5389177_05.d PFPeA 1 STD 4
Counts x10 3
0.986 min.
22614
PFPeA 1
H= 13.7cm
A= 4.8 cm
B = 4.1 cm
B/A = 0.9
0.018/0.09 ug
H
A
B
Acquisition Time (min)

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/07

Test Code: **PFOSALCM-W**

Worksheet Number: **5389177**

Sample Number	Parameter Code	Parameter	
FZA807-01	ETFOSAA	EtFOSAA	*
FZA808-01	MEFOSAA	MeFOSAA	*
FZA809-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FZH324-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
FZH325-01	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	
FZJ938-01	6:2FTS	6:2 Fluorotelomer sulfonate	*
FZJ941-01	8:2FTS	8:2 Fluorotelomer sulfonate	*
FZJ953-01	PFBA	Perfluorobutanoic acid	
FZJ954-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
	PFDS	Perfluorodecane Sulfonate	
	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFOSA	Perfluorooctane Sulfonamide (PFOSA)	
	PFPEA	Perfluoropentanoic Acid	

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5389177 Instrument Sequences

1.	5389177:SPIKE	SPIKE
2.	5389177:SPIKE:D1	SPIKE :D1
3.	5389177:BLANK	BLANK
4.	5389177:FZA807-01	[redacted]
5.	5389177:FZA808-01	[redacted]
6.	5389177:FZA809-01	[redacted]
7.	5389177:FZH324-01	CEF-008-TW02-0118
8.	5389177:FZH325-01	CEF-008-TW01-0118
9.	5389177:FZJ938-01	[redacted]
10.	5389177:FZJ941-01	[redacted]
11.	5389177:FZJ953-01	[redacted]
12.	5389177:FZJ954-01	[redacted]

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180208_Low.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180208\WS#5389177
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

Plate Barcode:

Plate	Barcode
P3	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P3-A1	PFC_Water_Low.m	WS#5389177_01.d	Sample		As Method	-
2	STD 1	P3-A2	PFC_Water_Low.m	WS#5389177_02.d	Calibration	STD 1	As Method	-
3	STD 2	P3-A3	PFC_Water_Low.m	WS#5389177_03.d	Calibration	STD 2	As Method	-
4	STD 3	P3-A4	PFC_Water_Low.m	WS#5389177_04.d	Calibration	STD 3	As Method	-
5	STD 4	P3-A5	PFC_Water_Low.m	WS#5389177_05.d	Calibration	STD 4	As Method	-
6	STD 5	P3-A6	PFC_Water_Low.m	WS#5389177_06.d	Calibration	STD 5	As Method	-
7	STD 6	P3-A7	PFC_Water_Low.m	WS#5389177_07.d	Calibration	STD 6	As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P3-A8	PFC_Water_Low.m	WS#5389177_08.d	Sample		As Method	-
9	ICV	P3-A9	PFC_Water_Low.m	WS#5389177_09.d	QC	ICV	As Method	-
10	ISC	P3-A2	PFC_Water_Low.m	WS#5389177_10.d	ConCal	STD 1	As Method	-
11	5389177:BLANK	P3-B1	PFC_Water_Low.m	WS#5389177_11.d	Sample		As Method	-
12	5389177:SPIKE	P3-B2	PFC_Water_Low.m	WS#5389177_12.d	QC	ICV	As Method	-
13	5389177:SPIKE:D1	P3-B3	PFC_Water_Low.m	WS#5389177_13.d	QC	ICV	As Method	-
14	5389177:FZA807-01	P3-B4	PFC_Water_Low.m	WS#5389177_14.d	Sample		As Method	-
15	5389177:FZA808-01	P3-B5	PFC_Water_Low.m	WS#5389177_15.d	Sample		As Method	-
16	5389177:FZA809-01	P3-B6	PFC_Water_Low.m	WS#5389177_16.d	Sample		As Method	-
17	5389177:FZH324-01:100x	P3-B7	PFC_Water_Low.m	WS#5389177_17.d	Sample		As Method	-
18	5389177:FZH324-01:10x	P3-B8	PFC_Water_Low.m	WS#5389177_18.d	Sample		As Method	-
19	IB	P3-A8	PFC_Water_Low.m	WS#5389177_19.d	Sample		As Method	-
20	5389177:FZH325-01:100x	P3-B9	PFC_Water_Low.m	WS#5389177_20.d	Sample		As Method	-
21	5389177:FZH325-01:10x	P3-C1	PFC_Water_Low.m	WS#5389177_21.d	Sample		As Method	-
22	IB	P3-A8	PFC_Water_Low.m	WS#5389177_22.d	Sample		As Method	-
23	5389177:FZJ938-01	P3-C2	PFC_Water_Low.m	WS#5389177_23.d	Sample		As Method	-
24	5389177:FZJ941-01:10x	P3-C3	PFC_Water_Low.m	WS#5389177_24.d	Sample		As Method	-
25	5389177:FZJ941-01	P3-C4	PFC_Water_Low.m	WS#5389177_25.d	Sample		As Method	-
26	IB	P3-A8	PFC_Water_Low.m	WS#5389177_26.d	Sample		As Method	-
27	CCV	P3-A5	PFC_Water_Low.m	WS#5389177_27.d	ConCal	STD 4	As Method	-
28	5389177:FZJ953-01:50x	P3-C5	PFC_Water_Low.m	WS#5389177_28.d	Sample		As Method	-
29	5389177:FZJ953-01:10x	P3-C6	PFC_Water_Low.m	WS#5389177_29.d	Sample		As Method	-
30	IB	P3-A8	PFC_Water_Low.m	WS#5389177_30.d	Sample		As Method	-

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5389177:FZJ954-01:25x	P3-C7	PFC_Water_Low.m	WS#5389177_31.d	Sample		As Method	-
32	5389177:FZJ954-01:5x	P3-C8	PFC_Water_Low.m	WS#5389177_32.d	Sample		As Method	-
33	IB	P3-A8	PFC_Water_Low.m	WS#5389177_33.d	Sample		As Method	-
34	CCV	P3-A5	PFC_Water_Low.m	WS#5389177_34.d	ConCal	STD 4	As Method	-

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Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180208_Low_FOSAA.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180208\WS#5389177_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B2: Solution# 272 (FSRE18)

20180208 MC

Plate Barcode:

Plate	Barcode
P3	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P3-A1	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_01.d	Sample		As Method	-
2	STD 1	P3-A2	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P3-A3	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P3-A4	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P3-A5	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P3-A6	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P3-A7	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P3-A8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P3-A9	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P3-A2	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5389177:BLANK	P3-B1	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_11.d	Sample		As Method	-
12	5389177:SPIKE	P3-B2	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_12.d	QC	ICV	As Method	-
13	5389177:SPIKE:D1	P3-B3	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_13.d	QC	ICV	As Method	-
14	5389177:FZA807-01	P3-B4	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_14.d	Sample		As Method	-
15	5389177:FZA808-01	P3-B5	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_15.d	Sample		As Method	-
16	5389177:FZA809-01	P3-B6	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_16.d	Sample		As Method	-
17	5389177:FZH324-01:100x	P3-B7	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_17.d	Sample		As Method	-
18	5389177:FZH324-01:10x	P3-B8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_18.d	Sample		As Method	-
19	IB	P3-A8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_19.d	Sample		As Method	-
20	5389177:FZH325-01:100x	P3-B9	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_20.d	Sample		As Method	-
21	5389177:FZH325-01:10x	P3-C1	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_21.d	Sample		As Method	-
22	IB	P3-A8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_22.d	Sample		As Method	-
23	5389177:FZJ938-01	P3-C2	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_23.d	Sample		As Method	-
24	5389177:FZJ941-01:10x	P3-C3	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_24.d	Sample		As Method	-
25	5389177:FZJ941-01	P3-C4	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_25.d	Sample		As Method	-
26	IB	P3-A8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_26.d	Sample		As Method	-
27	CCV	P3-A5	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_27.d	ConCal	STD 4	As Method	-
28	5389177:FZJ953-01:50x	P3-C5	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_28.d	Sample		As Method	-
29	5389177:FZJ953-01:10x	P3-C6	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_29.d	Sample		As Method	-
30	IB	P3-A8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_30.d	Sample		As Method	-
31	5389177:FZJ954-01:25x	P3-C7	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_31.d	Sample		As Method	-
32	5389177:FZJ954-01:5x	P3-C8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_32.d	Sample		As Method	-
33	IB	P3-A8	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_33.d	Sample		As Method	-
34	CCV	P3-A5	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_34.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/09 12:02 AM	PFC_Water_Low.m	WS#5389177_02.d	P3-A2
STD 2	-	2018/02/09 12:07 AM	PFC_Water_Low.m	WS#5389177_03.d	P3-A3
STD 3	-	2018/02/09 12:12 AM	PFC_Water_Low.m	WS#5389177_04.d	P3-A4
STD 4	-	2018/02/09 12:17 AM	PFC_Water_Low.m	WS#5389177_05.d	P3-A5
STD 5	-	2018/02/09 12:22 AM	PFC_Water_Low.m	WS#5389177_06.d	P3-A6
STD 6	-	2018/02/09 12:27 AM	PFC_Water_Low.m	WS#5389177_07.d	P3-A7
IB	-	2018/02/09 12:31 AM	PFC_Water_Low.m	WS#5389177_08.d	P3-A8
ICV	-	2018/02/09 12:36 AM	PFC_Water_Low.m	WS#5389177_09.d	P3-A9
ISC	-	2018/02/09 12:41 AM	PFC_Water_Low.m	WS#5389177_10.d	P3-A2
5389177:BLANK	-	2018/02/09 12:46 AM	PFC_Water_Low.m	WS#5389177_11.d	P3-B1
5389177:SPIKE	-	2018/02/09 12:51 AM	PFC_Water_Low.m	WS#5389177_12.d	P3-B2
5389177:SPIKE:D1	-	2018/02/09 12:56 AM	PFC_Water_Low.m	WS#5389177_13.d	P3-B3
5389177:FZA807-01	-	2018/02/09 1:01 AM	PFC_Water_Low.m	WS#5389177_14.d	P3-B4
5389177:FZA808-01	-	2018/02/09 1:06 AM	PFC_Water_Low.m	WS#5389177_15.d	P3-B5
5389177:FZA809-01	-	2018/02/09 1:11 AM	PFC_Water_Low.m	WS#5389177_16.d	P3-B6
5389177:FZH324-01:100x	Reported for PFOS only.	2018/02/09 1:16 AM	PFC_Water_Low.m	WS#5389177_17.d	P3-B7
5389177:FZH324-01:10x	Reported for all except PFOS.	2018/02/09 1:21 AM	PFC_Water_Low.m	WS#5389177_18.d	P3-B8
IB	-	2018/02/09 1:26 AM	PFC_Water_Low.m	WS#5389177_19.d	P3-A8
5389177:FZH325-01:100x	Reported for PFOS, PFHxS only.	2018/02/09 1:31 AM	PFC_Water_Low.m	WS#5389177_20.d	P3-B9
5389177:FZH325-01:10x	Reported for all except PFOS, PFHxS.	2018/02/09 1:36 AM	PFC_Water_Low.m	WS#5389177_21.d	P3-C1
IB	-	2018/02/09 1:41 AM	PFC_Water_Low.m	WS#5389177_22.d	P3-A8
5389177:FZJ938-01	-	2018/02/09 1:45 AM	PFC_Water_Low.m	WS#5389177_23.d	P3-C2
5389177:FZJ941-01:10x	Reported for 6:2-FTS, PFOS only.	2018/02/09 1:50 AM	PFC_Water_Low.m	WS#5389177_24.d	P3-C3
5389177:FZJ941-01	Reported for all except 6:2-FTS, PFOS.	2018/02/09 1:55 AM	PFC_Water_Low.m	WS#5389177_25.d	P3-C4
IB	-	2018/02/09 2:00 AM	PFC_Water_Low.m	WS#5389177_26.d	P3-A8
CCV	-	2018/02/09 2:05 AM	PFC_Water_Low.m	WS#5389177_27.d	P3-A5
5389177:FZJ953-01:50x	Reported for PFOS only.	2018/02/09 2:10 AM	PFC_Water_Low.m	WS#5389177_28.d	P3-C5
5389177:FZJ953-01:10x	Reported for all except PFOS.	2018/02/09 2:15 AM	PFC_Water_Low.m	WS#5389177_29.d	P3-C6
IB	-	2018/02/09 2:20 AM	PFC_Water_Low.m	WS#5389177_30.d	P3-A8
5389177:FZJ954-01:25x	Reported for PFOS, PFHxS only.	2018/02/09 2:25 AM	PFC_Water_Low.m	WS#5389177_31.d	P3-C7
5389177:FZJ954-01:5x	Reported for all except PFOS, PFHxS.	2018/02/09 2:30 AM	PFC_Water_Low.m	WS#5389177_32.d	P3-C8
IB	-	2018/02/09 2:35 AM	PFC_Water_Low.m	WS#5389177_33.d	P3-A8
CCV	-	2018/02/09 2:40 AM	PFC_Water_Low.m	WS#5389177_34.d	P3-A5

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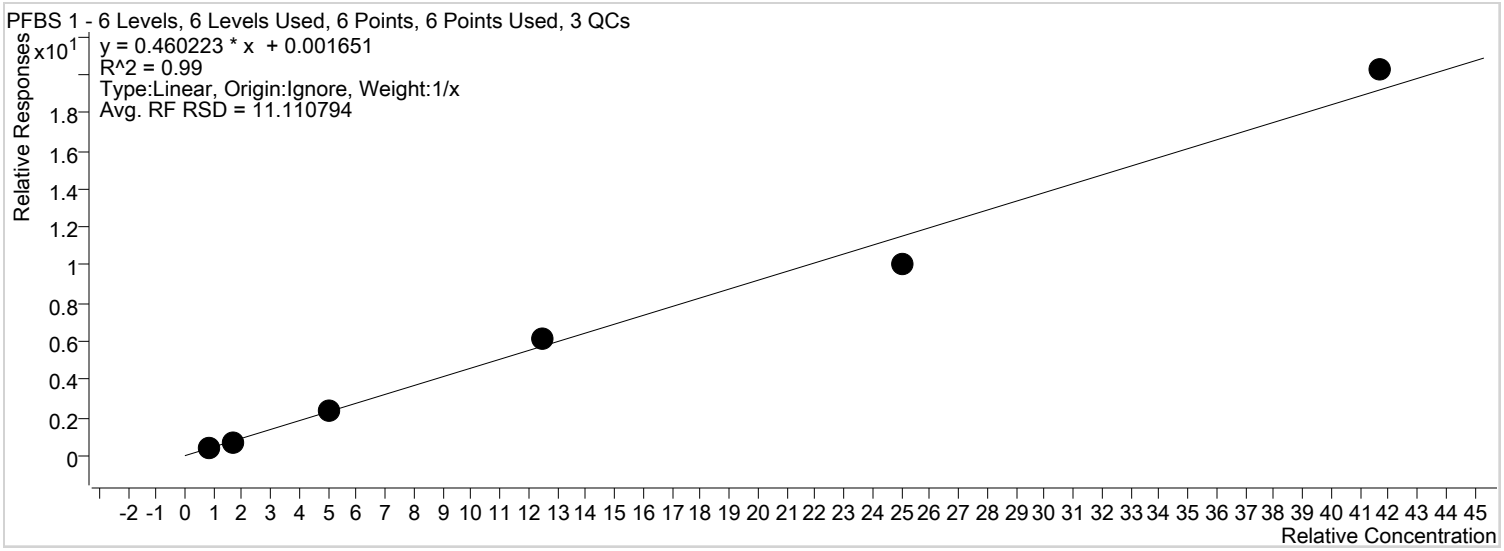
FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/08 6:03 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_02.d	P3-A2
STD 2	-	2018/02/08 6:06 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_03.d	P3-A3
STD 3	-	2018/02/08 6:08 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_04.d	P3-A4
STD 4	-	2018/02/08 6:11 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_05.d	P3-A5
STD 5	-	2018/02/08 6:13 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_06.d	P3-A6
STD 6	-	2018/02/08 6:16 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_07.d	P3-A7
IB	-	2018/02/08 6:18 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_08.d	P3-A8
ICV	-	2018/02/08 6:20 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_09.d	P3-A9
ISC	-	2018/02/08 6:23 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_10.d	P3-A2
5389177:BLANK	-	2018/02/08 6:25 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_11.d	P3-B1
5389177:SPIKE	-	2018/02/08 6:28 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_12.d	P3-B2
5389177:SPIKE:D1	-	2018/02/08 6:30 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_13.d	P3-B3
5389177:FZA807-01	-	2018/02/08 6:32 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_14.d	P3-B4
5389177:FZA808-01	-	2018/02/08 6:35 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_15.d	P3-B5
5389177:FZA809-01	-	2018/02/08 6:37 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_16.d	P3-B6
5389177:FZH324-01:100x	Not Used	2018/02/08 6:40 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_17.d	P3-B7
5389177:FZH324-01:10x	-	2018/02/08 6:42 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_18.d	P3-B8
IB	-	2018/02/08 6:44 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_19.d	P3-A8
5389177:FZH325-01:100x	Not Used	2018/02/08 6:47 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_20.d	P3-B9
5389177:FZH325-01:10x	-	2018/02/08 6:49 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_21.d	P3-C1
IB	-	2018/02/08 6:52 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_22.d	P3-A8
5389177:FZJ938-01	-	2018/02/08 6:54 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_23.d	P3-C2
5389177:FZJ941-01:10x	-	2018/02/08 6:56 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_24.d	P3-C3
5389177:FZJ941-01	-	2018/02/08 6:59 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_25.d	P3-C4
IB	-	2018/02/08 7:01 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_26.d	P3-A8
CCV	-	2018/02/08 7:04 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_27.d	P3-A5
5389177:FZJ953-01:50x	-	2018/02/08 7:06 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_28.d	P3-C5
5389177:FZJ953-01:10x	-	2018/02/08 7:08 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_29.d	P3-C6
IB	-	2018/02/08 7:11 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_30.d	P3-A8
5389177:FZJ954-01:25x	-	2018/02/08 7:13 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_31.d	P3-C7
5389177:FZJ954-01:5x	-	2018/02/08 7:16 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_32.d	P3-C8
IB	-	2018/02/08 7:18 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_33.d	P3-A8
CCV	-	2018/02/08 7:21 PM	PFC_Water_Low_FOSAA.m	WS#5389177_FOSAA_34.d	P3-A5

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

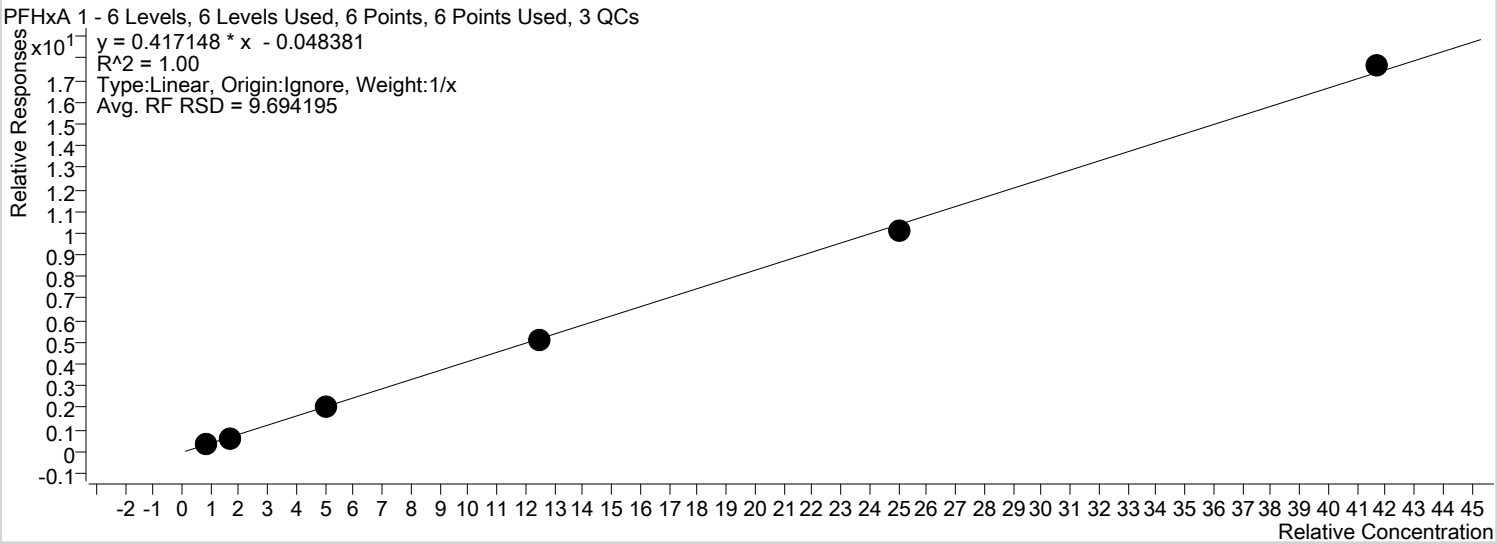
Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.92	671	0.5143	93	111.3
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.44	1069	0.3898	122	84.5
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	5.27	3685	0.4855	91	105.4
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	13.21	8679	0.4866	649	105.7
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	21.89	16004	0.4031	295	87.6
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	43.99	31202	0.4856	151	105.5

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.97	2012	0.4291	132	116.8
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.43	3269	0.3231	280	84.3
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.99	12687	0.4064	1116	99.8
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.44	30119	0.4113	2486	99.5
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	24.45	60745	0.4060	4432	97.8
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	42.45	111030	0.4235	10263	101.8

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
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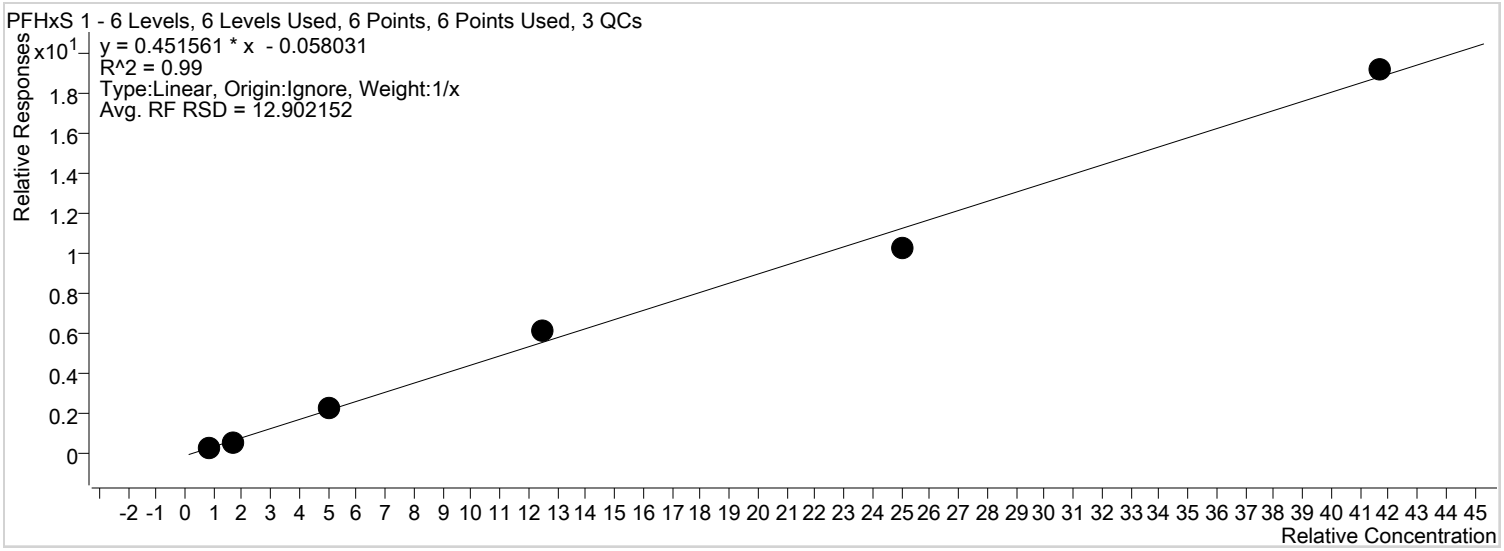
Instrument: LCMS04

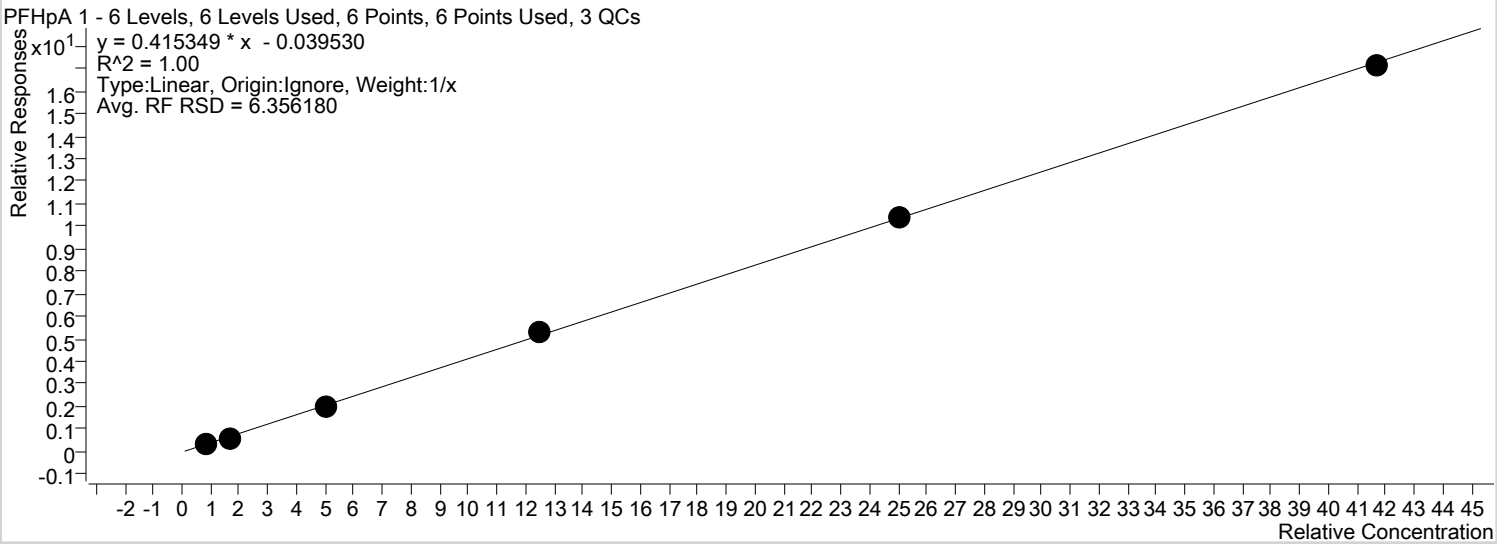
Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.90	549	0.4208	78	108.7
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.39	918	0.3348	106	81.7
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	5.32	3558	0.4688	312	106.4
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	13.71	8749	0.4905	532	109.6
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	22.93	16354	0.4119	1056	91.7
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	42.48	29470	0.4586	2241	101.9

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

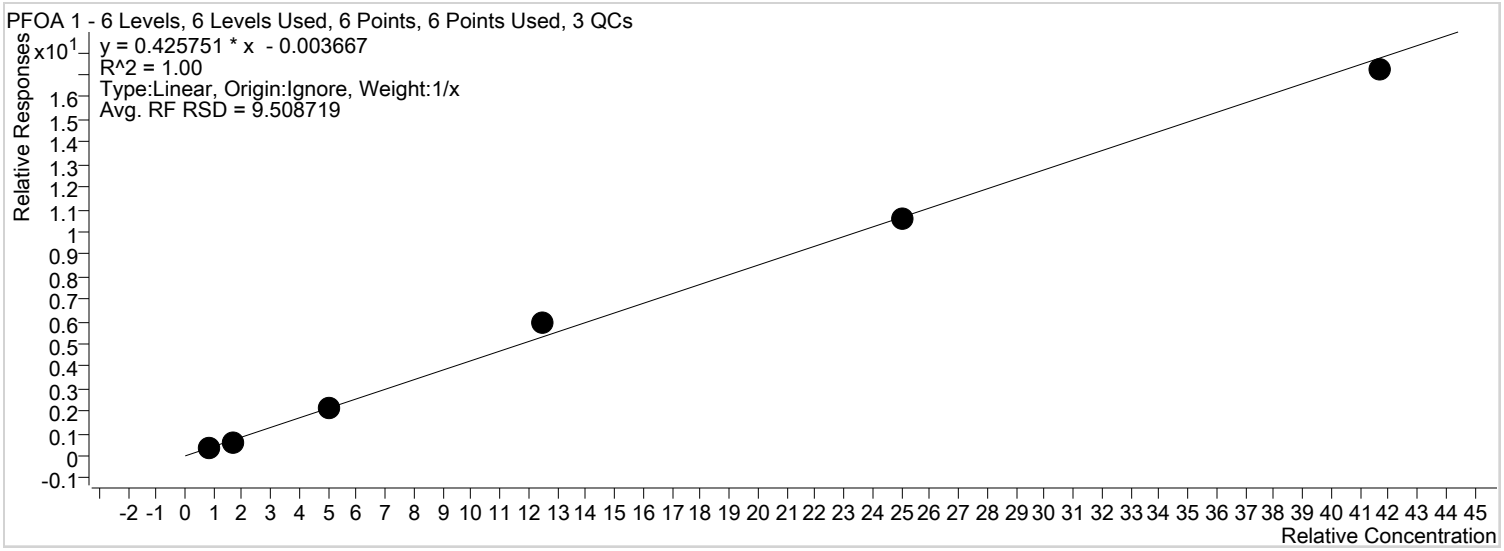
Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.91	2767	0.4081	25	109.7
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.56	4633	0.3577	38	91.7
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.74	16651	0.3857	135	94.8
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.98	41071	0.4283	259	103.9
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	25.19	80239	0.4170	255	100.8
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	41.34	138947	0.4109	299	99.1

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

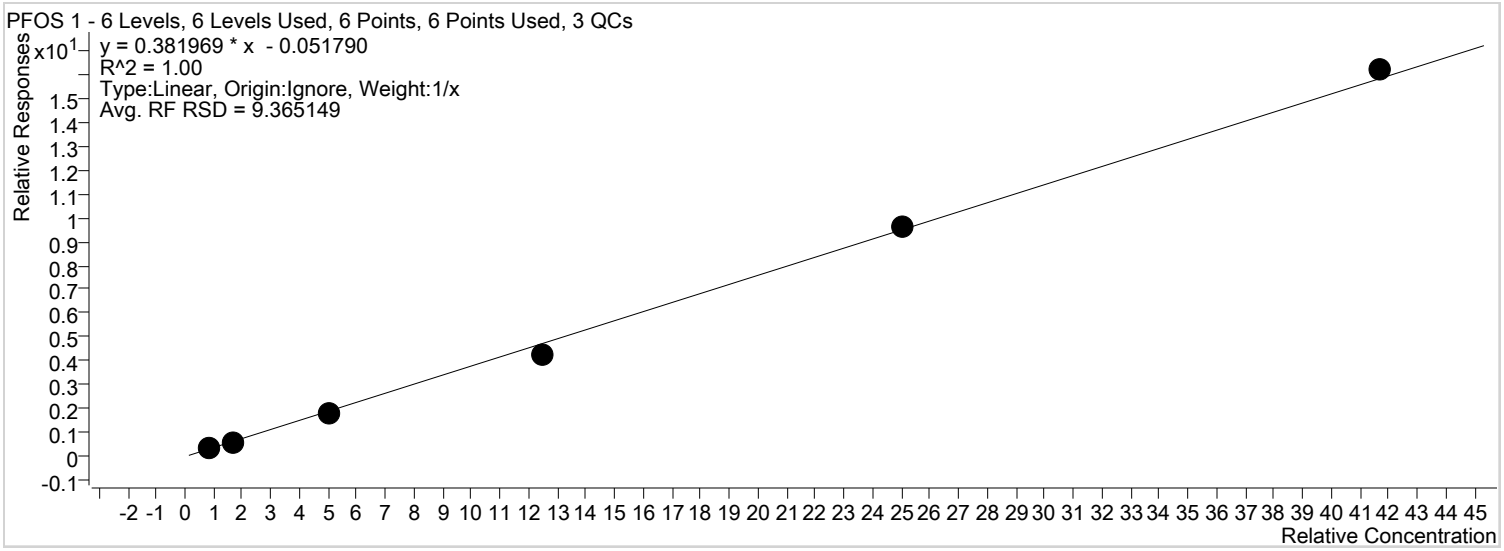
Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.88	3259	0.4479	39	106.2
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.42	5039	0.3532	67	83.5
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	5.12	19009	0.4353	231	102.4
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	13.87	46159	0.4720	514	110.9
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	24.97	88474	0.4251	1281	99.9
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	40.47	158054	0.4131	1590	97.1

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

Analyte: PFOS 1
Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	1.00	595	0.3974	77	120.4
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.51	1026	0.3090	123	88.9
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.80	3653	0.3566	162	96.1
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	11.34	8207	0.3425	141	90.8
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	25.40	16958	0.3861	195	101.6
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	42.67	30641	0.3896	263	102.3

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
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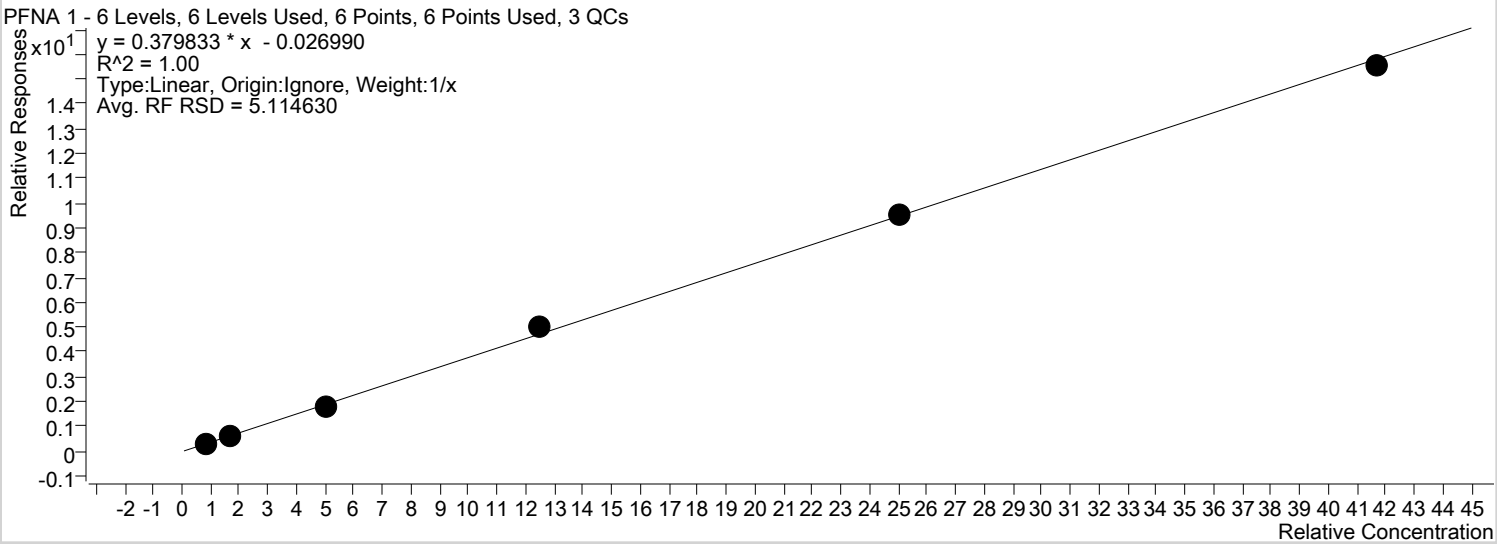
Instrument: LCMS04

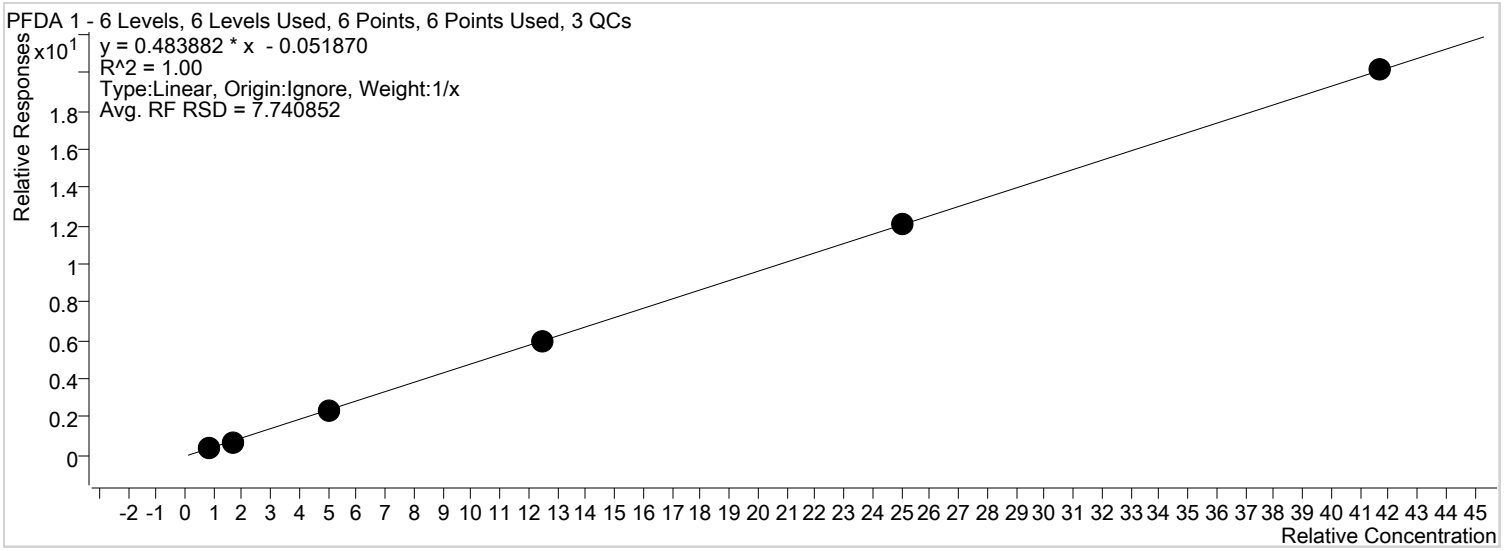
Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.86	2670	0.3590	33	103.1
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.61	5021	0.3438	73	94.7
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.88	16269	0.3654	314	97.6
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	13.18	40186	0.3985	584	105.5
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	25.21	79008	0.3820	1193	100.9
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	40.99	137642	0.3727	1979	98.3

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

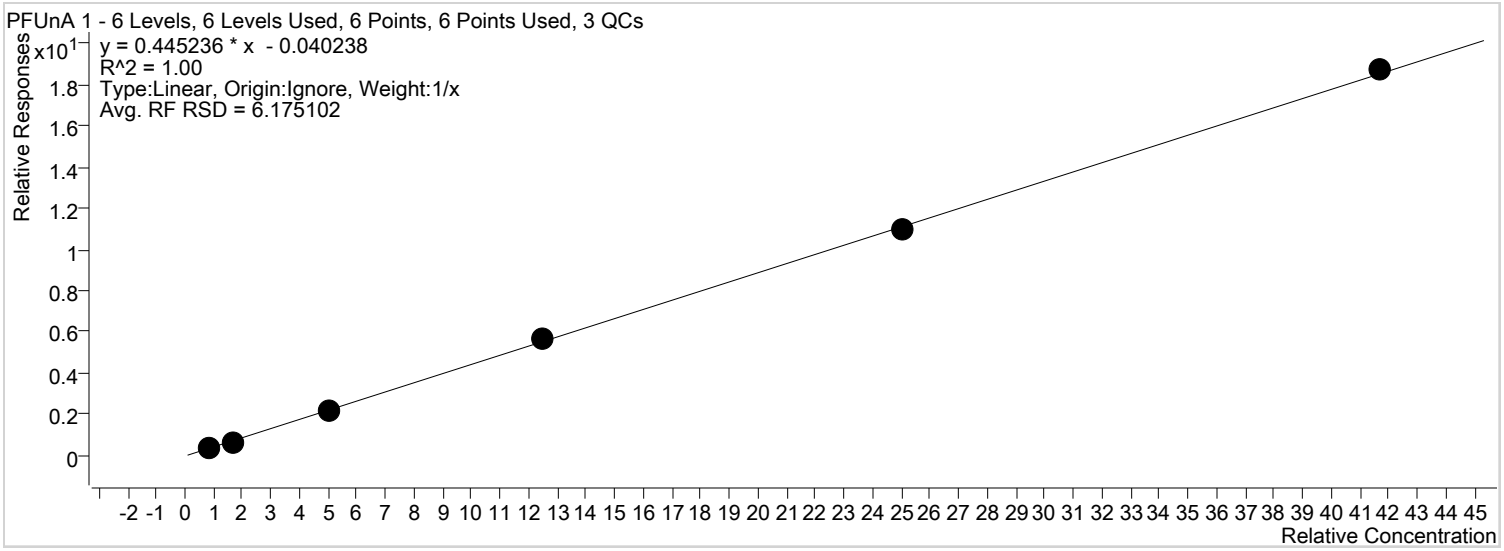
Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.94	2811	0.4849	37	113.1
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.49	4944	0.3928	54	87.5
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.96	17521	0.4697	232	99.2
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.43	43587	0.4771	534	99.5
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	25.13	83684	0.4844	1022	100.5
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	41.78	153798	0.4836	946	100.2

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
Last Calib Update 2018/02/21 10:53:42 AM
Instrument: LCMS04

Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.93	3172	0.4478	29	111.5
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.54	5409	0.3809	55	90.9
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.84	18843	0.4225	133	96.7
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.69	47185	0.4489	266	101.5
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	24.59	89716	0.4363	296	98.4
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	42.14	167796	0.4490	299	101.1

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
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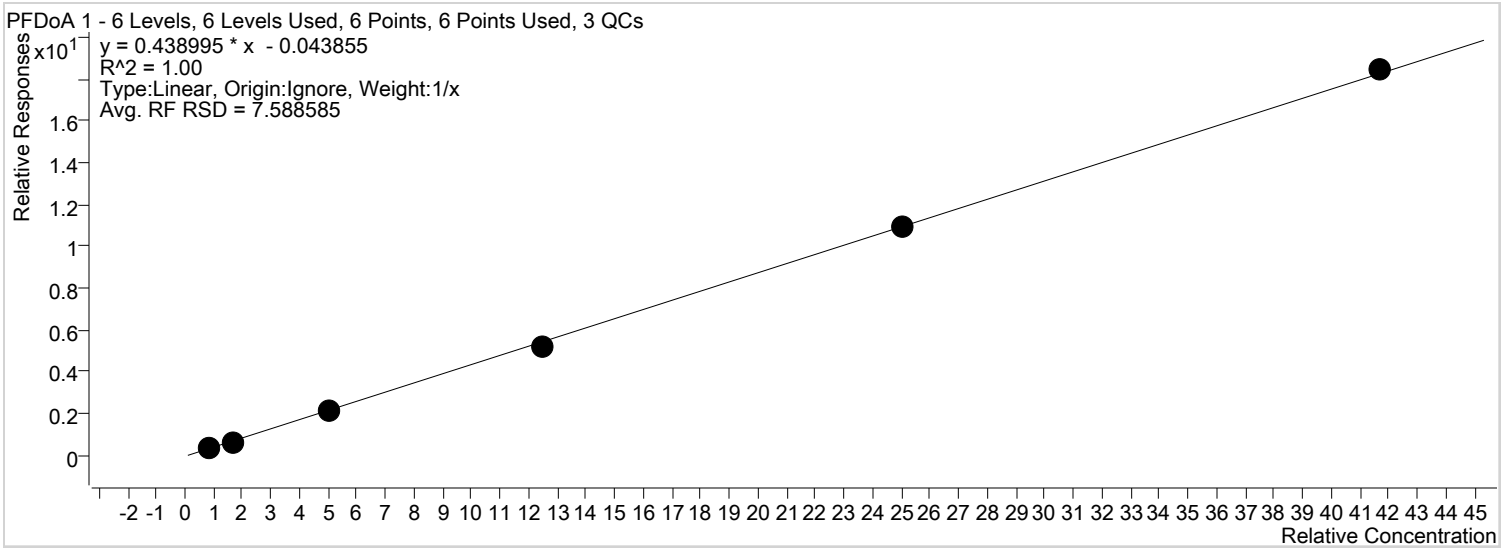
Instrument: LCMS04

Analyte: PFDoA 1
Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.95	4275	0.4501	205	114.6
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.50	6898	0.3618	197	88.3
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	4.96	24541	0.4264	652	99.1
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.05	60873	0.4195	2479	96.4
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	25.16	115272	0.4401	2957	100.7
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	42.11	213116	0.4423	4821	101.0

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
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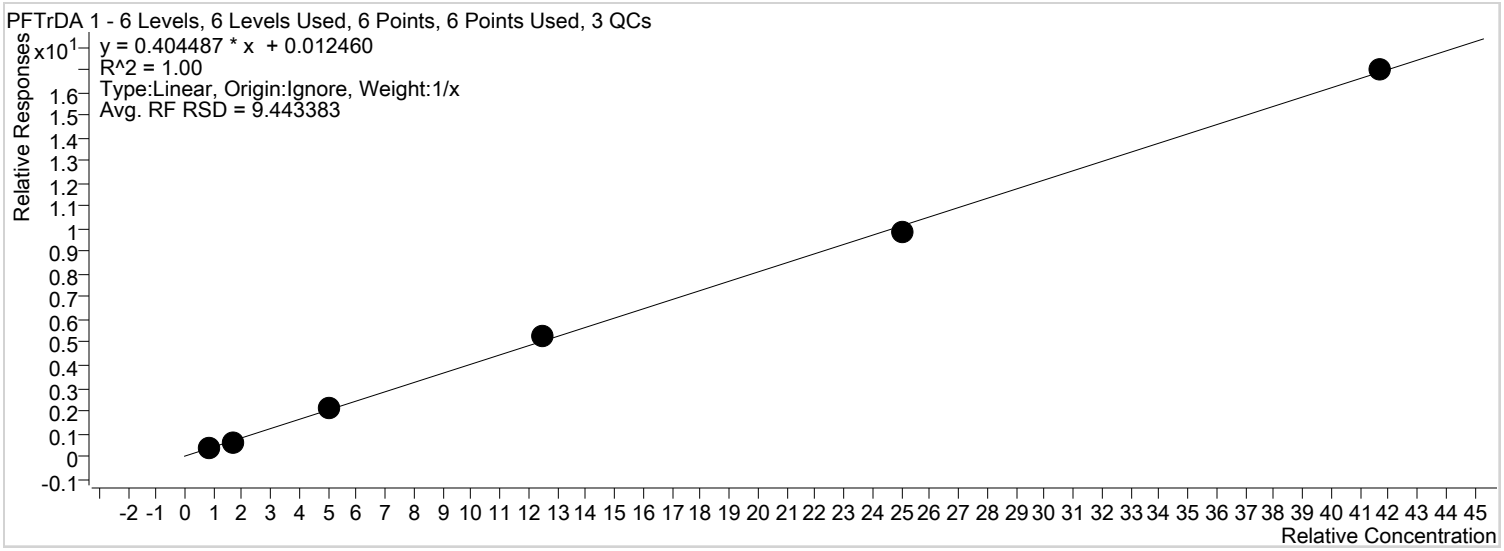
Instrument: LCMS04

Analyte: PFTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.93	5032	0.4661	40	111.5
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.43	7954	0.3478	56	84.2
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	5.13	27534	0.4178	100	102.7
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.98	66039	0.4209	127	103.8
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	24.30	126598	0.3937	162	97.2
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	41.96	234625	0.4073	143	100.6

Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics.batch.bin
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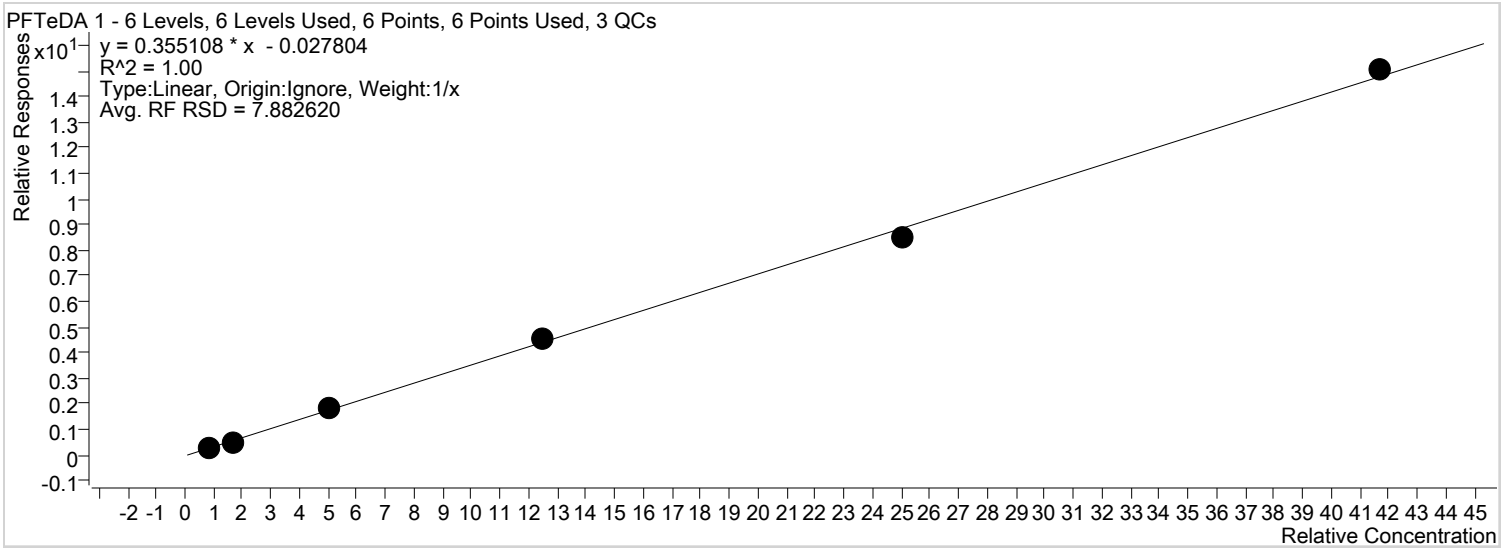
Instrument: LCMS04

Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:02:22 AM	0.83	0.91	3842	0.3559	15	109.6
STD 2	STD 2	x	2018/02/09 12:07:17 AM	1.70	1.48	6692	0.2926	27	87.0
STD 3	STD 3	x	2018/02/09 12:12:13 AM	5.00	5.18	23878	0.3623	86	103.6
STD 4	STD 4	x	2018/02/09 12:17:10 AM	12.50	12.78	56621	0.3609	129	102.2
STD 5	STD 5	x	2018/02/09 12:22:06 AM	25.00	23.92	108923	0.3387	121	95.7
STD 6	STD 6	x	2018/02/09 12:27:02 AM	41.70	42.46	207867	0.3609	144	101.8

By Compound Report

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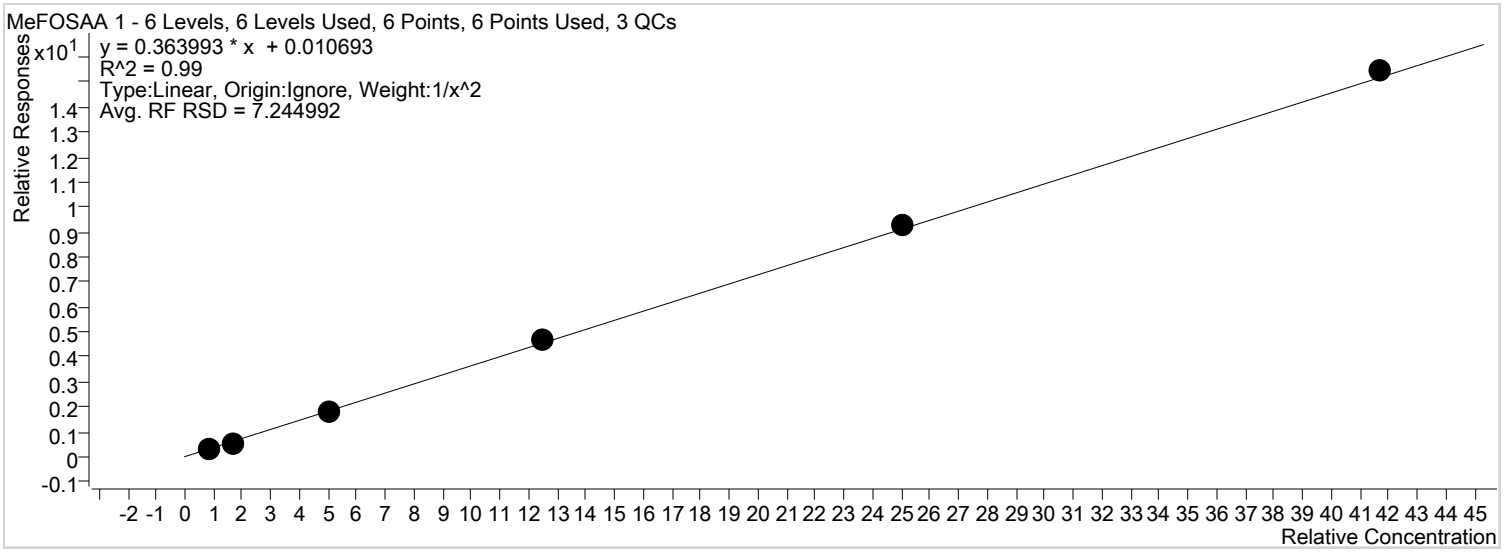
Batch Path T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 1:00:12 PM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 6:03:55 PM	0.83	0.88	646	0.4002	186	106.4
STD 2	STD 2	x	2018/02/08 6:06:20 PM	1.70	1.46	1054	0.3186	194	85.8
STD 3	STD 3	x	2018/02/08 6:08:45 PM	5.00	5.08	3499	0.3718	235	101.6
STD 4	STD 4	x	2018/02/08 6:11:11 PM	12.50	12.84	8486	0.3749	241	102.8
STD 5	STD 5	x	2018/02/08 6:13:35 PM	25.00	25.43	16326	0.3706	222	101.7
STD 6	STD 6	x	2018/02/08 6:16:01 PM	41.70	42.44	27826	0.3707	231	101.8

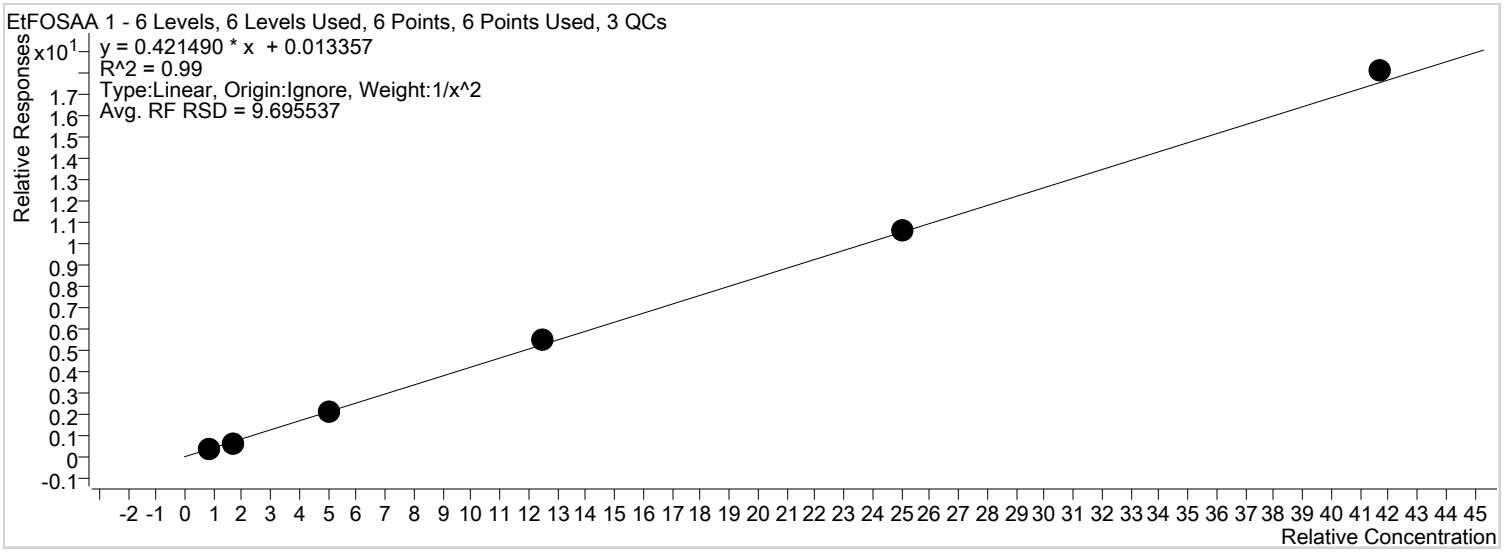
Batch Path T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 1:00:12 PM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/08 6:03:55 PM	0.83	0.90	675	0.4736	132	108.6
STD 2	STD 2	x	2018/02/08 6:06:20 PM	1.70	1.38	1039	0.3488	193	80.9
STD 3	STD 3	x	2018/02/08 6:08:45 PM	5.00	5.13	3674	0.4348	537	102.5
STD 4	STD 4	x	2018/02/08 6:11:11 PM	12.50	12.97	9022	0.4385	792	103.8
STD 5	STD 5	x	2018/02/08 6:13:35 PM	25.00	25.27	17565	0.4266	1076	101.1
STD 6	STD 6	x	2018/02/08 6:16:01 PM	41.70	43.02	30083	0.4351	2752	103.2

Quantitation Results

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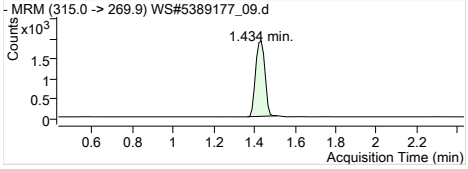
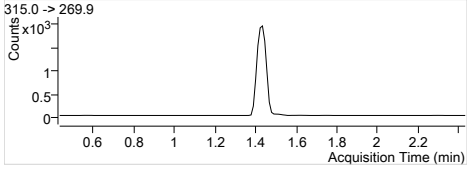
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5389177_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A9
Acq. Date	2018/02/09 12:36:53 AM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6052	1.43	1 µg/L		
MPFHxS	1539	1.68	1 µg/L		
MPFHpA	8410	1.69	1 µg/L		
MPFOA	8752	1.88	1 µg/L		
MPFOS	1961	1.98	1 µg/L		
MPFNA	8850	2.01	1 µg/L		
MPFDA	7780	2.14	1 µg/L		
MPFUnA	8382	2.23	1 µg/L		
MPFDoA	11205	2.32	1 µg/L		
MPFTeDA	13067	2.47	1 µg/L		
13C6-PFHxA IS	22492	1.43	1 µg/L		
13C9-PFDA IS	30514	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	15737	1.09	20.80	22.21 µg/L	106.80
PFHxA 1	52710	1.43	20.80	20.99 µg/L	100.94
PFHxS 1	14656	1.68	20.80	21.22 µg/L	102.01
PFHpA 1	70648	1.69	20.80	20.32 µg/L	97.69
PFOA 1	79777	1.88	20.80	21.42 µg/L	102.97
PFOS 1	14655	1.97	20.80	19.70 µg/L	94.71
PFNA 1	70308	2.01	20.80	20.99 µg/L	100.90
PFDA 1	75227	2.14	20.80	20.09 µg/L	96.59
PFUnA 1	85693	2.23	20.80	23.05 µg/L	110.83
PFDoA 1	102052	2.32	20.80	20.85 µg/L	100.22
PFTrDA 1	118592	2.40	20.80	22.41 µg/L	107.72
PFTeDA 1	98304	2.47	20.80	21.26 µg/L	102.23
13C2-PFHxA	6052	1.43	100.00	95.97 µg/L	95.97
18O2-PFHxS	1539	1.68	100.00	94.73 µg/L	94.73
13C4-PFHpA	8410	1.69	100.00	100.27 µg/L	100.27
13C4-PFOA	8752	1.88	100.00	97.52 µg/L	97.52
13C4-PFOS	1961	1.98	100.00	98.44 µg/L	98.44
13C5-PFNA	8851	2.01	100.00	97.83 µg/L	97.83
13C2-PFDA	7651	2.14	100.00	99.55 µg/L	99.55
13C2-PFUnA	8382	2.23	100.00	91.44 µg/L	91.44
13C2-PFDoA	11205	2.32	100.00	92.66 µg/L	92.66
13C2-PFTeDA	13458	2.47	100.00	92.99 µg/L	92.99
13C6-PFHxA	22492	1.43	100.00	105.06 µg/L	105.06
13C9-PFDA	30514	2.13	100.00	106.77 µg/L	106.77





MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	QC

Quantitation Results

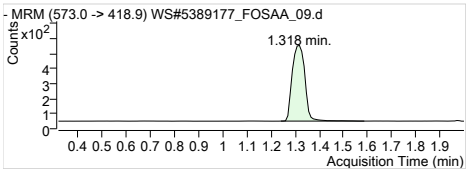
Agilent Technologies

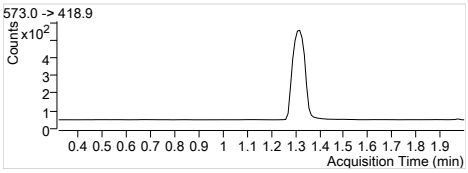
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A9
Acq. Date	2018/02/08 6:20:51 PM	**Injection Volume**	Per Method
Sample Annotation	-		

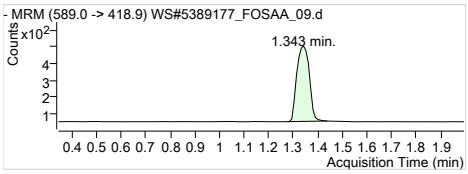
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1851	1.32	1 µg/L		
D5-EtFOSAA IS	1611	1.34	1 µg/L		
13C9-PFDA IS	21894	0.91	1 µg/L		

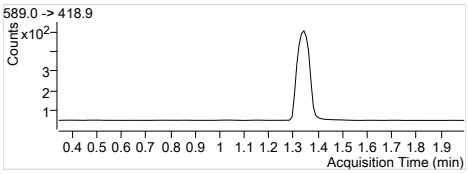
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13924	1.31	20.80	20.64 µg/L	99.22
EtFOSAA 1	15250	1.34	20.80	22.43 µg/L	107.82
D3-MeFOSAA	1829	1.32	100.00	100.28 µg/L	100.28
D5-EtFOSAA	1645	1.34	100.00	99.01 µg/L	99.01
13C9-PFDA	21067	0.91	100.00	97.29 µg/L	97.29



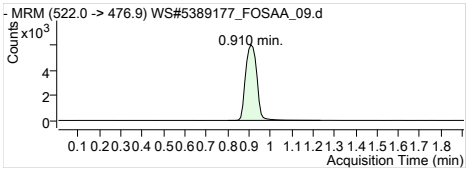


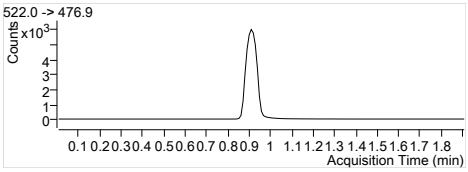
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: QC



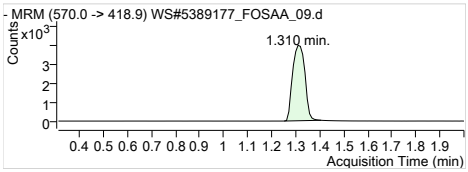


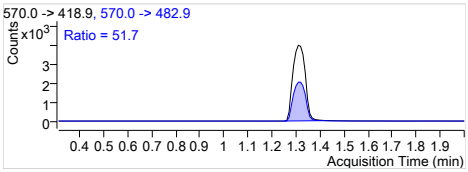
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: QC



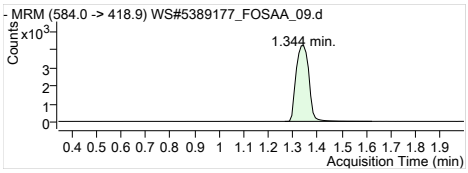


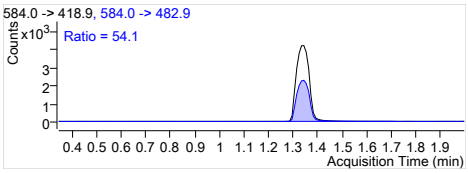
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: QC



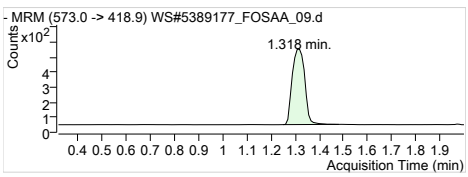


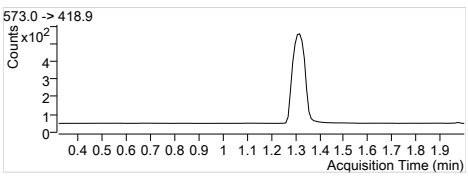
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 20.64 µg/L
Area ratio: 7.52242
Sample type: QC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 22.43 µg/L
Area ratio: 9.46617
Sample type: QC





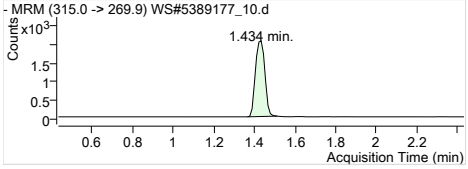
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 100.28 µg/L
Area ratio: 0.08354
Sample type: QC

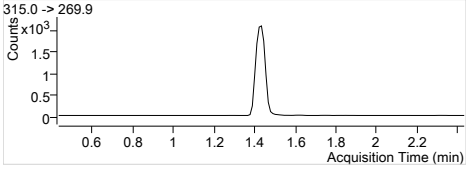
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5389177_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A2
Acq. Date	2018/02/09 12:41:49 AM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6608	1.43	1 µg/L		
MPFHxS	1651	1.68	1 µg/L		
MPFHpA	8514	1.69	1 µg/L		
MPFOA	9098	1.88	1 µg/L		
MPFOS	1988	1.98	1 µg/L		
MPFNA	8860	2.01	1 µg/L		
MPFDA	7645	2.14	1 µg/L		
MPFUnA	9022	2.23	1 µg/L		
MPFDoA	12079	2.32	1 µg/L		
MPFTeDA	13175	2.47	1 µg/L		
13C6-PFHxA IS	24034	1.43	1 µg/L		
13C9-PFDA IS	32777	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	667	1.09	0.83	0.87 µg/L	105.33
PFHxA 1	2126	1.42	0.83	0.89 µg/L	106.90
PFHxS 1	697	1.68	0.83	1.06 µg/L	128.12
PFHpA 1	3018	1.69	0.83	0.95 µg/L	114.29
PFOA 1	3316	1.88	0.83	0.86 µg/L	104.18
PFOS 1	629	1.97	0.83	0.96 µg/L	116.14
PFNA 1	2806	2.01	0.83	0.90 µg/L	109.02
PFDA 1	3425	2.14	0.83	1.03 µg/L	124.46
PFUnA 1	3775	2.23	0.83	1.03 µg/L	124.11
PFDoA 1	4282	2.32	0.83	0.91 µg/L	109.33
PFTrDA 1	5201	2.40	0.83	0.95 µg/L	113.87
PFTeDA 1	4548	2.47	0.83	1.05 µg/L	126.55
13C2-PFHxA	6608	1.43	100.00	98.07 µg/L	98.07
18O2-PFHxS	1651	1.68	100.00	95.10 µg/L	95.10
13C4-PFHpA	8514	1.69	100.00	94.99 µg/L	94.99
13C4-PFOA	9098	1.88	100.00	94.87 µg/L	94.87
13C4-PFOS	1988	1.98	100.00	93.39 µg/L	93.39
13C5-PFNA	8861	2.01	100.00	91.66 µg/L	91.66
13C2-PFDA	7557	2.14	100.00	91.53 µg/L	91.53
13C2-PFUnA	9022	2.23	100.00	91.63 µg/L	91.63
13C2-PFDoA	12079	2.32	100.00	92.99 µg/L	92.99
13C2-PFTeDA	13518	2.47	100.00	86.95 µg/L	86.95
13C6-PFHxA	24034	1.43	100.00	112.26 µg/L	112.26
13C9-PFDA	32777	2.13	100.00	114.69 µg/L	114.69





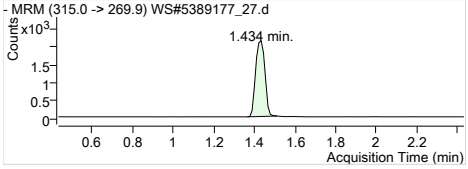
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	CC

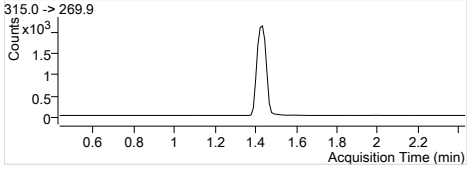
Batch Path T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5389177_27.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A5
Acq. Date	2018/02/09 2:05:41 AM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6691	1.43	1 µg/L		
MPFHxS	1496	1.68	1 µg/L		
MPFHpA	8064	1.69	1 µg/L		
MPFOA	8652	1.88	1 µg/L		
MPFOS	1882	1.98	1 µg/L		
MPFNA	8928	2.01	1 µg/L		
MPFDA	7464	2.14	1 µg/L		
MPFUnA	8542	2.23	1 µg/L		
MPFDoA	11193	2.32	1 µg/L		
MPFTeDA	12706	2.47	1 µg/L		
13C6-PFHxA IS	22921	1.43	1 µg/L		
13C9-PFDA IS	30245	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	9306	1.09	12.50	13.51 µg/L	108.10
PFHxA 1	33244	1.43	12.50	12.03 µg/L	96.21
PFHxS 1	8576	1.68	12.50	12.82 µg/L	102.59
PFHpA 1	42668	1.69	12.50	12.83 µg/L	102.67
PFOA 1	46397	1.88	12.50	12.60 µg/L	100.83
PFOS 1	9274	1.97	12.50	13.04 µg/L	104.29
PFNA 1	41896	2.01	12.50	12.43 µg/L	99.40
PFDA 1	43455	2.14	12.50	12.14 µg/L	97.11
PFUnA 1	51071	2.23	12.50	13.52 µg/L	108.15
PFDoA 1	61193	2.32	12.50	12.55 µg/L	100.43
PFTrDA 1	70770	2.40	12.50	13.74 µg/L	109.91
PFTeDA 1	60793	2.47	12.50	13.55 µg/L	108.42
13C2-PFHxA	6691	1.43	100.00	104.12 µg/L	104.12
18O2-PFHxS	1496	1.68	100.00	90.36 µg/L	90.36
13C4-PFHpA	8064	1.69	100.00	94.34 µg/L	94.34
13C4-PFOA	8652	1.88	100.00	94.60 µg/L	94.60
13C4-PFOS	1882	1.98	100.00	92.70 µg/L	92.70
13C5-PFNA	8929	2.01	100.00	96.84 µg/L	96.84
13C2-PFDA	7396	2.14	100.00	97.08 µg/L	97.08
13C2-PFUnA	8542	2.23	100.00	94.01 µg/L	94.01
13C2-PFDoA	11193	2.32	100.00	93.38 µg/L	93.38
13C2-PFTeDA	12997	2.47	100.00	90.60 µg/L	90.60
13C6-PFHxA	22921	1.43	100.00	107.06 µg/L	107.06
13C9-PFDA	30245	2.13	100.00	105.83 µg/L	105.83





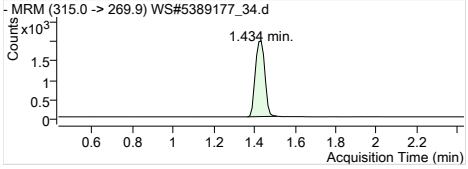
MPFHxA Internal Standard
RT (Exp. RT): 1.434 (1.434)
Concentration: 1 µg/L
Sample type: CC

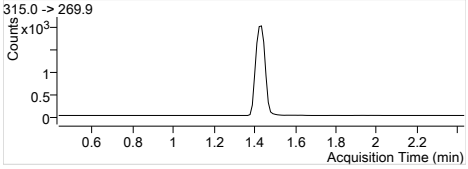
Batch Path	T:\lcms4\PFC\20180208\WS#5389177\QuantResults\PFC_Water_Low_180208_WS#5389177_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5389177_34.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-A5
Acq. Date	2018/02/09 2:40:13 AM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6392	1.43	1 µg/L		
MPFHxS	1641	1.68	1 µg/L		
MPFHpA	8167	1.69	1 µg/L		
MPFOA	9017	1.88	1 µg/L		
MPFOS	1964	1.98	1 µg/L		
MPFNA	8662	2.02	1 µg/L		
MPFDA	6972	2.14	1 µg/L		
MPFUnA	8506	2.23	1 µg/L		
MPFDoA	11795	2.32	1 µg/L		
MPFTeDA	13090	2.47	1 µg/L		
13C6-PFHxA IS	23371	1.43	1 µg/L		
13C9-PFDA IS	30394	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8590	1.09	12.50	11.37 µg/L	90.96
PFHxA 1	33063	1.43	12.50	12.52 µg/L	100.13
PFHxS 1	8736	1.68	12.50	11.92 µg/L	95.34
PFHpA 1	43035	1.69	12.50	12.78 µg/L	102.25
PFOA 1	47570	1.88	12.50	12.40 µg/L	99.20
PFOS 1	9087	1.97	12.50	12.25 µg/L	97.99
PFNA 1	41263	2.01	12.50	12.61 µg/L	100.90
PFDA 1	45094	2.14	12.50	13.47 µg/L	107.79
PFUnA 1	49938	2.23	12.50	13.28 µg/L	106.21
PFDoA 1	64421	2.32	12.50	12.54 µg/L	100.33
PFTrDA 1	70006	2.40	12.50	13.19 µg/L	105.53
PFTeDA 1	60170	2.47	12.50	13.02 µg/L	104.18
13C2-PFHxA	6392	1.43	100.00	97.55 µg/L	97.55
18O2-PFHxS	1641	1.68	100.00	97.20 µg/L	97.20
13C4-PFHpA	8167	1.69	100.00	93.71 µg/L	93.71
13C4-PFOA	9017	1.88	100.00	96.70 µg/L	96.70
13C4-PFOS	1964	1.98	100.00	94.88 µg/L	94.88
13C5-PFNA	8662	2.02	100.00	92.14 µg/L	92.14
13C2-PFDA	6891	2.14	100.00	90.01 µg/L	90.01
13C2-PFUnA	8506	2.23	100.00	93.16 µg/L	93.16
13C2-PFDoA	11795	2.32	100.00	97.92 µg/L	97.92
13C2-PFTeDA	13281	2.47	100.00	92.13 µg/L	92.13
13C6-PFHxA	23371	1.43	100.00	109.17 µg/L	109.17
13C9-PFDA	30394	2.13	100.00	106.35 µg/L	106.35





MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.434)
Concentration:	1 µg/L
Sample type:	CC

Quantitation Results

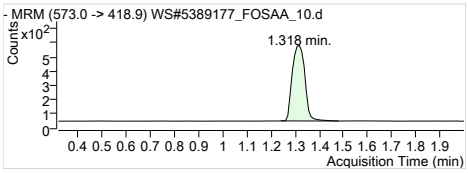
Agilent Technologies

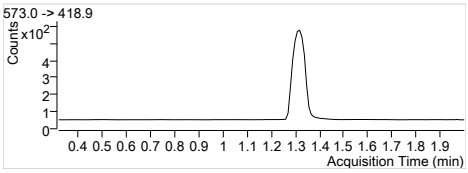
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A2
Acq. Date	2018/02/08 6:23:15 PM	**Injection Volume**	Per Method
Sample Annotation	-		

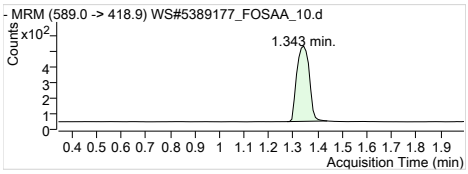
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1934	1.32	1 µg/L		
D5-EtFOSAA IS	1726	1.34	1 µg/L		
13C9-PFDA IS	24330	0.91	1 µg/L		

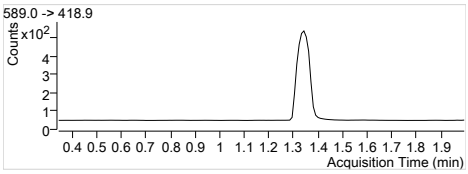
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	654	1.31	0.83	0.90 µg/L	108.39
EtFOSAA 1	657	1.34	0.83	0.87 µg/L	104.99
D3-MeFOSAA	1932	1.32	100.00	95.32 µg/L	95.32
D5-EtFOSAA	1750	1.34	100.00	94.78 µg/L	94.78
13C9-PFDA	23423	0.91	100.00	108.17 µg/L	108.17



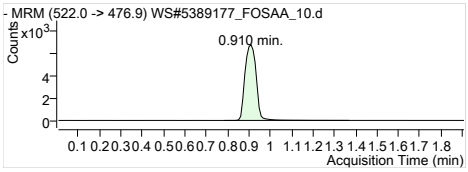


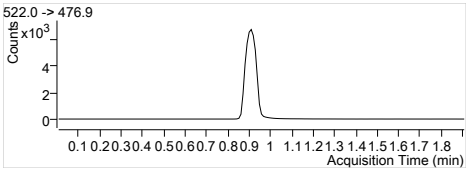
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



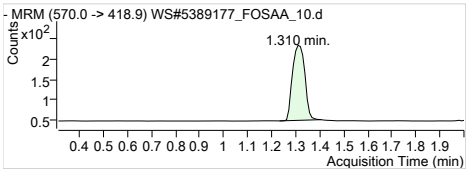


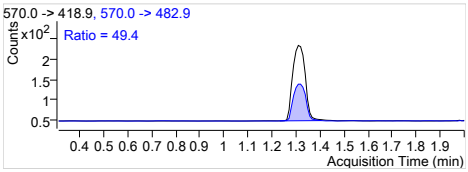
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



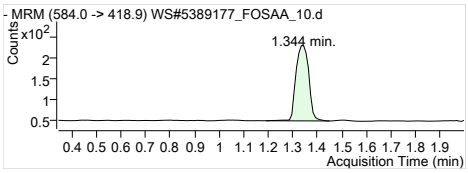


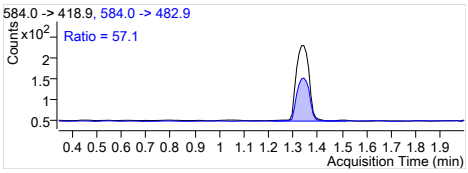
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: CC



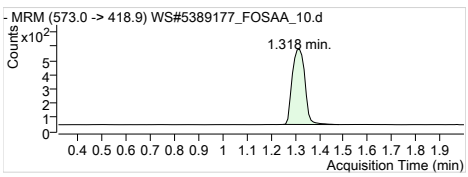


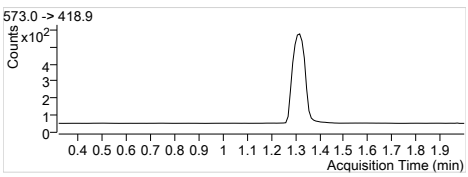
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.90 µg/L
Area ratio: 0.33816
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.344 (1.344)
Calc. conc. 0.87 µg/L
Area ratio: 0.38065
Sample type: CC





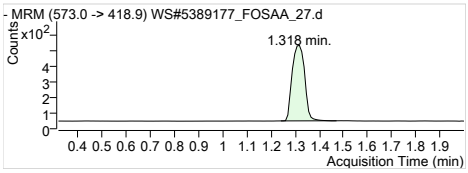
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 95.32 µg/L
Area ratio: 0.07941
Sample type: CC

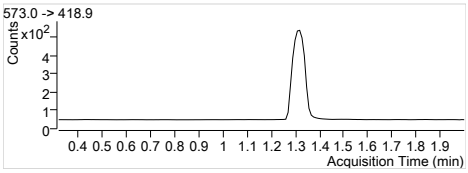
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_27.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A5
Acq. Date	2018/02/08 7:04:09 PM	**Injection Volume**	Per Method
Sample Annotation	-		

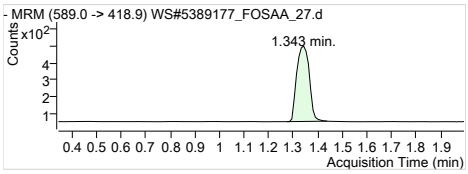
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1752	1.32	1 µg/L		
D5-EtFOSAA IS	1604	1.34	1 µg/L		
13C9-PFDA IS	22437	0.91	1 µg/L		

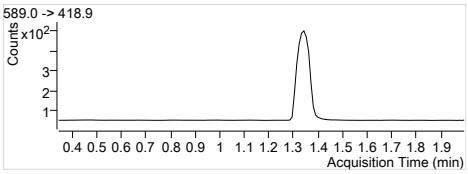
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8245	1.31	12.50	12.90 µg/L	103.20
EtFOSAA 1	8848	1.33	12.50	13.06 µg/L	104.45
D3-MeFOSAA	1754	1.32	100.00	93.84 µg/L	93.84
D5-EtFOSAA	1623	1.34	100.00	95.32 µg/L	95.32
13C9-PFDA	21696	0.91	100.00	100.20 µg/L	100.20



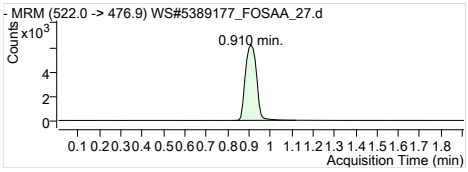


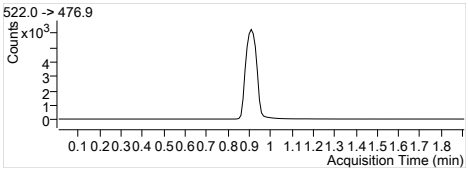
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



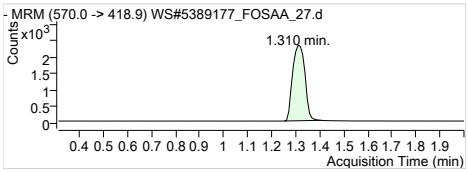


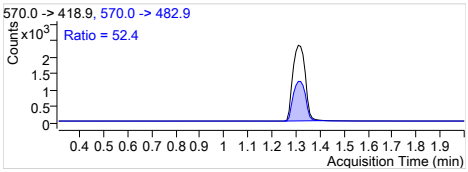
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



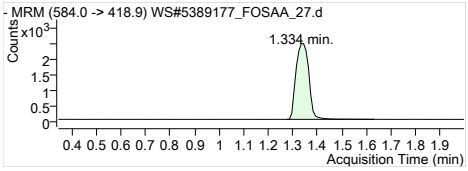


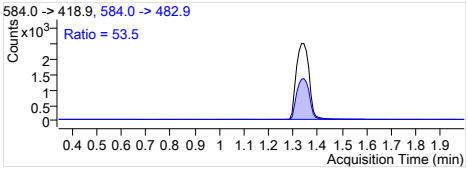
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: CC



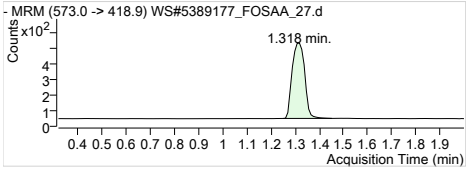


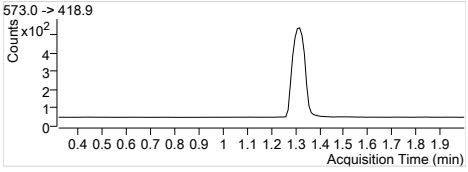
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 12.90 µg/L
Area ratio: 4.70605
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.344)
Calc. conc. 13.06 µg/L
Area ratio: 5.51621
Sample type: CC





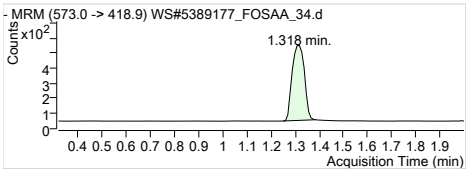
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 93.84 µg/L
Area ratio: 0.07817
Sample type: CC

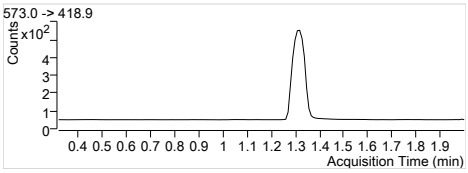
Batch Path	T:\lcms4\PFC\20180208\WS#5389177_FOSAA\QuantResults\PFC_Water_Low_180207_WS#5389177_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5389177_FOSAA_34.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P3-A5
Acq. Date	2018/02/08 7:21:00 PM	**Injection Volume**	Per Method
Sample Annotation	-		

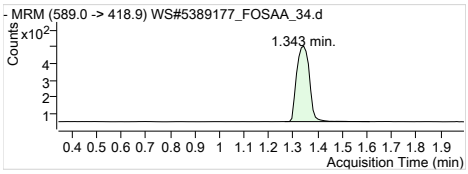
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1770	1.32	1 µg/L		
D5-EtFOSAA IS	1647	1.34	1 µg/L		
13C9-PFDA IS	22407	0.91	1 µg/L		

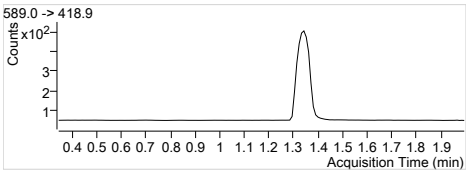
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8302	1.31	12.50	12.86 µg/L	102.85
EtFOSAA 1	8688	1.33	12.50	12.48 µg/L	99.87
D3-MeFOSAA	1815	1.32	100.00	97.23 µg/L	97.23
D5-EtFOSAA	1630	1.34	100.00	95.86 µg/L	95.86
13C9-PFDA	21686	0.91	100.00	100.15 µg/L	100.15



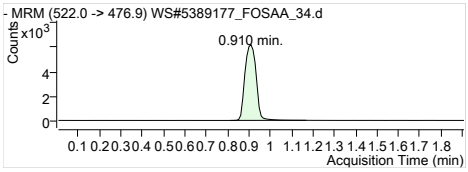


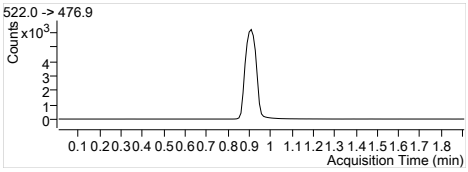
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.318 (1.318)
Concentration: 1 µg/L
Sample type: CC



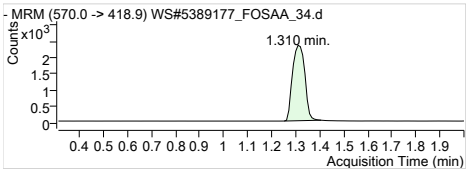


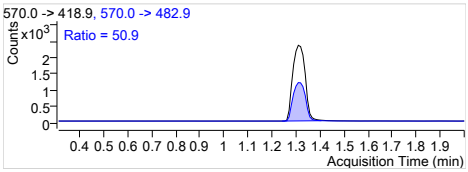
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.343 (1.343)
Concentration: 1 µg/L
Sample type: CC



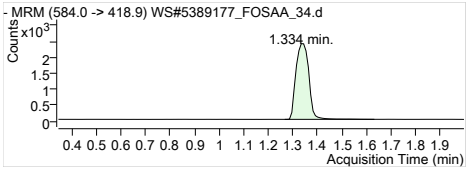


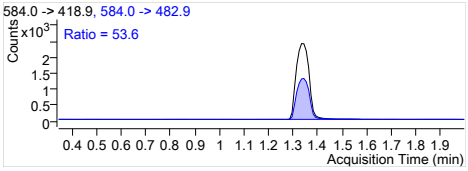
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.910 (0.910)
Concentration: 1 µg/L
Sample type: CC



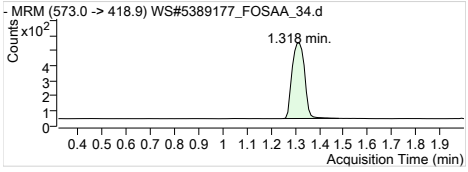


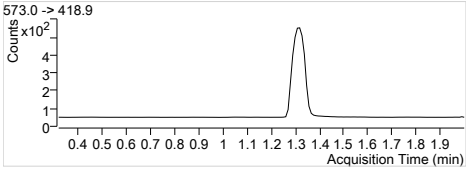
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 12.86 µg/L
Area ratio: 4.69040
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.344)
Calc. conc. 12.48 µg/L
Area ratio: 5.27505
Sample type: CC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.318 (1.318)
Calc. conc. 97.23 µg/L
Area ratio: 0.08100
Sample type: CC

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/09

Worksheet # (s): 5390075

Analysis: PFOSALCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria	✓			✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria			✓	✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed	✓			✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS	✓			✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration -- before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: MC Date: 2018/02/10

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a	
1	Repeats documented and referenced			✓	
2	Method and sample deviations noted, anomalies described (if applicable)			✓	
3	Data and QC validated in LIMS	✓			
4	Random calculation checked	✓			
5	Benchsheet (s) signed and dated	✓			
6	Data Package (if required) checked for completeness	✓			

Reviewed by: AD Date: 2018/02/13

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5390275 | Testcode: PFOS 4LCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: DM3 | Date: 2018/02/08

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: | Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: | Date:

Comments:

WS# : 5390275

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Thursday, February 08, 2018

Assigned to : Daniella McLean

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

centrifuged prior to aliquoting

	Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol	Final Vol (mL)	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	conc (ng/mL)
5,3		SPIKE	0	PFOS		0	125	3	1X					2018/02/08	26
5,4		SPIKE	1	PFOS		0	125	3	1X					2018/02/08	35
5,1		BLANK				0	125	3	1X					2018/02/08	25
5,6	B819794	*FZH306-01R		CEF-002-06S-0118	*	<0.1	115/12.5	3	1X/10X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	29/28
5,8	B819794	*FZH307-01R		EB-CEF-007-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	31
5,10	B819794	*FZH308-01R		EB-CEF-007-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	28
5,12	B819794	*FZH309-01R		EB-CEF-007-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	29
5,14	B819794	*FZH310-01R		FB-CEF-007-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	26
5,16	B819794	*FZH311-01R		CEF-013-12S-0118-*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	29
5,18	B819794	*FZH312-01R		CEF-013-12S-0118		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	25
5,20	B819794	*FZH313-01R		FB-CEF-013-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	28
5,22	B819794	*FZH314-01R		FB-CEF-860-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	28
5,24	B819794	*FZH315-01R		EB-CEF-860-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	32
6,1	B819794	*FZH316-01R		EB-CEF-860-01125*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	30
6,3	B819794	*FZH317-01R		EB-CEF-860-01251*		0	125	3	1X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	29
6,5	B821961	*FZT419-01R		[redacted]		0	120/12.5	3	1X/10X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	27/27
6,7	B821961	*FZT420-01R		[redacted]	*	<0.1	115	3	1X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	25
6,9	B821961	*FZT421-01R		[redacted]	*	<0.1	125	3	1X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	35
6,11	B821961	*FZT422-01R		[redacted]	*	<0.1	125	3	1X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	28
6,14	B821961	*FZT423-01R		[redacted]	*	<0.1	110	3	1X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	29
6,16	B821961	*FZT424-01R		[redacted]		0	125	3	1X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	29
6,18	B821961	*FZT425-01R		[redacted]		0	110	3	1X	2	2018/02/08	2018/02/12 23:00	DOD	2018/02/08	30

2018/02/08 DM3

Remarks: Spike + spike dup were analyzed due to lack of bottles available per sample.

Samples extracted by: Daniella McLean DM3 2018/02/08

Instrumentation performed by: [signature] Date: 2018/02/09

Calculations performed by: [signature] Date: 2018/02/12

Validated by: AD Date: 2018/02/13

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.)	AECOM

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

GB821961 [redacted] 2018/02/08 DM3

Job	Sample	Lab Comments
	SPIKE	
	SPIKE	
	BLANK	
B819794	FZH306-01R	
B819794	FZH307-01R	
B819794	FZH308-01R	
B819794	FZH309-01R	
B819794	FZH310-01R	
B819794	FZH311-01R	
B819794	FZH312-01R	
B819794	FZH313-01R	
B819794	FZH314-01R	
B819794	FZH315-01R	
B819794	FZH316-01R	
B819794	FZH317-01R	
B821961	FZT419-01R	
B821961	FZT420-01R	
B821961	FZT421-01R	
B821961	FZT422-01R	
B821961	FZT423-01R	
B821961	FZT424-01R	
B821961	FZT425-01R	

S1 25
S2 50 } SH-7377
S3 150

S4 37.5
S5 75 } I-5297
S6 125

ICV 62.5 - I-5299

IB 2850µL MeOH + 150µL IS

LQ 2018/02/08

Folder: 2018/02/09

Worksheet Reagent Tracking Record Worksheet # 5390275

Volume (µL)

Surrogate/Spike solutions	√	Solution ID #	Conc.	Blk-Spk Solid	Blk-Spk Liquid	MS Solid	MS Liquid	Samples Solid	Samples Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299 (1/3) SAD	1ug/mL	75	21 62.5	75	21 62.5	NA	NA
PFC Internal Standard Solution	✓	SI-6763 (3/4) SAD	50/125 ng/mL	200	100 150	200	100 150	200	100 150
PFC Injection IS	✓	SI-6770 (1/2) LS	400 ng/mL	20	20	20	20	20	20
ICV	✓	I-5299 (1/3)	1ug/mL		62.5				

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHB37527	2018/02/08	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRLRE-108-341		DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRLRE-108-342		0.2% NH_4OH	✓	PRLRE-108-346	
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/02/08
0.05M HCl							

*Spiked by: DM3
Spike Date: 2018/02/08
Spike Syringe/Pipette ID#: G24390G
Int. Std Syringe/Pipette ID#: M41011F
*Spiking Witnessed by: SAD
Final pH:

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor K55191G	✓	SPE Cartridge	00347247A	✓	QC Balance ID	
K39732F	✓	Filter			Thermometer ID &Temp	
Dispenser		Centrifuge	42148683	✓		
		Sonicator				

Bottle Tracking
Bottle# 18801
Cap# 18778
Systems plus Lot# 18-01-31

Comments: envi CARB lot # 92806V
250 mL cylinder # 3026

* - SPIKING OF QC's & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet Number: **5390275**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	SPIKE	SPIKE Dup1	BLANK	DL	B819794 FZH306	DL
6:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
8:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
N-ethylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
EtFOSAA	ug/L	98.73704	99.31378	0	0.02	0	0.022
N-ethylperfluorooctane sulfonamidoe	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
N-methylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
MeFOSAA	ug/L	99.94997	95.35731	0	0.02	0	0.022
N-methylperfluorooctanesulfonamidol	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
Perfluorobutanoic acid	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
Perfluorobutane Sulfonate (PFBS)	ug/L	98.71117	99.84753	0	0.02	0.01357358	0.022
Perfluorodecane Sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
Perfluoroheptanoic Acid (PFHpA)	ug/L	95.13685	89.95128	0	0.02	0.02015355	0.022
Perfluoroheptane sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
Perfluorohexanoic Acid (PFHxA)	ug/L	96.82719	91.38624	0	0.02	0.16301726	0.022
Perfluorohexane Sulfonate (PFHxS)	ug/L	91.36893	92.42372	0	0.02	0.64080552	0.022
Perfluorononanoic Acid (PFNA)	ug/L	99.07054	93.45820	0	0.02	0	0.022
Perfluorooctane Sulfonamide (PFOSA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
Perfluoropentanoic Acid (PFPeA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.022
Perfluorotetradecanoic Acid	ug/L	96.67494	102.15326	0	0.02	0	0.022
Perfluorotridecanoic Acid	ug/L	100.06429	99.81234	0	0.02	0	0.022
Perfluoroundecanoic Acid (PFUnA)	ug/L	107.58542	110.34205	0	0.02	0	0.022
Perfluorodecanoic Acid (PFDA)	ug/L	93.73946	88.53687	0	0.02	0	0.022
Perfluorododecanoic Acid (PFDoA)	ug/L	91.67334	94.14593	0	0.02	0	0.022
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	96.91656	100.37079	0	0.02	1.09614430	0.2
Perfluorooctane Sulfonate (PFOS)	ug/L	92.78330	98.89724	0	0.02	0.11318006	0.022
13C2-6:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-8:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-perfluorotetradecanoic acid	ug/L	100.961424	86.1290054	82.6856916		80.6911563	
13C4-Perfluorobutanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
D3-MeFOSAA	ug/L	90.5262279	86.5754492	80.7450641		89.6046952	
D5-EtFOSAA	ug/L	97.7875566	85.7484354	78.5457727		88.3538321	
N-methyl-d3-perfluorooctane sulfona	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-Perfluorodecanoic acid	ug/L	112.120079	101.665566	94.7114312		98.8181289	
13C2-Perfluorododecanoic acid	ug/L	109.599957	93.4889055	87.3455978		87.4807351	
13C2-Perfluorohexanoic acid	ug/L	114.602431	104.803279	95.6065762		100.937394	
13C2-Perfluoroundecanoic acid	ug/L	104.550078	90.3995058	84.6522273		93.0658351	
13C4-Perfluoroheptanoic acid	ug/L	115.926395	104.449446	96.0316232		106.865082	
13C5-Perfluorononanoic acid	ug/L	113.395072	103.848013	99.6858785		105.506174	
13C4-Perfluorooctanoic acid	ug/L	114.477035	97.5740708	91.1349364		97.6113475	
13C4-Perfluorooctanesulfonate	ug/L	110.603717	90.3930272	90.5278272		95.8385808	
13C5-Perfluoropentanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C8-Perfluorooctane Sulfonamide	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
18O2-Perfluorohexanesulfonate	ug/L	114.418335	98.8027438	94.3743446		98.8281409	

Worksheet Number: **5390275**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B819794 FZH307	B819794 FZH308	B819794 FZH309	B819794 FZH310	B819794 FZH311	B819794 FZH312	B819794 FZH313
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
EtFOSAA	0	0	0	0	0	0	0
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
MeFOSAA	0	0	0	0	0	0	0
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	0	0	0	0	0.03091633	0.02861117	0
Perfluorodecane Sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	0	0	0	0	0.01428181	0.01411075	0
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	0	0	0	0	0.06534061	0.05476750	0
Perfluorohexane Sulfonate (PFHxS)	0	0	0	0	0.29583622	0.24908969	0
Perfluorononanoic Acid (PFNA)	0	0	0	0	0	0	0
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorotetradecanoic Acid	0	0	0	0	0	0	0
Perfluorotridecanoic Acid	0	0	0	0	0	0	0
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0	0	0	0
Perfluorodecanoic Acid (PFDA)	0	0	0	0	0	0	0
Perfluorododecanoic Acid (PFDoA)	0	0	0	0	0	0	0
Perfluoro-n-Octanoic Acid (PFOA)	0	0	0	0	0.07670963	0.07203558	0
Perfluorooctane Sulfonate (PFOS)	0	0	0	0	0	0	0
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	88.0680000	86.8608573	87.8905475	80.2040040	59.0255218	60.1080556	89.1723513
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
D3-MeFOSAA	77.8589063	85.2540841	89.9948050	75.3728576	81.8120912	81.3136404	85.5567451
D5-EtFOSAA	82.7199877	82.8709282	90.2189944	74.7361183	77.0654875	80.0720739	84.1656061
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	97.1254937	98.0335657	96.7975758	86.3813110	94.0630577	88.4513128	97.8507278
13C2-Perfluorododecanoic acid	83.4585883	88.2851841	87.0291522	81.1838849	82.9666300	78.3342783	91.8266736
13C2-Perfluorohexanoic acid	98.9676811	100.677600	101.236272	95.1771456	84.7393485	100.179614	108.419969
13C2-Perfluoroundecanoic acid	90.9778388	89.3646980	91.9394437	86.9135767	86.3275143	82.7734182	93.1827909
13C4-Perfluoroheptanoic acid	95.3241259	102.536042	101.389379	93.7037731	94.4569724	100.878913	106.932048
13C5-Perfluorononanoic acid	99.3476708	102.154490	99.9785099	92.4394284	95.2594350	99.6626902	99.8473345
13C4-Perfluorooctanoic acid	97.6243949	98.2225352	100.741919	92.5064257	91.5326895	95.2639531	99.5033583
13C4-Perfluorooctanesulfonate	87.5900801	88.3640832	93.5916978	92.4205221	93.2316865	97.2111351	97.3939925
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	91.1006299	94.1380657	102.925923	90.9678119	88.7183475	109.153130	104.470782

Worksheet Number: **5390275**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B819794 FZH314	B819794 FZH315	B819794 FZH316	B819794 FZH317	DL	B821961 FZT419	DL
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
EtFOSAA	0	0	0	0	0.02	0	0.021
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
MeFOSAA	0	0	0	0	0.02	0	0.021
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
Perfluorobutane Sulfonate (PFBS)	0	0	0	0	0.02	0.01637505	0.021
Perfluorodecane Sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
Perfluoroheptanoic Acid (PFHpA)	0	0	0	0	0.02	0.01515964	0.021
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
Perfluorohexanoic Acid (PFHxA)	0	0	0	0	0.02	0.03886198	0.021
Perfluorohexane Sulfonate (PFHxS)	0	0	0	0	0.02	0.46502754	0.021
Perfluorononanoic Acid (PFNA)	0	0	0	0	0.02	0	0.021
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.021
Perfluorotetradecanoic Acid	0	0	0	0	0.02	0	0.021
Perfluorotridecanoic Acid	0	0	0	0	0.02	0	0.021
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0	0.02	0	0.021
Perfluorodecanoic Acid (PFDA)	0	0	0	0	0.02	0	0.021
Perfluorododecanoic Acid (PFDoA)	0	0	0	0	0.02	0	0.021
Perfluoro-n-Octanoic Acid (PFOA)	0	0	0	0	0.02	0.06906087	0.021
Perfluorooctane Sulfonate (PFOS)	0	0	0	0	0.02	0.14107697	0.021
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-perfluorotetradecanoic acid	78.7571411	72.3625690	87.8858723	77.6140902		79.3502833	
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
D3-MeFOSAA	80.0333858	79.6860818	83.2091605	82.7687800		87.3329729	
D5-EtFOSAA	77.8998452	79.1490116	81.4519800	79.4368201		87.4078359	
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-Perfluorodecanoic acid	95.3056650	95.1759882	93.5115361	88.9018089		102.919802	
13C2-Perfluorododecanoic acid	85.0529923	79.9925542	84.5824690	84.1392722		74.2118853	
13C2-Perfluorohexanoic acid	91.5104518	91.0355458	96.9239060	92.4985039		93.8165650	
13C2-Perfluoroundecanoic acid	80.0332319	75.1899144	86.1605817	88.6140805		82.3182802	
13C4-Perfluoroheptanoic acid	96.5572929	90.8104079	98.1240645	91.0772973		95.7105483	
13C5-Perfluorononanoic acid	95.4886893	88.0432392	96.5384998	88.5559449		94.8219681	
13C4-Perfluorooctanoic acid	92.1239120	88.8106051	98.1530635	90.5342635		100.511857	
13C4-Perfluorooctanesulfonate	88.4346366	84.6019347	90.6930047	77.4138830		82.4259096	
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
18O2-Perfluorohexanesulfonate	93.9384731	99.3572278	94.9838535	100.835294		100.234394	

Worksheet Number: **5390275**

PFOS and PFOA in water by SPE/LCMS - Water

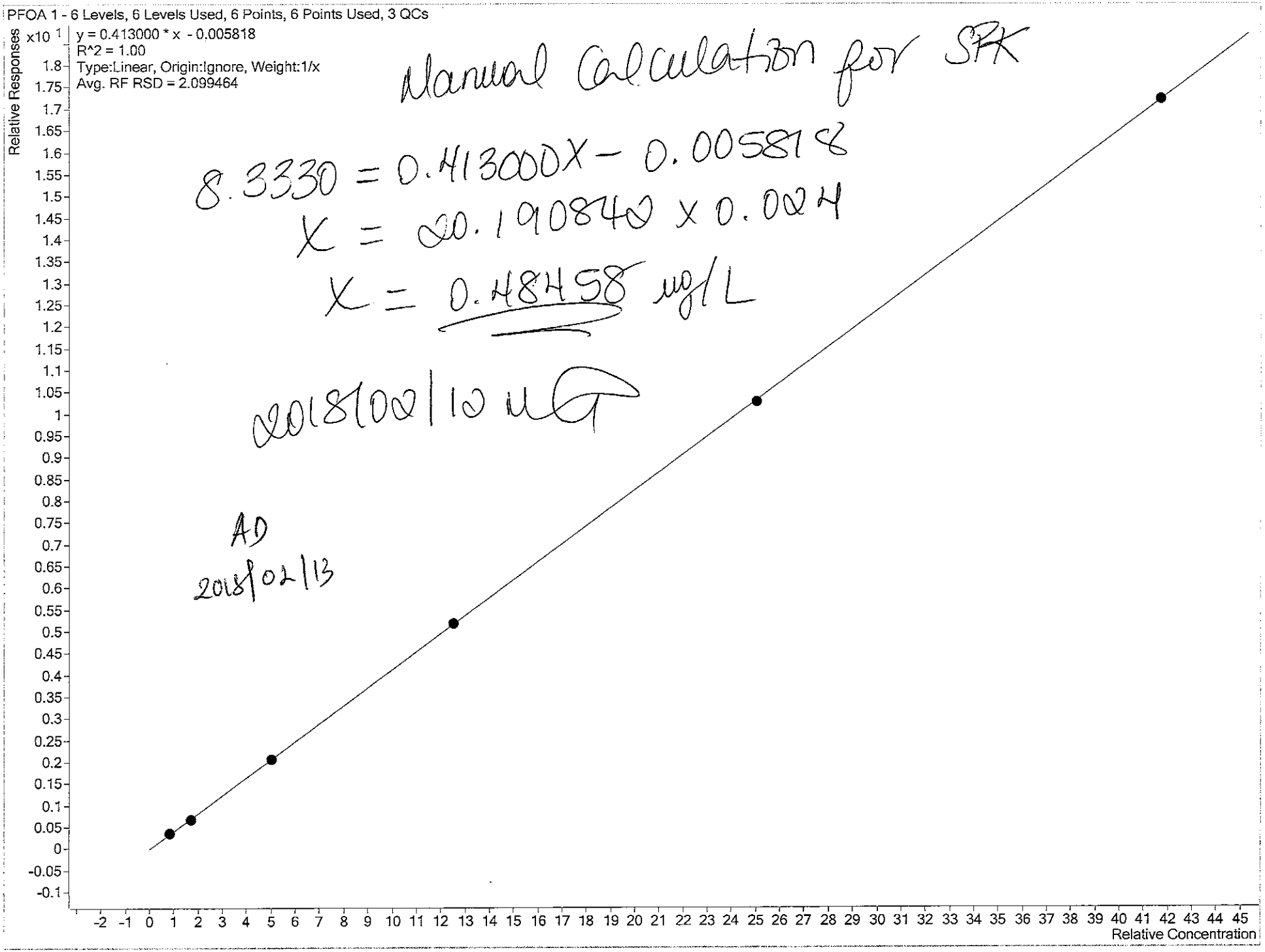
ug/L

Parameter Name	B821961 FZT420	B821961 FZT421	B821961 FZT422	DL	B821961 FZT423	DL	B821961 FZT424
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
EtFOSAA	0	0	0	0.02	0	0.023	0
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
MeFOSAA	0	0	0	0.02	0	0.023	0
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
Perfluorobutane Sulfonate (PFBS)	0	0.01838361	0.01171140	0.02	0	0.023	0
Perfluorodecane Sulfonate	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
Perfluoroheptanoic Acid (PFHpA)	0	0	0	0.02	0	0.023	0
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
Perfluorohexanoic Acid (PFHxA)	0	0.00744255	0	0.02	0.02421384	0.023	0
Perfluorohexane Sulfonate (PFHxS)	0.04631918	0.03075768	0	0.02	0.31160970	0.023	0
Perfluorononanoic Acid (PFNA)	0	0	0	0.02	0	0.023	0
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023	N/A*******
Perfluorotetradecanoic Acid	0	0	0	0.02	0	0.023	0
Perfluorotridecanoic Acid	0	0	0	0.02	0	0.023	0
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0.02	0	0.023	0
Perfluorodecanoic Acid (PFDA)	0	0	0	0.02	0	0.023	0
Perfluorododecanoic Acid (PFDoA)	0	0	0	0.02	0	0.023	0
Perfluoro-n-Octanoic Acid (PFOA)	0.00852015	0.00573303	0.00983033	0.02	0.01080789	0.023	0
Perfluorooctane Sulfonate (PFOS)	0.01088635	0.10852173	0.01926183	0.02	0.31025114	0.023	0
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
13C2-perfluorotetradecanoic acid	87.1318776	70.2788267	76.7996558		71.6972452		83.2556952
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
D3-MeFOSAA	89.9449742	100.656693	94.8155504		91.4706144		85.1678129
D5-EtFOSAA	89.9125032	95.6879850	92.9903949		88.1445306		83.2725982
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
13C2-Perfluorodecanoic acid	94.4935643	107.508859	93.9890425		96.4099639		103.632135
13C2-Perfluorododecanoic acid	87.8506711	86.3701723	87.7841053		86.6857719		87.2522678
13C2-Perfluorohexanoic acid	92.0600584	109.388101	94.0495412		97.0669334		98.5813930
13C2-Perfluoroundecanoic acid	86.2512627	100.084052	85.5319788		84.6068275		98.5789910
13C4-Perfluoroheptanoic acid	93.4975655	106.745638	93.6602120		95.9393122		97.6345691
13C5-Perfluorononanoic acid	89.3677775	105.131647	96.4810608		98.5513872		107.064702
13C4-Perfluorooctanoic acid	88.3623509	106.426906	91.5293614		89.8237945		96.9993103
13C4-Perfluorooctanesulfonate	90.8681164	101.342869	83.8587624		84.6100157		91.1974207
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
18O2-Perfluorohexanesulfonate	99.0525028	110.638603	89.6618555		99.3867513		98.9286610

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	DL	B821961 FZT425	DL	RDL	MDL	IDL	
6:2 Fluorotelomer sulfonate	0.02	N/A*******	0.023	0.02	0.0066	0	
8:2 Fluorotelomer sulfonate	0.02	N/A*******	0.023	0.02	0.0066	0	
N-ethylperfluorooctane sulfonamide	0.02	N/A*******	0.023	0.02	0.01	0	
EtFOSAA	0.02	0	0.023	0.02	0.0033	0	
N-ethylperfluorooctane sulfonamidoe	0.02	N/A*******	0.023	0.02	0.0079	0	
N-methylperfluorooctane sulfonamide	0.02	N/A*******	0.023	0.02	0.013	0	
MeFOSAA	0.02	0	0.023	0.02	0.0029	0	
N-methylperfluorooctanesulfonamidol	0.02	N/A*******	0.023	0.02	0.012	0	
Perfluorobutanoic acid	0.02	N/A*******	0.023	0.02	0.0055	0	
Perfluorobutane Sulfonate (PFBS)	0.02	0	0.023	0.02	0.0054	0	
Perfluorodecane Sulfonate	0.02	N/A*******	0.023	0.02	0.006	0	
Perfluoroheptanoic Acid (PFHpA)	0.02	0	0.023	0.02	0.0074	0	
Perfluoroheptane sulfonate	0.02	N/A*******	0.023	0.02	0.008	0	
Perfluorohexanoic Acid (PFHxA)	0.02	0	0.023	0.02	0.0035	0	
Perfluorohexane Sulfonate (PFHxS)	0.02	0	0.023	0.02	0.0056	0	
Perfluorononanoic Acid (PFNA)	0.02	0	0.023	0.02	0.0087	0	
Perfluorooctane Sulfonamide (PFOSA)	0.02	N/A*******	0.023	0.02	0.0034	0	
Perfluoropentanoic Acid (PFPeA)	0.02	N/A*******	0.023	0.02	0.0075	0	
Perfluorotetradecanoic Acid	0.02	0	0.023	0.02	0.0027	0	
Perfluorotridecanoic Acid	0.02	0	0.023	0.02	0.0038	0	
Perfluoroundecanoic Acid (PFUnA)	0.02	0	0.023	0.02	0.0025	0	
Perfluorodecanoic Acid (PFDA)	0.02	0	0.023	0.02	0.0061	0	
Perfluorododecanoic Acid (PFDoA)	0.02	0	0.023	0.02	0.005	0	
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0	0.023	0.02	0.0033	0	
Perfluorooctane Sulfonate (PFOS)	0.02	0	0.023	0.02	0.006	0	
13C2-6:2 Fluorotelomer sulfonate		N/A*******					
13C2-8:2 Fluorotelomer sulfonate		N/A*******					
13C2-perfluorotetradecanoic acid		74.5209169					
13C4-Perfluorobutanoic acid		N/A*******					
D3-MeFOSAA		76.9862401					
D5-EtFOSAA		79.2626771					
N-methyl-d3-perfluorooctane sulfona		N/A*******					
N-ethyl-d5-perfluorooctane sulfonam		N/A*******					
13C2-Perfluorodecanoic acid		95.2873130					
13C2-Perfluorododecanoic acid		85.5610968					
13C2-Perfluorohexanoic acid		95.6475003					
13C2-Perfluoroundecanoic acid		82.7670369					
13C4-Perfluoroheptanoic acid		96.0336964					
13C5-Perfluorononanoic acid		90.8217031					
13C4-Perfluorooctanoic acid		92.1028542					
13C4-Perfluorooctanesulfonate		83.4431857					
13C5-Perfluoropentanoic acid		N/A*******					
13C8-Perfluorooctane Sulfonamide		N/A*******					
18O2-Perfluorohexanesulfonate		103.207324					



Manual calculation for SPK

$8.3330 = 0.413000X - 0.005818$

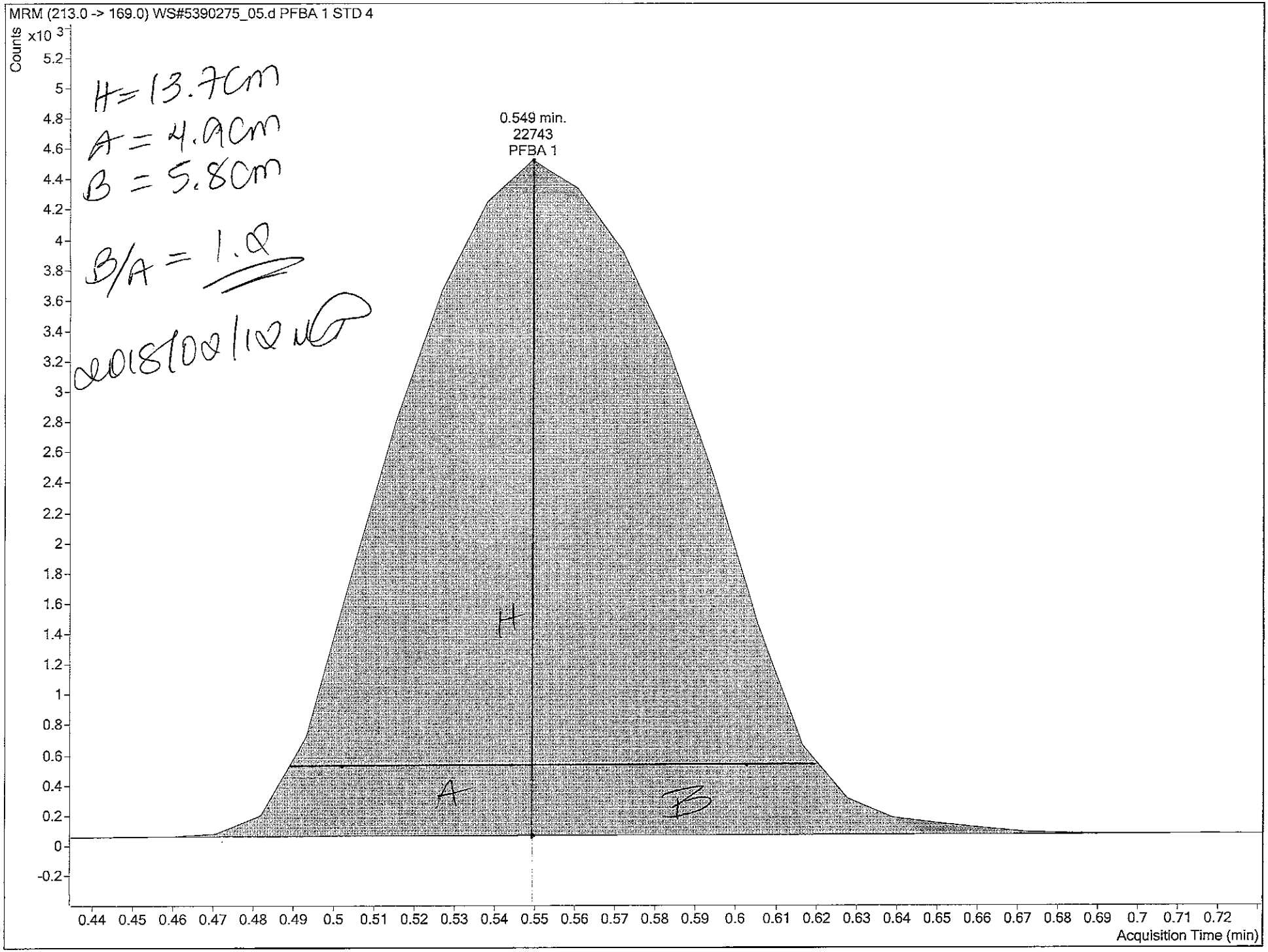
$X = 20.190840 \times 0.024$

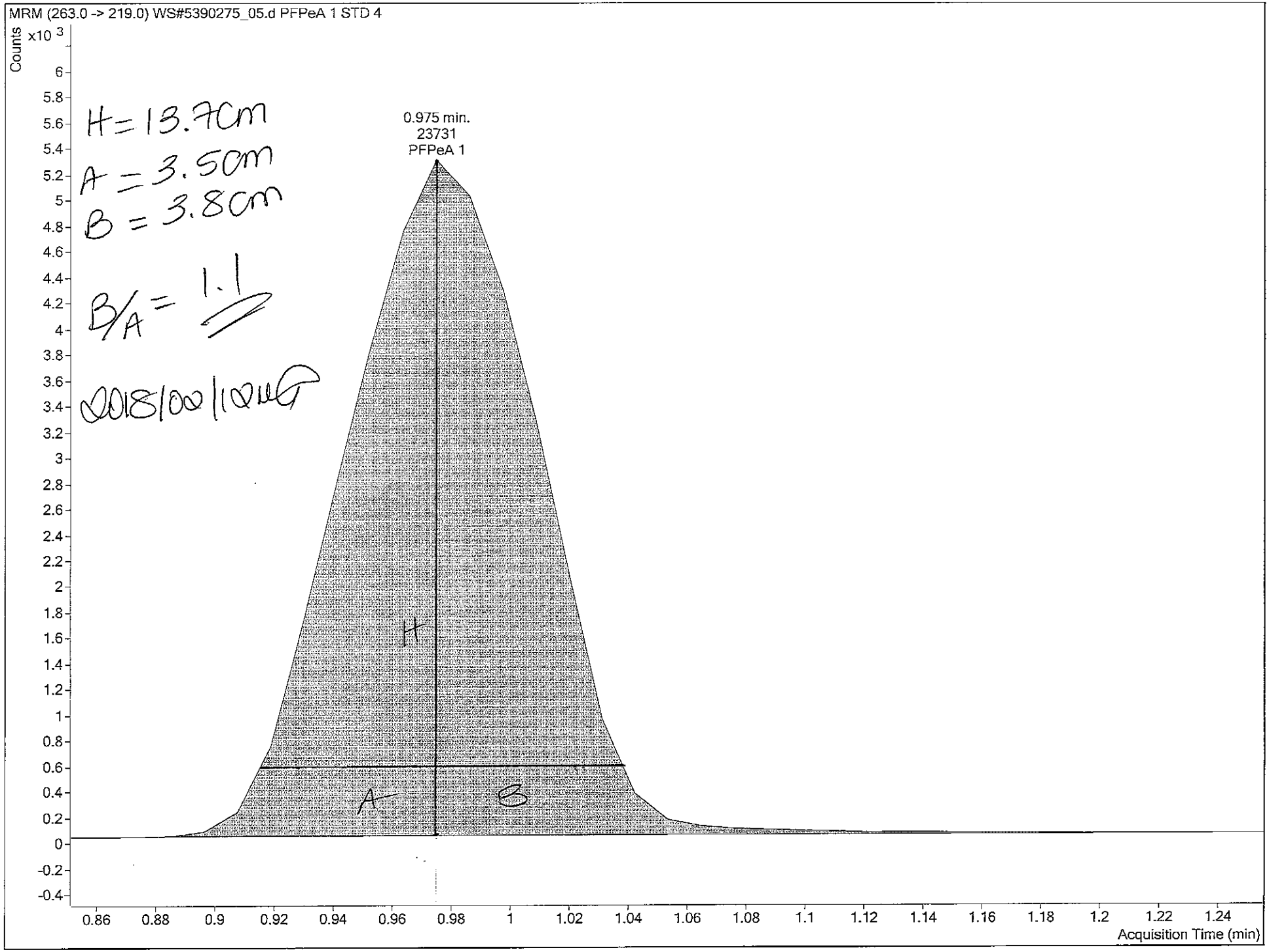
$X = 0.48458$ ng/L

20180210 | 10 MG

AD

2018/02/13


MRM (213.0 -> 169.0) WS#5390275_05.d PFBA 1 STD 4
Counts
x10 3
0.549 min.
22743
PFBA 1
H
A
B
Acquisition Time (min)
H = 13.7cm
A = 4.9cm
B = 5.8cm
B/A = 1.0
2018/02/12 NG


MRM (263.0 -> 219.0) WS#5390275_05.d PFPeA 1 STD 4
Counts
x10 3
0.975 min.
23731
PFPeA 1
H
A
B
Acquisition Time (min)
H = 13.7cm
A = 3.5cm
B = 3.8cm
B/A = 1.1
2018/02/10 MG

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/08

Test Code: **PFOSALCM-W**

Worksheet Number: **5390275**

Sample Number	Parameter Code	Parameter	
FZH306-01	ETFOSAA	EtFOSAA	*
FZH311-01	MEFOSAA	MeFOSAA	*
FZH312-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FZT419-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
FZT420-01	PFHXA	Perfluorohexanoic Acid (PFHxA)	
FZT421-01	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
FZT422-01	PFNA	Perfluorononanoic Acid (PFNA)	
FZT423-01	PFTEDA	Perfluorotetradecanoic Acid	
FZT424-01	PFTRDA	Perfluorotridecanoic Acid	
FZT425-01	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	
FZH307-01	NONE	NONE	
FZH308-01			
FZH309-01			
FZH310-01			
FZH313-01			
FZH314-01			
FZH315-01			
FZH316-01			
FZH317-01			

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5390275 Instrument Sequences

1.	5390275:SPIKE	SPIKE
2.	5390275:SPIKE:D1	SPIKE :D1
3.	5390275:BLANK	BLANK
4.	5390275:FZH306-01	CEF-002-06S-0118
5.	5390275:FZH307-01	EB-CEF-007-012518-8
6.	5390275:FZH308-01	EB-CEF-007-012518-9
7.	5390275:FZH309-01	EB-CEF-007-012518-10
8.	5390275:FZH310-01	FB-CEF-007-012518-8
9.	5390275:FZH311-01	CEF-013-12S-0118-D
10.	5390275:FZH312-01	CEF-013-12S-0118
11.	5390275:FZH313-01	FB-CEF-013-012518-7
12.	5390275:FZH314-01	FB-CEF-860-012518-9
13.	5390275:FZH315-01	EB-CEF-860-012518-11
14.	5390275:FZH316-01	EB-CEF-860-0112518-12
15.	5390275:FZH317-01	EB-CEF-860-012518-13
16.	5390275:FZT419-01	[redacted]
17.	5390275:FZT420-01	[redacted]
18.	5390275:FZT421-01	[redacted]
19.	5390275:FZT422-01	[redacted]
20.	5390275:FZT423-01	[redacted]
21.	5390275:FZT424-01	[redacted]
22.	5390275:FZT425-01	[redacted]

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180209_Low_B.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180209\WS#5390275
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

2018/02/09

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low.m	WS#5390275_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low.m	WS#5390275_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low.m	WS#5390275_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low.m	WS#5390275_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low.m	WS#5390275_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low.m	WS#5390275_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low.m	WS#5390275_07.d	Calibration	STD 6	As Method	-

2018/02/09

951 of 2177

Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P2-A8	PFC_Water_Low.m	WS#5390275_08.d	Sample		As Method	-
9	ICV	P2-A9	PFC_Water_Low.m	WS#5390275_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low.m	WS#5390275_10.d	ConCal	STD 1	As Method	-
11	5390275:BLANK	P2-B1	PFC_Water_Low.m	WS#5390275_11.d	Sample		As Method	-
12	5390275:SPIKE	P2-B2	PFC_Water_Low.m	WS#5390275_12.d	QC	ICV	As Method	-
13	5390275:SPIKE:D1	P2-B3	PFC_Water_Low.m	WS#5390275_13.d	QC	ICV	As Method	-
14	5390275:FZH306-01:10x	P2-B4	PFC_Water_Low.m	WS#5390275_14.d	QC	ICV	As Method	-
15	5390275:FZH306-01	P2-B5	PFC_Water_Low.m	WS#5390275_15.d	Sample		As Method	-
16	IB	P2-A8	PFC_Water_Low.m	WS#5390275_16.d	Sample		As Method	-
17	5390275:FZH307-01	P2-B6	PFC_Water_Low.m	WS#5390275_17.d	Sample		As Method	-
18	5390275:FZH308-01	P2-B7	PFC_Water_Low.m	WS#5390275_18.d	Sample		As Method	-
19	5390275:FZH309-01	P2-B8	PFC_Water_Low.m	WS#5390275_19.d	Sample		As Method	-
20	5390275:FZH310-01	P2-B9	PFC_Water_Low.m	WS#5390275_20.d	Sample		As Method	-
21	5390275:FZH311-01	P2-C1	PFC_Water_Low.m	WS#5390275_21.d	Sample		As Method	-
22	5390275:FZH312-01	P2-C2	PFC_Water_Low.m	WS#5390275_22.d	Sample		As Method	-
23	5390275:FZH313-01	P2-C3	PFC_Water_Low.m	WS#5390275_23.d	Sample		As Method	-
24	5390275:FZH314-01	P2-C4	PFC_Water_Low.m	WS#5390275_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low.m	WS#5390275_25.d	ConCal	STD 4	As Method	-
26	5390275:FZH315-01	P2-C5	PFC_Water_Low.m	WS#5390275_26.d	Sample		As Method	-
27	5390275:FZH316-01	P2-C6	PFC_Water_Low.m	WS#5390275_27.d	Sample		As Method	-
28	5390275:FZH317-01	P2-C7	PFC_Water_Low.m	WS#5390275_28.d	Sample		As Method	-
29	5390275:FZT419-01:10x	P2-C8	PFC_Water_Low.m	WS#5390275_29.d	Sample		As Method	-
30	5390275:FZT419-01	P2-C9	PFC_Water_Low.m	WS#5390275_30.d	Sample		As Method	-

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	IB	P2-A8	PFC_Water_Low.m	WS#5390275_31.d	Sample		As Method	-
32	5390275:FZT420-01	P2-D1	PFC_Water_Low.m	WS#5390275_32.d	Sample		As Method	-
33	5390275:FZT421-01	P2-D2	PFC_Water_Low.m	WS#5390275_33.d	Sample		As Method	-
34	5390275:FZT422-01	P2-D3	PFC_Water_Low.m	WS#5390275_34.d	Sample		As Method	-
35	5390275:FZT423-01	P2-D4	PFC_Water_Low.m	WS#5390275_35.d	Sample		As Method	-
36	5390275:FZT424-01	P2-D5	PFC_Water_Low.m	WS#5390275_36.d	Sample		As Method	-
37	CCV	P2-A5	PFC_Water_Low.m	WS#5390275_37.d	ConCal	STD 4	As Method	-
38	5390275:FZT425-01	P2-D6	PFC_Water_Low.m	WS#5390275_38.d	Sample		As Method	-
39	CCV	P2-A5	PFC_Water_Low.m	WS#5390275_39.d	ConCal	STD 4	As Method	-

Worklist Report

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Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180209_Low_B_FOSAA.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180209\WS#5390275_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B2:Solution# 272 (FSRE18)

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Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_08.d	Sample		As Method	-

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Worklist Report

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P2-A9	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5390275:BLANK	P2-B1	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_11.d	Sample		As Method	-
12	5390275:SPIKE	P2-B2	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_12.d	QC	ICV	As Method	-
13	5390275:SPIKE:D1	P2-B3	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_13.d	QC	ICV	As Method	-
14	5390275:FZH306-01:10x	P2-B4	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_14.d	QC	ICV	As Method	-
15	5390275:FZH306-01	P2-B5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_15.d	Sample		As Method	-
16	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_16.d	Sample		As Method	-
17	5390275:FZH307-01	P2-B6	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_17.d	Sample		As Method	-
18	5390275:FZH308-01	P2-B7	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_18.d	Sample		As Method	-
19	5390275:FZH309-01	P2-B8	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_19.d	Sample		As Method	-
20	5390275:FZH310-01	P2-B9	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_20.d	Sample		As Method	-
21	5390275:FZH311-01	P2-C1	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_21.d	Sample		As Method	-
22	5390275:FZH312-01	P2-C2	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_22.d	Sample		As Method	-
23	5390275:FZH313-01	P2-C3	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_23.d	Sample		As Method	-
24	5390275:FZH314-01	P2-C4	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_25.d	ConCal	STD 4	As Method	-
26	5390275:FZH315-01	P2-C5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_26.d	Sample		As Method	-
27	5390275:FZH316-01	P2-C6	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_27.d	Sample		As Method	-
28	5390275:FZH317-01	P2-C7	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_28.d	Sample		As Method	-
29	5390275:FZT419-01:10x	P2-C8	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_29.d	Sample		As Method	-
30	5390275:FZT419-01	P2-C9	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_30.d	Sample		As Method	-
31	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_31.d	Sample		As Method	-
32	5390275:FZT420-01	P2-D1	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_32.d	Sample		As Method	-
33	5390275:FZT421-01	P2-D2	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_33.d	Sample		As Method	-
34	5390275:FZT422-01	P2-D3	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_34.d	Sample		As Method	-

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
35	5390275:FZT423-01	P2-D4	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_35.d	Sample		As Method	-
36	5390275:FZT424-01	P2-D5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_36.d	Sample		As Method	-
37	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_37.d	ConCal	STD 4	As Method	-
38	5390275:FZT425-01	P2-D6	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_38.d	Sample		As Method	-
39	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_39.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/09 4:39 PM	PFC_Water_Low.m	WS#5390275_02.d	P2-A2
STD 2	-	2018/02/09 4:44 PM	PFC_Water_Low.m	WS#5390275_03.d	P2-A3
STD 3	-	2018/02/09 4:49 PM	PFC_Water_Low.m	WS#5390275_04.d	P2-A4
STD 4	-	2018/02/09 4:53 PM	PFC_Water_Low.m	WS#5390275_05.d	P2-A5
STD 5	-	2018/02/09 4:58 PM	PFC_Water_Low.m	WS#5390275_06.d	P2-A6
STD 6	-	2018/02/09 5:03 PM	PFC_Water_Low.m	WS#5390275_07.d	P2-A7
IB	-	2018/02/09 5:08 PM	PFC_Water_Low.m	WS#5390275_08.d	P2-A8
ICV	-	2018/02/09 5:13 PM	PFC_Water_Low.m	WS#5390275_09.d	P2-A9
ISC	-	2018/02/09 5:18 PM	PFC_Water_Low.m	WS#5390275_10.d	P2-A2
5390275:BLANK	-	2018/02/09 5:23 PM	PFC_Water_Low.m	WS#5390275_11.d	P2-B1
5390275:SPIKE	-	2018/02/09 5:28 PM	PFC_Water_Low.m	WS#5390275_12.d	P2-B2
5390275:SPIKE:D1	-	2018/02/09 5:33 PM	PFC_Water_Low.m	WS#5390275_13.d	P2-B3
5390275:FZH306-01:10x	Reported for PFOA only.	2018/02/09 5:38 PM	PFC_Water_Low.m	WS#5390275_14.d	P2-B4
5390275:FZH306-01	Reported for all except PFOA.	2018/02/09 5:43 PM	PFC_Water_Low.m	WS#5390275_15.d	P2-B5
IB	-	2018/02/09 5:48 PM	PFC_Water_Low.m	WS#5390275_16.d	P2-A8
5390275:FZH307-01	-	2018/02/09 5:53 PM	PFC_Water_Low.m	WS#5390275_17.d	P2-B6
5390275:FZH308-01	-	2018/02/09 5:58 PM	PFC_Water_Low.m	WS#5390275_18.d	P2-B7
5390275:FZH309-01	-	2018/02/09 6:03 PM	PFC_Water_Low.m	WS#5390275_19.d	P2-B8
5390275:FZH310-01	-	2018/02/09 6:07 PM	PFC_Water_Low.m	WS#5390275_20.d	P2-B9
5390275:FZH311-01	-	2018/02/09 6:12 PM	PFC_Water_Low.m	WS#5390275_21.d	P2-C1
5390275:FZH312-01	-	2018/02/09 6:17 PM	PFC_Water_Low.m	WS#5390275_22.d	P2-C2
5390275:FZH313-01	-	2018/02/09 6:22 PM	PFC_Water_Low.m	WS#5390275_23.d	P2-C3
5390275:FZH314-01	-	2018/02/09 6:27 PM	PFC_Water_Low.m	WS#5390275_24.d	P2-C4
CCV	-	2018/02/09 6:32 PM	PFC_Water_Low.m	WS#5390275_25.d	P2-A5
5390275:FZH315-01	-	2018/02/09 6:37 PM	PFC_Water_Low.m	WS#5390275_26.d	P2-C5
5390275:FZH316-01	-	2018/02/09 6:42 PM	PFC_Water_Low.m	WS#5390275_27.d	P2-C6
5390275:FZH317-01	-	2018/02/09 6:47 PM	PFC_Water_Low.m	WS#5390275_28.d	P2-C7
5390275:FZT419-01:10x	not used.	2018/02/09 6:52 PM	PFC_Water_Low.m	WS#5390275_29.d	P2-C8
5390275:FZT419-01	Reported for all.	2018/02/09 6:57 PM	PFC_Water_Low.m	WS#5390275_30.d	P2-C9
IB	-	2018/02/09 7:02 PM	PFC_Water_Low.m	WS#5390275_31.d	P2-A8
5390275:FZT420-01	-	2018/02/09 7:07 PM	PFC_Water_Low.m	WS#5390275_32.d	P2-D1
5390275:FZT421-01	-	2018/02/09 7:12 PM	PFC_Water_Low.m	WS#5390275_33.d	P2-D2
5390275:FZT422-01	-	2018/02/09 7:17 PM	PFC_Water_Low.m	WS#5390275_34.d	P2-D3

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
5390275:FZT423-01	-	2018/02/09 7:21 PM	PFC_Water_Low.m	WS#5390275_35.d	P2-D4
5390275:FZT424-01	-	2018/02/09 7:26 PM	PFC_Water_Low.m	WS#5390275_36.d	P2-D5
CCV	-	2018/02/09 7:31 PM	PFC_Water_Low.m	WS#5390275_37.d	P2-A5
5390275:FZT425-01	-	2018/02/09 7:36 PM	PFC_Water_Low.m	WS#5390275_38.d	P2-D6
CCV	-	2018/02/09 7:41 PM	PFC_Water_Low.m	WS#5390275_39.d	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/10 12:30 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_02.d	P2-A2
STD 2	-	2018/02/10 12:32 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_03.d	P2-A3
STD 3	-	2018/02/10 12:35 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_04.d	P2-A4
STD 4	-	2018/02/10 12:37 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_05.d	P2-A5
STD 5	-	2018/02/10 12:39 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_06.d	P2-A6
STD 6	-	2018/02/10 12:42 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_07.d	P2-A7
IB	-	2018/02/10 12:44 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_08.d	P2-A8
ICV	-	2018/02/10 12:47 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_09.d	P2-A9
ISC	-	2018/02/10 12:49 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_10.d	P2-A2
5390275:BLANK	-	2018/02/10 12:52 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_11.d	P2-B1
5390275:SPIKE	-	2018/02/10 12:54 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_12.d	P2-B2
5390275:SPIKE:D1	-	2018/02/10 12:56 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_13.d	P2-B3
5390275:FZH306-01:10x	not used.	2018/02/10 12:59 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_14.d	P2-B4
5390275:FZH306-01	Reported for all.	2018/02/10 1:01 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_15.d	P2-B5
IB	-	2018/02/10 1:04 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_16.d	P2-A8
5390275:FZH307-01	-	2018/02/10 1:06 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_17.d	P2-B6
5390275:FZH308-01	-	2018/02/10 1:08 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_18.d	P2-B7
5390275:FZH309-01	-	2018/02/10 1:11 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_19.d	P2-B8
5390275:FZH310-01	-	2018/02/10 1:13 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_20.d	P2-B9
5390275:FZH311-01	-	2018/02/10 1:16 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_21.d	P2-C1
5390275:FZH312-01	-	2018/02/10 1:18 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_22.d	P2-C2
5390275:FZH313-01	-	2018/02/10 1:20 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_23.d	P2-C3
5390275:FZH314-01	-	2018/02/10 1:23 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_24.d	P2-C4
CCV	-	2018/02/10 1:25 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_25.d	P2-A5
5390275:FZH315-01	-	2018/02/10 1:28 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_26.d	P2-C5
5390275:FZH316-01	-	2018/02/10 1:30 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_27.d	P2-C6
5390275:FZH317-01	-	2018/02/10 1:33 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_28.d	P2-C7
5390275:FZT419-01:10x	not used.	2018/02/10 1:35 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_29.d	P2-C8
5390275:FZT419-01	Reported for all.	2018/02/10 1:37 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_30.d	P2-C9
IB	-	2018/02/10 1:40 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_31.d	P2-A8
5390275:FZT420-01	-	2018/02/10 1:42 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_32.d	P2-D1
5390275:FZT421-01	-	2018/02/10 1:45 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_33.d	P2-D2
5390275:FZT422-01	-	2018/02/10 1:47 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_34.d	P2-D3

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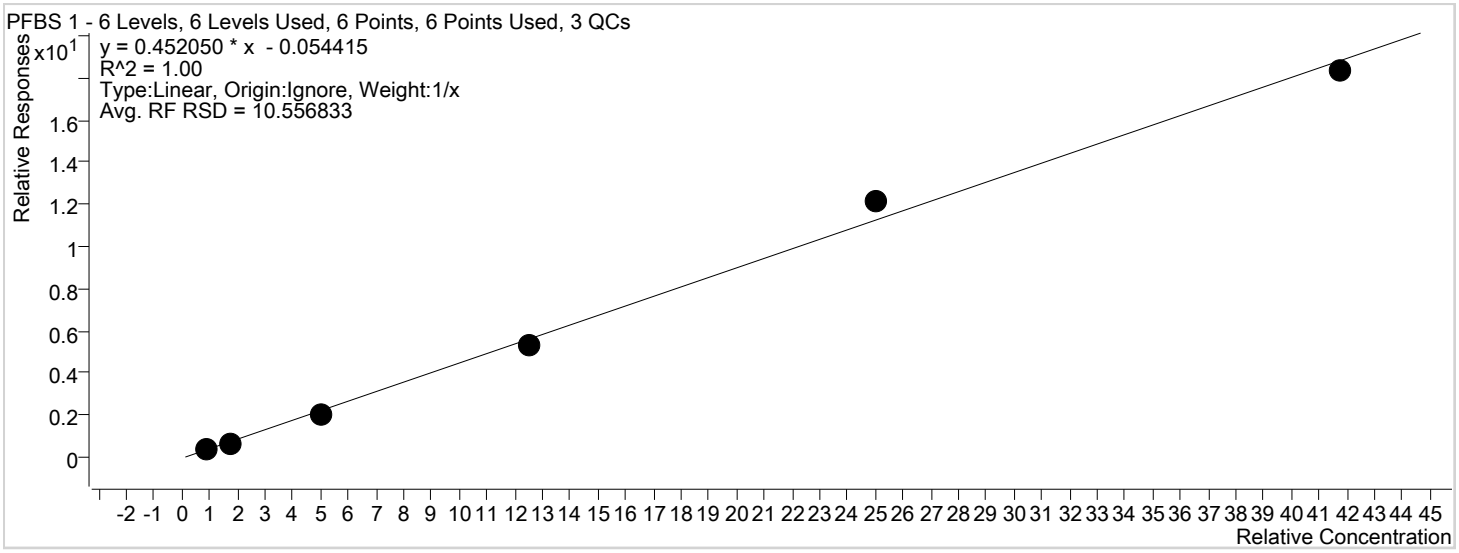
FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
5390275:FZT423-01	-	2018/02/10 1:49 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_35.d	P2-D4
5390275:FZT424-01	-	2018/02/10 1:52 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_36.d	P2-D5
CCV	-	2018/02/10 1:54 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_37.d	P2-A5
5390275:FZT425-01	-	2018/02/10 1:57 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_38.d	P2-D6
CCV	-	2018/02/10 1:59 AM	PFC_Water_Low_FOSAA.m	WS#5390275_FOSAA_39.d	P2-A5

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

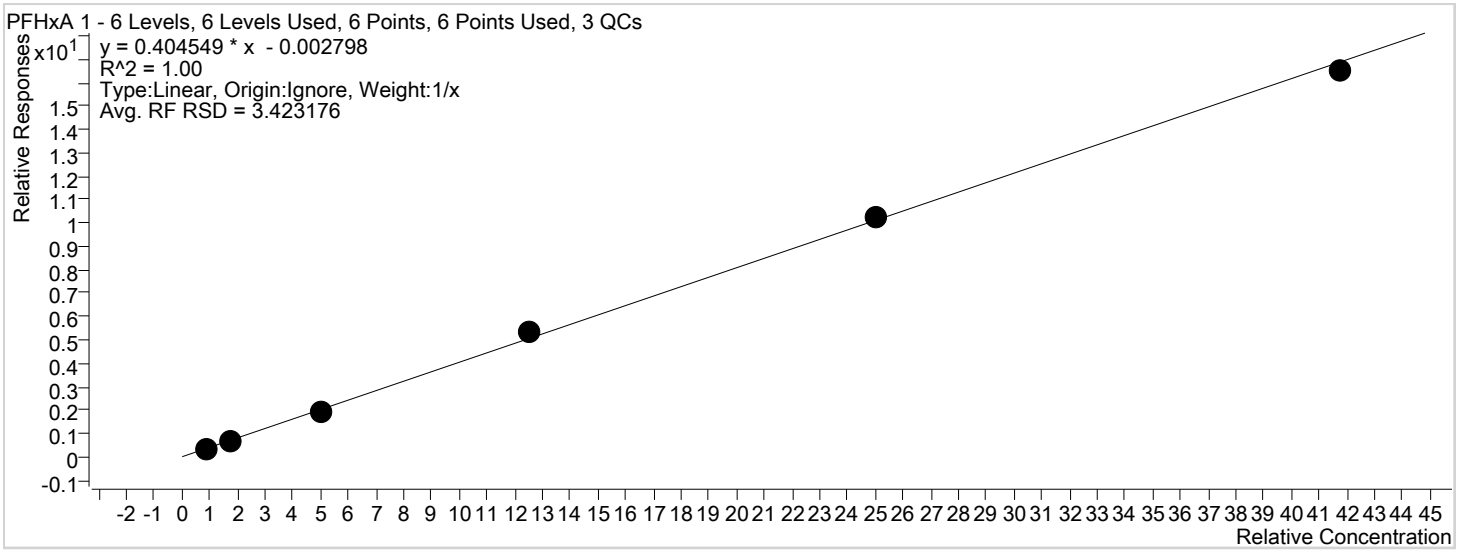
Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.99	541	0.4737	44	119.3
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.48	1012	0.3619	150	87.1
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.66	3027	0.4102	369	93.1
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	11.80	7920	0.4224	126	94.4
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	27.12	16645	0.4881	1529	108.5
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	40.69	26131	0.4397	119	97.6

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

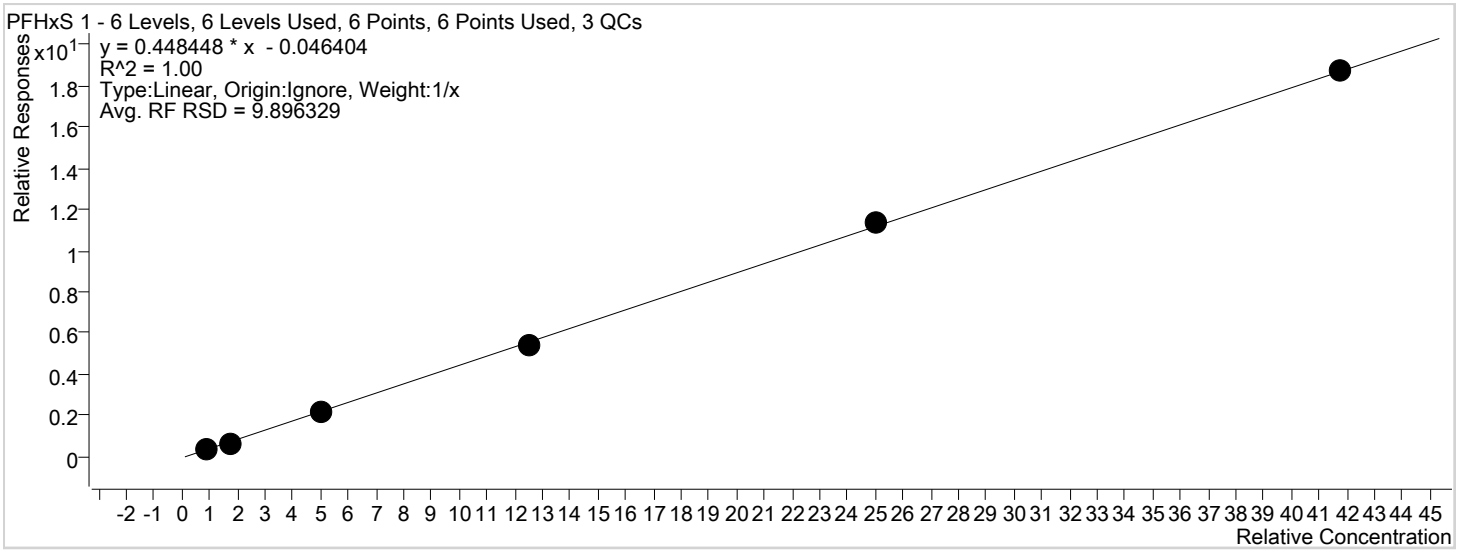
Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.85	1974	0.4086	125	101.8
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.65	3942	0.3909	743	97.0
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.82	11350	0.3893	612	96.4
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	13.12	30189	0.4243	2466	104.9
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	25.48	59511	0.4123	4146	101.9
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	40.82	99005	0.3959	13336	97.9

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

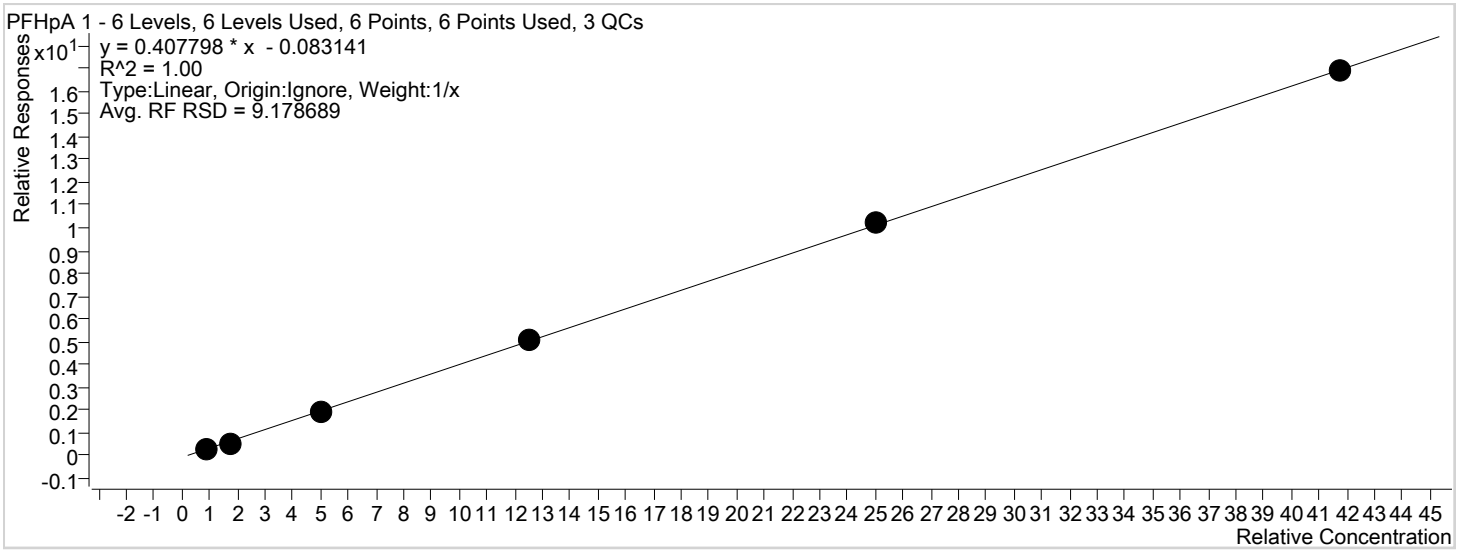
Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.98	539	0.4719	168	117.7
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.43	979	0.3501	123	84.2
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.97	3224	0.4369	441	99.5
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	12.07	8047	0.4292	376	96.5
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	25.46	15508	0.4548	1375	101.8
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.83	26662	0.4487	2102	100.3

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

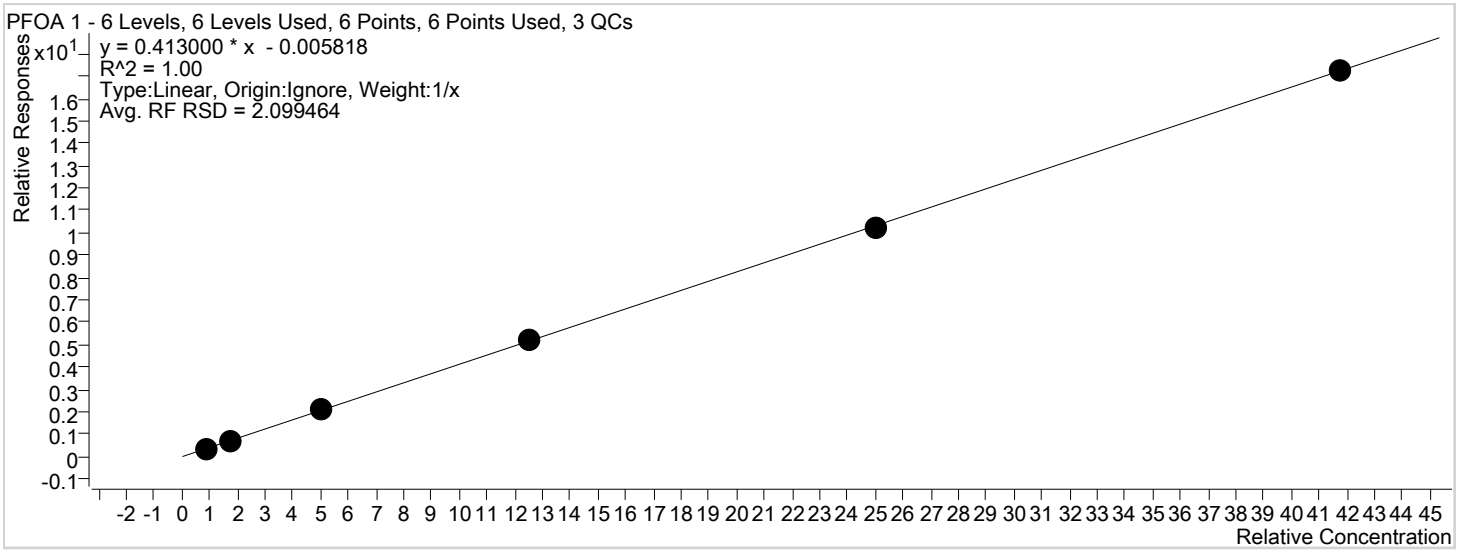
Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.92	2221	0.3516	29	110.8
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.55	4423	0.3225	64	91.1
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.85	14826	0.3792	199	97.1
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	12.53	38723	0.4023	213	100.3
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	25.23	76118	0.4083	283	100.9
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.64	119160	0.4052	232	99.9

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.86	2822	0.4187	26	103.1
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.64	5249	0.3940	48	96.2
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	5.02	16529	0.4139	138	100.5
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	12.56	42521	0.4144	393	100.4
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	24.91	85172	0.4112	929	99.6
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.75	138298	0.4134	1754	100.1

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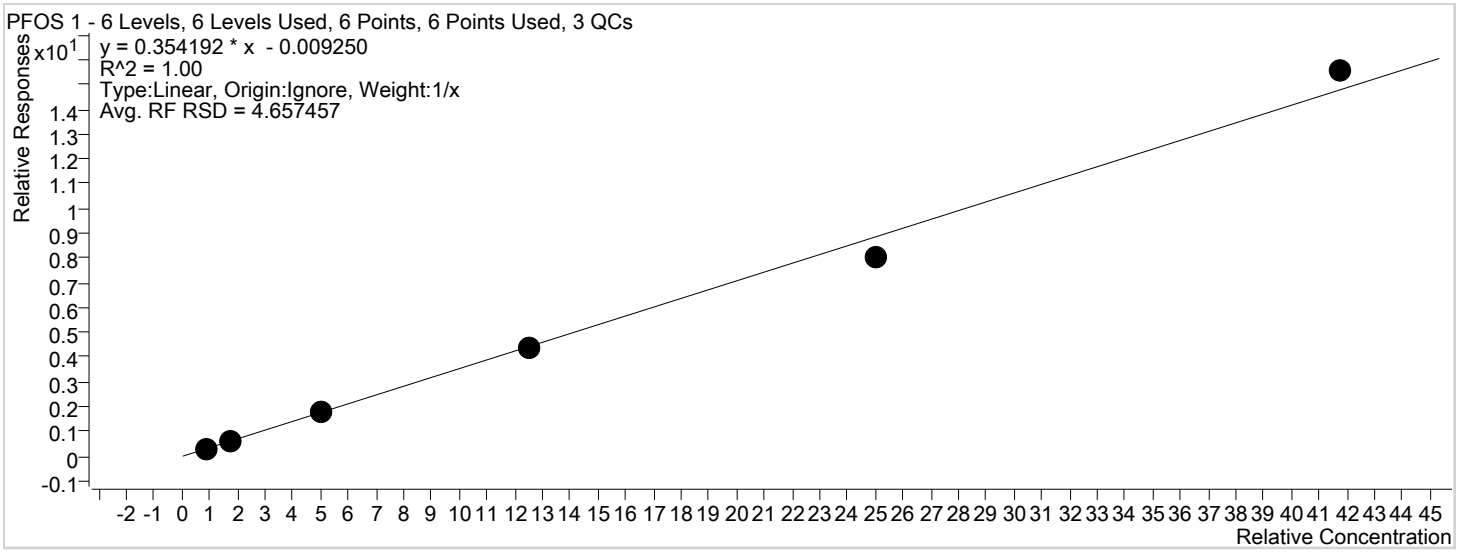
Instrument: LCMS04

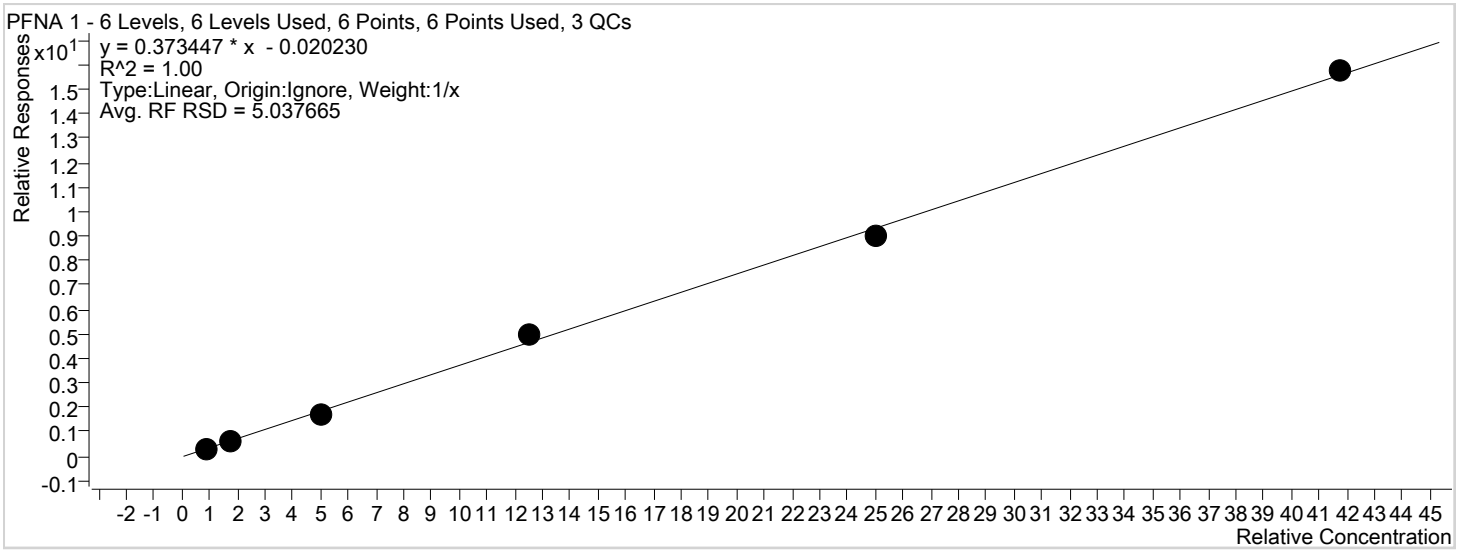
Analyte: PFOS 1
Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.87	546	0.3595	109	104.6
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.69	1079	0.3470	208	99.5
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.99	3104	0.3513	167	99.7
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	12.44	8505	0.3516	191	99.5
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	22.84	15876	0.3232	331	91.3
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	43.91	26409	0.3728	236	105.3

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

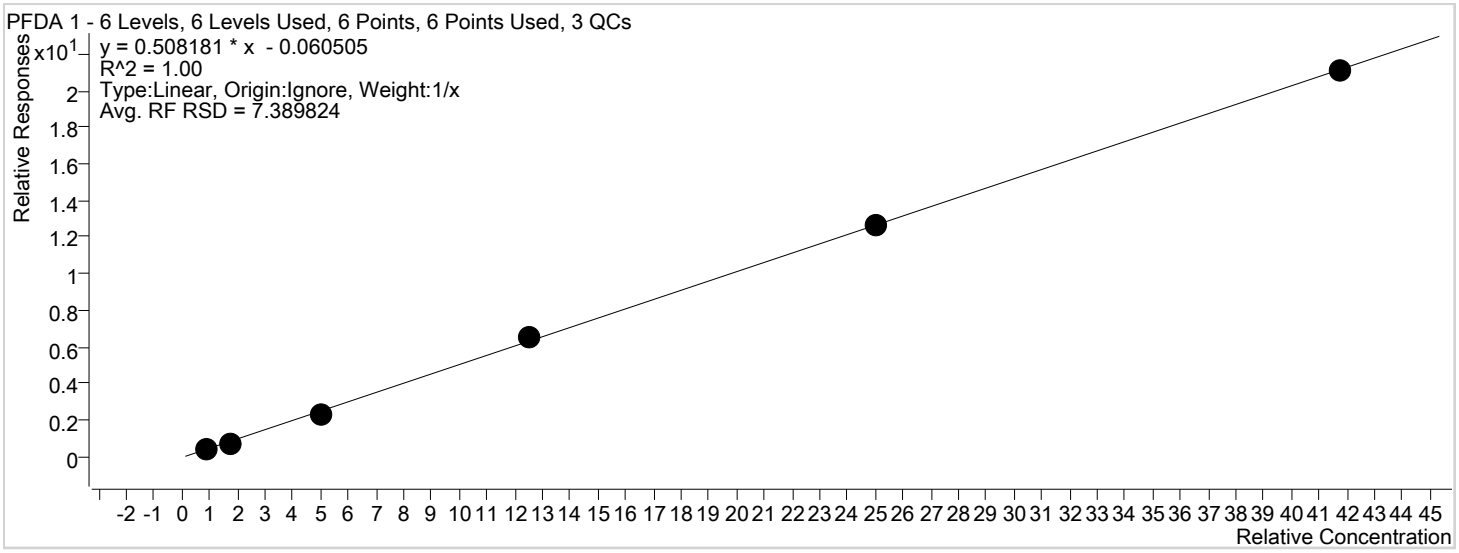
Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.88	2426	0.3708	49	105.8
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.66	5019	0.3533	70	97.8
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.64	13528	0.3426	238	92.8
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	13.25	38764	0.3941	331	106.0
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	24.09	73172	0.3590	1390	96.4
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	42.21	121875	0.3776	2584	101.2

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.93	2665	0.4994	31	112.6
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.58	4849	0.4367	65	92.9
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.51	15458	0.4465	136	90.2
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	13.01	41655	0.5240	355	104.1
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	25.09	81955	0.5075	1213	100.4
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.61	133055	0.5056	1146	99.8

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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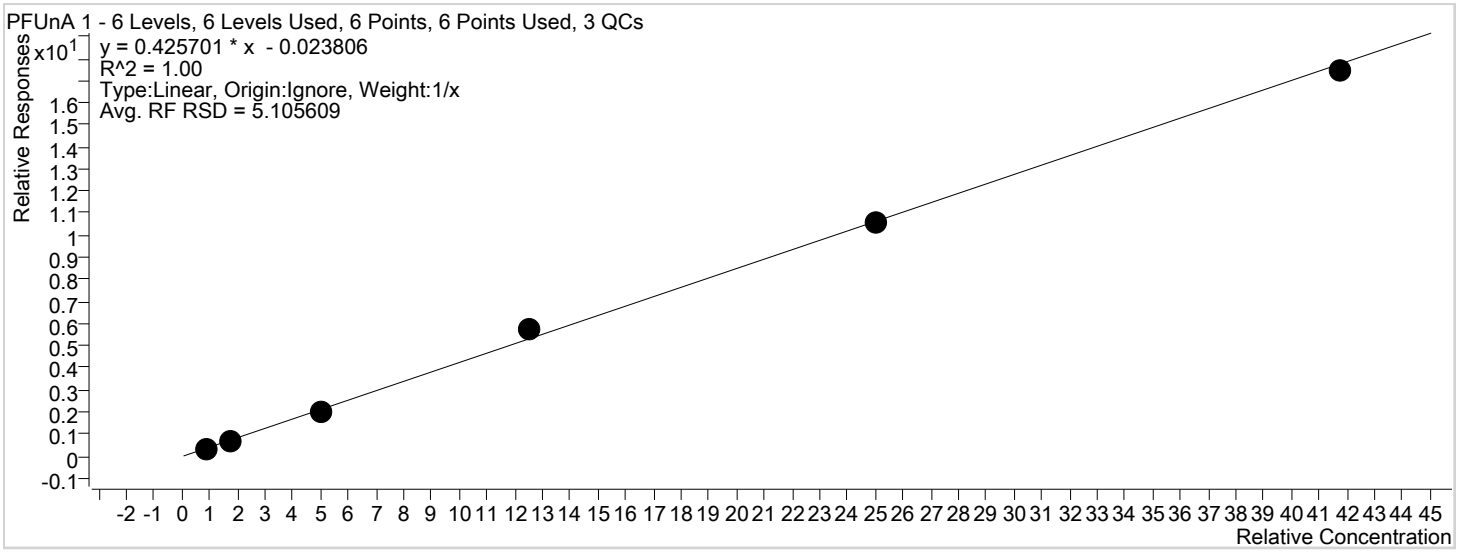
Instrument: LCMS04

Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.82	2635	0.3922	22	98.9
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.67	5562	0.4050	60	98.4
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	4.87	17037	0.4095	153	97.3
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	13.40	45808	0.4545	142	107.2
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	24.95	85920	0.4239	310	99.8
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.02	143281	0.4182	256	98.4

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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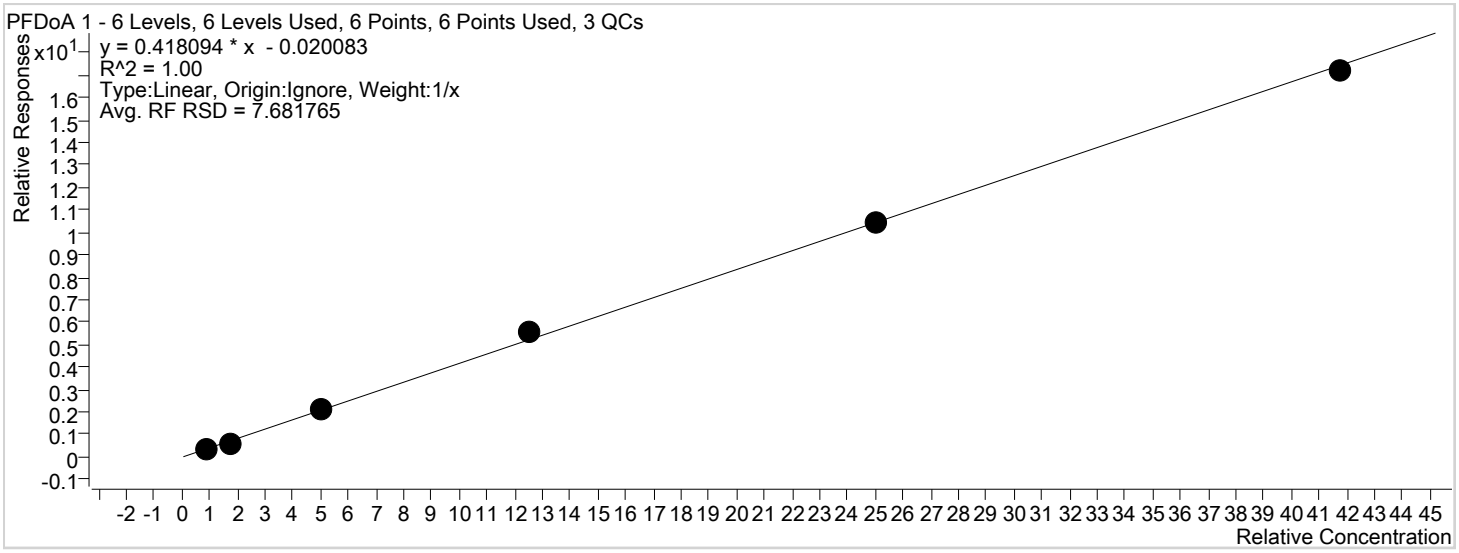
Instrument: LCMS04

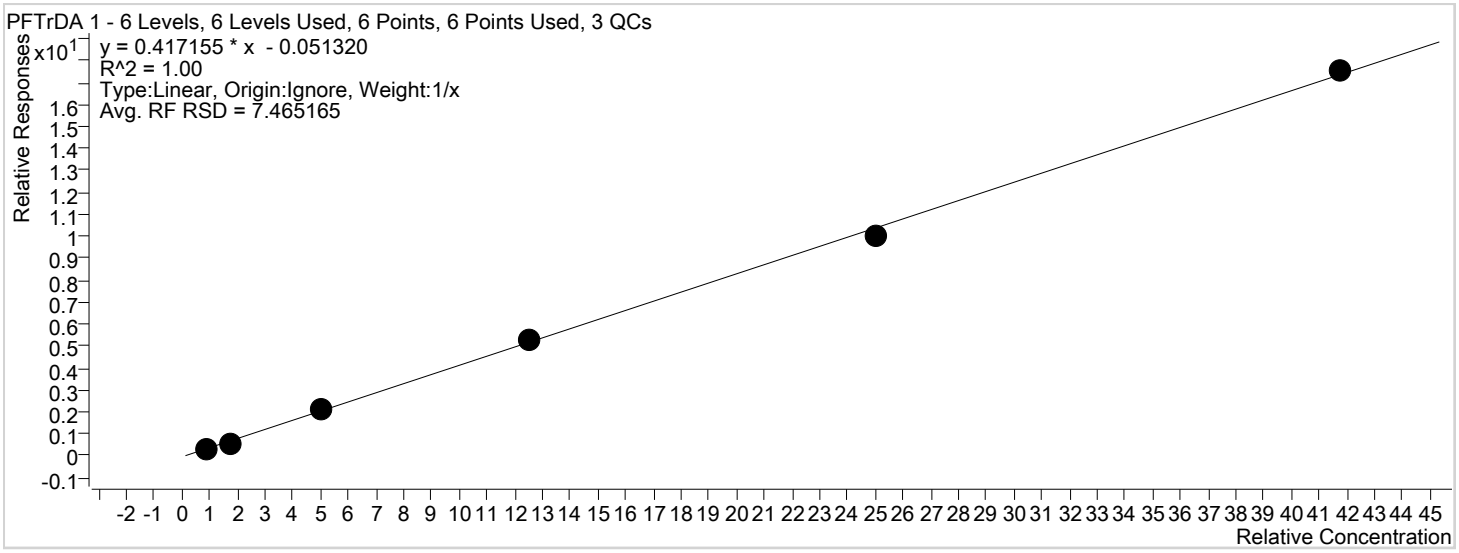
Analyte: PFDoA 1
Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.90	3757	0.4277	70	108.1
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.47	6436	0.3504	175	86.6
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	5.05	21697	0.4180	498	100.9
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	13.26	57043	0.4419	2640	106.1
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	24.89	110949	0.4154	4130	99.6
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.17	179920	0.4123	4038	98.7

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
Last Calib Update 2018/02/15 1:03:31 PM
Instrument: LCMS04

Analyte: PFTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.88	3728	0.3787	28	105.6
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.54	6964	0.3487	36	90.8
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	5.19	24331	0.4226	121	103.8
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	12.72	64478	0.4204	121	101.8
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	24.24	123420	0.4024	136	97.0
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	42.17	208563	0.4206	140	101.1

Batch Path T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics.batch.bin
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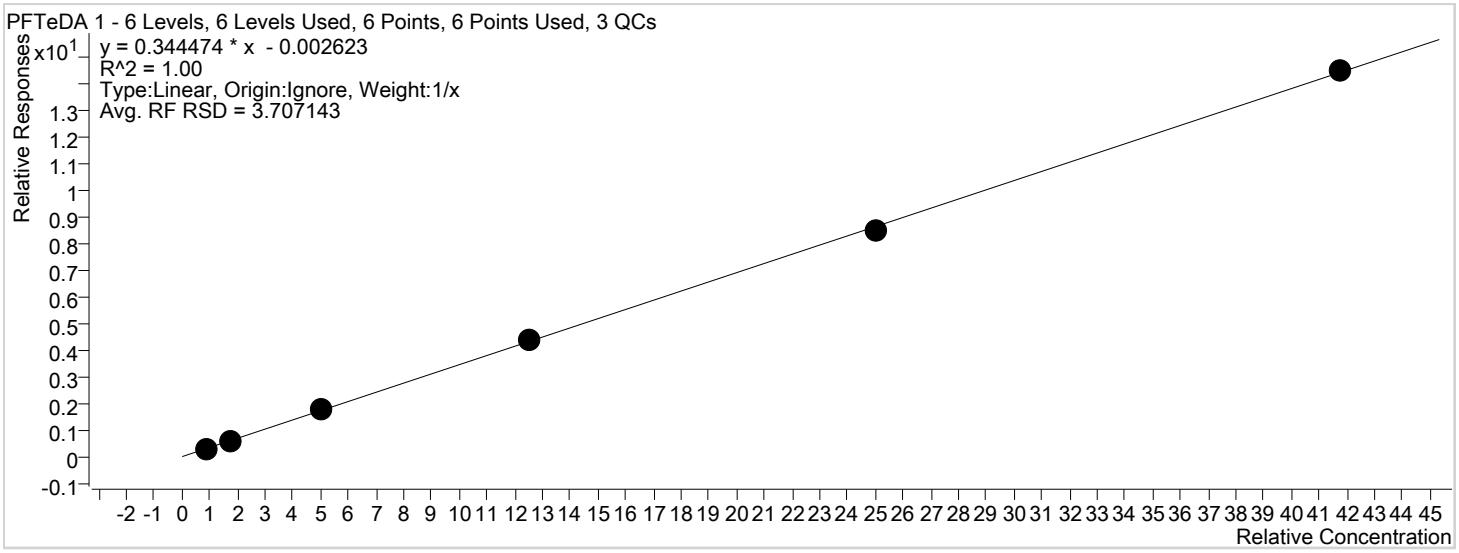
Instrument: LCMS04

Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 4:39:10 PM	0.83	0.86	3469	0.3524	18	103.2
STD 2	STD 2	x	2018/02/09 4:44:06 PM	1.70	1.59	6403	0.3206	41	93.5
STD 3	STD 3	x	2018/02/09 4:49:02 PM	5.00	5.17	20492	0.3559	89	103.5
STD 4	STD 4	x	2018/02/09 4:53:58 PM	12.50	12.63	53350	0.3478	126	101.0
STD 5	STD 5	x	2018/02/09 4:58:54 PM	25.00	24.56	103773	0.3383	124	98.2
STD 6	STD 6	x	2018/02/09 5:03:50 PM	41.70	41.92	171694	0.3462	134	100.5

By Compound Report

Agilent Technologies

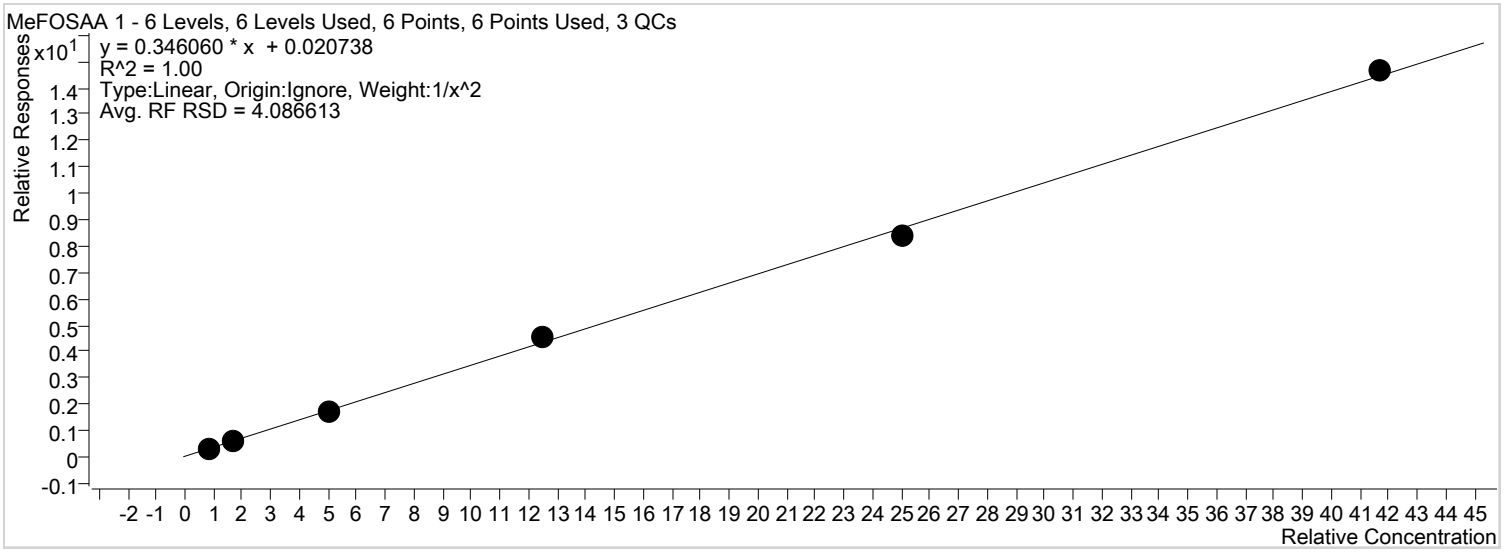
Batch Path T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 2:10:54 PM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/10 12:30:18 AM	0.83	0.84	553	0.3766	118	101.6
STD 2	STD 2	x	2018/02/10 12:32:43 AM	1.70	1.64	1050	0.3456	265	96.4
STD 3	STD 3	x	2018/02/10 12:35:07 AM	5.00	4.99	3076	0.3495	261	99.8
STD 4	STD 4	x	2018/02/10 12:37:32 AM	12.50	13.04	8045	0.3626	302	104.3
STD 5	STD 5	x	2018/02/10 12:39:57 AM	25.00	24.14	15384	0.3350	257	96.6
STD 6	STD 6	x	2018/02/10 12:42:22 AM	41.70	42.27	24332	0.3513	252	101.4

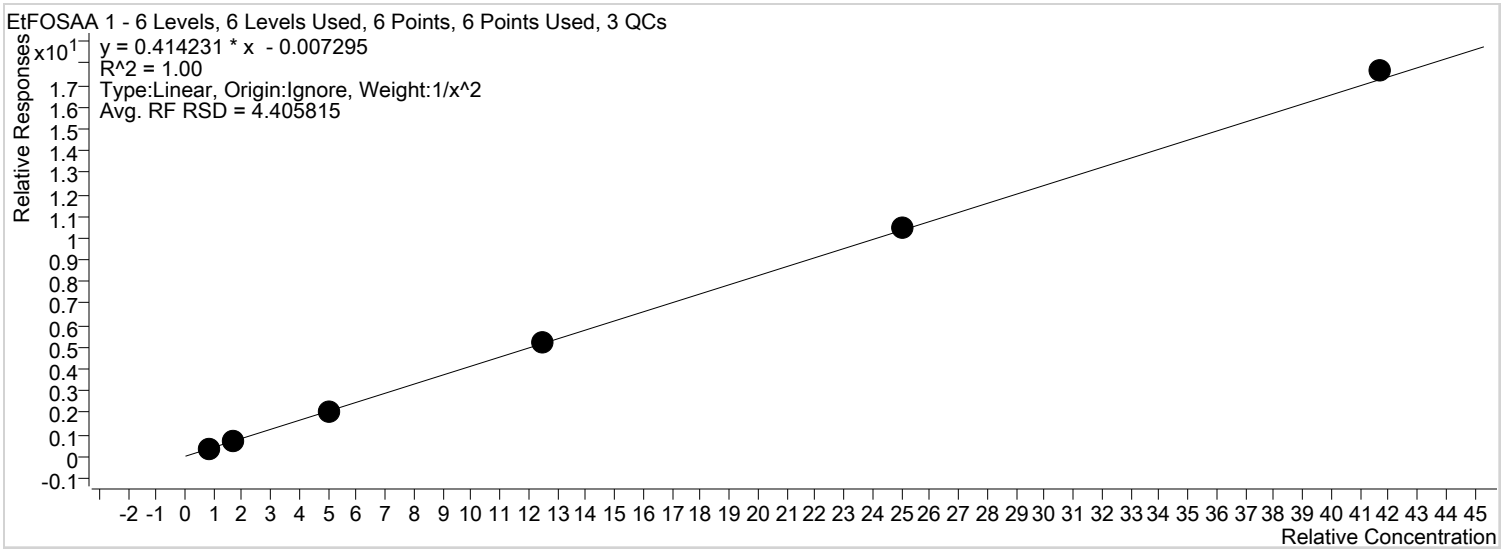
Batch Path T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 2:10:54 PM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/10 12:30:18 AM	0.83	0.86	536	0.4218	80	103.9
STD 2	STD 2	x	2018/02/10 12:32:43 AM	1.70	1.56	1058	0.3758	124	91.8
STD 3	STD 3	x	2018/02/10 12:35:07 AM	5.00	4.97	3185	0.4104	400	99.4
STD 4	STD 4	x	2018/02/10 12:37:32 AM	12.50	12.63	8482	0.4181	880	101.1
STD 5	STD 5	x	2018/02/10 12:39:57 AM	25.00	25.36	16586	0.4199	1369	101.4
STD 6	STD 6	x	2018/02/10 12:42:22 AM	41.70	42.68	26753	0.4238	2940	102.3

Quantitation Results

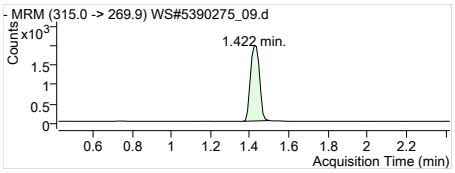
Agilent Technologies

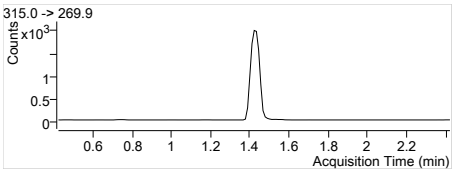
Batch Path	T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_ETOxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5390275_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A9
Acq. Date	2018/02/09 5:13:42 PM	**Injection Volume**	Per Method
Sample Annotation	-		

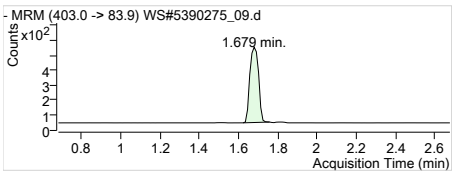
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6289	1.42	1 µg/L		
MPFHxS	1551	1.68	1 µg/L		
MPFHpA	7459	1.69	1 µg/L		
MPFOA	8591	1.87	1 µg/L		
MPFOS	1762	1.98	1 µg/L		
MPFNA	7638	2.01	1 µg/L		
MPFDA	6759	2.14	1 µg/L		
MPFUnA	8592	2.23	1 µg/L		
MPFDoA	10573	2.32	1 µg/L		
MPFTeDA	12551	2.47	1 µg/L		
13C6-PFHxA IS	24288	1.42	1 µg/L		
13C9-PFDA IS	32215	2.13	1 µg/L		

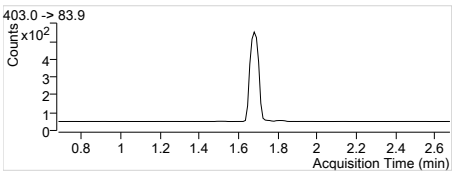
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	14160	1.09	20.80	20.32 µg/L	97.67
PFHxA 1	50267	1.42	20.80	19.76 µg/L	95.02
PFHxS 1	13585	1.68	20.80	19.63 µg/L	94.40
PFHpA 1	63512	1.69	20.80	21.08 µg/L	101.36
PFOA 1	72717	1.87	20.80	20.51 µg/L	98.60
PFOS 1	12891	1.97	20.80	20.68 µg/L	99.43
PFNA 1	61697	2.01	20.80	21.68 µg/L	104.25
PFDA 1	69266	2.14	20.80	20.29 µg/L	97.52
PFUnA 1	78627	2.23	20.80	21.55 µg/L	103.62
PFDoA 1	95987	2.32	20.80	21.76 µg/L	104.63
PFTrDA 1	105334	2.40	20.80	20.24 µg/L	97.31
PFTeDA 1	94279	2.47	20.80	21.81 µg/L	104.87
13C2-PFHxA	6289	1.42	100.00	103.75 µg/L	103.75
18O2-PFHxS	1551	1.68	100.00	102.14 µg/L	102.14
13C4-PFHpA	7459	1.69	100.00	94.41 µg/L	94.41
13C4-PFOA	8591	1.87	100.00	102.52 µg/L	102.52
13C4-PFOS	1762	1.98	100.00	92.48 µg/L	92.48
13C5-PFNA	7638	2.01	100.00	92.22 µg/L	92.22
13C2-PFDA	6613	2.14	100.00	98.52 µg/L	98.52
13C2-PFUnA	8592	2.23	100.00	101.21 µg/L	101.21
13C2-PFDoA	10573	2.32	100.00	96.28 µg/L	96.28
13C2-PFTeDA	12855	2.47	100.00	100.90 µg/L	100.90
13C6-PFHxA	24288	1.42	100.00	103.72 µg/L	103.72
13C9-PFDA	32215	2.13	100.00	104.09 µg/L	104.09





MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: QC





MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: QC

Quantitation Results

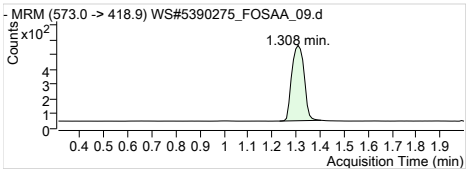
Agilent Technologies

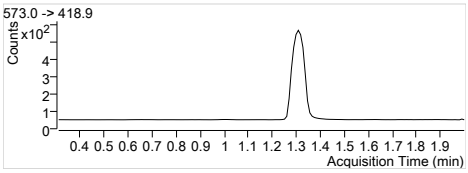
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A9
Acq. Date	2018/02/10 12:47:12 AM	**Injection Volume**	Per Method
Sample Annotation	-		

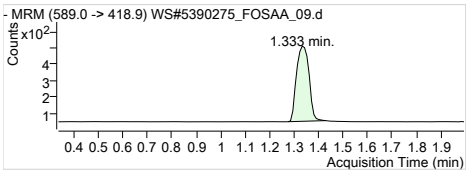
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1834	1.31	1 µg/L		
D5-EtFOSAA IS	1640	1.33	1 µg/L		
13C9-PFDA IS	24598	0.90	1 µg/L		

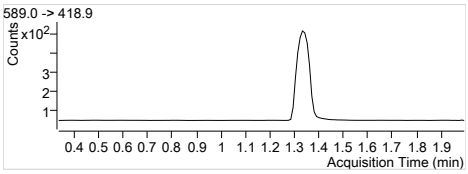
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13389	1.31	20.80	21.04 µg/L	101.13
EtFOSAA 1	14748	1.33	20.80	21.73 µg/L	104.46
D3-MeFOSAA	1871	1.31	100.00	103.72 µg/L	103.72
D5-EtFOSAA	1684	1.33	100.00	104.99 µg/L	104.99
13C9-PFDA	23828	0.90	100.00	100.49 µg/L	100.49



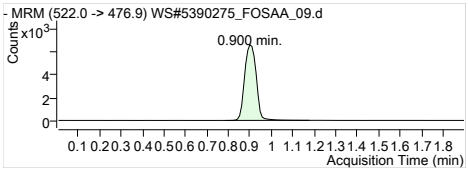


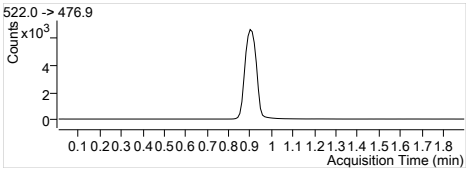
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: QC



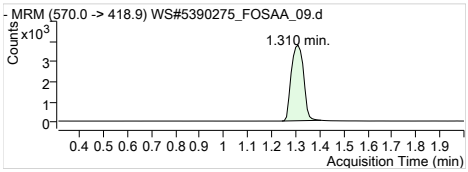


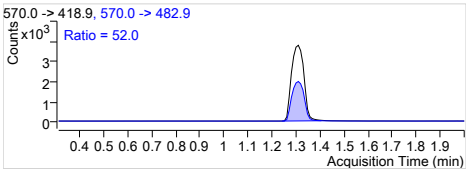
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: QC



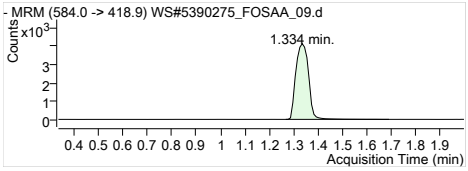


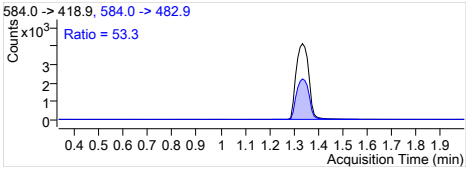
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: QC



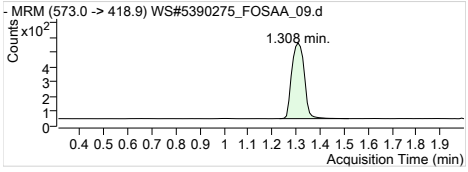


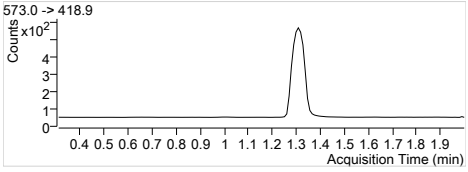
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 21.04 µg/L
Area ratio: 7.30044
Sample type: QC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 21.73 µg/L
Area ratio: 8.99268
Sample type: QC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 103.72 µg/L
Area ratio: 0.07606
Sample type: QC

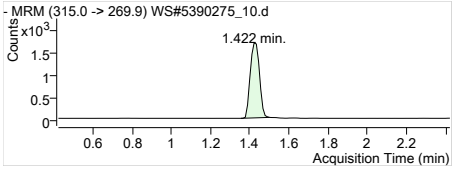
Quantitation Results

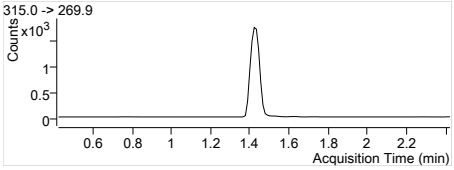
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics		
Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5390275_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/09 5:18:37 PM	**Injection Volume**	Per Method
Sample Annotation	-		

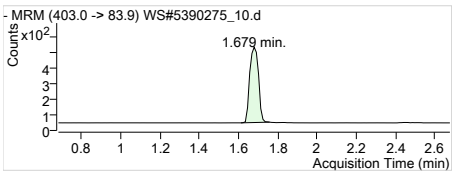
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5486	1.42	1 µg/L		
MPFHxS	1497	1.68	1 µg/L		
MPFHpA	7297	1.69	1 µg/L		
MPFOA	7985	1.87	1 µg/L		
MPFOS	1771	1.98	1 µg/L		
MPFNA	7879	2.01	1 µg/L		
MPFDA	6673	2.14	1 µg/L		
MPFUnA	8214	2.23	1 µg/L		
MPFDoA	10218	2.32	1 µg/L		
MPFTeDA	12294	2.47	1 µg/L		
13C6-PFHxA IS	23804	1.42	1 µg/L		
13C9-PFDA IS	32182	2.13	1 µg/L		

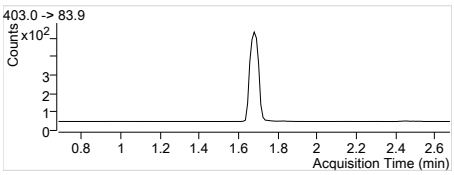
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	615	1.09	0.83	1.03 µg/L	124.00
PFHxA 1	1861	1.42	0.83	0.85 µg/L	101.86
PFHxS 1	505	1.68	0.83	0.86 µg/L	103.10
PFHpA 1	2492	1.69	0.83	1.04 µg/L	125.46
PFOA 1	2791	1.87	0.83	0.86 µg/L	103.66
PFOS 1	526	1.97	0.83	0.86 µg/L	104.18
PFNA 1	2605	2.01	0.83	0.94 µg/L	113.19
PFDA 1	2978	2.14	0.83	1.00 µg/L	120.15
PFUnA 1	2764	2.23	0.83	0.85 µg/L	101.97
PFDoA 1	3640	2.32	0.83	0.90 µg/L	108.44
PFTrDA 1	4076	2.40	0.83	0.92 µg/L	110.58
PFTeDA 1	3554	2.47	0.83	0.85 µg/L	102.03
13C2-PFHxA	5486	1.42	100.00	92.34 µg/L	92.34
18O2-PFHxS	1497	1.68	100.00	100.59 µg/L	100.59
13C4-PFHpA	7297	1.69	100.00	94.24 µg/L	94.24
13C4-PFOA	7985	1.87	100.00	97.23 µg/L	97.23
13C4-PFOS	1771	1.98	100.00	94.84 µg/L	94.84
13C5-PFNA	7880	2.01	100.00	97.08 µg/L	97.08
13C2-PFDA	6538	2.14	100.00	97.50 µg/L	97.50
13C2-PFUnA	8214	2.23	100.00	96.86 µg/L	96.86
13C2-PFDoA	10218	2.32	100.00	93.14 µg/L	93.14
13C2-PFTeDA	12560	2.47	100.00	98.68 µg/L	98.68
13C6-PFHxA	23804	1.42	100.00	101.65 µg/L	101.65
13C9-PFDA	32182	2.13	100.00	103.98 µg/L	103.98





MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC





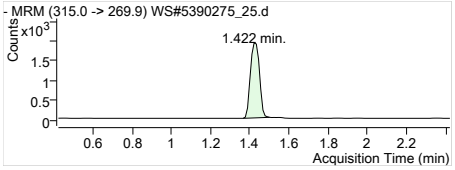
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC

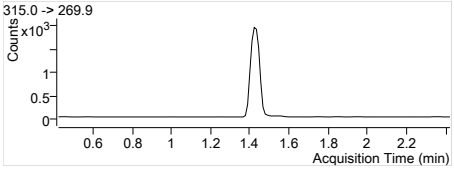
Batch Path	T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5390275_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/09 6:32:37 PM	**Injection Volume**	Per Method
Sample Annotation	-		

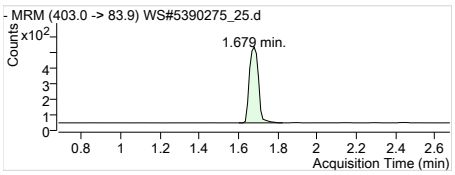
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6106	1.42	1 µg/L		
MPFHxS	1563	1.68	1 µg/L		
MPFHpA	7952	1.69	1 µg/L		
MPFOA	8125	1.87	1 µg/L		
MPFOS	1819	1.98	1 µg/L		
MPFNA	8226	2.01	1 µg/L		
MPFDA	6769	2.14	1 µg/L		
MPFUnA	7787	2.23	1 µg/L		
MPFDoA	11004	2.32	1 µg/L		
MPFTeDA	12407	2.47	1 µg/L		
13C6-PFHxA IS	24806	1.42	1 µg/L		
13C9-PFDA IS	32186	2.13	1 µg/L		

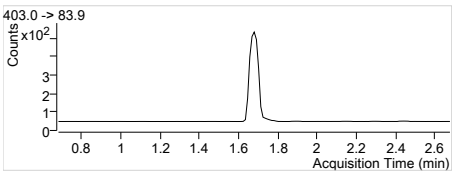
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8292	1.09	12.50	11.86 µg/L	94.85
PFHxA 1	31560	1.42	12.50	12.78 µg/L	102.27
PFHxS 1	8083	1.68	12.50	11.64 µg/L	93.08
PFHpA 1	39494	1.69	12.50	12.38 µg/L	99.06
PFOA 1	43665	1.87	12.50	13.03 µg/L	104.21
PFOS 1	8485	1.97	12.50	13.20 µg/L	105.57
PFNA 1	38502	2.01	12.50	12.59 µg/L	100.70
PFDA 1	41272	2.14	12.50	12.12 µg/L	96.94
PFUnA 1	46680	2.23	12.50	14.14 µg/L	113.10
PFDoA 1	57396	2.32	12.50	12.52 µg/L	100.19
PFTrDA 1	63873	2.40	12.50	12.46 µg/L	99.71
PFTeDA 1	54735	2.47	12.50	12.81 µg/L	102.52
13C2-PFHxA	6106	1.42	100.00	98.62 µg/L	98.62
18O2-PFHxS	1563	1.68	100.00	100.79 µg/L	100.79
13C4-PFHpA	7952	1.69	100.00	98.55 µg/L	98.55
13C4-PFOA	8125	1.87	100.00	94.93 µg/L	94.93
13C4-PFOS	1819	1.98	100.00	93.48 µg/L	93.48
13C5-PFNA	8225	2.01	100.00	97.24 µg/L	97.24
13C2-PFDA	6712	2.14	100.00	100.08 µg/L	100.08
13C2-PFUnA	7787	2.23	100.00	91.81 µg/L	91.81
13C2-PFDoA	11004	2.32	100.00	100.30 µg/L	100.30
13C2-PFTeDA	12642	2.47	100.00	99.32 µg/L	99.32
13C6-PFHxA	24806	1.42	100.00	105.93 µg/L	105.93
13C9-PFDA	32186	2.13	100.00	104.00 µg/L	104.00





MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC





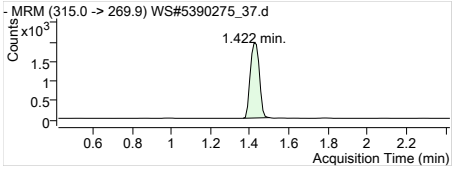
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC

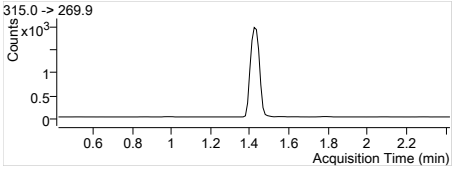
Batch Path	T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5390275_37.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/09 7:31:50 PM	**Injection Volume**	Per Method
Sample Annotation	-		

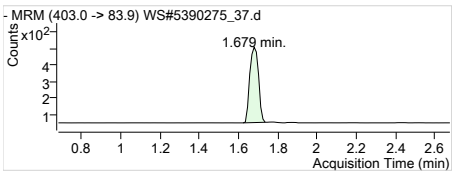
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6167	1.42	1 µg/L		
MPFHxS	1420	1.68	1 µg/L		
MPFHpA	7953	1.69	1 µg/L		
MPFOA	8588	1.88	1 µg/L		
MPFOS	1772	1.98	1 µg/L		
MPFNA	8159	2.01	1 µg/L		
MPFDA	6721	2.14	1 µg/L		
MPFUnA	8037	2.23	1 µg/L		
MPFDoA	10877	2.32	1 µg/L		
MPFTeDA	11979	2.47	1 µg/L		
13C6-PFHxA IS	24204	1.42	1 µg/L		
13C9-PFDA IS	32789	2.13	1 µg/L		

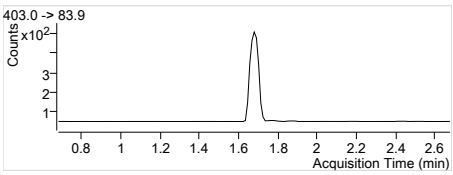
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8447	1.09	12.50	13.28 µg/L	106.24
PFHxA 1	30714	1.42	12.50	12.32 µg/L	98.54
PFHxS 1	8101	1.68	12.50	12.82 µg/L	102.60
PFHpA 1	39324	1.69	12.50	12.33 µg/L	98.63
PFOA 1	44189	1.88	12.50	12.47 µg/L	99.78
PFOS 1	8034	1.97	12.50	12.83 µg/L	102.61
PFNA 1	37403	2.01	12.50	12.33 µg/L	98.64
PFDA 1	41383	2.14	12.50	12.24 µg/L	97.88
PFUnA 1	44635	2.23	12.50	13.10 µg/L	104.82
PFDoA 1	55933	2.32	12.50	12.35 µg/L	98.78
PFTrDA 1	66477	2.40	12.50	13.43 µg/L	107.41
PFTeDA 1	52273	2.47	12.50	12.68 µg/L	101.40
13C2-PFHxA	6167	1.42	100.00	102.09 µg/L	102.09
18O2-PFHxS	1420	1.68	100.00	93.84 µg/L	93.84
13C4-PFHpA	7953	1.69	100.00	101.02 µg/L	101.02
13C4-PFOA	8588	1.88	100.00	102.84 µg/L	102.84
13C4-PFOS	1772	1.98	100.00	93.33 µg/L	93.33
13C5-PFNA	8158	2.01	100.00	98.84 µg/L	98.84
13C2-PFDA	6586	2.14	100.00	96.40 µg/L	96.40
13C2-PFUnA	8037	2.23	100.00	93.02 µg/L	93.02
13C2-PFDoA	10877	2.32	100.00	97.32 µg/L	97.32
13C2-PFTeDA	12223	2.47	100.00	94.26 µg/L	94.26
13C6-PFHxA	24204	1.42	100.00	103.36 µg/L	103.36
13C9-PFDA	32789	2.13	100.00	105.95 µg/L	105.95





MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC





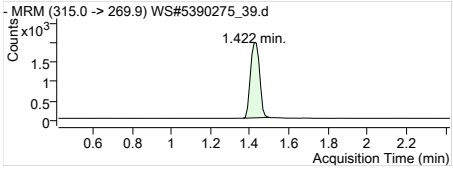
MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC

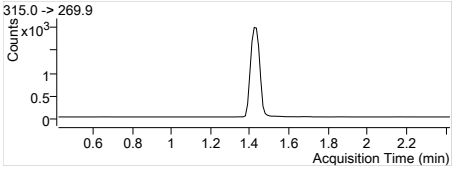
Batch Path	T:\lcms4\PFC\20180209\WS#5390275\QuantResults\PFC_Water_Low_180209_WS#5390275_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5390275_39.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/09 7:41:41 PM	**Injection Volume**	Per Method
Sample Annotation	-		

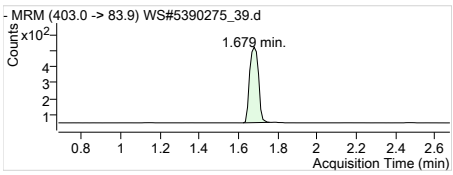
ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6281	1.42	1 µg/L		
MPFHxS	1480	1.68	1 µg/L		
MPFHpA	8013	1.69	1 µg/L		
MPFOA	8179	1.87	1 µg/L		
MPFOS	1782	1.98	1 µg/L		
MPFNA	8557	2.01	1 µg/L		
MPFDA	7058	2.14	1 µg/L		
MPFUnA	8042	2.23	1 µg/L		
MPFDoA	10771	2.32	1 µg/L		
MPFTeDA	12470	2.47	1 µg/L		
13C6-PFHxA IS	24535	1.42	1 µg/L		
13C9-PFDA IS	32723	2.13	1 µg/L		

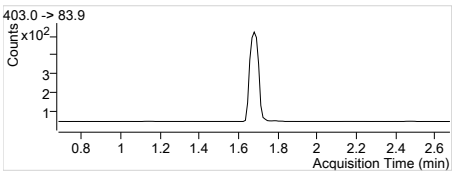
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8507	1.09	12.50	12.84 µg/L	102.69
PFHxA 1	31206	1.42	12.50	12.29 µg/L	98.30
PFHxS 1	7842	1.68	12.50	11.92 µg/L	95.35
PFHpA 1	40071	1.69	12.50	12.47 µg/L	99.73
PFOA 1	44844	1.87	12.50	13.29 µg/L	106.32
PFOS 1	8191	1.97	12.50	13.00 µg/L	104.03
PFNA 1	38957	2.01	12.50	12.25 µg/L	97.96
PFDA 1	42848	2.14	12.50	12.07 µg/L	96.52
PFUnA 1	45949	2.23	12.50	13.48 µg/L	107.82
PFDoA 1	58582	2.32	12.50	13.06 µg/L	104.45
PFTrDA 1	63959	2.40	12.50	12.42 µg/L	99.35
PFTeDA 1	54825	2.47	12.50	12.77 µg/L	102.17
13C2-PFHxA	6281	1.42	100.00	102.57 µg/L	102.57
18O2-PFHxS	1480	1.68	100.00	96.49 µg/L	96.49
13C4-PFHpA	8013	1.69	100.00	100.40 µg/L	100.40
13C4-PFOA	8179	1.87	100.00	96.62 µg/L	96.62
13C4-PFOS	1782	1.98	100.00	92.59 µg/L	92.59
13C5-PFNA	8558	2.01	100.00	102.29 µg/L	102.29
13C2-PFDA	7014	2.14	100.00	102.87 µg/L	102.87
13C2-PFUnA	8042	2.23	100.00	93.26 µg/L	93.26
13C2-PFDoA	10771	2.32	100.00	96.56 µg/L	96.56
13C2-PFTeDA	12715	2.47	100.00	98.25 µg/L	98.25
13C6-PFHxA	24535	1.42	100.00	104.77 µg/L	104.77
13C9-PFDA	32723	2.13	100.00	105.73 µg/L	105.73





MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC





MPFHxS Internal Standard
RT (Exp. RT): 1.679 (1.679)
Concentration: 1 µg/L
Sample type: CC

Quantitation Results

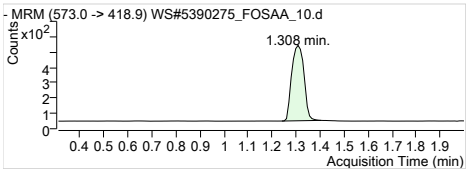
Agilent Technologies

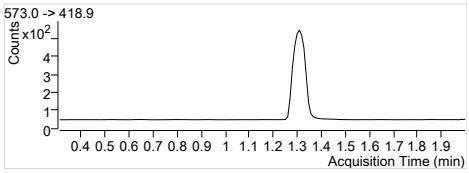
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/10 12:49:37 AM	**Injection Volume**	Per Method
Sample Annotation	-		

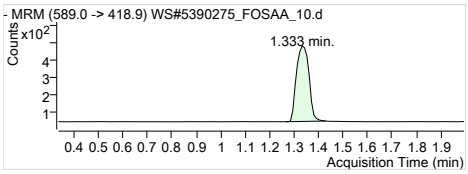
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1754	1.31	1 µg/L		
D5-EtFOSAA IS	1544	1.33	1 µg/L		
13C9-PFDA IS	24430	0.90	1 µg/L		

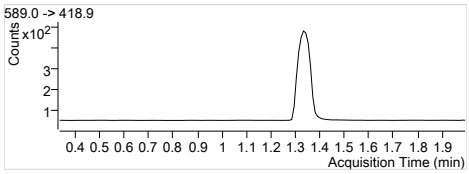
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	543	1.31	0.83	0.83 µg/L	100.56
EtFOSAA 1	560	1.33	0.83	0.89 µg/L	107.61
D3-MeFOSAA	1789	1.31	100.00	99.86 µg/L	99.86
D5-EtFOSAA	1555	1.33	100.00	97.61 µg/L	97.61
13C9-PFDA	23540	0.90	100.00	99.28 µg/L	99.28



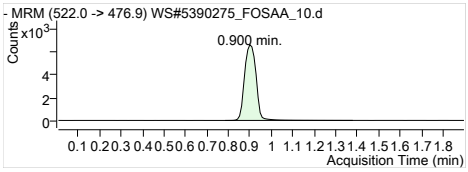


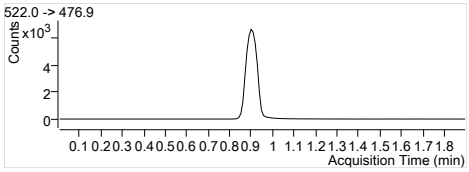
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



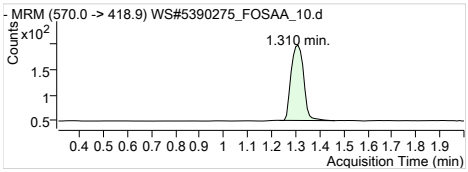


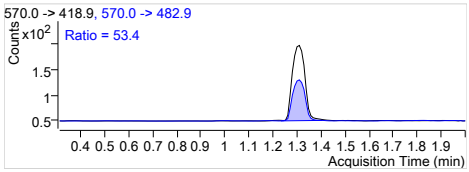
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



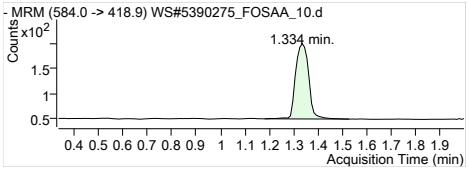


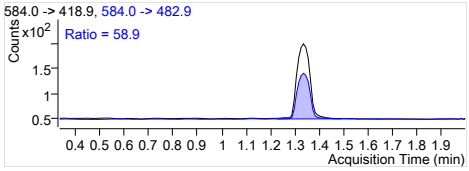
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



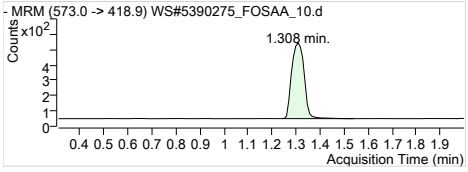


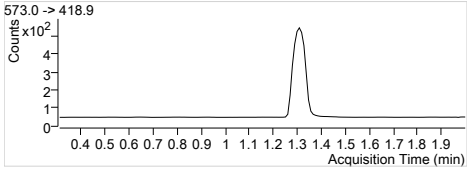
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.83 µg/L
Area ratio: 0.30958
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 0.89 µg/L
Area ratio: 0.36269
Sample type: CC





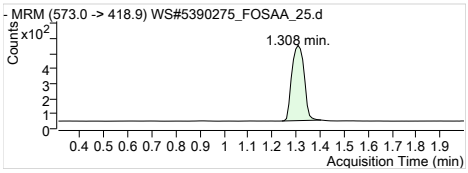
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 99.86 µg/L
Area ratio: 0.07323
Sample type: CC

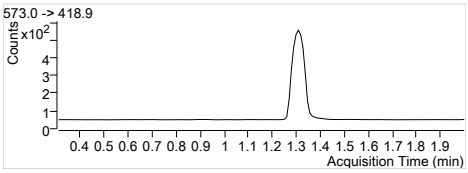
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/10 1:25:49 AM	**Injection Volume**	Per Method
Sample Annotation	-		

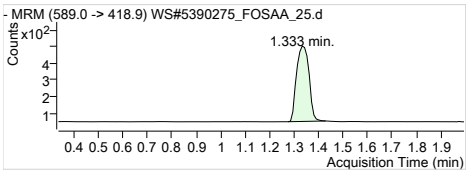
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1794	1.31	1 µg/L		
D5-EtFOSAA IS	1605	1.33	1 µg/L		
13C9-PFDA IS	25073	0.90	1 µg/L		

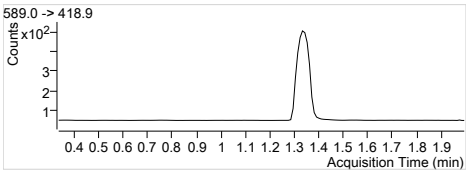
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8076	1.31	12.50	12.95 µg/L	103.59
EtFOSAA 1	8502	1.33	12.50	12.81 µg/L	102.44
D3-MeFOSAA	1832	1.31	100.00	99.64 µg/L	99.64
D5-EtFOSAA	1629	1.33	100.00	99.63 µg/L	99.63
13C9-PFDA	24170	0.90	100.00	101.94 µg/L	101.94



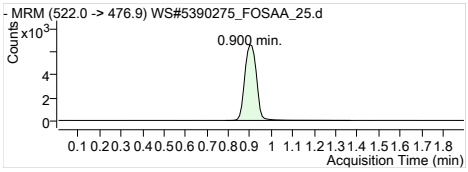


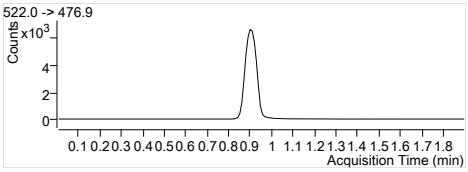
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



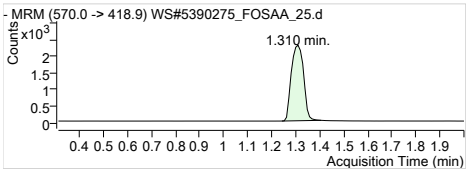


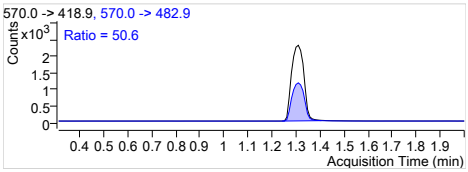
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



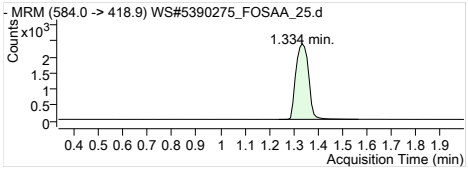


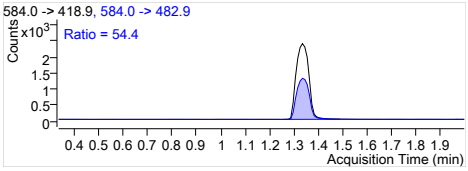
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



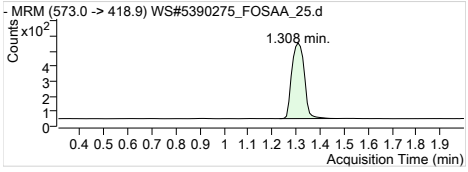


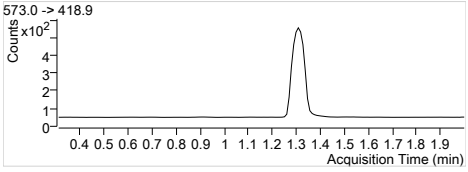
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 12.95 µg/L
Area ratio: 4.50167
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 12.81 µg/L
Area ratio: 5.29720
Sample type: CC





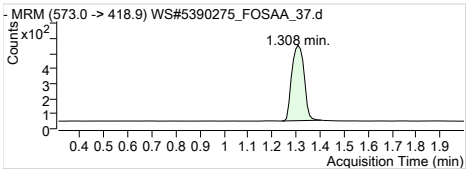
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 99.64 µg/L
Area ratio: 0.07307
Sample type: CC

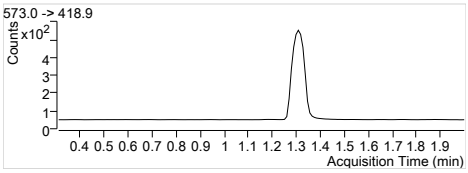
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_37.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/10 1:54:47 AM	**Injection Volume**	Per Method
Sample Annotation	-		

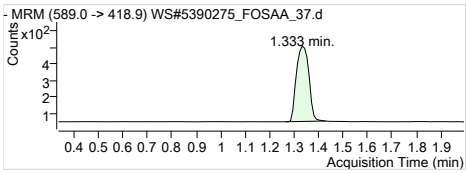
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1793	1.31	1 µg/L		
D5-EtFOSAA IS	1621	1.33	1 µg/L		
13C9-PFDA IS	25106	0.90	1 µg/L		

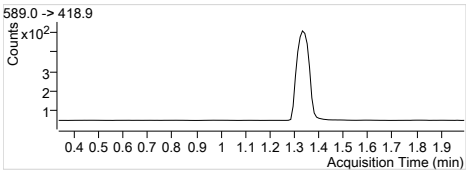
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8128	1.31	12.50	13.04 µg/L	104.32
EtFOSAA 1	8602	1.33	12.50	12.83 µg/L	102.63
D3-MeFOSAA	1826	1.31	100.00	99.18 µg/L	99.18
D5-EtFOSAA	1648	1.33	100.00	100.66 µg/L	100.66
13C9-PFDA	24363	0.90	100.00	102.75 µg/L	102.75



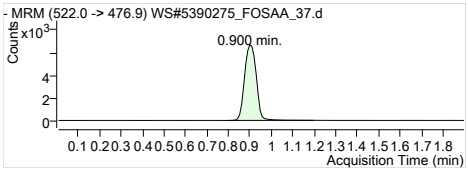


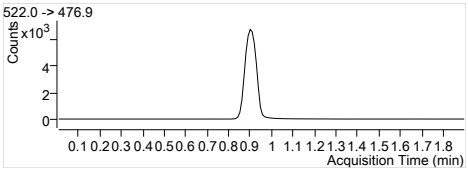
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



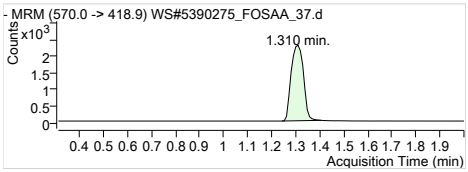


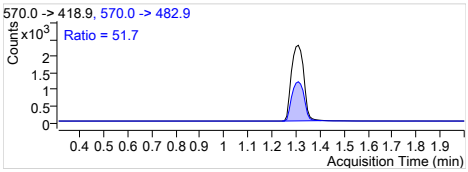
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



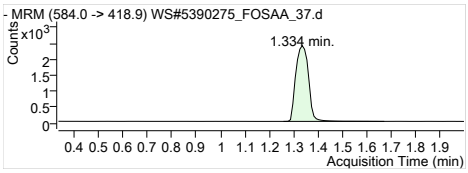


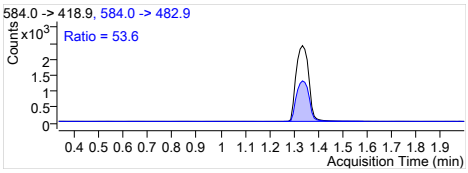
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



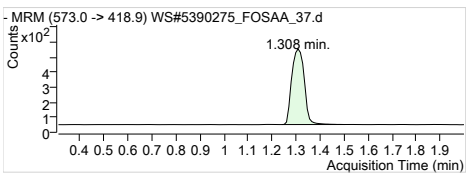


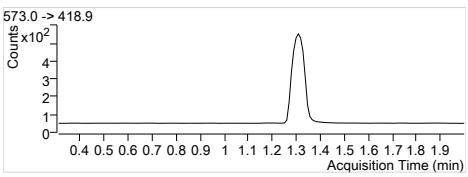
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 13.04 µg/L
Area ratio: 4.53318
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 12.83 µg/L
Area ratio: 5.30660
Sample type: CC





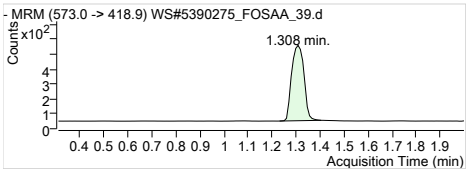
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 99.18 µg/L
Area ratio: 0.07273
Sample type: CC

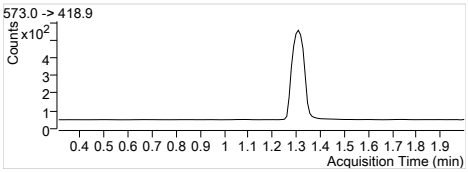
Batch Path	T:\lcms4\PFC\20180209\WS#5390275_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5390275_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5390275_FOSAA_39.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/10 1:59:37 AM	**Injection Volume**	Per Method
Sample Annotation	-		

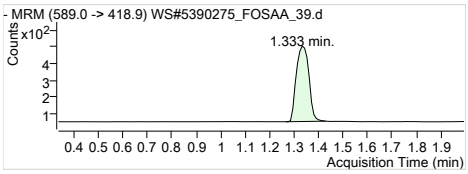
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1812	1.31	1 µg/L		
D5-EtFOSAA IS	1626	1.33	1 µg/L		
13C9-PFDA IS	25357	0.90	1 µg/L		

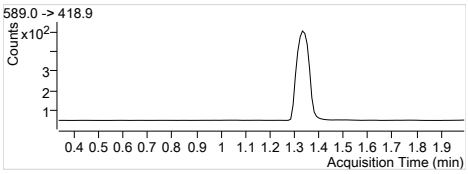
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8338	1.31	12.50	13.24 µg/L	105.90
EtFOSAA 1	8572	1.33	12.50	12.74 µg/L	101.96
D3-MeFOSAA	1840	1.31	100.00	98.95 µg/L	98.95
D5-EtFOSAA	1635	1.33	100.00	98.88 µg/L	98.88
13C9-PFDA	24641	0.90	100.00	103.92 µg/L	103.92



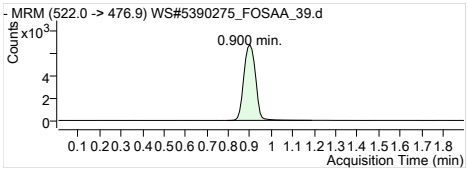


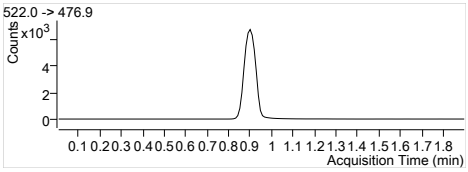
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



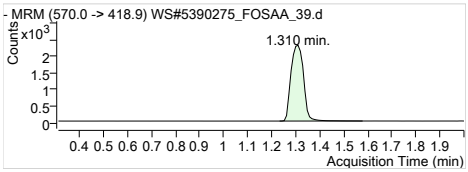


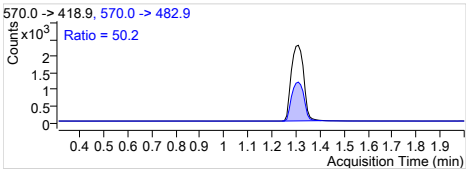
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



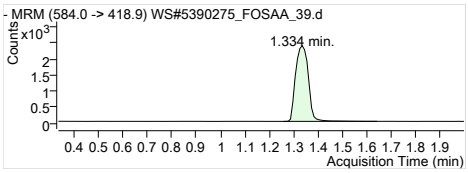


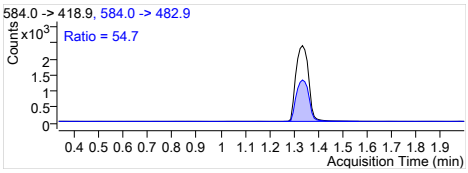
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



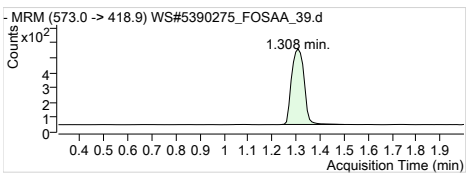


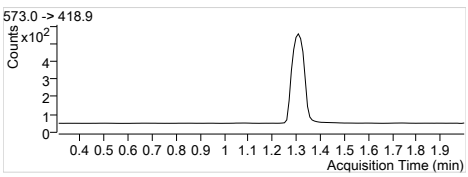
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 13.24 µg/L
Area ratio: 4.60155
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 12.74 µg/L
Area ratio: 5.27183
Sample type: CC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 98.95 µg/L
Area ratio: 0.07256
Sample type: CC

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/09

Worksheet # (s): 589118[illegible]

Analysis: PFOSALCM-W

Primary review by the analyst - 1st 100 % analysis review		1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria		✓		✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria		✓		✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed	✓			✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS			✓	✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: KC Date: 2018/02/12

Comments: FZJ957 QAC702, and QAC704 were reworked due to low extracted I.S. recoveries for PFTeDA, PFNA, and PFBA respectively. KC 2018/02/12.

Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review		yes	no	n/a
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: [signature] Date: 3/1/2018

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5391181 Testcode: PFOSACCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: SSV Date: 2018/02/08

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

JCC 2018/02/12

Reviewed by: Date:

Comments:

See attached BRL FCD-0000269

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: Date:

Comments:

WS# : 5391181

Page #: 1/2

RUSH

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Thursday, February 08, 2018

Assigned to : Shivani Shivani

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol (mL)	Final Vol (mL)	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date	(ng)
	MTRX SPK	0	PFOS FZJ955-01		<0.1	125	3	1X					2018/02/08	27
	MTRX SPK	1	PFOS FZJ955-01		<0.1	125	3	1X					2018/02/08	28
	SPIKE		PFOS		0	125	3	1X					2018/02/08	29
	BLANK				0	125	3	1X					2018/02/08	30
B819794	*FZH326-01R		CEF-007-TW01-01*		0	125/12.5	3	1X/10X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	26
B819794	*FZH327-01R		CEF-007-TW02-01*		0	125/12.5	3	1X/10X	2	2018/02/08	2018/02/09 18:00	DOD	2018/02/08	25
B820260	*FZJ942-01R		[redacted]		0	125	3	1X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08	32
B820260	*FZJ955-01R		[redacted]		<0.1	125/12.5	3	1X/10X	6	2018/02/08	2018/02/09 23:00	DOD	2018/02/08	31
B820260	*FZJ956-01R		[redacted]		<0.1	125/12.5	3	1X/10X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08	30
B820260	*FZJ957-01R		[redacted]		<0.1	125/12.5	3	1X/10X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08	27
B820260	*FZJ958-01R		[redacted]		<0.1	125/12.5	3	1X/10X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08	26
B820260	*FZJ959-01R		[redacted]		<0.1	125/12.5	3	1X/10X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08	25
B820260	*FZJ960-01R		[redacted]		<0.1	12.5/12.5	3	10X/50X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08	29
B820260	*FZJ961-01R		[redacted]		<0.1	25/5	3	5X/25X	2	2018/02/08	2018/02/09 23:00	DOD	2018/02/08	30
B823896*	*GAC701-01R		[redacted]		0	125	3	1X	2	2018/02/12	2018/02/08 17:00	DOD	2018/02/08	32
B823896*	*GAC702-01R		[redacted]		0	125	3	1X	2	2018/02/12	2018/02/08 17:00	DOD	2018/02/08	31
B823896*	*GAC703-01R		[redacted]		<0.1	125	3	1X	2	2018/02/12	2018/02/08 17:00	DOD	2018/02/08	30
B823896*	*GAC704-01R		[redacted]		<0.1	125	3	1X	2	2018/02/12	2018/02/08 17:00	DOD	2018/02/08	28

2018/02/08 SSV

Remarks: • Carbon clean up done.
• ADD standards Cross Refrence to 5391173.

Samples extracted by: Shivani Shivani

Instrumentation performed by: [signature] Date: 2018/02/09

Calculations performed by: RC Date: 2018/02/12

Validated by: CM Date: 2018/02/14

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.)	AECOM

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 Project #: JM10 CECIL

GB820260

GB823896

[redacted]

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B819794	FZH326-01R	
B819794	FZH327-01R	
B820260	FZJ942-01R	
B820260	FZJ955-01R	Centrifuge Sample at 4000 rpm.
B820260	FZJ956-01R	"
B820260	FZJ957-01R	"
B820260	FZJ958-01R	"
B820260	FZJ959-01R	
B820260	FZJ960-01R	
B820260	FZJ961-01R	
B823896	GAC701-01R	
B823896	GAC702-01R	
B823896	GAC703-01R	"
B823896	GAC704-01R	"

Job No.	Rep	Client Name	Contact	Client Tier	National
GB824253	Remarks	[redacted]			

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B824253	GAE028-01R	
B824253	GAE029-01R	
B824253	GAE030-01R	
B824253	GAE031-01R	
B824253	GAE032-01R	

Callibration standard Prepration#

	mcon(ul)	spk(ul)		IS
S_1	2825	25	SK-7377	150(ul)
S_2	2800	50		
S_3	2700	150		
S_4	2813	37.5	I-5297	
S_5	2775	75		
S_6	2725	125		
ICV	2788	62.5 — I-5299		
IB	2850			

2018/02/08

Folder: 20180209

AD

2018/02/12

ICAL and ICV info only.

MC 2018/02/22

Worksheet Reagent Tracking Record Worksheet # 5391181

Surrogate/Spike solutions	√	Solution ID #	Conc.	Volume (µL) Blk-Spk Solid	Blk-Spk Liquid	MS Solid	MS Liquid	Samples Solid	Samples Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299(1/3)	1ug/mL	75	21 62.5	75	21 62.5	NA	NA
PFC Internal Standard Solution	✓	SI-6763(4/4)	50/125 ng/mL	200	100 150	200	100 150	200	100 150
PFC Injection IS	✓	SI-6770(1/2)	~~400~~ 100 ng/mL	20	20	20	20	20	20
ICV	✓	I-5299(1/3)	1ug/mL						

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHBJ5451	2018/02/08	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRRF-108-348		DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRRF-108-342		0.2% NH_4OH	✓	PRRF-108-347	
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/02/08
0.05M HCl							

*Spiked by: SSV

Spike Date 2018/02/08

Spike Syringe/Pipette ID# G243906

Int. Std Syringe/Pipette ID# Internal Std - K19865F Injection IS # G243906

*Spiking Witnessed by: JBS

Final pH

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor K551916 K39732F K19865F	✓	SPE Cartridge	00343724 7A	✓	QC Balance ID	FC-1
	✓	Filter			Thermometer ID &Temp	
Dispenser		Centrifuge	42148683	10:00-10:05		
		Sonicator				

Bottle Tracking
Bottle# 19801
Cap# 18778
Systems plus Lot# 18/07/31

Comments: 250mL volumetric cylinder # 3026
Enviro Carb # 92806

* - SPIKING OF QC's & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet: 5391181

Dilution and Column Cleanup Worksheet

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added uL	New Effective Final Volume	INITIAL SSV DATE	Column Clean Up
B819794	FZN326	—	X10	12.5	—	150	12.5	2018/02/08	—
	FZN327	—	X10	12.5	—	150	12.5	2018/02/08	—
B820260	FZ0955	—	X10	12.5	—	150	12.5	2018/02/08	—
	FZ0956	—	X10	12.5	—	150	12.5	2018/02/08	—
	FZ0957	—	X10	12.5	—	150	12.5	2018/02/08	—
	FZ0958	—	X10	12.5	—	150	12.5	2018/02/08	—
	FZ0959	—	X10	12.5	—	150	12.5	2018/02/08	—
	FZ0960	—	10X	12.5	—	150	12.5	2018/02/08	—
	FZ0960	—	50X	2.5	122.5	150	12.5	2018/02/08	—
	FZ0961	—	5X	25	—	150	12.5	2018/02/08	—
	FZ0961	—	25X	5	—	150	12.5	2018/02/08	—

2018/02/08 SSV

10ml # K551916

LCMS no # 57297

250ml volumetric cylinder # 3026

Worksheet Number: **5391181**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	DL	B819794 FZH326
6:2 Fluorotelomer sulfonate	ug/L	96.70827	92.36588	100.03199	0	0.02	N/A*******
8:2 Fluorotelomer sulfonate	ug/L	91.81408	106.23205	109.24921	0	0.02	N/A*******
N-ethylperfluorooctane sulfonamide	ug/L	101.08976	94.83690	105.51872	0	0.02	N/A*******
EtFOSAA	ug/L	93.64505	97.47732	99.02687	0	0.02	0
N-ethylperfluorooctane sulfonamidoe	ug/L	98.35661	97.49657	91.43365	0	0.02	N/A*******
N-methylperfluorooctane sulfonamide	ug/L	106.69019	96.96394	102.40896	0	0.02	N/A*******
MeFOSAA	ug/L	90.65398	92.97013	95.31657	0	0.02	0
N-methylperfluorooctanesulfonamidol	ug/L	91.58780	112.05045	107.69873	0	0.02	N/A*******
Perfluorobutanoic acid	ug/L	92.06953	96.62390	102.06880	0	0.02	N/A*******
Perfluorobutane Sulfonate (PFBS)	ug/L	94.91128	93.64115	104.50455	0	0.02	0.03848996
Perfluorodecane Sulfonate	ug/L	81.68994	84.84862	89.18551	0	0.02	N/A*******
Perfluoroheptanoic Acid (PFHpA)	ug/L	98.69240	101.67661	102.51565	0	0.02	0.03554279
Perfluoroheptane sulfonate	ug/L	96.89477	102.91284	98.61699	0	0.02	N/A*******
Perfluorohexanoic Acid (PFHxA)	ug/L	92.30878	94.04653	88.63519	0	0.02	0.22131574
Perfluorohexane Sulfonate (PFHxS)	ug/L	II 51.04NC	II 41.00NC	104.82054	0	0.02	1.61480876
Perfluorononanoic Acid (PFNA)	ug/L	98.89480	101.52023	100.56431	0	0.02	0.01559371
Perfluorooctane Sulfonamide (PFOSA)	ug/L	97.46556	94.50992	97.72600	0	0.02	N/A*******
Perfluoropentanoic Acid (PFPeA)	ug/L	101.51794	103.82380	99.02010	0	0.02	N/A*******
Perfluorotetradecanoic Acid	ug/L	92.72039	103.59593	102.62527	0	0.02	0
Perfluorotridecanoic Acid	ug/L	II 130.795	II 146.389	106.51679	0	0.02	0
Perfluoroundecanoic Acid (PFUnA)	ug/L	93.33003	103.35569	96.89016	0	0.02	0
Perfluorodecanoic Acid (PFDA)	ug/L	90.78671	94.38074	96.47627	0	0.02	0
Perfluorododecanoic Acid (PFDoA)	ug/L	92.37735	99.91787	96.82999	0	0.02	0
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	103.14438	100.27876	104.47459	0	0.02	2.25362529
Perfluorooctane Sulfonate (PFOS)	ug/L	111.1925NC	86.19388NC	79.90421	0	0.02	1.01681571
13C2-6:2 Fluorotelomer sulfonate	ug/L	85.0480720	88.2084508	86.4085462	103.453426		N/A*******
13C2-8:2 Fluorotelomer sulfonate	ug/L	93.1810461	82.2200494	82.6905964	101.609466		N/A*******
13C2-perfluorotetradecanoic acid	ug/L	II 46.0679	II 37.7201	80.4923179	85.8609051		63.7697710
13C4-Perfluorobutanoic acid	ug/L	94.7250634	94.4080255	91.7212088	101.839418		N/A*******
D3-MeFOSAA	ug/L	73.3530179	74.5471585	81.1306027	80.8891117		79.5975231
D5-EtFOSAA	ug/L	73.1005586	71.6097998	79.5146701	87.5220640		80.0692946
N-methyl-d3-perfluorooctane sulfona	ug/L	75.6828062	64.8267390	73.8134754	79.1614097		N/A*******
N-ethyl-d5-perfluorooctane sulfonam	ug/L	71.6539715	68.8165829	82.3964367	80.5380601		N/A*******
13C2-Perfluorodecanoic acid	ug/L	87.6974607	81.0604847	93.5168532	101.264812		85.5343253
13C2-Perfluorododecanoic acid	ug/L	72.2617296	64.7291135	84.3697923	86.4840932		82.7976684
13C2-Perfluorohexanoic acid	ug/L	96.4541377	95.9570835	95.7946435	99.8270641		91.9088142
13C2-Perfluoroundecanoic acid	ug/L	81.5651302	71.3247235	93.1363422	92.5037708		72.3986343
13C4-Perfluoroheptanoic acid	ug/L	94.8473929	91.0563152	89.8112486	99.7798574		96.1649267
13C5-Perfluorononanoic acid	ug/L	94.3791643	89.7594803	92.5982101	91.4306818		85.6828138
13C4-Perfluorooctanoic acid	ug/L	92.4165405	95.1387521	91.5274074	107.396601		89.9870287
13C4-Perfluorooctanesulfonate	ug/L	81.4365188	88.8111060	104.619902	98.9704921		93.6087981
13C5-Perfluoropentanoic acid	ug/L	97.1409548	93.2163155	96.2358731	102.367435		N/A*******
13C8-Perfluorooctane Sulfonamide	ug/L	86.3221696	81.4515629	84.8275905	94.7335062		N/A*******
18O2-Perfluorohexanesulfonate	ug/L	95.8396247	100.607821	87.9595396	95.1800248		105.138889

KC 2018/02/12

Worksheet Number: **5391181**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B819794 FZH327	DL	B820260 FZJ942	DL	B820260 FZJ955	B820260 FZJ956	DL
6:2 Fluorotelomer sulfonate	N/A*******	0.02	0	0.02	0	0	0.02
8:2 Fluorotelomer sulfonate	N/A*******	0.02	0	0.02	0	0	0.02
N-ethylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
EtFOSAA	0	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
N-ethylperfluorooctane sulfonamidoe	N/A*******	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
N-methylperfluorooctane sulfonamide	N/A*******	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
MeFOSAA	0	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
N-methylperfluorooctanesulfonamidol	N/A*******	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
Perfluorobutanoic acid	N/A*******	0.02	0	0.02	0.07405148	0.07589147	0.02
Perfluorobutane Sulfonate (PFBS)	0.09242612	0.02	0	0.02	0.03965226	0.03395567	0.02
Perfluorodecane Sulfonate	N/A*******	0.02	0	0.02	0	0	0.02
Perfluoroheptanoic Acid (PFHpA)	0.14832400	0.02	0	0.02	0.02687489	0.02413416	0.02
Perfluoroheptane sulfonate	N/A*******	0.02	N/A*******	0.02	N/A*******	N/A*******	0.02
Perfluorohexanoic Acid (PFHxA)	0.75304074	0.02	0	0.02	0.25466174	0.26927519	0.02
Perfluorohexane Sulfonate (PFHxS)	3.43159562	0.20	0	0.02	1.09267380	1.06946328	0.20
Perfluorononanoic Acid (PFNA)	0.03654888	0.02	0	0.02	0	0	0.02
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	0.02	0	0.02	0	0	0.02
Perfluoropentanoic Acid (PFPeA)	N/A*******	0.02	0	0.02	0.04725727	0.05184042	0.02
Perfluorotetradecanoic Acid	0	0.02	0	0.02	0	0	0.02
Perfluorotridecanoic Acid	0	0.02	0	0.02	0	0	0.02
Perfluoroundecanoic Acid (PFUnA)	0	0.02	0	0.02	0	0	0.02
Perfluorodecanoic Acid (PFDA)	0.07369929	0.02	0	0.02	0	0	0.02
Perfluorododecanoic Acid (PFDoA)	0	0.02	0	0.02	0	0	0.02
Perfluoro-n-Octanoic Acid (PFOA)	4.17047764	0.20	0	0.02	0.09569128	0.09231902	0.02
Perfluorooctane Sulfonate (PFOS)	2.29367635	0.20	0	0.02	1.37745645	1.37429382	0.20
13C2-6:2 Fluorotelomer sulfonate	N/A*******		99.4709478		92.4936534	85.5439064	
13C2-8:2 Fluorotelomer sulfonate	N/A*******		102.576744		93.1796170	85.7932369	
13C2-perfluorotetradecanoic acid	62.7186675		72.6396163		60.6251410	68.8480560	
13C4-Perfluorobutanoic acid	N/A*******		107.780951		91.2863461	98.0999406	
D3-MeFOSAA	85.5570757		N/A*******		N/A*******	N/A*******	
D5-EtFOSAA	81.3792489		N/A*******		N/A*******	N/A*******	
N-methyl-d3-perfluorooctane sulfona	N/A*******		N/A*******		N/A*******	N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	N/A*******		N/A*******		N/A*******	N/A*******	
13C2-Perfluorodecanoic acid	95.9757377		95.2979581		82.8743148	86.7551184	
13C2-Perfluorododecanoic acid	85.1680878		83.5742092		72.9909892	75.2745084	
13C2-Perfluorohexanoic acid	100.767884		98.2117080		95.8949265	92.2252939	
13C2-Perfluoroundecanoic acid	91.5362503		86.5241247		79.7359465	81.9713568	
13C4-Perfluoroheptanoic acid	99.2148895		108.753535		98.8526066	97.8554264	
13C5-Perfluorononanoic acid	101.337094		91.7606696		90.1261119	98.2804173	
13C4-Perfluorooctanoic acid	98.4394235		101.066499		98.8863914	101.197237	
13C4-Perfluorooctanesulfonate	94.9509918		101.891887		101.249235	93.1206903	
13C5-Perfluoropentanoic acid	N/A*******		102.672027		94.0142993	94.8458552	
13C8-Perfluorooctane Sulfonamide	N/A*******		91.0994201		89.6013484	90.7999066	
18O2-Perfluorohexanesulfonate	91.9627718		100.813561		113.084787	103.570221	

Worksheet Number: **5391181**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B820260 FZJ957	B820260 FZJ958	B820260 FZJ959	DL	B820260 FZJ960	DL	B820260 FZJ961
6:2 Fluorotelomer sulfonate	0.04974504	0.05424333	0.06449380	0.02	31.9163707	1.0	32.2962597
8:2 Fluorotelomer sulfonate	0	0	0	0.02	4.89933013	0.20	4.17456447
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
EtFOSAA	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
MeFOSAA	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
Perfluorobutanoic acid	0.06535158	0.03607045	0.07836658	0.02	1.60742324	0.20	1.56195759
Perfluorobutane Sulfonate (PFBS)	0.06402683	0.02742408	0.03798547	0.02	0.16301560	0.20	0.12110193
Perfluorodecane Sulfonate	0	0	0	0.02	0	0.20	0
Perfluoroheptanoic Acid (PFHpA)	0.09685969	0.07097721	0.15858021	0.02	3.84589075	0.20	3.99085407
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.20	N/A*******
Perfluorohexanoic Acid (PFHxA)	0.14853802	0.13641467	0.19852972	0.02	4.29306109	0.20	4.00191008
Perfluorohexane Sulfonate (PFHxS)	0.41241037	0.56075599	0.42570356	0.02	3.80476171	0.20	3.30938765
Perfluorononanoic Acid (PFNA)	0.06606714	0.05398288	0.11336051	0.02	1.22610206	0.20	1.30779193
Perfluorooctane Sulfonamide (PFOSA)	0	0	0	0.02	0	0.20	0
Perfluoropentanoic Acid (PFPeA)	0.14683171	0.10585420	0.22387809	0.02	5.24047567	0.20	4.94102874
Perfluorotetradecanoic Acid	0.00000	0	0	0.02	0	0.20	0
Perfluorotridecanoic Acid	0.00000	0	0.00921832	0.02	0	0.20	0
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0.02	0	0.20	0
Perfluorodecanoic Acid (PFDA)	0	0	0	0.02	0	0.20	0
Perfluorododecanoic Acid (PFDoA)	0	0	0	0.02	0	0.20	0
Perfluoro-n-Octanoic Acid (PFOA)	0.18397826	0.19136755	0.30109728	0.02	3.30353717	0.20	3.20533942
Perfluorooctane Sulfonate (PFOS)	0.29636302	0.20838325	0.50253337	0.02	21.0871686	1.0	20.3954952
13C2-6:2 Fluorotelomer sulfonate	95.4919409	95.7488174	85.2691482		91.1277076		84.6510311
13C2-8:2 Fluorotelomer sulfonate	92.4278522	97.0409503	81.6397968		93.2161445		85.4770857
13C2-perfluorotetradecanoic acid	II 44.2847	85.6193640	49.5000598		63.8301031		56.8302436
13C4-Perfluorobutanoic acid	91.2382613	99.3868675	89.4229453		102.601412		96.3830424
D3-MeFOSAA	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
D5-EtFOSAA	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******		N/A*******		N/A*******
13C2-Perfluorodecanoic acid	100.529356	100.383410	86.3606850		84.2559871		90.0775911
13C2-Perfluorododecanoic acid	86.7943988	87.9373410	77.4393887		90.8093646		79.2916994
13C2-Perfluorohexanoic acid	101.346270	102.976334	91.8255590		97.8806249		100.725167
13C2-Perfluoroundecanoic acid	97.0179663	92.3000597	76.9075727		88.2244894		88.7095695
13C4-Perfluoroheptanoic acid	104.475926	103.249972	99.1260222		101.493204		88.8939540
13C5-Perfluorononanoic acid	103.635887	99.2852701	93.9098544		97.7051624		88.5054507
13C4-Perfluorooctanoic acid	99.9606542	99.8193732	99.1224498		100.462841		94.3578664
13C4-Perfluorooctanesulfonate	107.076173	111.953124	88.8434402		112.631192		93.7596653
13C5-Perfluoropentanoic acid	104.312817	98.8376544	93.7462923		98.0937078		96.3191221
13C8-Perfluorooctane Sulfonamide	98.5798571	94.0508767	83.7052351		79.5766400		82.0666807
18O2-Perfluorohexanesulfonate	109.097251	99.3936113	96.4821495		91.7106747		99.6168656

Worksheet Number: **5391181**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

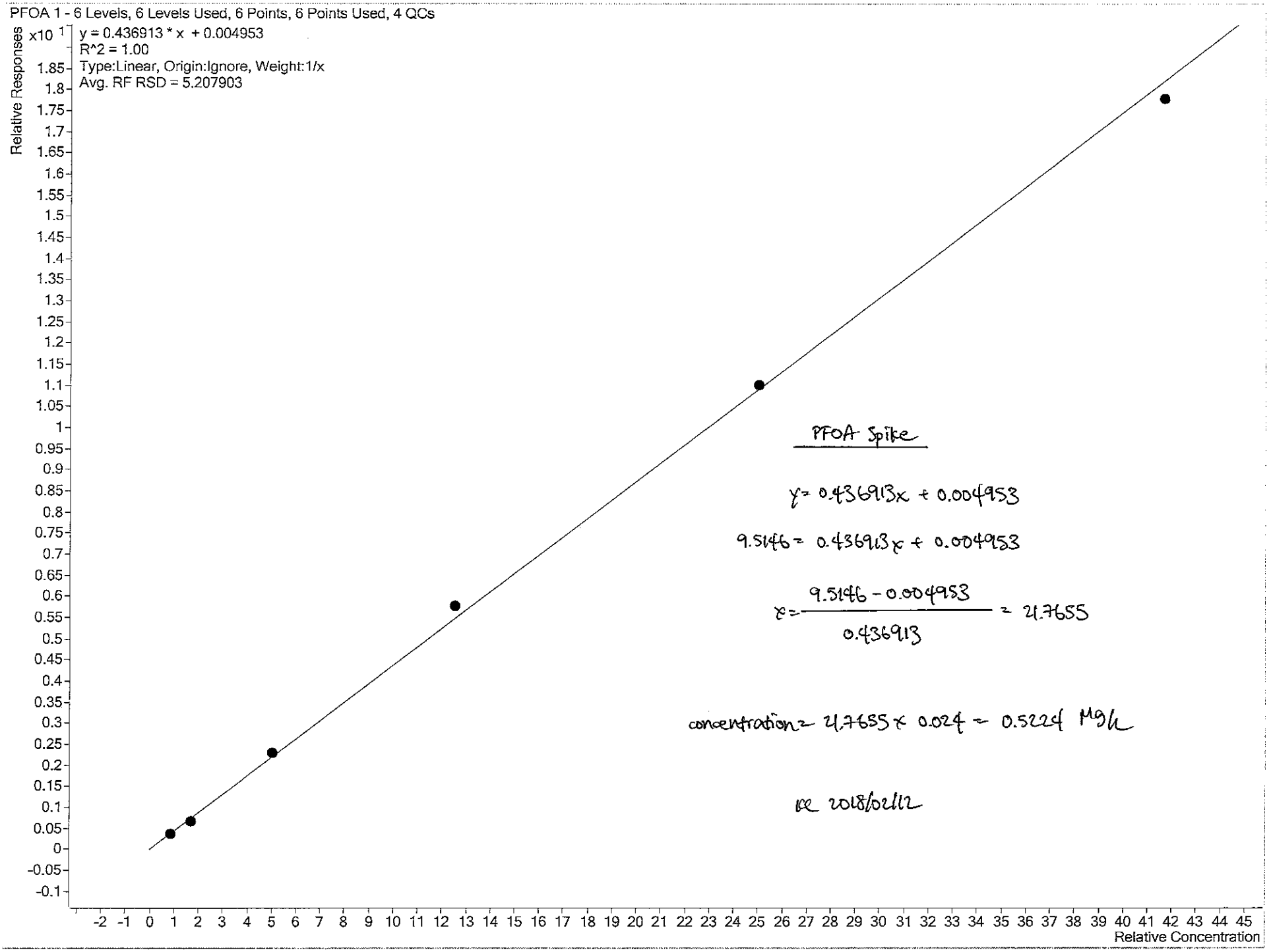
Parameter Name	DL	B823896 GAC701	B823896 GAC702	B823896 GAC703	B823896 GAC704	DL	RDL
6:2 Fluorotelomer sulfonate	1.0	0	0	0	0.00533983	0.02	0.02
8:2 Fluorotelomer sulfonate	0.10	0	0	0	0	0.02	0.02
N-ethylperfluorooctane sulfonamide	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
EtFOSAA	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
N-ethylperfluorooctane sulfonamidoe	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
N-methylperfluorooctane sulfonamide	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
MeFOSAA	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
N-methylperfluorooctanesulfonamidol	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
Perfluorobutanoic acid	0.10	0	0	0	0	0.02	0.02
Perfluorobutane Sulfonate (PFBS)	0.10	0	0	0	0	0.02	0.02
Perfluorodecane Sulfonate	0.10	0	0	0	0	0.02	0.02
Perfluoroheptanoic Acid (PFHpA)	0.10	0	0	0	0	0.02	0.02
Perfluoroheptane sulfonate	0.10	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
Perfluorohexanoic Acid (PFHxA)	0.10	0	0	0	0	0.02	0.02
Perfluorohexane Sulfonate (PFHxS)	0.10	0	0	0	0	0.02	0.02
Perfluorononanoic Acid (PFNA)	0.10	0	0	0	0	0.02	0.02
Perfluorooctane Sulfonamide (PFOSA)	0.10	0	0	0	0.01975801	0.02	0.02
Perfluoropentanoic Acid (PFPeA)	0.50	0	0	0	0.02161782	0.02	0.02
Perfluorotetradecanoic Acid	0.10	0	0	0	0	0.02	0.02
Perfluorotridecanoic Acid	0.10	0	0	0	0	0.02	0.02
Perfluoroundecanoic Acid (PFUnA)	0.10	0	0	0	0	0.02	0.02
Perfluorodecanoic Acid (PFDA)	0.10	0	0	0	0	0.02	0.02
Perfluorododecanoic Acid (PFDoA)	0.10	0	0	0	0	0.02	0.02
Perfluoro-n-Octanoic Acid (PFOA)	0.10	0	0	0	0	0.02	0.02
Perfluorooctane Sulfonate (PFOS)	1.0	0	0	0	0	0.02	0.02
13C2-6:2 Fluorotelomer sulfonate		97.8102296	69.1507251	86.6695700	84.6246618		
13C2-8:2 Fluorotelomer sulfonate		104.246905	99.9689768	86.7895649	93.9761362		
13C2-perfluorotetradecanoic acid		83.7687089	74.9093051	72.0503597	55.1062911		
13C4-Perfluorobutanoic acid		97.2961709	93.7239087	61.2124320	!! 44.2962		
D3-MeFOSAA		N/A*******	N/A*******	N/A*******	N/A*******		
D5-EtFOSAA		N/A*******	N/A*******	N/A*******	N/A*******		
N-methyl-d3-perfluorooctane sulfona		N/A*******	N/A*******	N/A*******	N/A*******		
N-ethyl-d5-perfluorooctane sulfonam		N/A*******	N/A*******	N/A*******	N/A*******		
13C2-Perfluorodecanoic acid		94.5293874	97.2619905	100.004643	99.2075459		
13C2-Perfluorododecanoic acid		85.0062081	113.615132	88.1467309	80.9769992		
13C2-Perfluorohexanoic acid		95.0527718	101.390681	102.428175	83.0127347		
13C2-Perfluoroundecanoic acid		86.1519819	118.017543	93.7841008	95.5079443		
13C4-Perfluoroheptanoic acid		96.4226955	102.700745	96.2290443	94.7953905		
13C5-Perfluorononanoic acid		97.7893662	!! 26.4300	99.4082956	83.7546603		
13C4-Perfluorooctanoic acid		96.9773259	65.5087477	101.579765	88.4210084		
13C4-Perfluorooctanesulfonate		97.5409840	84.3147161	98.5243325	89.3998315		
13C5-Perfluoropentanoic acid		93.0204094	93.7041878	106.787873	89.4170762		
13C8-Perfluorooctane Sulfonamide		86.4836877	108.378743	85.3341079	88.4336828		
18O2-Perfluorohexanesulfonate		94.8958372	105.951862	102.019143	88.8595791		

Worksheet Number: **5391181**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	MDL	IDL					
6:2 Fluorotelomer sulfonate	0.0066	0					
8:2 Fluorotelomer sulfonate	0.0066	0					
N-ethylperfluorooctane sulfonamide	0.01	0					
EtFOSAA	0.0033	0					
N-ethylperfluorooctane sulfonamidoe	0.0079	0					
N-methylperfluorooctane sulfonamide	0.013	0					
MeFOSAA	0.0029	0					
N-methylperfluorooctanesulfonamidol	0.012	0					
Perfluorobutanoic acid	0.0055	0					
Perfluorobutane Sulfonate (PFBS)	0.0054	0					
Perfluorodecane Sulfonate	0.006	0					
Perfluoroheptanoic Acid (PFHpA)	0.0074	0					
Perfluoroheptane sulfonate	0.008	0					
Perfluorohexanoic Acid (PFHxA)	0.0035	0					
Perfluorohexane Sulfonate (PFHxS)	0.0056	0					
Perfluorononanoic Acid (PFNA)	0.0087	0					
Perfluorooctane Sulfonamide (PFOSA)	0.0034	0					
Perfluoropentanoic Acid (PFPeA)	0.0075	0					
Perfluorotetradecanoic Acid	0.0027	0					
Perfluorotridecanoic Acid	0.0038	0					
Perfluoroundecanoic Acid (PFUnA)	0.0025	0					
Perfluorodecanoic Acid (PFDA)	0.0061	0					
Perfluorododecanoic Acid (PFDoA)	0.005	0					
Perfluoro-n-Octanoic Acid (PFOA)	0.0033	0					
Perfluorooctane Sulfonate (PFOS)	0.006	0					
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



PFOA Spike

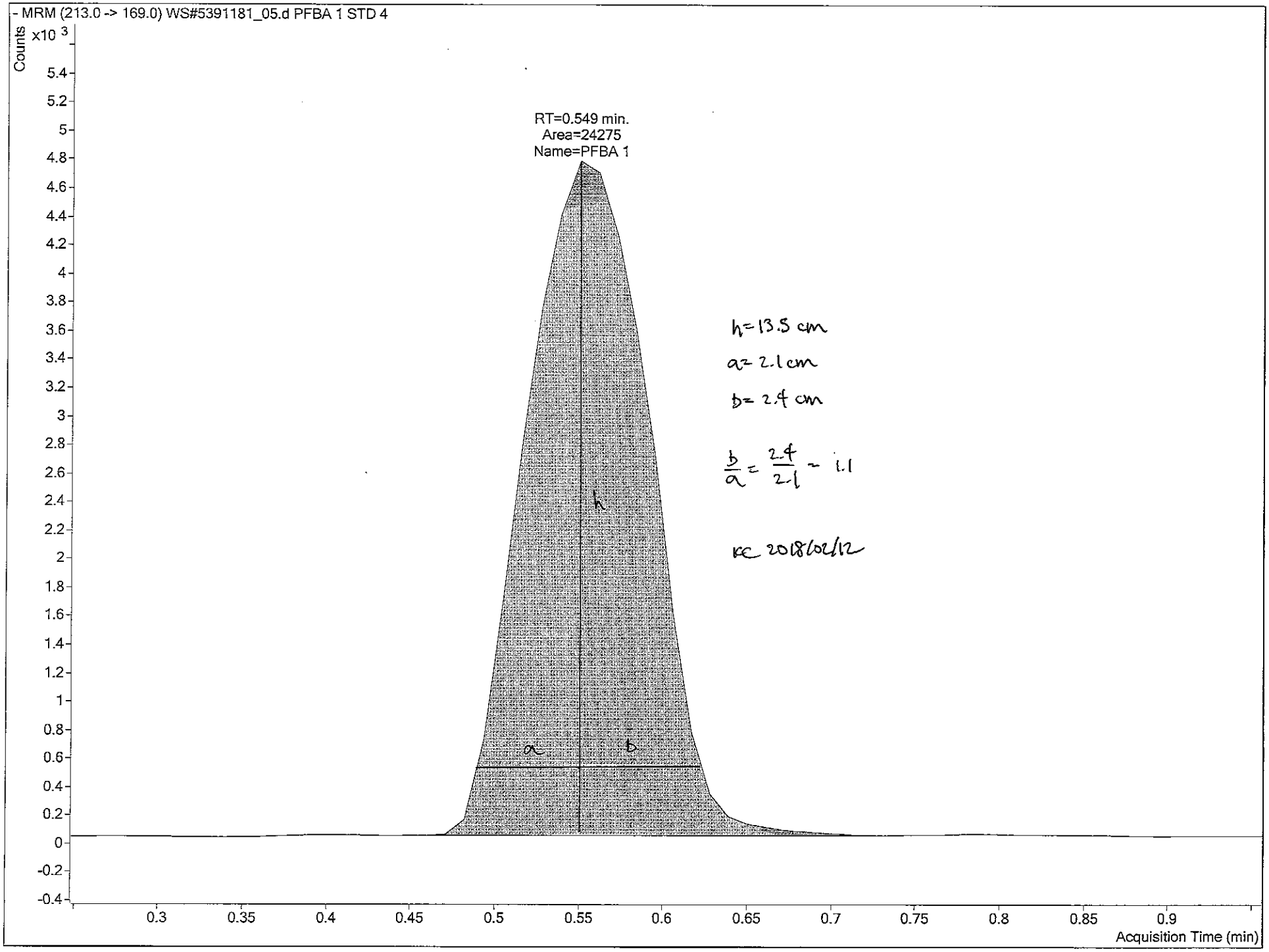
$y = 0.436913x + 0.004953$

$9.5146 = 0.436913x + 0.004953$

$x = \frac{9.5146 - 0.004953}{0.436913} = 21.7655$

concentration = $21.7655 \times 0.024 = 0.5224$ mg/L

RE 2018/02/12



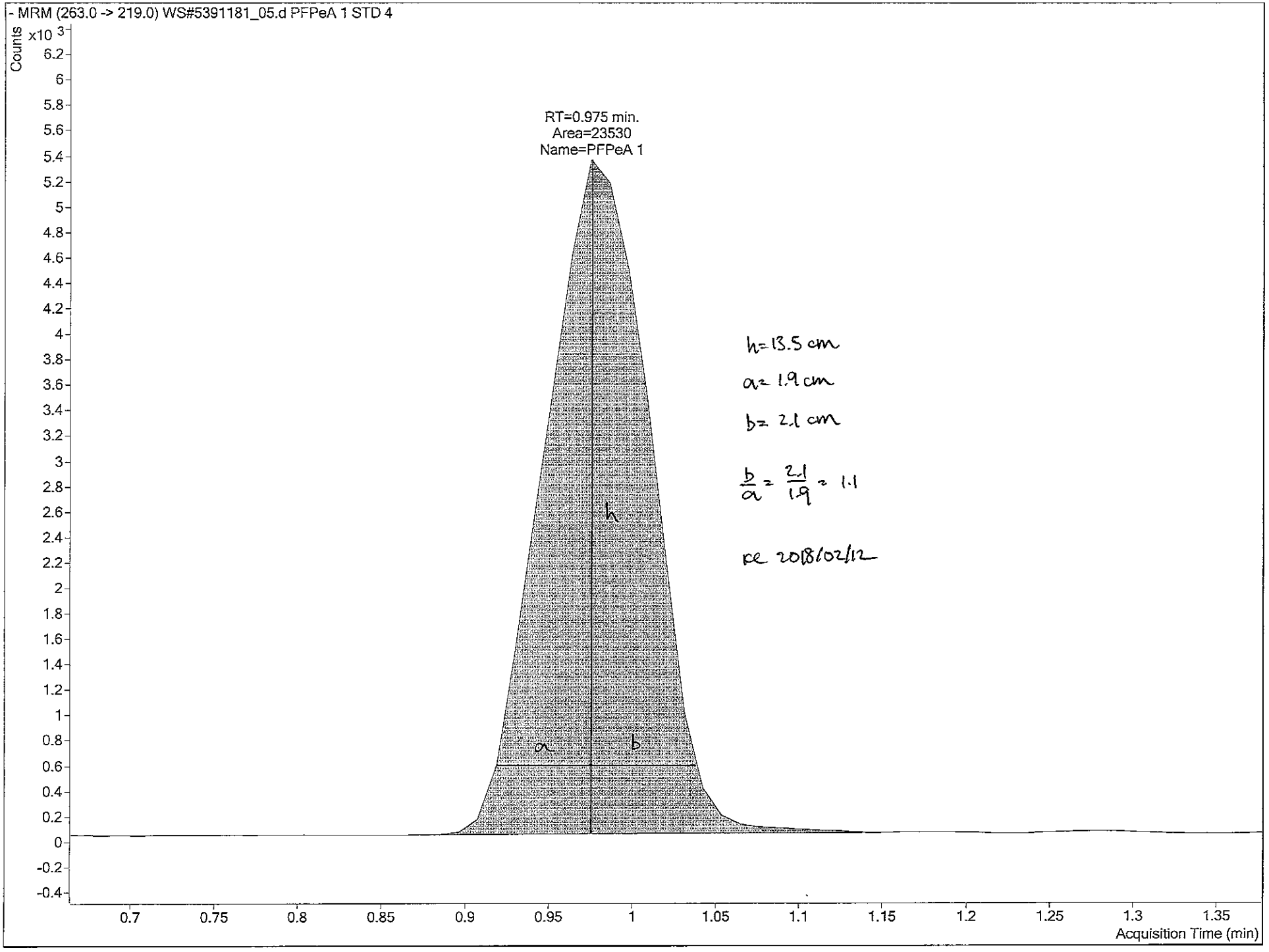
h = 13.5 cm

a = 2.1 cm

b = 2.4 cm

$\frac{b}{a} = \frac{2.4}{2.1} = 1.1$

KC 2018/02/12



h = 13.5 cm

a = 1.9 cm

b = 2.1 cm

$\frac{b}{a} = \frac{2.1}{1.9} = 1.1$

RE 2018/02/12

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/08

Test Code: **PFOSALCM-W**

Worksheet Number: **5391181**

Sample Number	Parameter Code	Parameter	
FZH326-01	ETFOSAA	EtFOSAA	*
FZH327-01	MEFOSAA	MeFOSAA	*
	PFBS	Perfluorobutane Sulfonate (PFBS)	
	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)	
	PFOS	Perfluorooctane Sulfonate (PFOS)	
FZJ942-01	6:2FTS	6:2 Fluorotelomer sulfonate	*
FZJ955-01	8:2FTS	8:2 Fluorotelomer sulfonate	*
FZJ956-01	PFBA	Perfluorobutanoic acid	
FZJ957-01	PFBS	Perfluorobutane Sulfonate (PFBS)	
FZJ958-01	PFDS	Perfluorodecane Sulfonate	
FZJ959-01	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
FZJ960-01	PFHXA	Perfluorohexanoic Acid (PFHxA)	
FZJ961-01	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
GAC701-01	PFNA	Perfluorononanoic Acid (PFNA)	
GAC702-01	PFOSA	Perfluorooctane Sulfonamide (PFOSA)	
GAC703-01	PFPEA	Perfluoropentanoic Acid	

* - This parameter is usually off, but will be reported for this group of samples!

Report Name: Worksheet - Parameter Lists
Report Date: 2018/02/08

Test Code: **PFOSALCM-W**
Worksheet Number: **5391181**

Sample Number	Parameter Code	Parameter
		(PFPeA)
GAC704-01	PFTEDA	Perfluorotetradecanoic Acid
	PFTRDA	Perfluorotridecanoic Acid
	PFUNA	Perfluoroundecanoic Acid (PFUnA)
	PFDA	Perfluorodecanoic Acid (PFDA)
	PFDOA	Perfluorododecanoic Acid (PFDoA)
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)
	PFOS	Perfluorooctane Sulfonate (PFOS)

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5391181 Instrument Sequences

1.	5391181:MTRX SPK	MTRX SPK
2.	5391181:MTRX SPK:D1	MTRX SPK :D1
3.	5391181:SPIKE	SPIKE
4.	5391181:BLANK	BLANK
5.	5391181:FZH326-01	CEF-007-TW01-0118
6.	5391181:FZH327-01	CEF-007-TW02-0118
7.	5391181:FZJ942-01	[redacted]
8.	5391181:FZJ955-01	[redacted]
9.	5391181:FZJ956-01	[redacted]
10.	5391181:FZJ957-01	[redacted]
11.	5391181:FZJ958-01	[redacted]
12.	5391181:FZJ959-01	[redacted]
13.	5391181:FZJ960-01	[redacted]
14.	5391181:FZJ961-01	[redacted]
15.	5391181:GAC701-01	[redacted]
16.	5391181:GAC702-01	[redacted]
17.	5391181:GAC703-01	[redacted]
18.	5391181:GAC704-01	[redacted]

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180209_Low.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180209\WS#5391181
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B1: Methanol lot# SHBJ6339, Sigma

20180209 LL

verified by ICC
20180209

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P1-A1	PFC_Water_Low.m	WS#5391181_01.d	Sample		As Method	-
2	STD 1	P1-C1	PFC_Water_Low.m	WS#5391181_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-C2	PFC_Water_Low.m	WS#5391181_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-C3	PFC_Water_Low.m	WS#5391181_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-C4	PFC_Water_Low.m	WS#5391181_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-C5	PFC_Water_Low.m	WS#5391181_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-C6	PFC_Water_Low.m	WS#5391181_07.d	Calibration	STD 6	As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P1-C7	PFC_Water_Low.m	WS#5391181_08.d	Sample		As Method	-
9	ICV	P1-C8	PFC_Water_Low.m	WS#5391181_09.d	QC	ICV	As Method	-
10	ISC	P1-A2	PFC_Water_Low.m	WS#5391181_10.d	ConCal	STD 1	As Method	-
11	5391181:BLANK	P1-C9	PFC_Water_Low.m	WS#5391181_11.d	Sample		As Method	-
12	5391181:SPIKE	P1-D1	PFC_Water_Low.m	WS#5391181_12.d	QC	ICV	As Method	-
13	5391181:MTRX SPK	P1-D2	PFC_Water_Low.m	WS#5391181_13.d	QC	ICV	As Method	-
14	5391181:MTRX SPK:D1	P1-D3	PFC_Water_Low.m	WS#5391181_14.d	QC	ICV	As Method	-
15	IB	P1-C7	PFC_Water_Low.m	WS#5391181_15.d	Sample		As Method	-
16	5391181:FZH326-01:10x	P1-D4	PFC_Water_Low.m	WS#5391181_16.d	Sample		As Method	-
17	5391181:FZH326-01	P1-D5	PFC_Water_Low.m	WS#5391181_17.d	Sample		As Method	-
18	IB	P1-C7	PFC_Water_Low.m	WS#5391181_18.d	Sample		As Method	-
19	5391181:FZH327-01:10x	P1-D6	PFC_Water_Low.m	WS#5391181_19.d	Sample		As Method	-
20	5391181:FZH327-01	P1-D7	PFC_Water_Low.m	WS#5391181_20.d	Sample		As Method	-
21	IB	P1-C7	PFC_Water_Low.m	WS#5391181_21.d	Sample		As Method	-
22	5391181:FZJ942-01	P1-D8	PFC_Water_Low.m	WS#5391181_22.d	Sample		As Method	-
23	5391181:FZJ955-01:10x	P1-D9	PFC_Water_Low.m	WS#5391181_23.d	Sample		As Method	-
24	5391181:FZJ955-01	P1-E1	PFC_Water_Low.m	WS#5391181_24.d	Sample		As Method	-
25	IB	P1-C7	PFC_Water_Low.m	WS#5391181_25.d	Sample		As Method	-
26	5391181:FZJ956-01:10x	P1-E2	PFC_Water_Low.m	WS#5391181_26.d	Sample		As Method	-
27	5391181:FZJ956-01	P1-E3	PFC_Water_Low.m	WS#5391181_27.d	Sample		As Method	-
28	IB	P1-C7	PFC_Water_Low.m	WS#5391181_28.d	Sample		As Method	-
29	CCV	P1-A5	PFC_Water_Low.m	WS#5391181_29.d	ConCal	STD 4	As Method	-
30	5391181:FZJ957-01:10x	P1-E4	PFC_Water_Low.m	WS#5391181_30.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5391181:FZJ957-01	P1-E5	PFC_Water_Low.m	WS#5391181_31.d	Sample		As Method	-
32	IB	P1-C7	PFC_Water_Low.m	WS#5391181_32.d	Sample		As Method	-
33	5391181:FZJ958-01:10x	P1-E6	PFC_Water_Low.m	WS#5391181_33.d	Sample		As Method	-
34	5391181:FZJ958-01	P1-E7	PFC_Water_Low.m	WS#5391181_34.d	Sample		As Method	-
35	IB	P1-C7	PFC_Water_Low.m	WS#5391181_35.d	Sample		As Method	-
36	5391181:FZJ959-01:10x	P1-E8	PFC_Water_Low.m	WS#5391181_36.d	Sample		As Method	-
37	5391181:FZJ959-01	P1-E9	PFC_Water_Low.m	WS#5391181_37.d	Sample		As Method	-
38	IB	P1-C7	PFC_Water_Low.m	WS#5391181_38.d	Sample		As Method	-
39	5391181:FZJ960-01:50x	P1-F1	PFC_Water_Low.m	WS#5391181_39.d	Sample		As Method	-
40	5391181:FZJ960-01:10x	P1-F2	PFC_Water_Low.m	WS#5391181_40.d	Sample		As Method	-
41	IB	P1-C7	PFC_Water_Low.m	WS#5391181_41.d	Sample		As Method	-
42	5391181:FZJ961-01:25x	P1-F3	PFC_Water_Low.m	WS#5391181_42.d	Sample		As Method	-
43	5391181:FZJ961-01:5x	P1-F4	PFC_Water_Low.m	WS#5391181_43.d	Sample		As Method	-
44	IB	P1-C7	PFC_Water_Low.m	WS#5391181_44.d	Sample		As Method	-
45	CCV	P1-A5	PFC_Water_Low.m	WS#5391181_45.d	ConCal	STD 4	As Method	-
46	5391181:GAC701-01	P1-F5	PFC_Water_Low.m	WS#5391181_46.d	Sample		As Method	-
47	5391181:GAC702-01	P1-F6	PFC_Water_Low.m	WS#5391181_47.d	Sample		As Method	-
48	5391181:GAC703-01	P1-F7	PFC_Water_Low.m	WS#5391181_48.d	Sample		As Method	-
49	5391181:GAC704-01	P1-F8	PFC_Water_Low.m	WS#5391181_49.d	Sample		As Method	-
50	CCV	P1-A5	PFC_Water_Low.m	WS#5391181_50.d	ConCal	STD 4	As Method	-

Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180209_Low_FOSAA.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180209\WS#5391181_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B1: Solution# 272 (FSRE18)

2018/02/09

verified by RE
2018/02/09

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P1-A1	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_01.d	Sample		As Method	-
2	STD 1	P1-C1	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-C2	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-C3	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-C4	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-C5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-C6	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P1-C8	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P1-A2	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5391181:BLANK	P1-C9	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_11.d	Sample		As Method	-
12	5391181:SPIKE	P1-D1	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_12.d	QC	ICV	As Method	-
13	5391181:MTRX SPK	P1-D2	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_13.d	QC	ICV	As Method	-
14	5391181:MTRX SPK:D1	P1-D3	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_14.d	QC	ICV	As Method	-
15	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_15.d	Sample		As Method	-
16	5391181:FZH326-01:10x	P1-D4	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_16.d	Sample		As Method	-
17	5391181:FZH326-01	P1-D5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_17.d	Sample		As Method	-
18	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_18.d	Sample		As Method	-
19	5391181:FZH327-01:10x	P1-D6	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_19.d	Sample		As Method	-
20	5391181:FZH327-01	P1-D7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_20.d	Sample		As Method	-
21	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_21.d	Sample		As Method	-
22	5391181:FZJ942-01	P1-D8	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_22.d	Sample		As Method	-
23	5391181:FZJ955-01:10x	P1-D9	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_23.d	Sample		As Method	-
24	5391181:FZJ955-01	P1-E1	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_24.d	Sample		As Method	-
25	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_25.d	Sample		As Method	-
26	5391181:FZJ956-01:10x	P1-E2	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_26.d	Sample		As Method	-
27	5391181:FZJ956-01	P1-E3	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_27.d	Sample		As Method	-
28	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_28.d	Sample		As Method	-
29	CCV	P1-A5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_29.d	ConCal	STD 4	As Method	-
30	5391181:FZJ957-01:10x	P1-E4	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_30.d	Sample		As Method	-
31	5391181:FZJ957-01	P1-E5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_31.d	Sample		As Method	-
32	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_32.d	Sample		As Method	-
33	5391181:FZJ958-01:10x	P1-E6	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_33.d	Sample		As Method	-
34	5391181:FZJ958-01	P1-E7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_34.d	Sample		As Method	-

Maxxam Analytics

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
35	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_35.d	Sample		As Method	-
36	5391181:FZJ959-01:10x	P1-E8	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_36.d	Sample		As Method	-
37	5391181:FZJ959-01	P1-E9	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_37.d	Sample		As Method	-
38	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_38.d	Sample		As Method	-
39	5391181:FZJ960-01:50x	P1-F1	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_39.d	Sample		As Method	-
40	5391181:FZJ960-01:10x	P1-F2	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_40.d	Sample		As Method	-
41	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_41.d	Sample		As Method	-
42	5391181:FZJ961-01:25x	P1-F3	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_42.d	Sample		As Method	-
43	5391181:FZJ961-01:5x	P1-F4	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_43.d	Sample		As Method	-
44	IB	P1-C7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_44.d	Sample		As Method	-
45	CCV	P1-A5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_45.d	ConCal	STD 4	As Method	-
46	5391181:GAC701-01	P1-F5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_46.d	Sample		As Method	-
47	5391181:GAC702-01	P1-F6	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_47.d	Sample		As Method	-
48	5391181:GAC703-01	P1-F7	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_48.d	Sample		As Method	-
49	5391181:GAC704-01	P1-F8	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_49.d	Sample		As Method	-
50	CCV	P1-A5	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_50.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/09 12:32 PM	PFC_Water_Low.m	WS#5391181_02.d	P1-C1
STD 2	-	2018/02/09 12:37 PM	PFC_Water_Low.m	WS#5391181_03.d	P1-C2
STD 3	-	2018/02/09 12:42 PM	PFC_Water_Low.m	WS#5391181_04.d	P1-C3
STD 4	-	2018/02/09 12:47 PM	PFC_Water_Low.m	WS#5391181_05.d	P1-C4
STD 5	-	2018/02/09 12:51 PM	PFC_Water_Low.m	WS#5391181_06.d	P1-C5
STD 6	-	2018/02/09 12:56 PM	PFC_Water_Low.m	WS#5391181_07.d	P1-C6
IB	-	2018/02/09 1:01 PM	PFC_Water_Low.m	WS#5391181_08.d	P1-C7
ICV	-	2018/02/09 1:06 PM	PFC_Water_Low.m	WS#5391181_09.d	P1-C8
ISC	-	2018/02/09 1:11 PM	PFC_Water_Low.m	WS#5391181_10.d	P1-A2
5391181:BLANK	-	2018/02/09 1:16 PM	PFC_Water_Low.m	WS#5391181_11.d	P1-C9
5391181:SPIKE	-	2018/02/09 1:21 PM	PFC_Water_Low.m	WS#5391181_12.d	P1-D1
5391181:MTRX SPK	FZJ955	2018/02/09 1:26 PM	PFC_Water_Low.m	WS#5391181_13.d	P1-D2
5391181:MTRX SPK:D1	FZJ955	2018/02/09 1:31 PM	PFC_Water_Low.m	WS#5391181_14.d	P1-D3
IB	-	2018/02/09 1:36 PM	PFC_Water_Low.m	WS#5391181_15.d	P1-C7
5391181:FZH326-01:10x	Reported for PFHxS, PFOA, and PFOS only.	2018/02/09 1:41 PM	PFC_Water_Low.m	WS#5391181_16.d	P1-D4
5391181:FZH326-01	Reported for all except PFHxS, PFOA, and PFOS	2018/02/09 1:46 PM	PFC_Water_Low.m	WS#5391181_17.d	P1-D5
IB	-	2018/02/09 1:51 PM	PFC_Water_Low.m	WS#5391181_18.d	P1-C7
5391181:FZH327-01:10x	Reported for PFHxS, PFOA, and PFOS only.	2018/02/09 1:56 PM	PFC_Water_Low.m	WS#5391181_19.d	P1-D6
5391181:FZH327-01	Reported for all except PFHxS, PFOA, and PFOS	2018/02/09 2:01 PM	PFC_Water_Low.m	WS#5391181_20.d	P1-D7
IB	-	2018/02/09 2:05 PM	PFC_Water_Low.m	WS#5391181_21.d	P1-C7
5391181:FZJ942-01	-	2018/02/09 2:10 PM	PFC_Water_Low.m	WS#5391181_22.d	P1-D8
5391181:FZJ955-01:10x	Reported for PFHxS and PFOS only.	2018/02/09 2:15 PM	PFC_Water_Low.m	WS#5391181_23.d	P1-D9
5391181:FZJ955-01	Reported for all except PFHxS and PFOS.	2018/02/09 2:20 PM	PFC_Water_Low.m	WS#5391181_24.d	P1-E1
IB	-	2018/02/09 2:25 PM	PFC_Water_Low.m	WS#5391181_25.d	P1-C7
5391181:FZJ956-01:10x	Reported for PFHxS and PFOS only.	2018/02/09 2:30 PM	PFC_Water_Low.m	WS#5391181_26.d	P1-E2
5391181:FZJ956-01	Reported for all except PFHxS and PFOS.	2018/02/09 2:35 PM	PFC_Water_Low.m	WS#5391181_27.d	P1-E3
IB	-	2018/02/09 2:40 PM	PFC_Water_Low.m	WS#5391181_28.d	P1-C7
CCV	-	2018/02/09 2:45 PM	PFC_Water_Low.m	WS#5391181_29.d	P1-A5
5391181:FZJ957-01:10x	Not used.	2018/02/09 2:50 PM	PFC_Water_Low.m	WS#5391181_30.d	P1-E4
5391181:FZJ957-01	Reported for all.	2018/02/09 2:55 PM	PFC_Water_Low.m	WS#5391181_31.d	P1-E5
IB	-	2018/02/09 3:00 PM	PFC_Water_Low.m	WS#5391181_32.d	P1-C7
5391181:FZJ958-01:10x	Not used.	2018/02/09 3:05 PM	PFC_Water_Low.m	WS#5391181_33.d	P1-E6
5391181:FZJ958-01	Reported for all.	2018/02/09 3:10 PM	PFC_Water_Low.m	WS#5391181_34.d	P1-E7

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
IB	-	2018/02/09 3:15 PM	PFC_Water_Low.m	WS#5391181_35.d	P1-C7
5391181:FZJ959-01:10x	Not used.	2018/02/09 3:19 PM	PFC_Water_Low.m	WS#5391181_36.d	P1-E8
5391181:FZJ959-01	Reported for all.	2018/02/09 3:24 PM	PFC_Water_Low.m	WS#5391181_37.d	P1-E9
IB	-	2018/02/09 3:29 PM	PFC_Water_Low.m	WS#5391181_38.d	P1-C7
5391181:FZJ960-01:50x	Reported for 6:2-FTS and PFOS.	2018/02/09 3:34 PM	PFC_Water_Low.m	WS#5391181_39.d	P1-F1
5391181:FZJ960-01:10x	Reported for all except 6:2-FTS and PFOS.	2018/02/09 3:39 PM	PFC_Water_Low.m	WS#5391181_40.d	P1-F2
IB	-	2018/02/09 3:44 PM	PFC_Water_Low.m	WS#5391181_41.d	P1-C7
5391181:FZJ961-01:25x	Reported for PFPeA only.	2018/02/09 3:49 PM	PFC_Water_Low.m	WS#5391181_42.d	P1-F3
5391181:FZJ961-01:5x	Reported for all except 6:2-FTS, PFOS, and PFP	2018/02/09 3:54 PM	PFC_Water_Low.m	WS#5391181_43.d	P1-F4
IB	-	2018/02/09 3:59 PM	PFC_Water_Low.m	WS#5391181_44.d	P1-C7
CCV	-	2018/02/09 4:04 PM	PFC_Water_Low.m	WS#5391181_45.d	P1-A5
5391181:GAC701-01	-	2018/02/09 4:09 PM	PFC_Water_Low.m	WS#5391181_46.d	P1-F5
5391181:GAC702-01	-	2018/02/09 4:14 PM	PFC_Water_Low.m	WS#5391181_47.d	P1-F6
5391181:GAC703-01	-	2018/02/09 4:19 PM	PFC_Water_Low.m	WS#5391181_48.d	P1-F7
5391181:GAC704-01	-	2018/02/09 4:24 PM	PFC_Water_Low.m	WS#5391181_49.d	P1-F8
CCV	-	2018/02/09 4:29 PM	PFC_Water_Low.m	WS#5391181_50.d	P1-A5
ISC	-	2018/02/12 1:55 PM	PFC_Water_Low.m	WS#5391181_54.d	P3-F7
5391181:FZJ961-01:50x	Reported for 6:2-FTS and PFOS only.	2018/02/12 2:01 PM	PFC_Water_Low.m	WS#5391181_55.d	P3-F8
CCV	-	2018/02/12 2:06 PM	PFC_Water_Low.m	WS#5391181_56.d	P3-F9

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/09 10:29 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_02.d	P1-C1
STD 2	-	2018/02/09 10:31 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_03.d	P1-C2
STD 3	-	2018/02/09 10:34 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_04.d	P1-C3
STD 4	-	2018/02/09 10:36 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_05.d	P1-C4
STD 5	-	2018/02/09 10:39 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_06.d	P1-C5
STD 6	-	2018/02/09 10:41 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_07.d	P1-C6
IB	-	2018/02/09 10:43 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_08.d	P1-C7
ICV	-	2018/02/09 10:46 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_09.d	P1-C8
ISC	-	2018/02/09 10:48 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_10.d	P1-A2
5391181:BLANK	-	2018/02/09 10:51 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_11.d	P1-C9
5391181:SPIKE	-	2018/02/09 10:53 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_12.d	P1-D1
5391181:MTRX SPK	FZJ955	2018/02/09 10:56 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_13.d	P1-D2
5391181:MTRX SPK:D1	FZJ955	2018/02/09 10:58 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_14.d	P1-D3
IB	-	2018/02/09 11:00 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_15.d	P1-C7
5391181:FZH326-01:10x	Not used.	2018/02/09 11:03 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_16.d	P1-D4
5391181:FZH326-01	Reported for all.	2018/02/09 11:05 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_17.d	P1-D5
IB	-	2018/02/09 11:08 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_18.d	P1-C7
5391181:FZH327-01:10x	Not used.	2018/02/09 11:10 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_19.d	P1-D6
5391181:FZH327-01	Reported for all.	2018/02/09 11:12 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_20.d	P1-D7
IB	-	2018/02/09 11:15 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_21.d	P1-C7
5391181:FZJ942-01	-	2018/02/09 11:17 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_22.d	P1-D8
5391181:FZJ955-01:10x	-	2018/02/09 11:20 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_23.d	P1-D9
5391181:FZJ955-01	-	2018/02/09 11:22 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_24.d	P1-E1
IB	-	2018/02/09 11:24 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_25.d	P1-C7
5391181:FZJ956-01:10x	-	2018/02/09 11:27 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_26.d	P1-E2
5391181:FZJ956-01	-	2018/02/09 11:29 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_27.d	P1-E3
IB	-	2018/02/09 11:32 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_28.d	P1-C7
CCV	-	2018/02/09 11:34 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_29.d	P1-A5
5391181:FZJ957-01:10x	-	2018/02/09 11:36 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_30.d	P1-E4
5391181:FZJ957-01	-	2018/02/09 11:39 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_31.d	P1-E5
IB	-	2018/02/09 11:41 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_32.d	P1-C7
5391181:FZJ958-01:10x	-	2018/02/09 11:44 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_33.d	P1-E6
5391181:FZJ958-01	-	2018/02/09 11:46 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_34.d	P1-E7

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
IB	-	2018/02/09 11:49 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_35.d	P1-C7
5391181:FZJ959-01:10x	-	2018/02/09 11:51 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_36.d	P1-E8
5391181:FZJ959-01	-	2018/02/09 11:53 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_37.d	P1-E9
IB	-	2018/02/09 11:56 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_38.d	P1-C7
5391181:FZJ960-01:50x	-	2018/02/09 11:58 PM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_39.d	P1-F1
5391181:FZJ960-01:10x	-	2018/02/10 12:01 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_40.d	P1-F2
IB	-	2018/02/10 12:03 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_41.d	P1-C7
5391181:FZJ961-01:25x	-	2018/02/10 12:05 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_42.d	P1-F3
5391181:FZJ961-01:5x	-	2018/02/10 12:08 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_43.d	P1-F4
IB	-	2018/02/10 12:10 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_44.d	P1-C7
CCV	-	2018/02/10 12:13 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_45.d	P1-A5
5391181:GAC701-01	-	2018/02/10 12:15 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_46.d	P1-F5
5391181:GAC702-01	-	2018/02/10 12:17 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_47.d	P1-F6
5391181:GAC703-01	-	2018/02/10 12:20 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_48.d	P1-F7
5391181:GAC704-01	-	2018/02/10 12:22 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_49.d	P1-F8
CCV	-	2018/02/10 12:25 AM	PFC_Water_Low_FOSAA.m	WS#5391181_FOSAA_50.d	P1-A5

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
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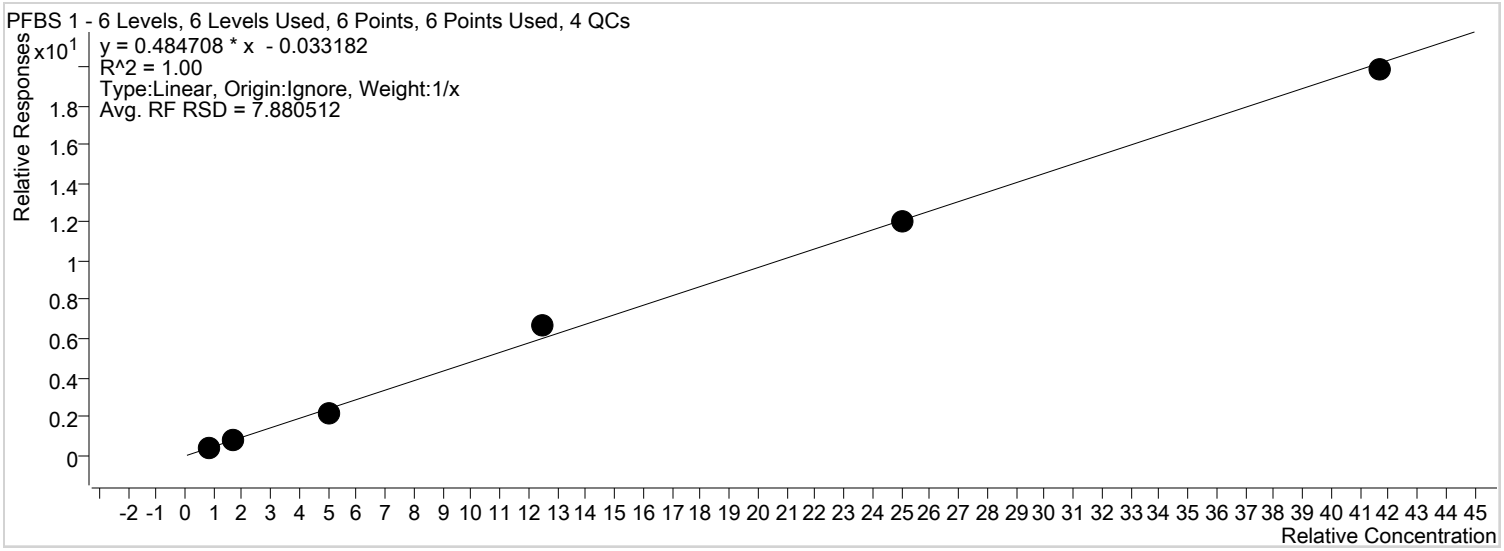
Instrument: LCMS04

Analyte: PFBS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.89	583	0.4814	126	107.6
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.56	987	0.4241	31	91.5
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	4.64	3189	0.4432	94	92.8
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.80	8998	0.5324	378	110.4
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	24.85	15724	0.4805	99	99.4
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	40.99	28444	0.4757	630	98.3

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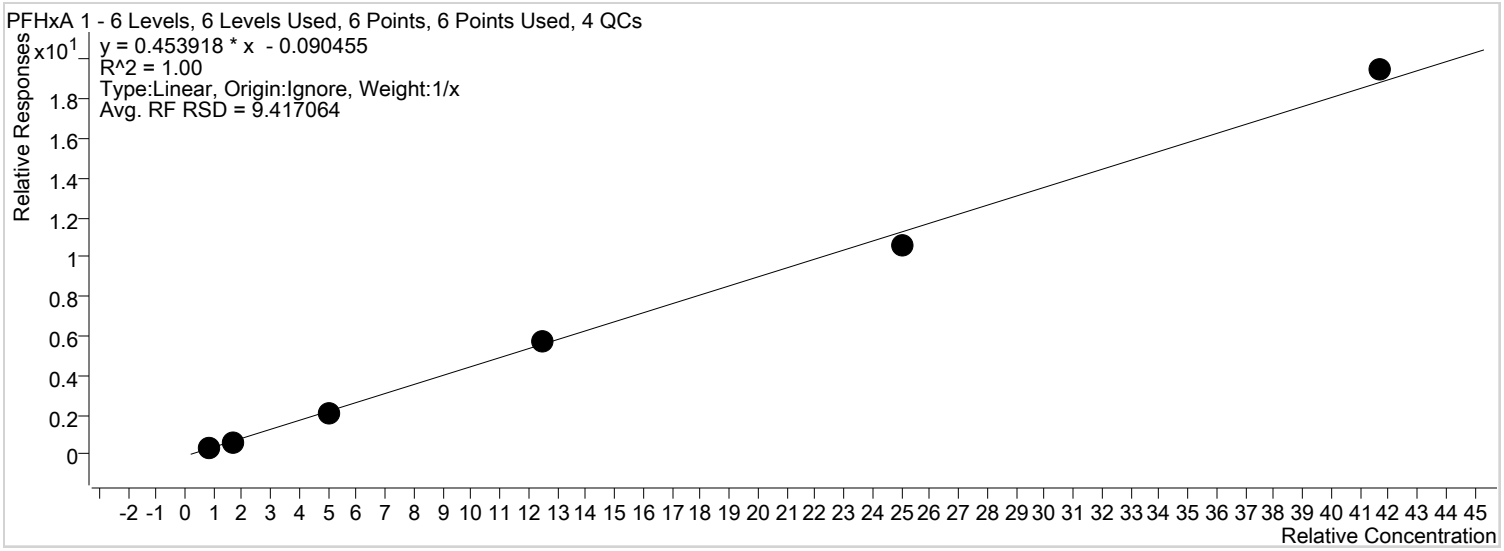
Instrument: LCMS04

Analyte: PFHxA 1
Internal Standard: MPFHxA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.95	1948	0.4117	136	114.7
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.54	3663	0.3590	256	90.8
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	4.69	11379	0.4073	992	93.7
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	12.91	30284	0.4615	2508	103.3
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	23.53	59210	0.4236	2142	94.1
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	43.11	104871	0.4671	9616	103.4

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
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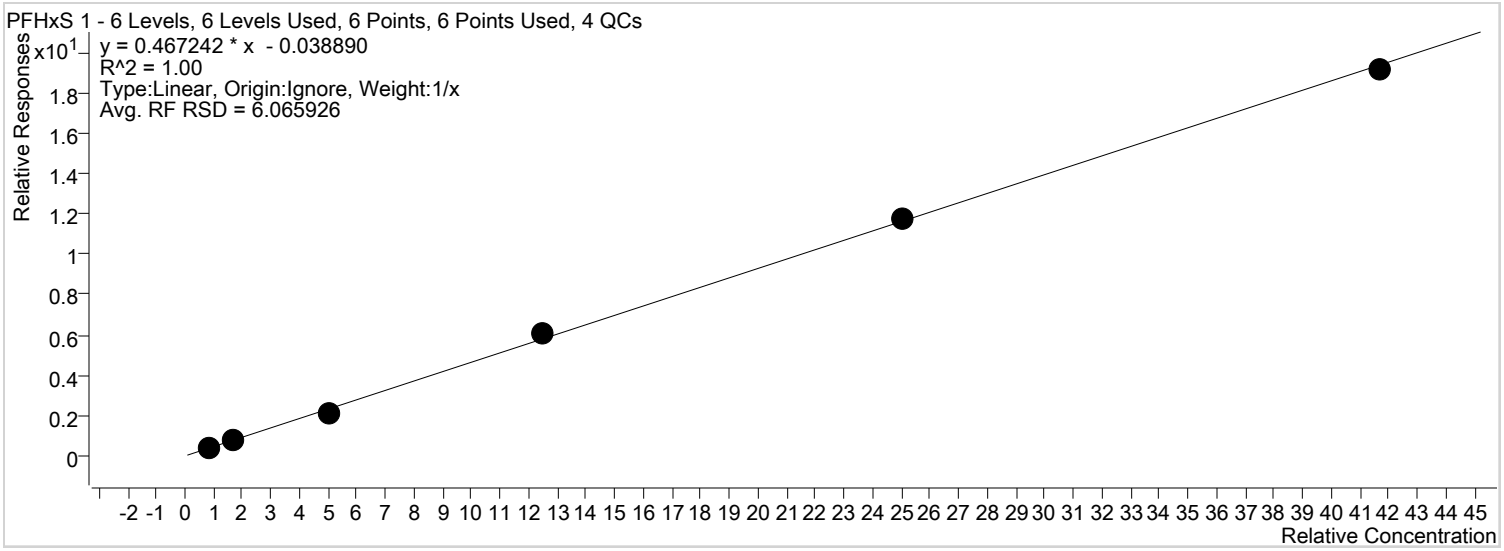
Instrument: LCMS04

Analyte: PFHxS 1
Internal Standard: MPFHxS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.90	554	0.4575	93	107.9
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.60	972	0.4177	110	94.3
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	4.63	3056	0.4247	244	92.6
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.19	8282	0.4901	306	105.5
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	25.22	15376	0.4699	1287	100.9
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	41.19	27540	0.4606	1655	98.8

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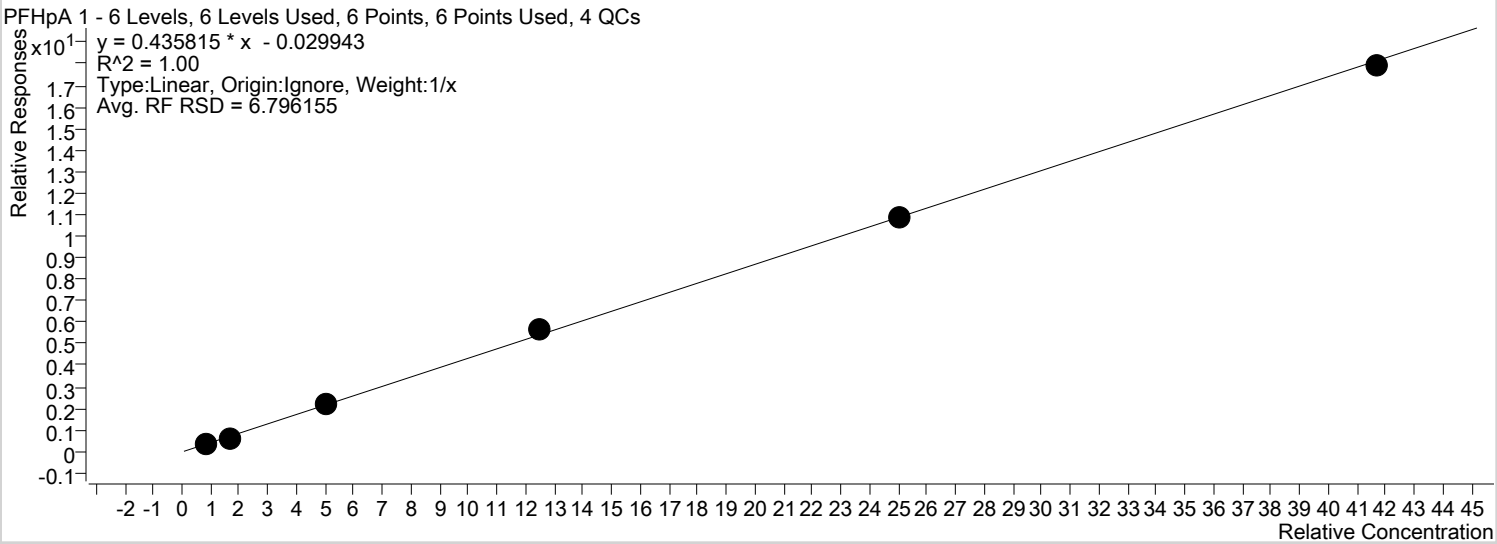
Instrument: LCMS04

Analyte: PFHpA 1
Internal Standard: MPFHpA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.90	2695	0.4339	31	107.8
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.51	4550	0.3687	58	88.6
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	5.00	15349	0.4297	186	100.0
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.04	39441	0.4523	241	104.3
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	25.12	73825	0.4368	250	100.5
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	41.16	128039	0.4295	257	98.7

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
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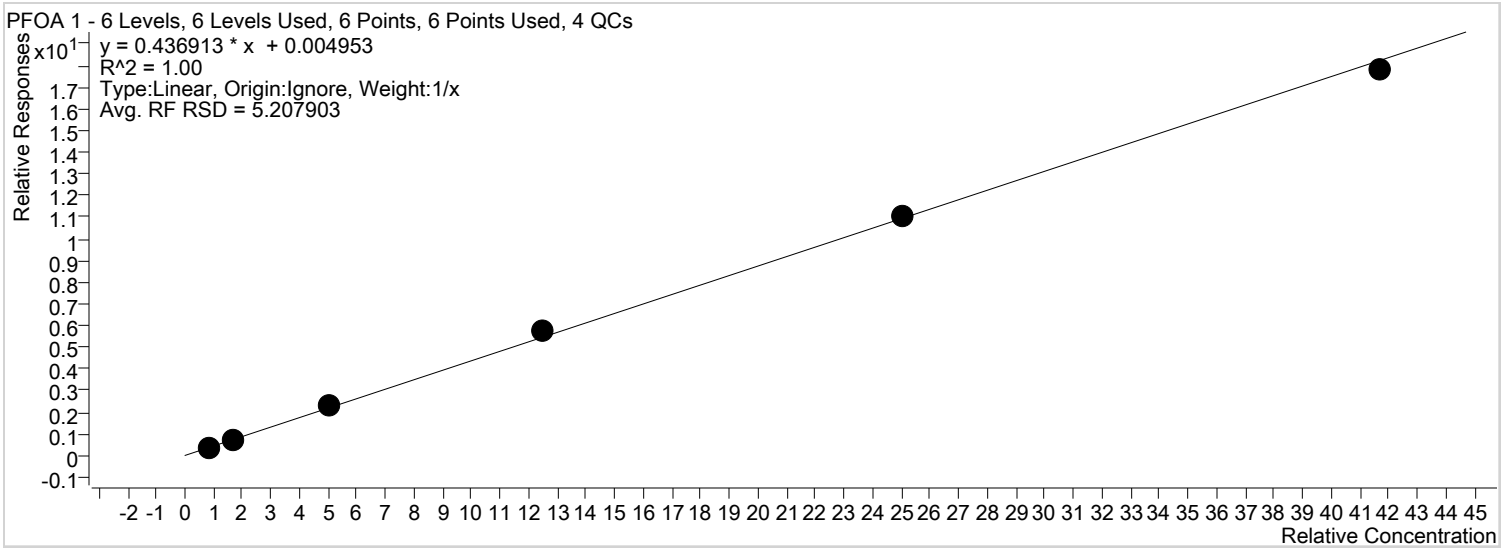
Instrument: LCMS04

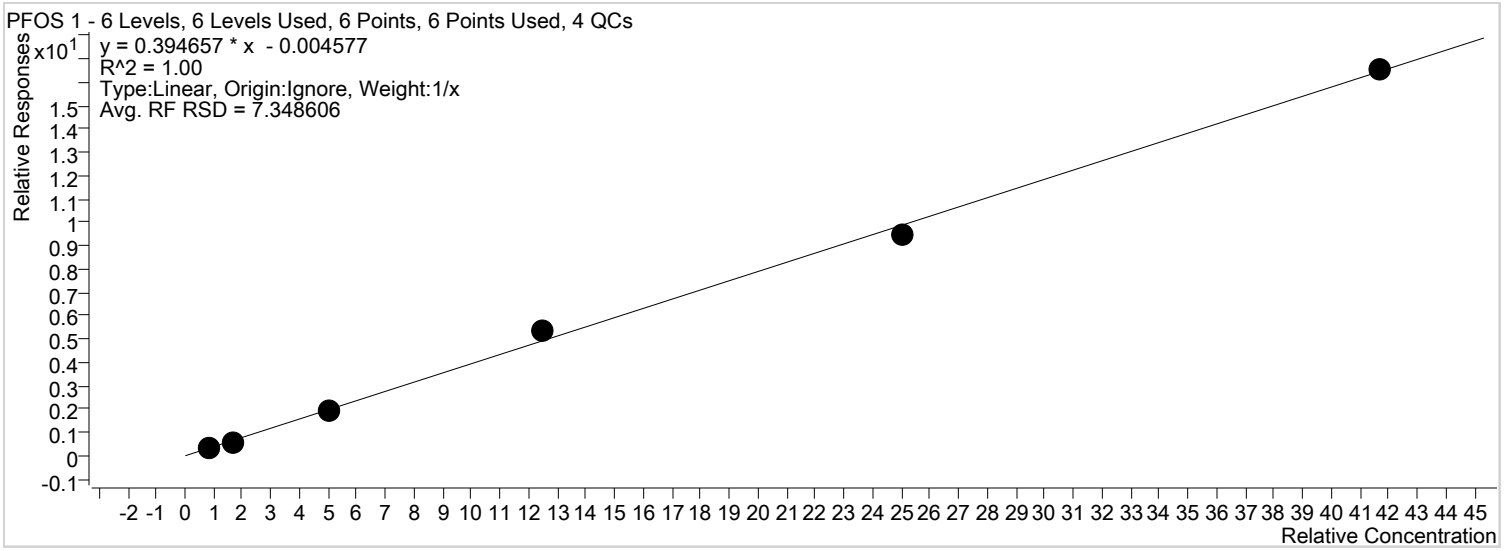
Analyte: PFOA 1
Internal Standard: MPFOA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.83	2791	0.4447	31	100.4
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.54	5280	0.3998	34	90.8
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	5.24	16826	0.4589	100	104.8
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.18	43612	0.4611	140	105.5
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	25.21	79940	0.4408	152	100.8
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	40.72	134499	0.4268	157	97.6

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

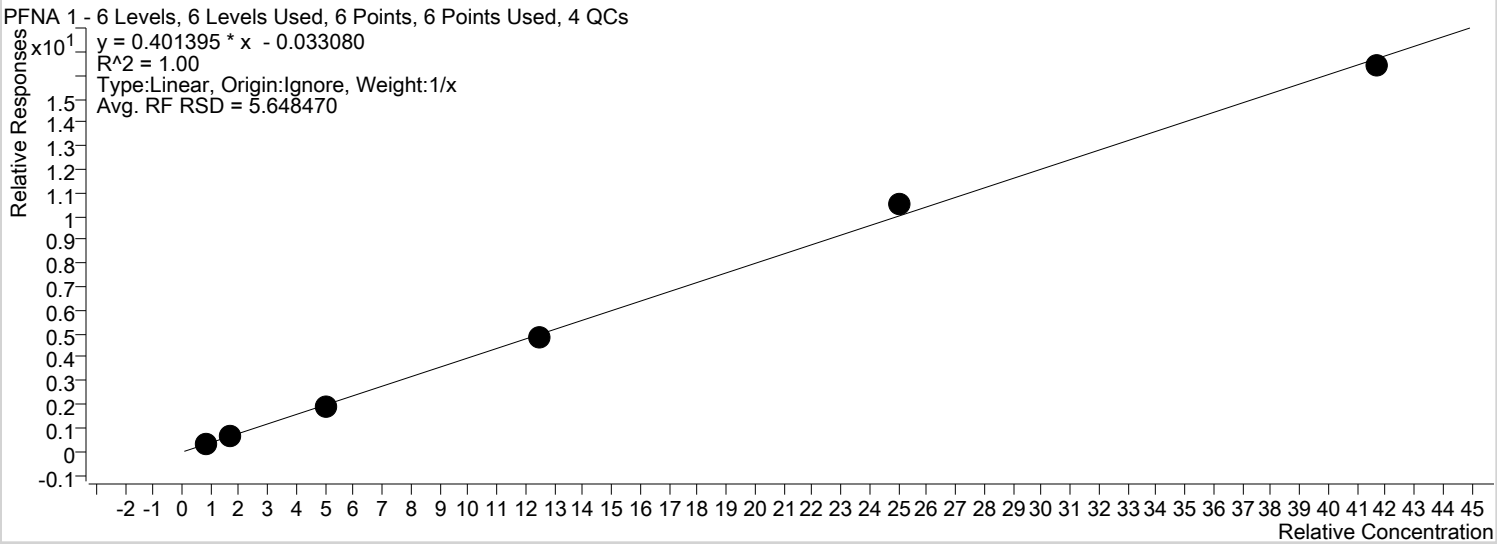
Analyte: PFOS 1
Internal Standard: MPFOS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.90	607	0.4218	102	108.3
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.51	984	0.3474	81	88.7
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	4.93	3211	0.3883	185	98.6
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.48	8644	0.4253	155	107.9
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	24.03	15962	0.3791	286	96.1
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	41.88	27447	0.3963	141	100.4

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

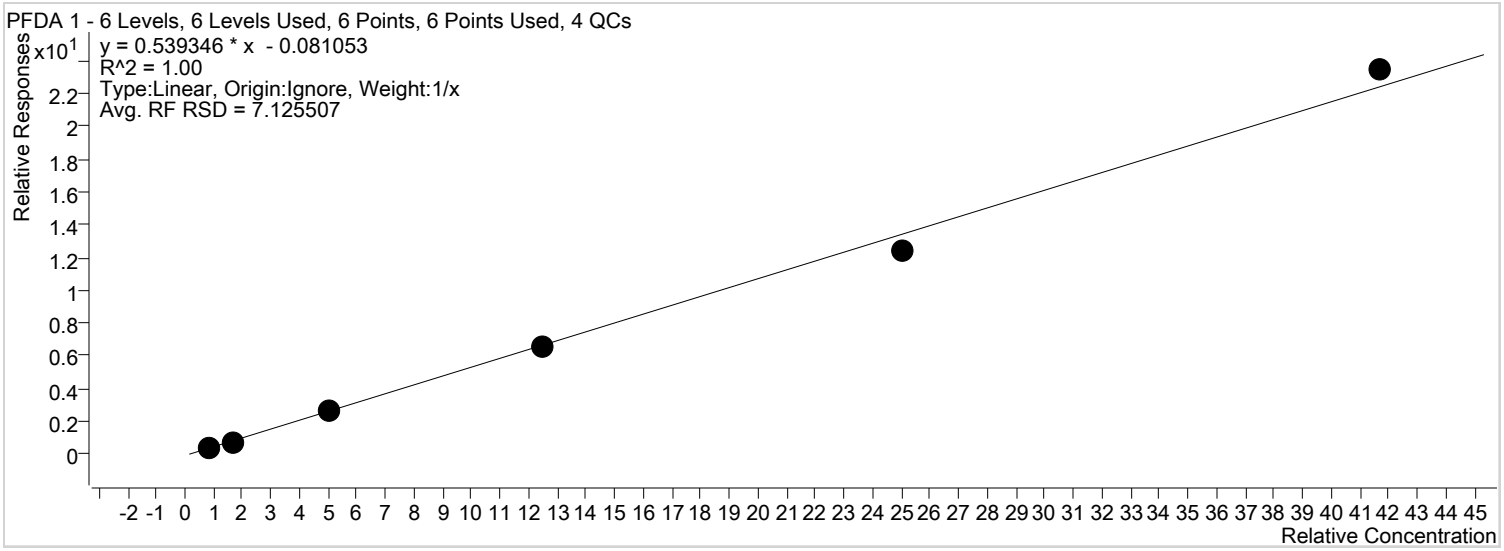
Analyte: PFNA 1
Internal Standard: MPFNA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.91	2616	0.3990	56	109.3
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.58	4483	0.3538	73	93.0
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	4.86	14491	0.3837	238	97.2
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	12.12	37940	0.3866	809	97.0
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	26.31	74461	0.4212	1283	105.3
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	40.94	125567	0.3933	2780	98.2

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

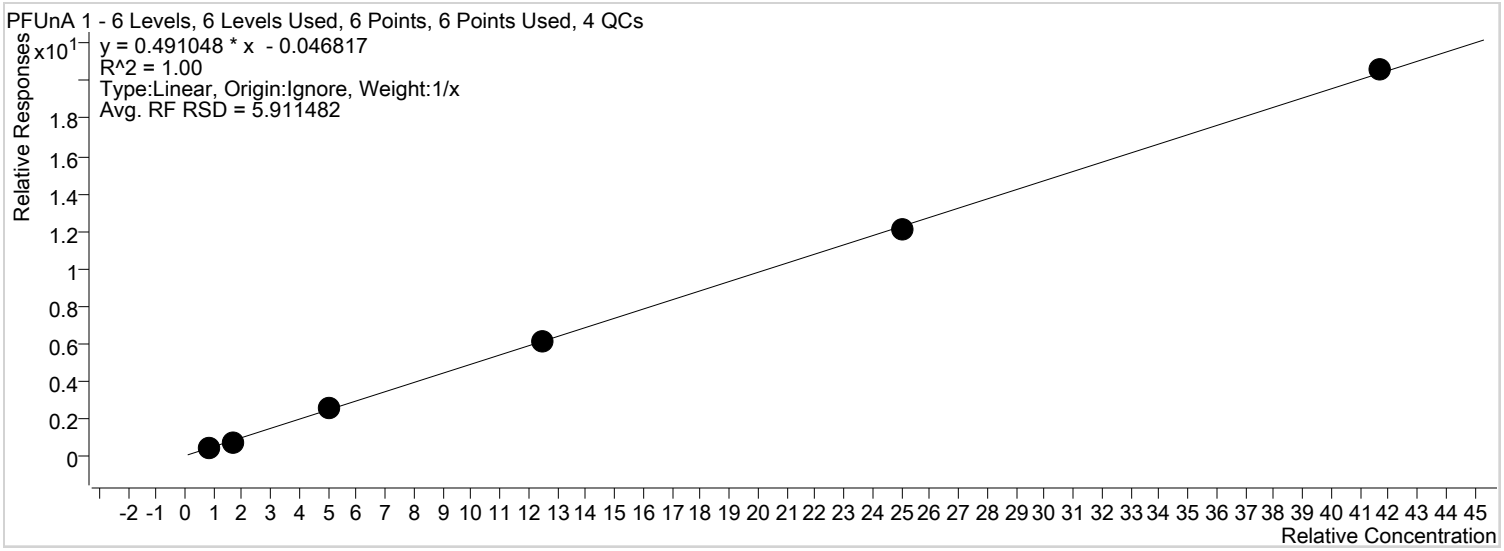
Analyte: PFDA 1
Internal Standard: MPFDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.90	2685	0.4901	37	109.0
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.59	4898	0.4575	54	93.7
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	5.08	15385	0.5321	148	101.7
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	12.24	42262	0.5217	362	97.9
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	23.29	77584	0.4992	700	93.2
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	43.62	137651	0.5623	725	104.6

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

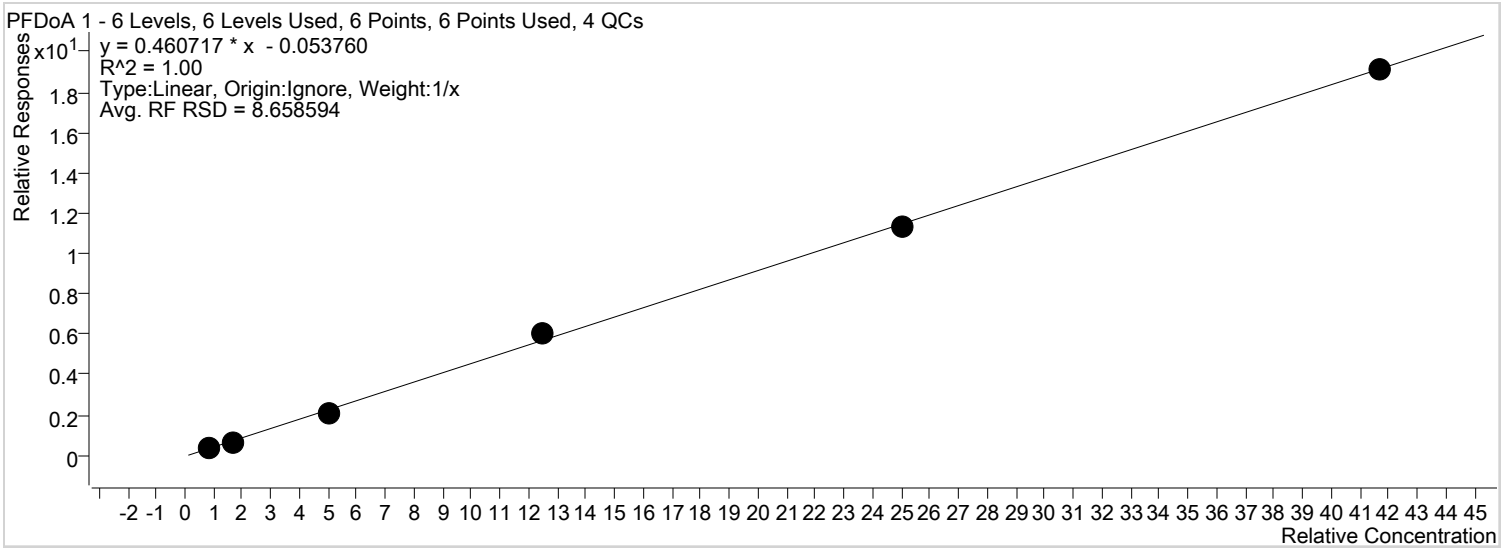
Analyte: PFUnA 1
Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.90	2984	0.4731	27	107.8
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.55	5500	0.4194	46	91.0
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	5.06	17165	0.4879	116	101.3
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	12.60	45414	0.4912	227	100.8
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	24.54	87054	0.4802	255	98.2
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	42.08	144521	0.4944	300	100.9

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

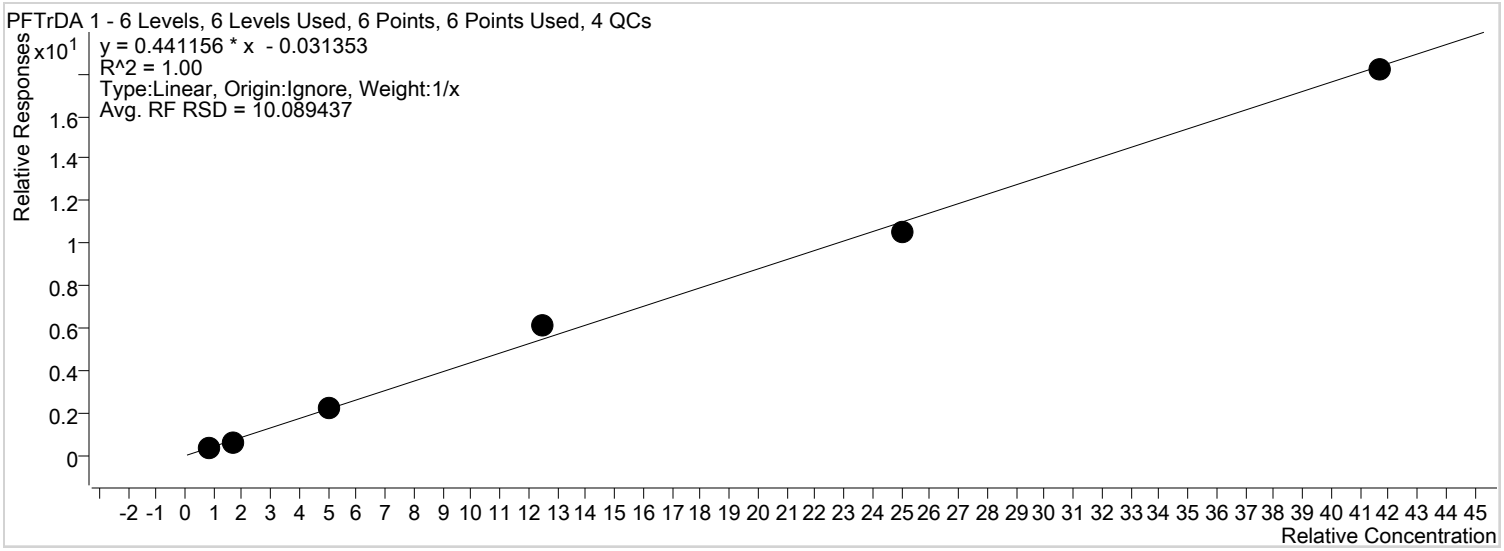
Analyte: PFDoA 1
Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.94	3995	0.4580	107	113.5
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.48	6547	0.3708	153	87.3
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	4.76	21538	0.4282	556	95.3
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.10	59538	0.4786	910	104.8
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	24.83	108183	0.4554	3781	99.3
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	41.61	187974	0.4584	3588	99.8

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

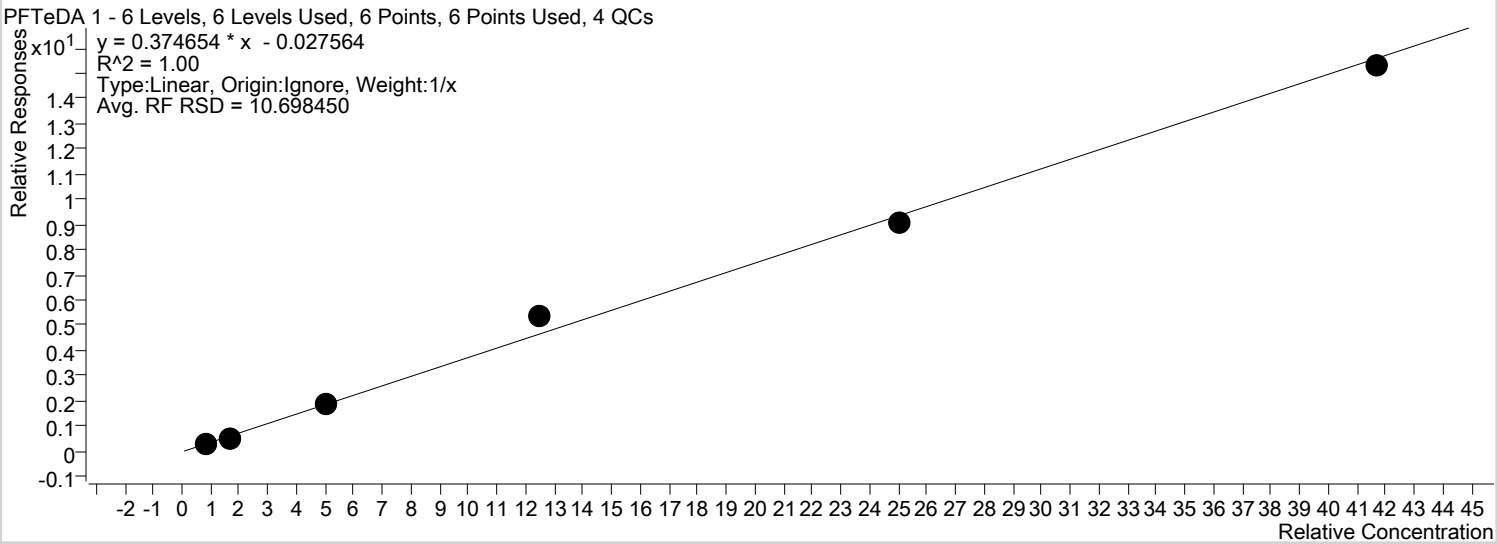
Analyte: PFTrDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.88	4362	0.4305	30	106.1
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.44	7325	0.3557	61	84.8
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	5.11	25051	0.4448	103	102.2
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	13.95	64981	0.4899	116	111.6
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	24.02	123004	0.4227	134	96.1
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	41.32	211990	0.4364	157	99.1

Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics.batch.bin
Last Calib Update 2018/02/21 11:21:59 AM
Instrument: LCMS04

Analyte: PFTeDA 1
Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 12:32:16 PM	0.83	0.87	3658	0.3610	18	105.2
STD 2	STD 2	x	2018/02/09 12:37:12 PM	1.70	1.45	6233	0.3027	38	85.1
STD 3	STD 3	x	2018/02/09 12:42:07 PM	5.00	5.03	20912	0.3713	76	100.6
STD 4	STD 4	x	2018/02/09 12:47:02 PM	12.50	14.27	56450	0.4256	106	114.2
STD 5	STD 5	x	2018/02/09 12:51:58 PM	25.00	24.20	105224	0.3616	112	96.8
STD 6	STD 6	x	2018/02/09 12:56:54 PM	41.70	40.91	178225	0.3669	129	98.1

By Compound Report

Agilent Technologies

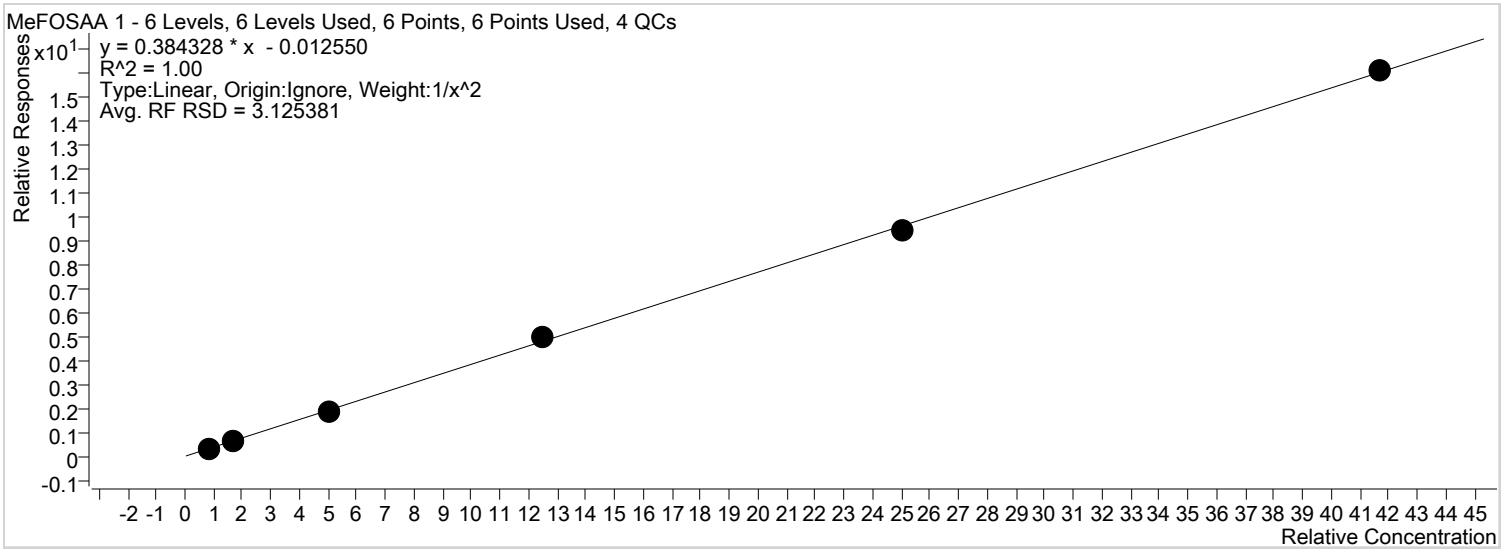
Batch Path T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 4:28:52 PM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 10:29:29 PM	0.83	0.84	566	0.3743	97	101.3
STD 2	STD 2	x	2018/02/09 10:31:54 PM	1.70	1.65	1035	0.3663	342	97.2
STD 3	STD 3	x	2018/02/09 10:34:19 PM	5.00	4.94	3142	0.3772	188	98.8
STD 4	STD 4	x	2018/02/09 10:36:44 PM	12.50	13.06	8392	0.4006	287	104.5
STD 5	STD 5	x	2018/02/09 10:39:09 PM	25.00	24.44	15131	0.3752	250	97.8
STD 6	STD 6	x	2018/02/09 10:41:34 PM	41.70	41.87	26127	0.3856	277	100.4

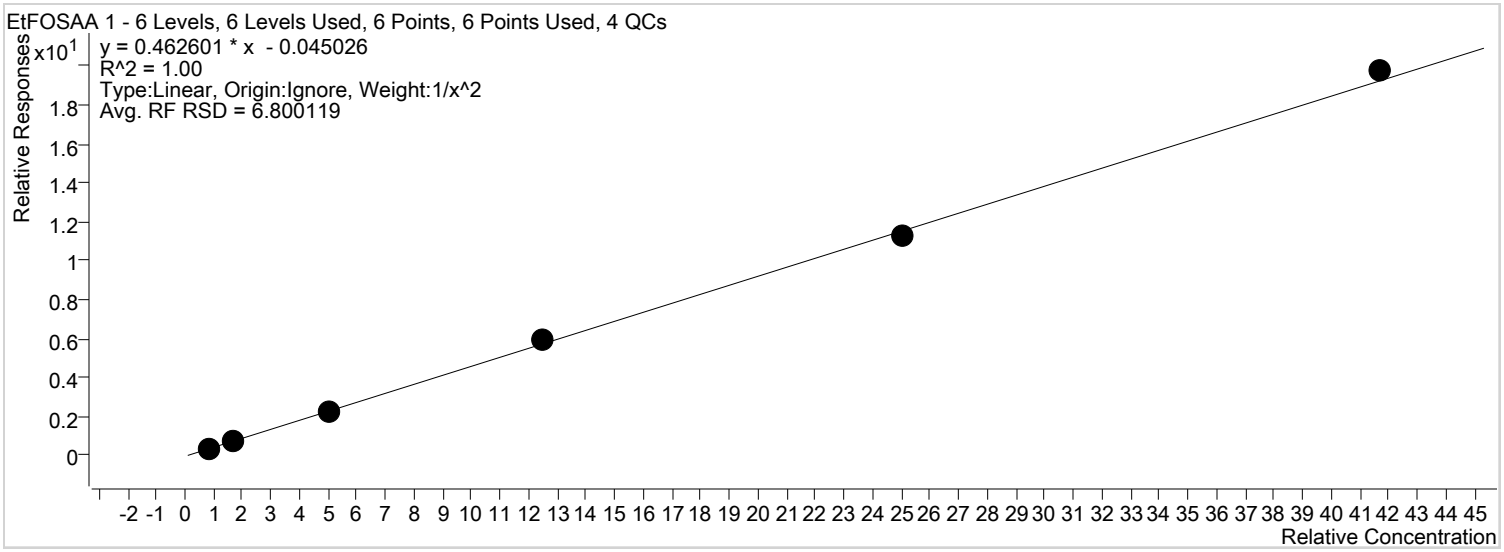
Batch Path T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/12 4:28:52 PM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/09 10:29:29 PM	0.83	0.86	582	0.4257	52	103.8
STD 2	STD 2	x	2018/02/09 10:31:54 PM	1.70	1.56	1035	0.3969	122	91.5
STD 3	STD 3	x	2018/02/09 10:34:19 PM	5.00	5.05	3371	0.4586	475	101.1
STD 4	STD 4	x	2018/02/09 10:36:44 PM	12.50	12.93	8840	0.4749	727	103.4
STD 5	STD 5	x	2018/02/09 10:39:09 PM	25.00	24.37	16564	0.4492	1486	97.5
STD 6	STD 6	x	2018/02/09 10:41:34 PM	41.70	42.82	28619	0.4740	3392	102.7

Quantitation Results

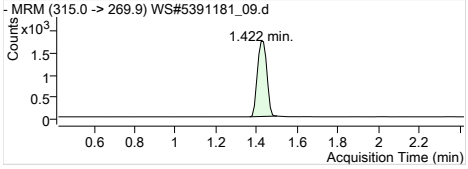
Agilent Technologies

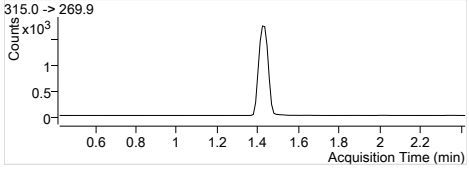
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5391181_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-C8
Acq. Date	2018/02/09 1:06:46 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5539	1.42	1 µg/L		
MPFHxS	1374	1.68	1 µg/L		
MPFHpA	6979	1.69	1 µg/L		
MPFOA	7456	1.87	1 µg/L		
MPFOS	1419	1.98	1 µg/L		
MPFNA	7100	2.01	1 µg/L		
MPFDA	6008	2.14	1 µg/L		
MPFUnA	7301	2.23	1 µg/L		
MPFDoA	9779	2.32	1 µg/L		
MPFTeDA	11020	2.47	1 µg/L		
13C6-PFHxA IS	21926	1.42	1 µg/L		
13C9-PFDA IS	28789	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	13741	1.09	20.80	20.70 µg/L	99.52
PFHxA 1	49050	1.43	20.80	19.71 µg/L	94.75
PFHxS 1	13403	1.68	20.80	20.96 µg/L	100.77
PFHpA 1	64383	1.69	20.80	21.24 µg/L	102.10
PFOA 1	70172	1.87	20.80	21.53 µg/L	103.51
PFOS 1	13419	1.97	20.80	23.97 µg/L	115.26
PFNA 1	63942	2.01	20.80	22.52 µg/L	108.26
PFDA 1	68142	2.14	20.80	21.18 µg/L	101.82
PFUnA 1	79657	2.23	20.80	22.31 µg/L	107.28
PFDoA 1	94883	2.32	20.80	21.18 µg/L	101.81
PFTrDA 1	105300	2.40	20.80	21.73 µg/L	104.48
PFTeDA 1	88959	2.47	20.80	21.62 µg/L	103.94
13C2-PFHxA	5539	1.42	100.00	97.01 µg/L	97.01
18O2-PFHxS	1374	1.68	100.00	96.39 µg/L	96.39
13C4-PFHpA	6979	1.69	100.00	95.71 µg/L	95.71
13C4-PFOA	7456	1.87	100.00	97.05 µg/L	97.05
13C4-PFOS	1419	1.98	100.00	83.01 µg/L	83.01
13C5-PFNA	7101	2.01	100.00	91.53 µg/L	91.53
13C2-PFDA	5925	2.14	100.00	94.66 µg/L	94.66
13C2-PFUnA	7301	2.23	100.00	97.06 µg/L	97.06
13C2-PFDoA	9779	2.32	100.00	94.97 µg/L	94.97
13C2-PFTeDA	11357	2.47	100.00	93.66 µg/L	93.66
13C6-PFHxA	21926	1.42	100.00	102.14 µg/L	102.14
13C9-PFDA	28789	2.13	100.00	102.41 µg/L	102.41





MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	QC

Quantitation Results

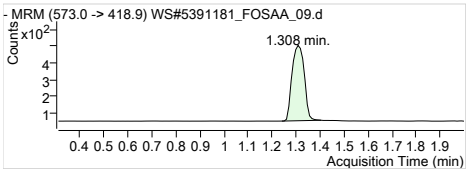
Agilent Technologies

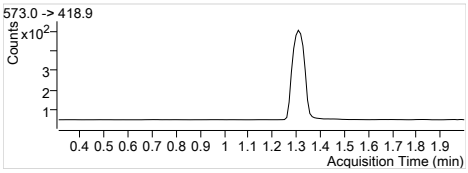
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-C8
Acq. Date	2018/02/09 10:46:24 PM	**Injection Volume**	Per Method
Sample Annotation	-		

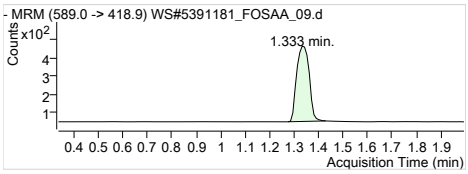
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1609	1.31	1 µg/L		
D5-EtFOSAA IS	1473	1.33	1 µg/L		
13C9-PFDA IS	23300	0.90	1 µg/L		

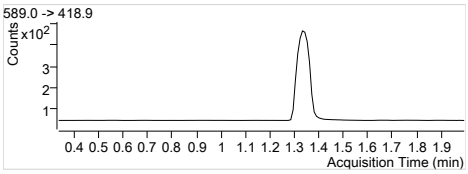
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	13289	1.31	20.80	21.52 µg/L	103.47
EtFOSAA 1	14535	1.33	20.80	21.43 µg/L	103.02
D3-MeFOSAA	1614	1.31	100.00	93.76 µg/L	93.76
D5-EtFOSAA	1510	1.33	100.00	97.64 µg/L	97.64
13C9-PFDA	22425	0.90	100.00	100.58 µg/L	100.58



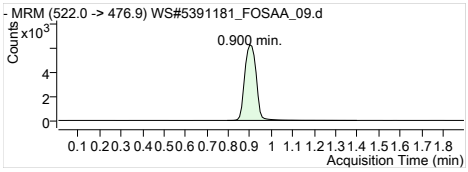


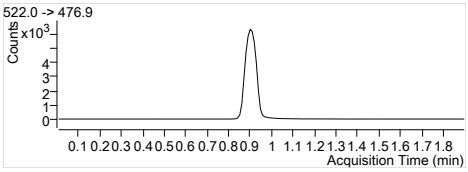
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: QC



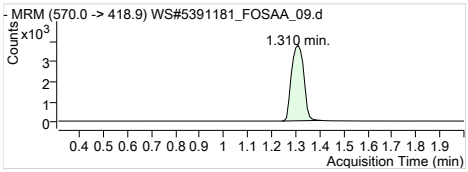


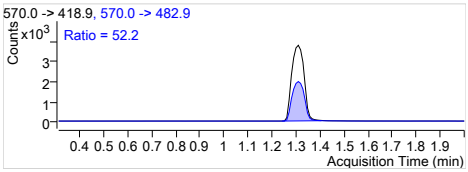
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: QC



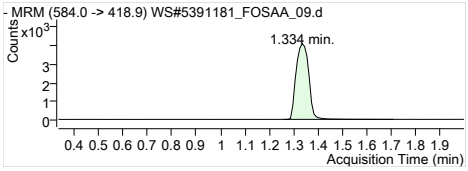


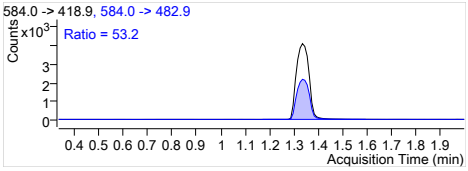
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: QC



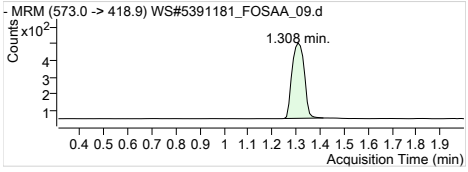


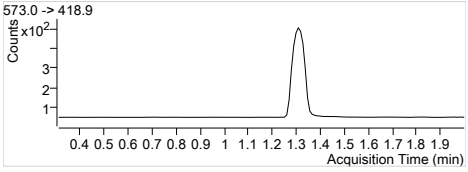
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 21.52 µg/L
Area ratio: 8.25917
Sample type: QC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 21.43 µg/L
Area ratio: 9.86762
Sample type: QC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 93.76 µg/L
Area ratio: 0.06927
Sample type: QC

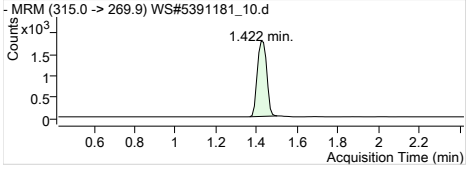
Quantitation Results

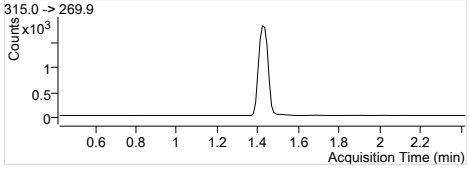
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics		
Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5391181_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A2
Acq. Date	2018/02/09 1:11:42 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5669	1.42	1 µg/L		
MPFHxS	1311	1.68	1 µg/L		
MPFHpA	7610	1.69	1 µg/L		
MPFOA	8252	1.87	1 µg/L		
MPFOS	1828	1.98	1 µg/L		
MPFNA	7355	2.01	1 µg/L		
MPFDA	6720	2.14	1 µg/L		
MPFUnA	7866	2.23	1 µg/L		
MPFDoA	10899	2.32	1 µg/L		
MPFTeDA	12095	2.47	1 µg/L		
13C6-PFHxA IS	23329	1.42	1 µg/L		
13C9-PFDA IS	30557	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	574	1.09	0.83	0.97 µg/L	117.08
PFHxA 1	1833	1.42	0.83	0.91 µg/L	109.83
PFHxS 1	516	1.68	0.83	0.93 µg/L	111.52
PFHpA 1	2684	1.69	0.83	0.88 µg/L	105.78
PFOA 1	2790	1.87	0.83	0.76 µg/L	91.87
PFOS 1	601	1.97	0.83	0.84 µg/L	101.77
PFNA 1	2550	2.01	0.83	0.95 µg/L	114.00
PFDA 1	2883	2.14	0.83	0.95 µg/L	113.94
PFUnA 1	2992	2.23	0.83	0.87 µg/L	104.81
PFDoA 1	3774	2.32	0.83	0.87 µg/L	104.61
PFTrDA 1	4642	2.40	0.83	0.94 µg/L	113.38
PFTeDA 1	3850	2.47	0.83	0.92 µg/L	111.23
13C2-PFHxA	5669	1.42	100.00	93.32 µg/L	93.32
18O2-PFHxS	1311	1.68	100.00	86.44 µg/L	86.44
13C4-PFHpA	7610	1.69	100.00	98.09 µg/L	98.09
13C4-PFOA	8252	1.87	100.00	100.95 µg/L	100.95
13C4-PFOS	1828	1.98	100.00	100.50 µg/L	100.50
13C5-PFNA	7356	2.01	100.00	89.12 µg/L	89.12
13C2-PFDA	6652	2.14	100.00	100.13 µg/L	100.13
13C2-PFUnA	7866	2.23	100.00	98.52 µg/L	98.52
13C2-PFDoA	10899	2.32	100.00	99.73 µg/L	99.73
13C2-PFTeDA	12409	2.47	100.00	96.42 µg/L	96.42
13C6-PFHxA	23329	1.42	100.00	108.68 µg/L	108.68
13C9-PFDA	30557	2.13	100.00	108.70 µg/L	108.70





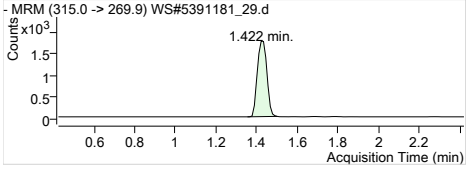
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	CC

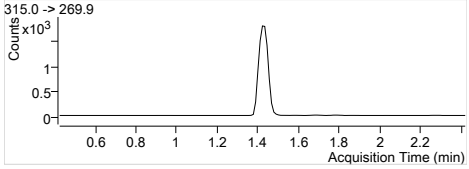
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_29.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A5
Acq. Date	2018/02/09 2:45:26 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5680	1.42	1 µg/L		
MPFHxS	1319	1.68	1 µg/L		
MPFHpA	7214	1.69	1 µg/L		
MPFOA	7460	1.88	1 µg/L		
MPFOS	1658	1.98	1 µg/L		
MPFNA	7731	2.01	1 µg/L		
MPFDA	6361	2.14	1 µg/L		
MPFUnA	7563	2.23	1 µg/L		
MPFDoA	9926	2.32	1 µg/L		
MPFTeDA	11269	2.47	1 µg/L		
13C6-PFHxA IS	20920	1.42	1 µg/L		
13C9-PFDA IS	27348	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8491	1.09	12.50	13.35 µg/L	106.80
PFHxA 1	31864	1.42	12.50	12.56 µg/L	100.46
PFHxS 1	7786	1.68	12.50	12.72 µg/L	101.73
PFHpA 1	40314	1.69	12.50	12.89 µg/L	103.13
PFOA 1	45250	1.87	12.50	13.87 µg/L	110.97
PFOS 1	8717	1.97	12.50	13.33 µg/L	106.67
PFNA 1	39898	2.01	12.50	12.94 µg/L	103.52
PFDA 1	41892	2.14	12.50	12.36 µg/L	98.89
PFUnA 1	46344	2.23	12.50	12.57 µg/L	100.59
PFDoA 1	59636	2.32	12.50	13.16 µg/L	105.26
PFTrDA 1	64225	2.40	12.50	12.99 µg/L	103.92
PFTeDA 1	57183	2.47	12.50	13.62 µg/L	108.94
13C2-PFHxA	5680	1.42	100.00	104.26 µg/L	104.26
18O2-PFHxS	1319	1.68	100.00	96.98 µg/L	96.98
13C4-PFHpA	7214	1.69	100.00	103.69 µg/L	103.69
13C4-PFOA	7460	1.88	100.00	101.77 µg/L	101.77
13C4-PFOS	1658	1.98	100.00	101.65 µg/L	101.65
13C5-PFNA	7730	2.01	100.00	104.43 µg/L	104.43
13C2-PFDA	6276	2.14	100.00	105.55 µg/L	105.55
13C2-PFUnA	7563	2.23	100.00	105.84 µg/L	105.84
13C2-PFDoA	9926	2.32	100.00	101.48 µg/L	101.48
13C2-PFTeDA	11471	2.47	100.00	99.59 µg/L	99.59
13C6-PFHxA	20920	1.42	100.00	97.46 µg/L	97.46
13C9-PFDA	27348	2.13	100.00	97.28 µg/L	97.28





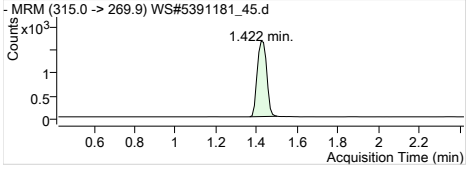
MPFHxA Internal Standard
RT (Exp. RT): 1.422 (1.422)
Concentration: 1 µg/L
Sample type: CC

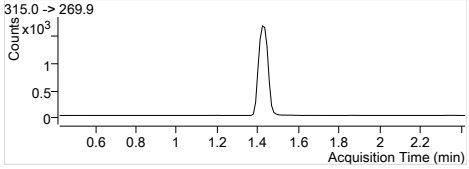
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_45.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A5
Acq. Date	2018/02/09 4:04:22 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5285	1.42	1 µg/L		
MPFHxS	1345	1.68	1 µg/L		
MPFHpA	7141	1.69	1 µg/L		
MPFOA	7180	1.87	1 µg/L		
MPFOS	1729	1.98	1 µg/L		
MPFNA	7596	2.01	1 µg/L		
MPFDA	6345	2.14	1 µg/L		
MPFUnA	7619	2.23	1 µg/L		
MPFDoA	9971	2.32	1 µg/L		
MPFTeDA	11415	2.47	1 µg/L		
13C6-PFHxA IS	21506	1.42	1 µg/L		
13C9-PFDA IS	27920	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8174	1.09	12.50	12.61 µg/L	100.85
PFHxA 1	30794	1.42	12.50	13.04 µg/L	104.29
PFHxS 1	7793	1.68	12.50	12.48 µg/L	99.87
PFHpA 1	39792	1.69	12.50	12.85 µg/L	102.84
PFOA 1	42761	1.87	12.50	13.62 µg/L	108.96
PFOS 1	8435	1.97	12.50	12.37 µg/L	98.98
PFNA 1	39665	2.01	12.50	13.09 µg/L	104.73
PFDA 1	43314	2.14	12.50	12.81 µg/L	102.46
PFUnA 1	46702	2.23	12.50	12.58 µg/L	100.63
PFDoA 1	58066	2.32	12.50	12.76 µg/L	102.05
PFTrDA 1	65883	2.40	12.50	13.15 µg/L	105.23
PFTeDA 1	57498	2.47	12.50	13.52 µg/L	108.15
13C2-PFHxA	5285	1.42	100.00	94.37 µg/L	94.37
18O2-PFHxS	1345	1.68	100.00	96.20 µg/L	96.20
13C4-PFHpA	7141	1.69	100.00	99.84 µg/L	99.84
13C4-PFOA	7180	1.87	100.00	95.28 µg/L	95.28
13C4-PFOS	1729	1.98	100.00	103.12 µg/L	103.12
13C5-PFNA	7597	2.01	100.00	99.84 µg/L	99.84
13C2-PFDA	6245	2.14	100.00	102.88 µg/L	102.88
13C2-PFUnA	7619	2.23	100.00	104.44 µg/L	104.44
13C2-PFDoA	9971	2.32	100.00	99.85 µg/L	99.85
13C2-PFTeDA	11693	2.47	100.00	99.44 µg/L	99.44
13C6-PFHxA	21506	1.42	100.00	100.19 µg/L	100.19
13C9-PFDA	27920	2.13	100.00	99.32 µg/L	99.32





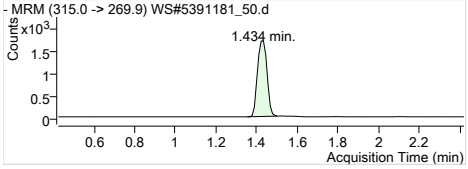
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	CC

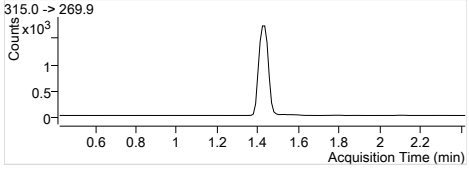
Batch Path T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_50.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P1-A5
Acq. Date	2018/02/09 4:29:02 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	5477	1.43	1 µg/L		
MPFHxS	1483	1.68	1 µg/L		
MPFHpA	7425	1.69	1 µg/L		
MPFOA	7964	1.88	1 µg/L		
MPFOS	1609	1.98	1 µg/L		
MPFNA	8150	2.01	1 µg/L		
MPFDA	6503	2.14	1 µg/L		
MPFUnA	7060	2.23	1 µg/L		
MPFDoA	10193	2.32	1 µg/L		
MPFTeDA	10471	2.47	1 µg/L		
13C6-PFHxA IS	22098	1.42	1 µg/L		
13C9-PFDA IS	28298	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	8719	1.09	12.50	12.20 µg/L	97.58
PFHxA 1	32593	1.42	12.50	13.31 µg/L	106.47
PFHxS 1	8463	1.68	12.50	12.30 µg/L	98.37
PFHpA 1	41488	1.69	12.50	12.89 µg/L	103.12
PFOA 1	44247	1.87	12.50	12.70 µg/L	101.64
PFOS 1	8589	1.97	12.50	13.54 µg/L	108.30
PFNA 1	39360	2.01	12.50	12.11 µg/L	96.91
PFDA 1	44435	2.14	12.50	12.82 µg/L	102.55
PFUnA 1	48391	2.23	12.50	14.05 µg/L	112.43
PFDoA 1	60627	2.32	12.50	13.03 µg/L	104.21
PFTrDA 1	67237	2.40	12.50	14.63 µg/L	117.01
PFTeDA 1	53561	2.47	12.50	13.73 µg/L	109.81
13C2-PFHxA	5477	1.43	100.00	95.18 µg/L	95.18
18O2-PFHxS	1483	1.68	100.00	103.23 µg/L	103.23
13C4-PFHpA	7425	1.69	100.00	101.03 µg/L	101.03
13C4-PFOA	7964	1.88	100.00	102.85 µg/L	102.85
13C4-PFOS	1609	1.98	100.00	93.39 µg/L	93.39
13C5-PFNA	8150	2.01	100.00	104.24 µg/L	104.24
13C2-PFDA	6283	2.14	100.00	102.12 µg/L	102.12
13C2-PFUnA	7060	2.23	100.00	95.48 µg/L	95.48
13C2-PFDoA	10193	2.32	100.00	100.71 µg/L	100.71
13C2-PFTeDA	10661	2.47	100.00	89.45 µg/L	89.45
13C6-PFHxA	22098	1.42	100.00	102.94 µg/L	102.94
13C9-PFDA	28298	2.13	100.00	100.66 µg/L	100.66





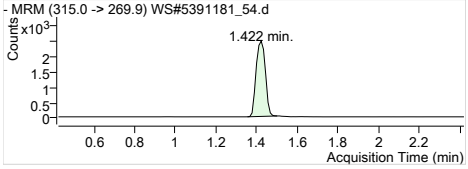
MPFHxA	Internal Standard
RT (Exp. RT):	1.434 (1.422)
Concentration:	1 µg/L
Sample type:	CC

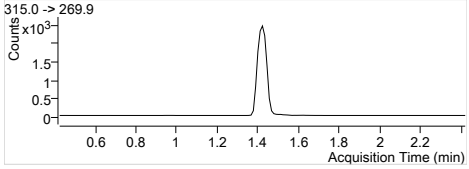
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5391181_54.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-F7
Acq. Date	2018/02/12 1:55:38 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	7688	1.42	1 µg/L		
MPFHxS	1939	1.68	1 µg/L		
MPFHpA	9746	1.69	1 µg/L		
MPFOA	10568	1.87	1 µg/L		
MPFOS	2237	1.97	1 µg/L		
MPFNA	10378	2.01	1 µg/L		
MPFDA	8752	2.12	1 µg/L		
MPFUnA	10304	2.23	1 µg/L		
MPFDoA	13186	2.31	1 µg/L		
MPFTeDA	15768	2.46	1 µg/L		
13C6-PFHxA IS	25620	1.42	1 µg/L		
13C9-PFDA IS	34132	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	772	1.08	0.83	0.89 µg/L	107.21
PFHxA 1	2500	1.42	0.83	0.92 µg/L	110.32
PFHxS 1	752	1.67	0.83	0.91 µg/L	110.03
PFHpA 1	3515	1.69	0.83	0.90 µg/L	107.98
PFOA 1	3732	1.87	0.83	0.80 µg/L	96.02
PFOS 1	734	1.97	0.83	0.84 µg/L	101.57
PFNA 1	3424	2.01	0.83	0.90 µg/L	108.96
PFDA 1	4226	2.12	0.83	1.05 µg/L	125.97
PFUnA 1	3827	2.22	0.83	0.85 µg/L	102.61
PFDoA 1	4732	2.31	0.83	0.90 µg/L	107.91
PFTrDA 1	5229	2.39	0.83	0.82 µg/L	99.13
PFTeDA 1	4981	2.46	0.83	0.92 µg/L	110.45
13C2-PFHxA	7688	1.42	100.00	115.23 µg/L	115.23
18O2-PFHxS	1939	1.68	100.00	116.41 µg/L	116.41
13C4-PFHpA	9746	1.69	100.00	114.39 µg/L	114.39
13C4-PFOA	10568	1.87	100.00	117.72 µg/L	117.72
13C4-PFOS	2237	1.97	100.00	111.99 µg/L	111.99
13C5-PFNA	10378	2.01	100.00	114.49 µg/L	114.49
13C2-PFDA	8621	2.12	100.00	116.18 µg/L	116.18
13C2-PFUnA	10304	2.23	100.00	115.53 µg/L	115.53
13C2-PFDoA	13186	2.31	100.00	108.01 µg/L	108.01
13C2-PFTeDA	16228	2.46	100.00	112.89 µg/L	112.89
13C6-PFHxA	25620	1.42	100.00	119.35 µg/L	119.35
13C9-PFDA	34132	2.13	100.00	121.41 µg/L	121.41





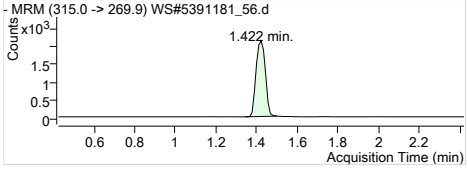
MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	CC

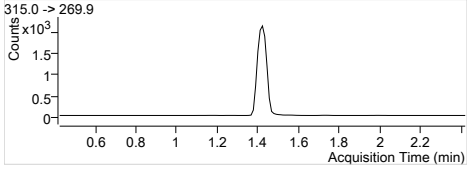
Batch Path	T:\lcms4\PFC\20180209\WS#5391181\QuantResults\PFC_Water_Low_180209_WS#5391181_EToxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_56.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P3-F9
Acq. Date	2018/02/12 2:06:03 PM	**Injection Volume**	Per Method
Sample Annotation	-		

ISTD Compounds	Response	RT	Target conc.		
MPFHxA	6652	1.42	1 µg/L		
MPFHxS	1757	1.68	1 µg/L		
MPFHpA	8611	1.69	1 µg/L		
MPFOA	9578	1.87	1 µg/L		
MPFOS	1898	1.98	1 µg/L		
MPFNA	9062	2.01	1 µg/L		
MPFDA	8196	2.14	1 µg/L		
MPFUnA	9369	2.22	1 µg/L		
MPFDoA	11667	2.31	1 µg/L		
MPFTeDA	13305	2.46	1 µg/L		
13C6-PFHxA IS	22928	1.42	1 µg/L		
13C9-PFDA IS	30394	2.13	1 µg/L		

Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFBS 1	9204	1.08	12.50	10.88 µg/L	87.01
PFHxA 1	34755	1.42	12.50	11.71 µg/L	93.68
PFHxS 1	9614	1.68	12.50	11.79 µg/L	94.35
PFHpA 1	42855	1.69	12.50	11.49 µg/L	91.91
PFOA 1	47004	1.87	12.50	11.22 µg/L	89.77
PFOS 1	9292	1.97	12.50	12.42 µg/L	99.33
PFNA 1	42982	2.01	12.50	11.90 µg/L	95.19
PFDA 1	46906	2.12	12.50	10.76 µg/L	86.09
PFUnA 1	50883	2.22	12.50	11.16 µg/L	89.24
PFDoA 1	65831	2.31	12.50	12.36 µg/L	98.91
PFTrDA 1	73047	2.39	12.50	12.52 µg/L	100.13
PFTeDA 1	62912	2.46	12.50	12.69 µg/L	101.56
13C2-PFHxA	6652	1.42	100.00	111.41 µg/L	111.41
18O2-PFHxS	1757	1.68	100.00	117.87 µg/L	117.87
13C4-PFHpA	8611	1.69	100.00	112.93 µg/L	112.93
13C4-PFOA	9578	1.87	100.00	119.22 µg/L	119.22
13C4-PFOS	1898	1.98	100.00	106.17 µg/L	106.17
13C5-PFNA	9061	2.01	100.00	111.69 µg/L	111.69
13C2-PFDA	8007	2.14	100.00	121.17 µg/L	121.17
13C2-PFUnA	9369	2.22	100.00	117.97 µg/L	117.97
13C2-PFDoA	11667	2.31	100.00	107.33 µg/L	107.33
13C2-PFTeDA	13672	2.46	100.00	106.80 µg/L	106.80
13C6-PFHxA	22928	1.42	100.00	106.81 µg/L	106.81
13C9-PFDA	30394	2.13	100.00	108.12 µg/L	108.12





MPFHxA	Internal Standard
RT (Exp. RT):	1.422 (1.422)
Concentration:	1 µg/L
Sample type:	CC

Quantitation Results

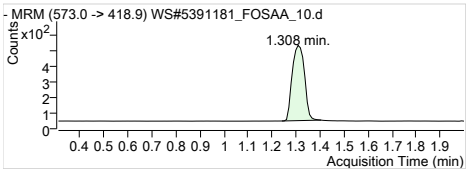
Agilent Technologies

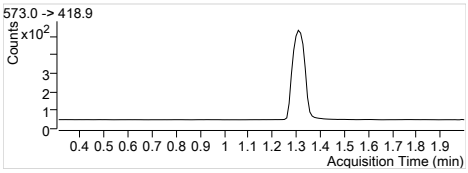
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A2
Acq. Date	2018/02/09 10:48:47 PM	**Injection Volume**	Per Method
Sample Annotation	-		

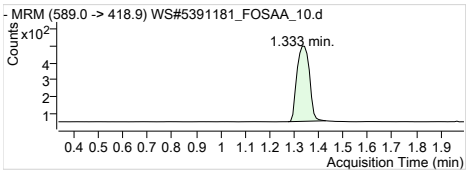
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1718	1.31	1 µg/L		
D5-EtFOSAA IS	1601	1.33	1 µg/L		
13C9-PFDA IS	24824	0.90	1 µg/L		

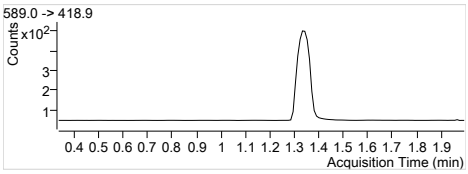
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	568	1.31	0.83	0.89 µg/L	107.58
EtFOSAA 1	561	1.33	0.83	0.85 µg/L	102.99
D3-MeFOSAA	1746	1.31	100.00	95.21 µg/L	95.21
D5-EtFOSAA	1640	1.33	100.00	99.54 µg/L	99.54
13C9-PFDA	24055	0.90	100.00	107.89 µg/L	107.89



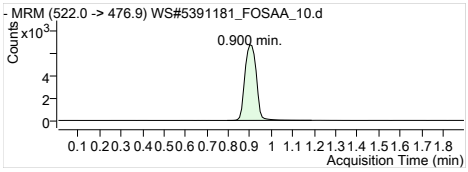


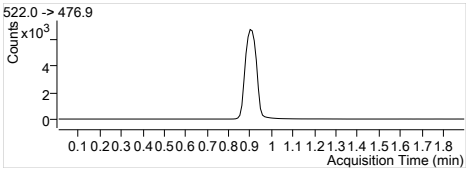
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



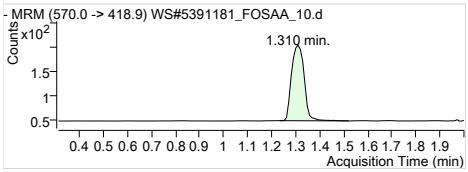


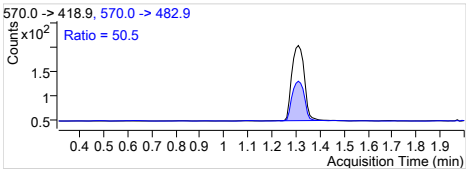
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



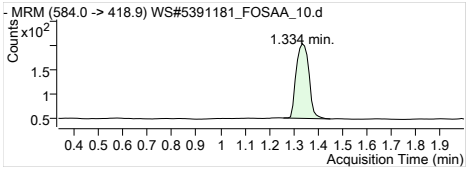


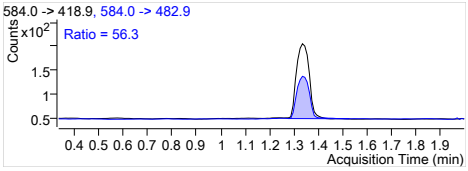
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



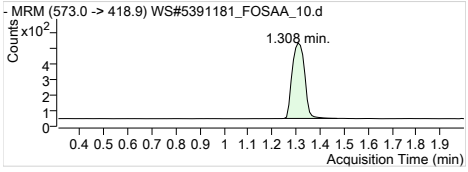


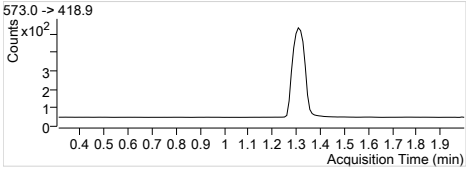
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 0.89 µg/L
Area ratio: 0.33062
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 0.85 µg/L
Area ratio: 0.35041
Sample type: CC





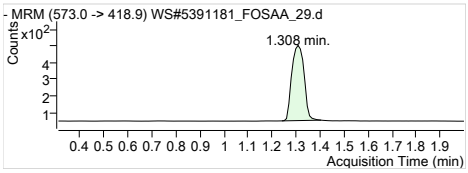
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 95.21 µg/L
Area ratio: 0.07034
Sample type: CC

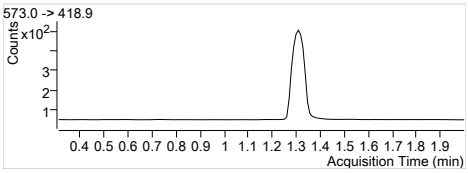
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_29.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A5
Acq. Date	2018/02/09 11:34:35 PM	**Injection Volume**	Per Method
Sample Annotation	-		

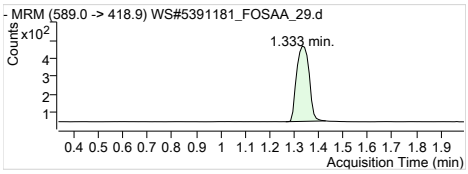
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1611	1.31	1 µg/L		
D5-EtFOSAA IS	1491	1.33	1 µg/L		
13C9-PFDA IS	21819	0.90	1 µg/L		

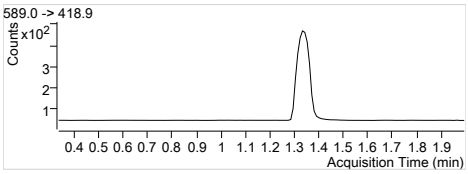
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8248	1.31	12.50	13.35 µg/L	106.83
EtFOSAA 1	8715	1.33	12.50	12.73 µg/L	101.86
D3-MeFOSAA	1634	1.31	100.00	101.37 µg/L	101.37
D5-EtFOSAA	1521	1.33	100.00	105.03 µg/L	105.03
13C9-PFDA	21203	0.90	100.00	95.10 µg/L	95.10



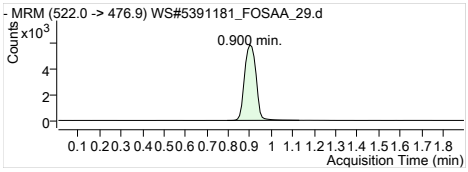


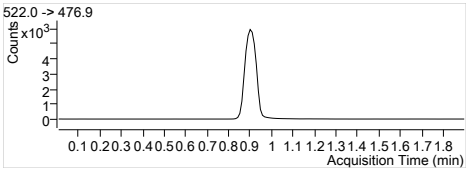
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



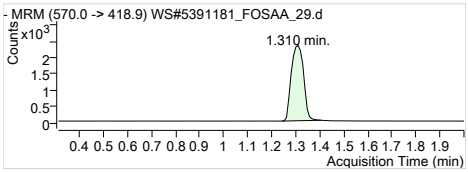


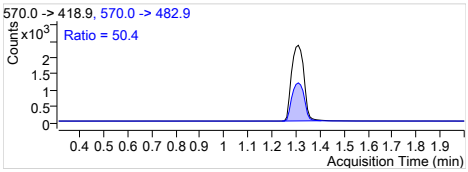
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



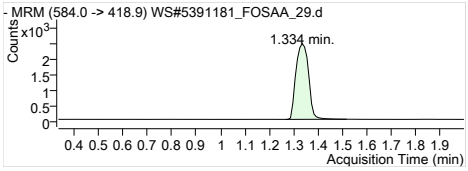


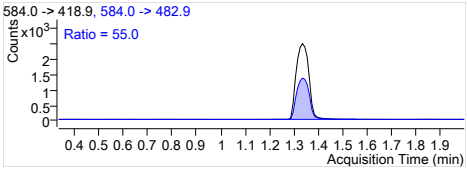
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



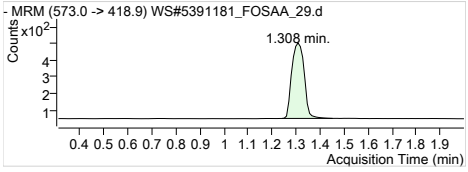


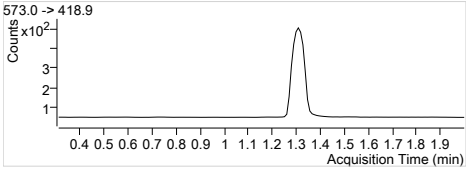
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 13.35 µg/L
Area ratio: 5.11980
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 12.73 µg/L
Area ratio: 5.84507
Sample type: CC





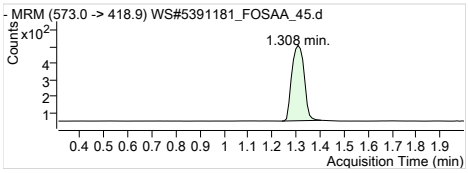
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 101.37 µg/L
Area ratio: 0.07489
Sample type: CC

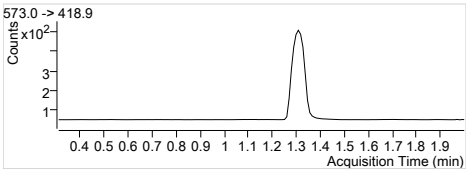
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_45.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A5
Acq. Date	2018/02/10 12:13:07 AM	**Injection Volume**	Per Method
Sample Annotation	-		

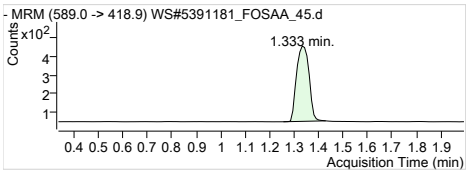
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1642	1.31	1 µg/L		
D5-EtFOSAA IS	1447	1.33	1 µg/L		
13C9-PFDA IS	21974	0.90	1 µg/L		

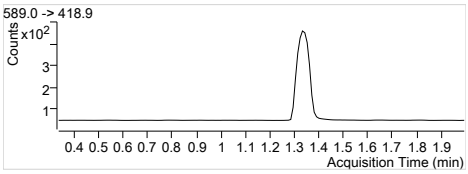
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8000	1.31	12.50	12.71 µg/L	101.68
EtFOSAA 1	8527	1.33	12.50	12.84 µg/L	102.69
D3-MeFOSAA	1674	1.31	100.00	103.12 µg/L	103.12
D5-EtFOSAA	1480	1.33	100.00	101.48 µg/L	101.48
13C9-PFDA	21334	0.90	100.00	95.69 µg/L	95.69



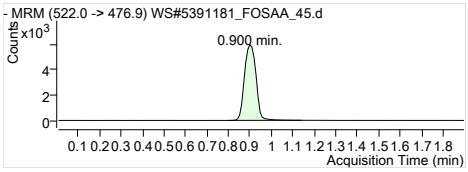


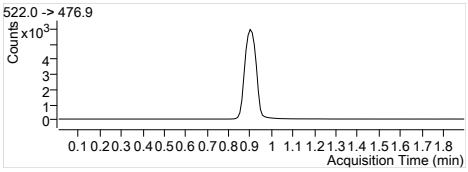
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



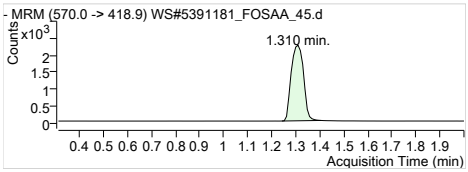


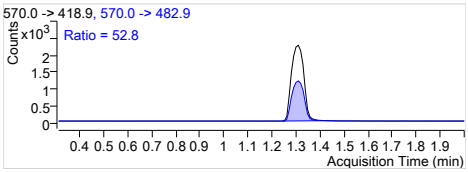
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



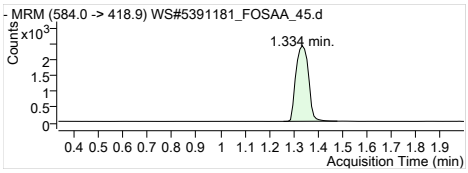


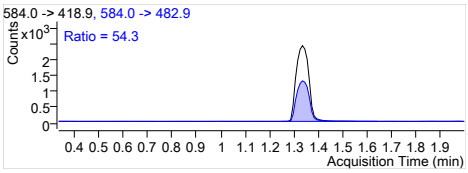
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



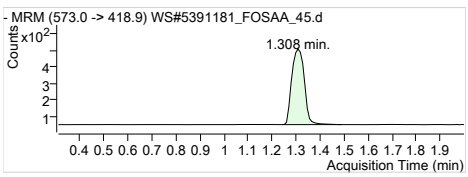


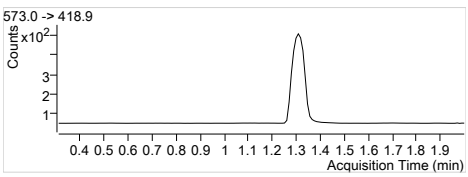
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 12.71 µg/L
Area ratio: 4.87211
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 12.84 µg/L
Area ratio: 5.89288
Sample type: CC





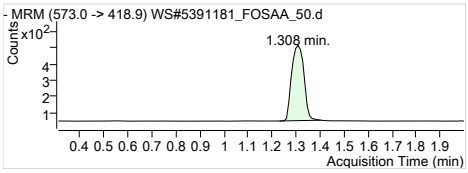
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 103.12 µg/L
Area ratio: 0.07618
Sample type: CC

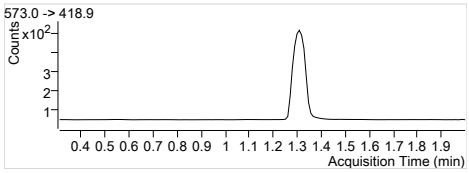
Batch Path	T:\lcms4\PFC\20180209\WS#5391181_FOSAA\QuantResults\PFC_Water_Low_180209_WS#5391181_FOSAA_ETOxics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5391181_FOSAA_50.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P1-A5
Acq. Date	2018/02/10 12:25:12 AM	**Injection Volume**	Per Method
Sample Annotation	-		

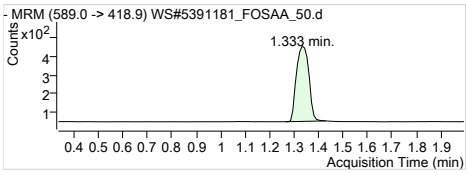
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1660	1.31	1 µg/L		
D5-EtFOSAA IS	1438	1.33	1 µg/L		
13C9-PFDA IS	22191	0.90	1 µg/L		

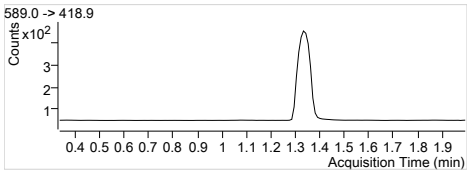
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	8147	1.31	12.50	12.80 µg/L	102.42
EtFOSAA 1	8697	1.33	12.50	13.17 µg/L	105.37
D3-MeFOSAA	1682	1.31	100.00	102.60 µg/L	102.60
D5-EtFOSAA	1461	1.33	100.00	99.20 µg/L	99.20
13C9-PFDA	21524	0.90	100.00	96.54 µg/L	96.54



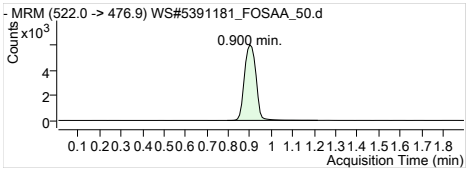


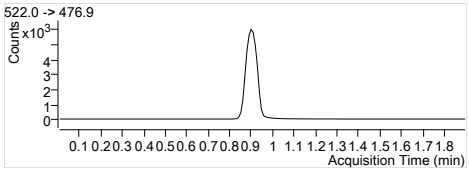
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.308 (1.308)
Concentration: 1 µg/L
Sample type: CC



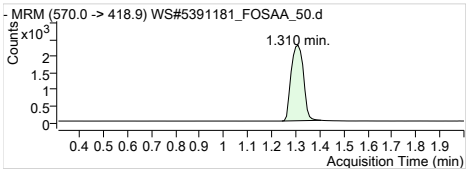


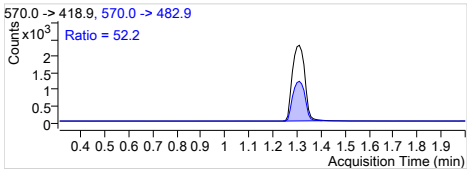
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.333 (1.333)
Concentration: 1 µg/L
Sample type: CC



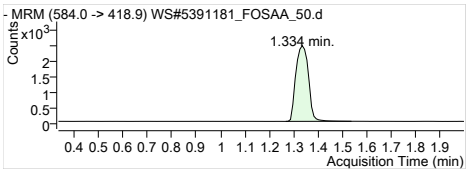


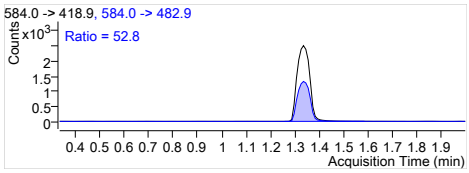
13C9-PFDA IS Internal Standard
RT (Exp. RT): 0.900 (0.900)
Concentration: 1 µg/L
Sample type: CC



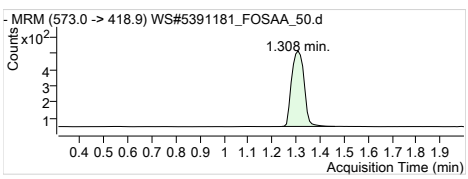


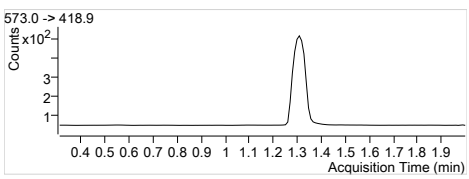
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.310 (1.310)
Calc. conc. 12.80 µg/L
Area ratio: 4.90783
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.334 (1.334)
Calc. conc. 13.17 µg/L
Area ratio: 6.04798
Sample type: CC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.308 (1.308)
Calc. conc. 102.60 µg/L
Area ratio: 0.07580
Sample type: CC

DoD Projects - Internal Data Validation Checklist

Run date: 2018/02/15

Worksheet # (s): 53966 99

Analysis: PFOSALCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria 2018/02/20 QR	X	✓		✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria	✓			✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria	✓			✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed			✓	✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS	✓			✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: MEP Date: 2018/02/16

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced			✓
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: [signature] Date: 2018/02/16

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # PFOSALCM-W | Testcode: 5396699

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)			✓
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: [signature] | Date: 2018/2/13

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: | Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: | Date:

Comments:

Helper - TO
BBL - FCD-00002
2018/02/14

WS# : 5396699

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Tuesday, February 13, 2018

Assigned to : Shahbaz Ahmad

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

sediment cm ml ml SAD 2018/02/13

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	MTRX SPK	0	PFC-W FZA786-01		0.2	125	3	1X					2018/02/13
	MTRX SPK	1	PFC-W FZA786-01		0.2	125	3	1X					2018/02/13
	SPIKE		PFC-W		0	125	3	1X					2018/02/13
	BLANK				0	125	3	1X					2018/02/13
B818419	*FZA783-01R		[redacted]		<0.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA784-01R		[redacted]		<0.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA785-01R		[redacted]		<0.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA786-01R		[redacted]		0.2	125	3	1X	6	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA788-01R		[redacted]		<0.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA789-01R		[redacted]		<0.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA790-01R		[redacted]		<0.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA791-01R		[redacted]		<0.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA792-01R		[redacted]		<0.1	125	3	1X	2	2018/02/05	2018/02/07 23:00	DOD	2018/02/13
B818419	*FZA802-01R		[redacted]		<0.1	125	3	1X	2	2018/02/06	2018/02/07 23:00	DOD	2018/02/13
B819794	*FZH332-01R		CEF-342-06S-0118-*		<0.1	125	3	1X	2	2018/02/06	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH334-01R		CEF-343-03S-0118		<0.1	~~125~~ 125 SAD 2018/2/16	3	~~1X~~ 10X SAD 2018/2/16	6	2018/02/06	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH336-01R		FB-CEF-NFF-0122*		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH338-01R		CEF-372-08-0118		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH339-01R		CEF-372-08-0118-D		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH340-01R		CEF-003-28S-0118		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH341-01R		FB-CEF-016-01221*		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH342-01R		CEF-016-07S-0118		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B819794	*FZH343-01R		CEF-016-17S-0118		<0.1	125	3	1X	2	2018/02/05	2018/02/09 18:00	DOD	2018/02/13
B820260	*FZJ934-01R		[redacted]		<0.1	125	3	1X	2	2018/02/06	2018/02/09 23:00	DOD	2018/02/13

SAD 2017/02/13

Remarks:

Samples extracted by: Shahbaz Ahmad SAD 2017/02/13

Instrumentation performed by: AD Date: 2018/02/15

Calculations performed by: [signature] Date: 2018/02/16

Validated by: [signature] Date: 2018/02/16

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB818419	[redacted]			
GB819794	**SP8 Earth Toxics Inc** NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 F/C by NGV 2018/02/08 Project #: JM10 CECIL	**Rick Carr**	**Tier 5 (Enviro.) AECOM**	
GB820260	[redacted]			

SAD 2018/2/13

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B818419	FZA783-01R	
B818419	FZA784-01R	
B818419	FZA785-01R	
B818419	FZA786-01R	
B818419	FZA788-01R	
B818419	FZA789-01R	
B818419	FZA790-01R	
B818419	FZA791-01R	
B818419	FZA792-01R	
B818419	FZA802-01R	
B819794	FZH332-01R	
B819794	FZH334-01R	
B819794	FZH336-01R	
B819794	FZH338-01R	
B819794	FZH339-01R	
B819794	FZH340-01R	
B819794	FZH341-01R	
B819794	FZH342-01R	
B819794	FZH343-01R	
B820260	FZJ934-01R	

S1 2825 25
S2 2800 50 } SK 7377 2/3
S3 2700 15
S4 2813 37.5
S5 2775 75 } I-5297 2/3
S6 2725 125
ICV 2788 62.5 — I-5299 2/3
IB 2850 —

Worksheet Reagent Tracking Record Worksheet # 539 6698

Volume (µL)

Surrogate/Spike solutions	√	Solution ID #	Conc.	Blk-Spk		MS		Samples	
				Solid	Liquid	Solid	Liquid	Solid	Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299 1/3 DM3	1ug/mL	75	21 (62.5)	75	21 (62.5)	NA	NA
PFC Internal Standard Solution	✓	SI 6801 1/4 DM3	50/125 ng/mL	200	100 (150)	200	100 (150)	200	100 (150)
PFC Injection IS	✓	SI 6770 1/2	400 ng/mL	20	20	20	20	20	20
ICV	✓	I-5299 1/3							

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHBJ5451	2018/2/13	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRLPE 108-348		DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRLPE 108-342		0.2% NH_4OH	✓	PRLPE 108-357	
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/2/13
0.05M HCl							

*Spiked by: SM

Spike Date: 2018/2/13

Spike Syringe/Pipette ID#: G 24390 G

Int. Std Syringe/Pipette ID#: MM1011F

*Spiking Witnessed by: DM3

Final pH:

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #
Pipettor K397324 K557916		SPE Cartridge			QC Balance ID	
		Filter			Thermometer ID &Temp	
Dispenser		Centrifuge				
		Sonicator				

Bottle Tracking

Bottle# 18801

Cap# 18778

Systems plus Lot#: 18-01-31

Comments:

* - SPIKING OF QC's & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet: 5396699

Dilution and Column Cleanup Worksheet

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample added mL	Solvent Added mL	Int Stan Added uL	New Effective Final Volume	INITIAL DATE	Column Clean Up
B819794	FZH339-01	1X	10X	12.5	—	150	12.5	SAP 2016/12/16	N/A

SAP 2016/12/16

Maxxam Analytics

Worksheet Number: **5396699**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	B818419 FZA783 ReWork	B818419 FZA784 ReWork
6:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
EtFOSAA	ug/L	81.89152	86.50419	81.46990	0	0	0
N-ethylperfluorooctane sulfonamidoe	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
MeFOSAA	ug/L	83.77645	86.49321	81.82236	0	0	0
N-methylperfluorooctanesulfonamidol	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutanoic acid	ug/L	78.26734	103.01333	87.10518	0	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	ug/L	78.12860	77.27161	78.72710	0	N/A*******	N/A*******
Perfluorodecane Sulfonate	ug/L	76.26618	84.69740	80.33875	0	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	ug/L	79.13409	88.59966	78.03500	0	N/A*******	N/A*******
Perfluoroheptane sulfonate	ug/L	82.49752	93.31286	75.51033	0	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	ug/L	81.24347	83.85384	81.89415	0	N/A*******	N/A*******
Perfluorohexane Sulfonate (PFHxS)	ug/L	76.67552	80.40450	83.83048	0	N/A*******	N/A*******
Perfluorononanoic Acid (PFNA)	ug/L	80.81356	90.14536	84.08254	0	N/A*******	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	ug/L	86.80263	93.38657	82.92819	0	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	ug/L	85.39121	86.76922	81.35779	0	N/A*******	N/A*******
Perfluorotetradecanoic Acid	ug/L	86.09162	94.91401	75.46730	0	0	0
Perfluorotridecanoic Acid	ug/L	93.21887	100.76268	86.16368	0	N/A*******	N/A*******
Perfluoroundecanoic Acid (PFUnA)	ug/L	80.90519	93.00632	87.65415	0	0	0
Perfluorodecanoic Acid (PFDA)	ug/L	85.91489	90.77759	86.05988	0	N/A*******	N/A*******
Perfluorododecanoic Acid (PFDoA)	ug/L	87.89923	89.00862	88.97405	0	0	0
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	77.51000	79.68264	91.63664	0	N/A*******	N/A*******
Perfluorooctane Sulfonate (PFOS)	ug/L	78.88293	92.28659	88.34139	0	N/A*******	N/A*******
13C2-6:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	ug/L	103.046183	90.3397531	99.5678759	72.6292907	N/A*******	N/A*******
13C4-Perfluorobutanoic acid	ug/L	125.361650	104.403913	115.446888	65.1426527	N/A*******	N/A*******
D3-MeFOSAA	ug/L	119.063633	114.503326	96.5012287	60.0697015	112.272968	104.452849
D5-EtFOSAA	ug/L	118.064890	110.938028	92.2373381	57.7412796	112.233101	102.901171
N-methyl-d3-perfluorooctane sulfona	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	ug/L	118.240681	102.594706	107.799043	93.5404483	N/A*******	N/A*******
13C2-Perfluorododecanoic acid	ug/L	109.471290	101.202650	94.6627859	69.0291760	106.162006	90.8643354
13C2-Perfluorohexanoic acid	ug/L	119.939338	112.984723	109.935692	85.8754293	N/A*******	N/A*******
13C2-Perfluoroundecanoic acid	ug/L	120.165429	102.823242	104.756638	78.4780291	104.811742	99.1997934
13C4-Perfluoroheptanoic acid	ug/L	128.677245	111.899795	117.173752	105.346681	N/A*******	N/A*******
13C5-Perfluorononanoic acid	ug/L	127.505332	115.357178	108.561941	103.363673	N/A*******	N/A*******
13C4-Perfluorooctanoic acid	ug/L	131.923293	125.628386	105.393126	113.731104	N/A*******	N/A*******
13C4-Perfluorooctanesulfonate	ug/L	130.302284	113.843161	104.337259	77.6255263	N/A*******	N/A*******
13C5-Perfluoropentanoic acid	ug/L	125.935081	113.762432	117.771111	72.3004986	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	ug/L	106.312620	91.1177078	100.357118	92.9518459	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	ug/L	128.181971	125.624796	104.025069	53.6290853	N/A*******	N/A*******

2018/02/16

Worksheet Number: **5396699**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B818419 FZA785 ReWork	B818419 FZA786 ReWork	B818419 FZA788 ReWork	B818419 FZA789 ReWork	B818419 FZA790 ReWork	B818419 FZA791 ReWork	B818419 FZA792 ReWork
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
EtFOSAA	0	0	0	0	0	0	0
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
MeFOSAA	0	0	0	0	0	0	0
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorobutane Sulfonate (PFBS)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorodecane Sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptanoic Acid (PFHpA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroheptane sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexanoic Acid (PFHxA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexane Sulfonate (PFHxS)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorononanoic Acid (PFNA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorotetradecanoic Acid	0	0	0	0	0	0	0
Perfluorotridecanoic Acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0	0	0	0
Perfluorodecanoic Acid (PFDA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorododecanoic Acid (PFDoA)	0	0	N/A*******	0	0	0	0
Perfluoro-n-Octanoic Acid (PFOA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorooctane Sulfonate (PFOS)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
D3-MeFOSAA	107.531370	115.522418	105.837881	100.439078	123.455838	116.938915	75.8042349
D5-EtFOSAA	104.113013	112.664482	99.1097756	96.6985420	122.200455	117.064133	71.5399115
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorodecanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorododecanoic acid	93.5890020	93.1097997	89.0640359	94.2925682	110.548580	106.289973	99.9867732
13C2-Perfluorohexanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluoroundecanoic acid	102.241785	98.8544832	97.2867603	96.5175337	117.290987	120.393256	110.039307
13C4-Perfluoroheptanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C5-Perfluorononanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorooctanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorooctanesulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
18O2-Perfluorohexanesulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******

Worksheet Number: **5396699**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	B818419 FZA802 ReWork	B819794 FZH332 ReWork	DL	B819794 FZH334 ReWork	DL	B819794 FZH336 ReWork	B819794 FZH338 ReWork
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.2	N/A*******	N/A*******
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.2	N/A*******	N/A*******
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	0.02	N/A*******	0.2	N/A*******	N/A*******
EtFOSAA	0	N/A*******	0.02	N/A*******	0.2	0	0
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	0.02	N/A*******	0.2	N/A*******	N/A*******
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	0.02	N/A*******	0.2	N/A*******	N/A*******
MeFOSAA	0	N/A*******	0.02	N/A*******	0.2	0	0
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	0.02	N/A*******	0.2	N/A*******	N/A*******
Perfluorobutanoic acid	N/A*******	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorobutane Sulfonate (PFBS)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorodecane Sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluoroheptanoic Acid (PFHpA)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluoroheptane sulfonate	N/A*******	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorohexanoic Acid (PFHxA)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorohexane Sulfonate (PFHxS)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorononanoic Acid (PFNA)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorotetradecanoic Acid	0	0	0.02	0	0.2	0	0
Perfluorotridecanoic Acid	0	0	0.02	0	0.2	0	N/A*******
Perfluoroundecanoic Acid (PFUnA)	0	N/A*******	0.02	N/A*******	0.2	0	0
Perfluorodecanoic Acid (PFDA)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorododecanoic Acid (PFDoA)	0	N/A*******	0.02	N/A*******	0.2	0	0
Perfluoro-n-Octanoic Acid (PFOA)	0	N/A*******	0.02	N/A*******	0.2	0	N/A*******
Perfluorooctane Sulfonate (PFOS)	0	N/A*******	0.02	0	0.2	0	N/A*******
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******		N/A*******		N/A*******	N/A*******
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******		N/A*******		N/A*******	N/A*******
13C2-perfluorotetradecanoic acid	77.0240495	92.9612321		57.4026368		83.0777780	N/A*******
13C4-Perfluorobutanoic acid	N/A*******	N/A*******		N/A*******		86.9854758	N/A*******
D3-MeFOSAA	90.5648970	N/A*******		N/A*******		82.0972833	116.170591
D5-EtFOSAA	87.6515096	N/A*******		N/A*******		77.9473926	115.355592
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******		N/A*******		N/A*******	N/A*******
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******		N/A*******		N/A*******	N/A*******
13C2-Perfluorodecanoic acid	90.7447894	N/A*******		N/A*******		91.7117749	N/A*******
13C2-Perfluorododecanoic acid	90.6698453	N/A*******		N/A*******		84.7621637	114.198509
13C2-Perfluorohexanoic acid	73.1806414	N/A*******		N/A*******		107.559677	N/A*******
13C2-Perfluoroundecanoic acid	97.2108002	N/A*******		N/A*******		93.0809511	106.678973
13C4-Perfluoroheptanoic acid	80.4039093	N/A*******		N/A*******		116.718774	N/A*******
13C5-Perfluorononanoic acid	73.8632288	N/A*******		N/A*******		118.317542	N/A*******
13C4-Perfluorooctanoic acid	55.8349474	N/A*******		N/A*******		111.835769	N/A*******
13C4-Perfluorooctanesulfonate	67.4932176	N/A*******		N/A*******		103.459068	N/A*******
13C5-Perfluoropentanoic acid	N/A*******	N/A*******		N/A*******		97.0783475	N/A*******
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******		N/A*******		100.122646	N/A*******
18O2-Perfluorohexanesulfonate	78.8050133	N/A*******		N/A*******		81.3020829	N/A*******

Worksheet Number: **5396699**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

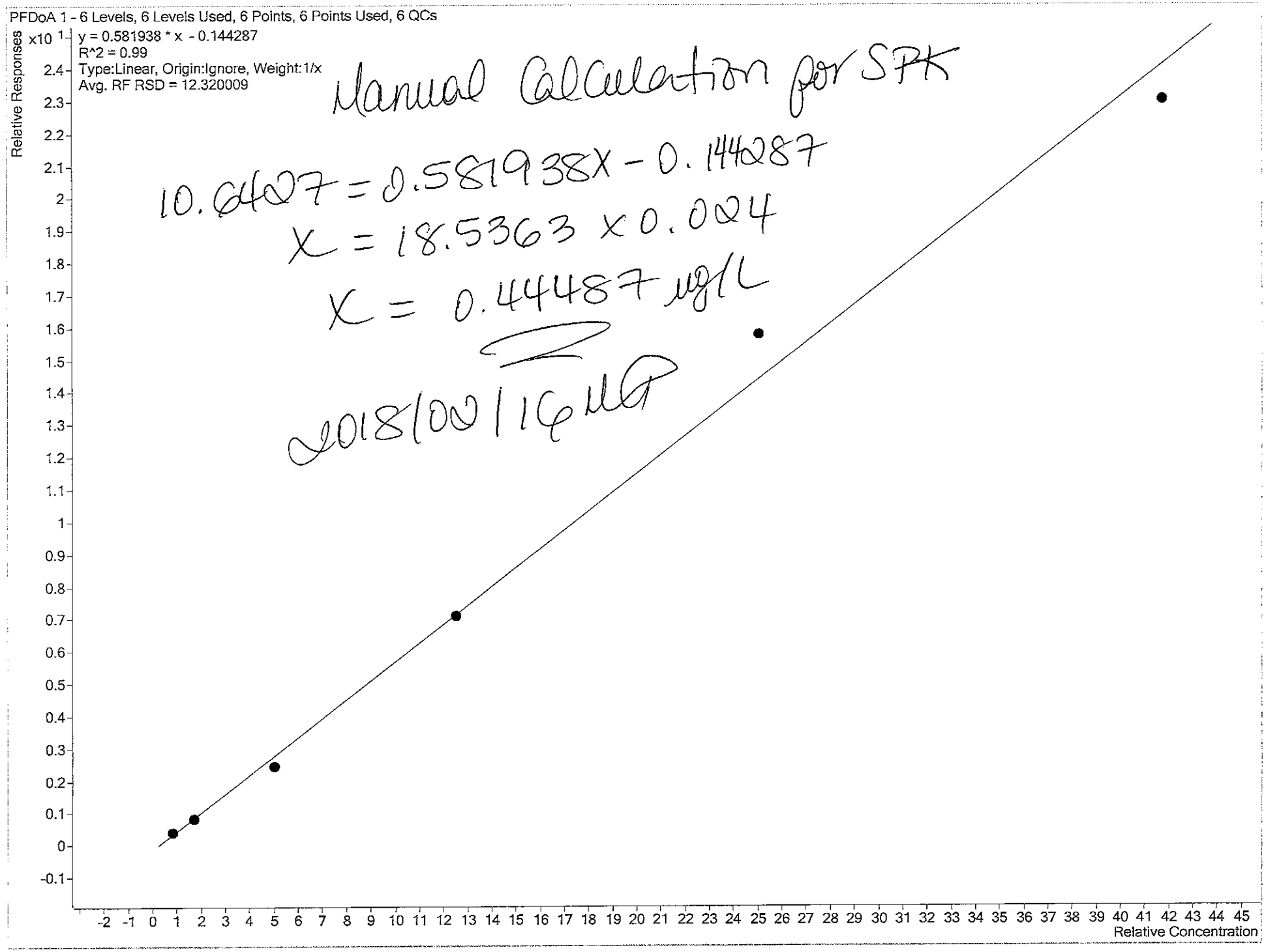
Parameter Name	B819794 FZH339 ReWork	B819794 FZH340 ReWork	B819794 FZH341 ReWork	B819794 FZH342 ReWork	B819794 FZH343 ReWork	B820260 FZJ934 ReWork	DL
6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02
8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02
N-ethylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02
EtFOSAA	0	0	0	0	0	N/A*******	0.02
N-ethylperfluorooctane sulfonamidoe	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02
N-methylperfluorooctane sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02
MeFOSAA	0	0	0	0	0	N/A*******	0.02
N-methylperfluorooctanesulfonamidol	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02
Perfluorobutanoic acid	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorobutane Sulfonate (PFBS)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorodecane Sulfonate	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluoroheptanoic Acid (PFHpA)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluoroheptane sulfonate	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorohexanoic Acid (PFHxA)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorohexane Sulfonate (PFHxS)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorononanoic Acid (PFNA)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	0	N/A*******	N/A*******	0	0.02
Perfluoropentanoic Acid (PFPeA)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorotetradecanoic Acid	0	0	0	0	0	N/A*******	0.02
Perfluorotridecanoic Acid	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluoroundecanoic Acid (PFUnA)	0	0	0	0	0	N/A*******	0.02
Perfluorodecanoic Acid (PFDA)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorododecanoic Acid (PFDoA)	0	0	0	0	0	N/A*******	0.02
Perfluoro-n-Octanoic Acid (PFOA)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
Perfluorooctane Sulfonate (PFOS)	N/A*******	N/A*******	0	N/A*******	N/A*******	N/A*******	0.02
13C2-6:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	
13C2-8:2 Fluorotelomer sulfonate	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	
13C2-perfluorotetradecanoic acid	N/A*******	N/A*******	102.239044	N/A*******	N/A*******	92.4555654	
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	93.8043979	N/A*******	N/A*******	88.3410084	
D3-MeFOSAA	114.001256	121.836584	97.2372780	123.007109	94.8946549	N/A*******	
D5-EtFOSAA	107.711261	116.757087	94.9652990	116.407122	92.9829425	N/A*******	
N-methyl-d3-perfluorooctane sulfona	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	
N-ethyl-d5-perfluorooctane sulfonam	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	
13C2-Perfluorodecanoic acid	N/A*******	N/A*******	114.604644	N/A*******	N/A*******	N/A*******	
13C2-Perfluorododecanoic acid	103.809367	106.279044	99.9175652	100.802308	83.8402739	N/A*******	
13C2-Perfluorohexanoic acid	N/A*******	N/A*******	112.392232	N/A*******	N/A*******	N/A*******	
13C2-Perfluoroundecanoic acid	112.763254	102.896259	111.901055	107.521088	94.4960465	N/A*******	
13C4-Perfluoroheptanoic acid	N/A*******	N/A*******	125.500412	N/A*******	N/A*******	N/A*******	
13C5-Perfluorononanoic acid	N/A*******	N/A*******	136.263843	N/A*******	N/A*******	N/A*******	
13C4-Perfluorooctanoic acid	N/A*******	N/A*******	129.782024	N/A*******	N/A*******	N/A*******	
13C4-Perfluorooctanesulfonate	N/A*******	N/A*******	104.180629	N/A*******	N/A*******	N/A*******	
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	105.035879	N/A*******	N/A*******	N/A*******	
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	112.828669	N/A*******	N/A*******	94.8368633	
18O2-Perfluorohexanesulfonate	N/A*******	N/A*******	87.7307374	N/A*******	N/A*******	N/A*******	

Worksheet Number: **5396699**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	RDL	MDL	IDL				
6:2 Fluorotelomer sulfonate	0.02	0.0066	0				
8:2 Fluorotelomer sulfonate	0.02	0.0066	0				
N-ethylperfluorooctane sulfonamide	0.02	0.01	0				
EtFOSAA	0.02	0.0033	0				
N-ethylperfluorooctane sulfonamidoe	0.02	0.0079	0				
N-methylperfluorooctane sulfonamide	0.02	0.013	0				
MeFOSAA	0.02	0.0029	0				
N-methylperfluorooctanesulfonamidol	0.02	0.012	0				
Perfluorobutanoic acid	0.02	0.0055	0				
Perfluorobutane Sulfonate (PFBS)	0.02	0.0054	0				
Perfluorodecane Sulfonate	0.02	0.006	0				
Perfluoroheptanoic Acid (PFHpA)	0.02	0.0074	0				
Perfluoroheptane sulfonate	0.02	0.008	0				
Perfluorohexanoic Acid (PFHxA)	0.02	0.0035	0				
Perfluorohexane Sulfonate (PFHxS)	0.02	0.0056	0				
Perfluorononanoic Acid (PFNA)	0.02	0.0087	0				
Perfluorooctane Sulfonamide (PFOSA)	0.02	0.0034	0				
Perfluoropentanoic Acid (PFPeA)	0.02	0.0075	0				
Perfluorotetradecanoic Acid	0.02	0.0027	0				
Perfluorotridecanoic Acid	0.02	0.0038	0				
Perfluoroundecanoic Acid (PFUnA)	0.02	0.0025	0				
Perfluorodecanoic Acid (PFDA)	0.02	0.0061	0				
Perfluorododecanoic Acid (PFDoA)	0.02	0.005	0				
Perfluoro-n-Octanoic Acid (PFOA)	0.02	0.0033	0				
Perfluorooctane Sulfonate (PFOS)	0.02	0.006	0				
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



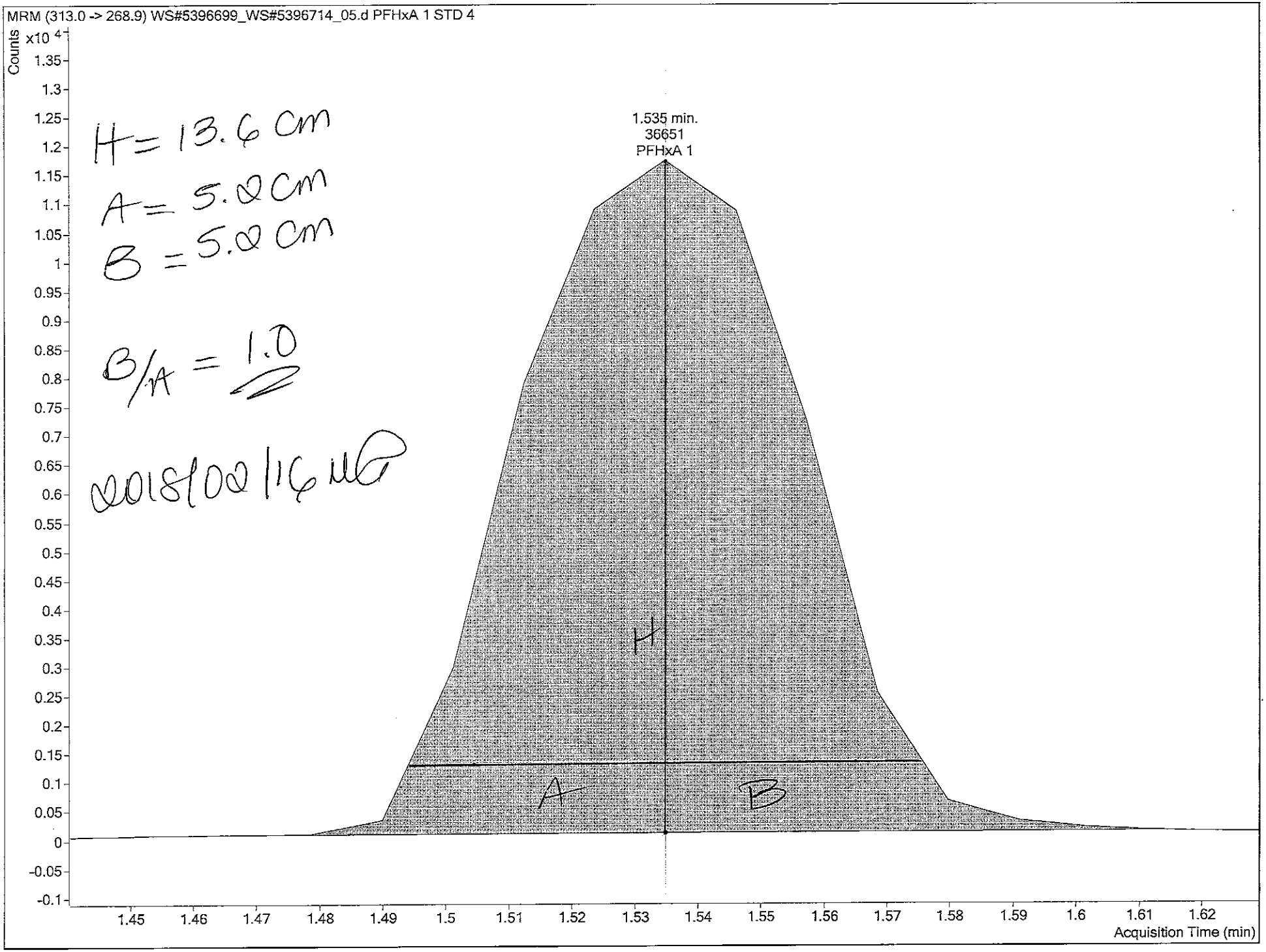
Manual Calculation for SPK

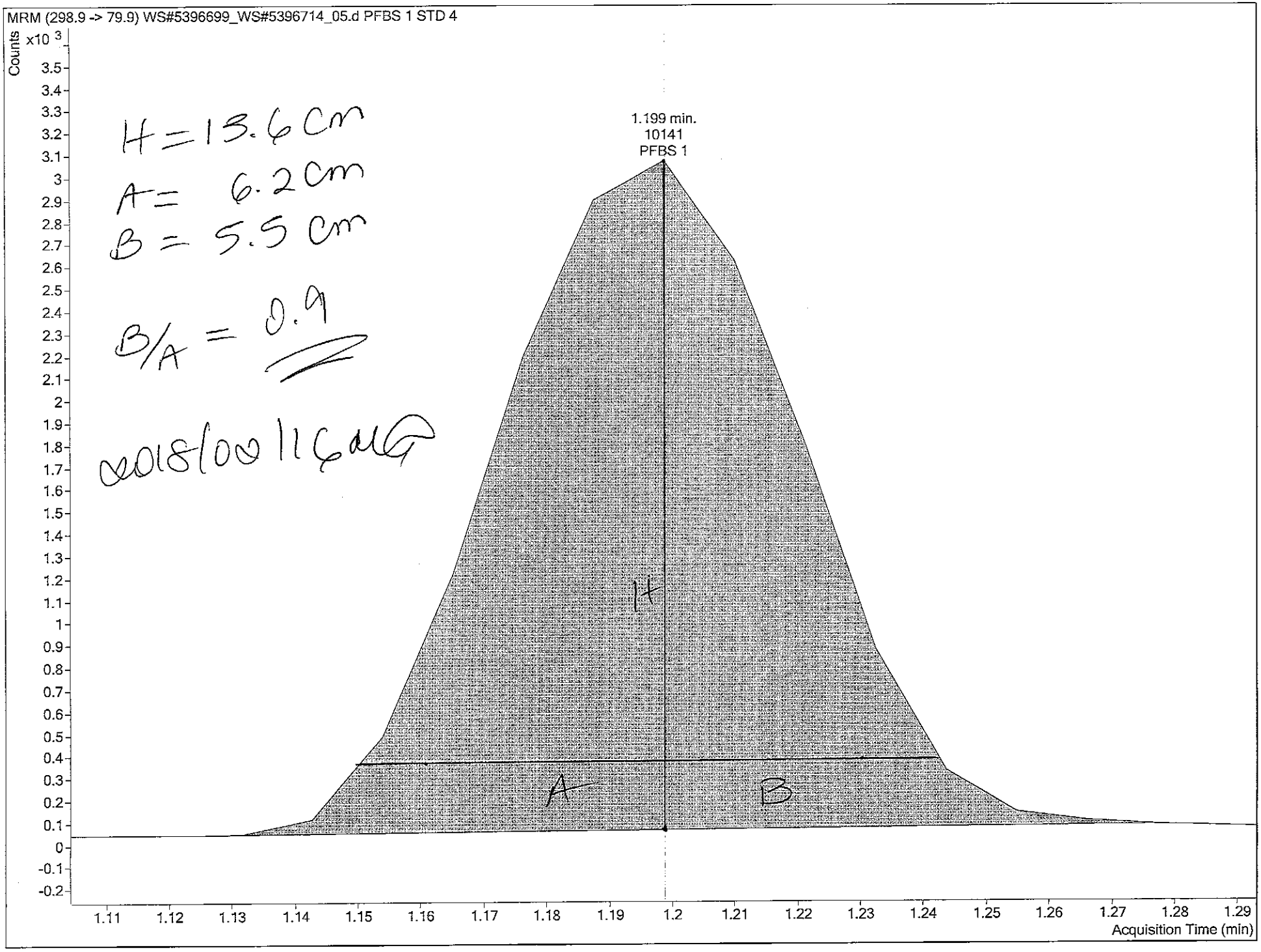
$10.6427 = 0.581938X - 0.144287$

$X = 18.5363 \times 0.024$

$X = 0.44487$ ug/L

2018/02/16 MG


MRM (313.0 -> 268.9) WS#5396699_WS#5396714_05.d PFHxA 1 STD 4
Counts
x10 4
1.535 min.
36651
PFHxA 1
H= 13.6 cm
A= 5.0 cm
B = 5.0 cm
B/A = 1.0
20180216 MG
H
A
B
Acquisition Time (min)


MRM (298.9 -> 79.9) WS#5396699_WS#5396714_05.d PFBS 1 STD 4
Counts
x10 3
1.199 min.
10141
PFBS 1
H = 13.6 cm
A = 6.2 cm
B = 5.5 cm
B/A = 0.9
20180011C.d
H
A
B
Acquisition Time (min)

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/13

Test Code: **PFOSALCM-W**

Worksheet Number: **5396699**

Sample Number	Parameter Code	Parameter	
FZA783-01	ETFOSAA	EtFOSAA	*
FZA784-01	MEFOSAA	MeFOSAA	*
FZA785-01	PFTEDA	Perfluorotetradecanoic Acid	
FZA786-01	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
FZA789-01	PFDOA	Perfluorododecanoic Acid (PFDoA)	
FZA790-01			
FZA791-01			
FZA792-01			
FZH338-01			
FZH339-01			
FZH340-01			
FZH342-01			
FZH343-01			
FZA788-01	ETFOSAA	EtFOSAA	*
	MEFOSAA	MeFOSAA	*
	PFTEDA	Perfluorotetradecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
FZA802-01	ETFOSAA	EtFOSAA	*
	MEFOSAA	MeFOSAA	*
	PFBS	Perfluorobutane Sulfonate (PFBS)	
	PFHPA	Perfluoroheptanoic Acid (PFHpA)	
	PFHXA	Perfluorohexanoic Acid (PFHxA)	
	PFHXS	Perfluorohexane Sulfonate (PFHxS)	
	PFNA	Perfluorononanoic Acid (PFNA)	
	PFTEDA	Perfluorotetradecanoic Acid	
	PFTRDA	Perfluorotridecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDA	Perfluorodecanoic Acid (PFDA)	
	PFDOA	Perfluorododecanoic Acid	

* - This parameter is usually off, but will be reported for this group of samples!

Report Name: Worksheet - Parameter Lists
Report Date: 2018/02/13

Test Code: **PFOSALCM-W**
Worksheet Number: **5396699**

Sample Number	Parameter Code	Parameter
		(PFDoA)
	PFOA	Perfluoro-n-Octanoic Acid (PFOA)
	PFOS	Perfluorooctane Sulfonate (PFOS)
FZH332-01	PFTEDA	Perfluorotetradecanoic Acid
FZH334-01	PFTRDA	Perfluorotridecanoic Acid
FZH336-01	NONE	NONE
FZH341-01		
FZJ934-01	PFOSA	Perfluorooctane Sulfonamide (PFOSA)

SAS 2018/02/13

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5396699 Instrument Sequences

1.	5396699:MTRX SPK	MTRX SPK
2.	5396699:MTRX SPK:D1	MTRX SPK :D1
3.	5396699:SPIKE	SPIKE
4.	5396699:BLANK	BLANK
5.	5396699:FZA783-01	[redacted]
6.	5396699:FZA784-01	[redacted]
7.	5396699:FZA785-01	[redacted]
8.	5396699:FZA786-01	[redacted]
9.	5396699:FZA788-01	[redacted]
10.	5396699:FZA789-01	[redacted]
11.	5396699:FZA790-01	[redacted]
12.	5396699:FZA791-01	[redacted]
13.	5396699:FZA792-01	[redacted]
14.	5396699:FZA802-01	[redacted]
15.	5396699:FZH332-01	CEF-342-06S-0118-D
16.	5396699:FZH334-01	CEF-343-03S-0118
17.	5396699:FZH336-01	FB-CEF-NFF-012218-1
18.	5396699:FZH338-01	CEF-372-08-0118
19.	5396699:FZH339-01	CEF-372-08-0118-D
20.	5396699:FZH340-01	CEF-003-28S-0118
21.	5396699:FZH341-01	FB-CEF-016-012218-2
22.	5396699:FZH342-01	CEF-016-07S-0118
23.	5396699:FZH343-01	CEF-016-17S-0118
24.	5396699:FZJ934-01	[redacted]

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180215_Low.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180215\WS#5396699_WS#5396714
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #~~198~~ 199 AD 2018|02|15
MP A1: Solution# 280 (FSRE18)
MP B: Methanol, SHBJ5451, Sigma

AD
2018|02|15

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low.m	WS#5396699_WS#5396714_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low.m	WS#5396699_WS#5396714_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low.m	WS#5396699_WS#5396714_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low.m	WS#5396699_WS#5396714_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low.m	WS#5396699_WS#5396714_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low.m	WS#5396699_WS#5396714_07.d	Calibration	STD 6	As Method	-

2018|02|15

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P2-A8	PFC_Water_Low.m	WS#5396699_WS#5396714_08.d	Sample		As Method	-
9	ICV	P2-A9	PFC_Water_Low.m	WS#5396699_WS#5396714_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low.m	WS#5396699_WS#5396714_10.d	ConCal	STD 1	As Method	-
11	5396699:BLANK	P2-B1	PFC_Water_Low.m	WS#5396699_WS#5396714_11.d	Sample		As Method	-
12	5396699:SPIKE	P2-B2	PFC_Water_Low.m	WS#5396699_WS#5396714_12.d	QC	ICV	As Method	-
13	5396699:MTRX SPK	P2-B3	PFC_Water_Low.m	WS#5396699_WS#5396714_13.d	QC	ICV	As Method	-
14	5396699:MTRX SPK:D1	P2-B4	PFC_Water_Low.m	WS#5396699_WS#5396714_14.d	QC	ICV	As Method	-
15	5396699:FZA783-01	P2-B5	PFC_Water_Low.m	WS#5396699_WS#5396714_15.d	Sample		As Method	-
16	5396699:FZA784-01	P2-B6	PFC_Water_Low.m	WS#5396699_WS#5396714_16.d	Sample		As Method	-
17	5396699:FZA785-01	P2-B7	PFC_Water_Low.m	WS#5396699_WS#5396714_17.d	Sample		As Method	-
18	5396699:FZA786-01	P2-B8	PFC_Water_Low.m	WS#5396699_WS#5396714_18.d	Sample		As Method	-
19	5396699:FZA788-01	P2-B9	PFC_Water_Low.m	WS#5396699_WS#5396714_19.d	Sample		As Method	-
20	5396699:FZA789-01	P2-C1	PFC_Water_Low.m	WS#5396699_WS#5396714_20.d	Sample		As Method	-
21	5396699:FZA790-01	P2-C2	PFC_Water_Low.m	WS#5396699_WS#5396714_21.d	Sample		As Method	-
22	5396699:FZA791-01	P2-C3	PFC_Water_Low.m	WS#5396699_WS#5396714_22.d	Sample		As Method	-
23	5396699:FZA792-01	P2-C4	PFC_Water_Low.m	WS#5396699_WS#5396714_23.d	Sample		As Method	-
24	5396699:FZA802-01	P2-C5	PFC_Water_Low.m	WS#5396699_WS#5396714_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_25.d	ConCal	STD 4	As Method	-
26	5396699:FZH332-01	P2-C6	PFC_Water_Low.m	WS#5396699_WS#5396714_26.d	Sample		As Method	-
27	5396699:FZH334-01:10x	P2-C7	PFC_Water_Low.m	WS#5396699_WS#5396714_27.d	Sample		As Method	-
28	5396699:FZH336-01	P2-C8	PFC_Water_Low.m	WS#5396699_WS#5396714_28.d	Sample		As Method	-
29	5396699:FZH338-01	P2-C9	PFC_Water_Low.m	WS#5396699_WS#5396714_29.d	Sample		As Method	-
30	5396699:FZH339-01	P2-D1	PFC_Water_Low.m	WS#5396699_WS#5396714_30.d	Sample		As Method	-

Maxxam Analytics

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5396699:FZH340-01	P2-D2	PFC_Water_Low.m	WS#5396699_WS#5396714_31.d	Sample		As Method	-
32	5396699:FZH341-01	P2-D3	PFC_Water_Low.m	WS#5396699_WS#5396714_32.d	Sample		As Method	-
33	5396699:FZH342-01	P2-D4	PFC_Water_Low.m	WS#5396699_WS#5396714_33.d	Sample		As Method	-
34	5396699:FZH343-01	P2-D5	PFC_Water_Low.m	WS#5396699_WS#5396714_34.d	Sample		As Method	-
35	5396699:FZJ934-01	P2-D6	PFC_Water_Low.m	WS#5396699_WS#5396714_35.d	Sample		As Method	-
36	CCV	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_36.d	ConCal	STD 4	As Method	-
37	5396714:MTRX SPK	P2-D7	PFC_Water_Low.m	WS#5396699_WS#5396714_37.d	Sample		As Method	-
38	5396714:MTRX SPK:D1	P2-D8	PFC_Water_Low.m	WS#5396699_WS#5396714_38.d	Sample		As Method	-
39	5396714:FZH337-01	P2-D9	PFC_Water_Low.m	WS#5396699_WS#5396714_39.d	Sample		As Method	-
40	CCV	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_40.d	ConCal	STD 4	As Method	-

Worklist Report

Agilent Technologies

Maxxam Analytics

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180215_Low_FOSAA.wkl

AD
2018/02/15

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180215\WS#5396699_WS#5396714_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #~~198~~ 199 AD 20180215
MP A1: Solution# 280 (FSRE18)
MP B2:Solution# 284 (FSRE18)

2018/02/15

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P2-A9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5396699:BLANK	P2-B1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_11.d	Sample		As Method	-
12	5396699:SPIKE	P2-B2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_12.d	QC	ICV	As Method	-
13	5396699:MTRX SPK	P2-B3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_13.d	QC	ICV	As Method	-
14	5396699:MTRX SPK:D1	P2-B4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_14.d	QC	ICV	As Method	-
15	5396699:FZA783-01	P2-B5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_15.d	Sample		As Method	-
16	5396699:FZA784-01	P2-B6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_16.d	Sample		As Method	-
17	5396699:FZA785-01	P2-B7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_17.d	Sample		As Method	-
18	5396699:FZA786-01	P2-B8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_18.d	Sample		As Method	-
19	5396699:FZA788-01	P2-B9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_19.d	Sample		As Method	-
20	5396699:FZA789-01	P2-C1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_20.d	Sample		As Method	-
21	5396699:FZA790-01	P2-C2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_21.d	Sample		As Method	-
22	5396699:FZA791-01	P2-C3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_22.d	Sample		As Method	-
23	5396699:FZA792-01	P2-C4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_23.d	Sample		As Method	-
24	5396699:FZA802-01	P2-C5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_25.d	ConCal	STD 4	As Method	-
26	5396699:FZH332-01	P2-C6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_26.d	Sample		As Method	-
27	5396699:FZH334-01:10x	P2-C7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_27.d	Sample		As Method	-
28	5396699:FZH336-01	P2-C8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_28.d	Sample		As Method	-
29	5396699:FZH338-01	P2-C9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_29.d	Sample		As Method	-
30	5396699:FZH339-01	P2-D1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_30.d	Sample		As Method	-
31	5396699:FZH340-01	P2-D2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_31.d	Sample		As Method	-
32	5396699:FZH341-01	P2-D3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_32.d	Sample		As Method	-
33	5396699:FZH342-01	P2-D4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_33.d	Sample		As Method	-
34	5396699:FZH343-01	P2-D5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_34.d	Sample		As Method	-

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
35	5396699:FZJ934-01	P2-D6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_35.d	Sample		As Method	-
36	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_36.d	ConCal	STD 4	As Method	-
37	5396714:MTRX SPK	P2-D7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_37.d	Sample		As Method	-
38	5396714:MTRX SPK:D1	P2-D8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_38.d	Sample		As Method	-
39	5396714:FZH337-01	P2-D9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_39.d	Sample		As Method	-
40	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_40.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/15 4:15 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_02.d	P2-A2
STD 2	-	2018/02/15 4:20 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_03.d	P2-A3
STD 3	-	2018/02/15 4:25 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_04.d	P2-A4
STD 4	-	2018/02/15 4:30 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_05.d	P2-A5
STD 5	-	2018/02/15 4:35 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_06.d	P2-A6
STD 6	-	2018/02/15 4:40 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_07.d	P2-A7
IB	-	2018/02/15 4:45 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_08.d	P2-A8
ICV	-	2018/02/15 4:50 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_09.d	P2-A9
ISC	-	2018/02/15 4:55 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_10.d	P2-A2
5396699:BLANK	-	2018/02/15 5:00 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_11.d	P2-B1
5396699:SPIKE	-	2018/02/15 5:05 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_12.d	P2-B2
5396699:MTRX SPK	FZA786	2018/02/15 5:10 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_13.d	P2-B3
5396699:MTRX SPK:D1	FZA786	2018/02/15 5:15 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_14.d	P2-B4
5396699:FZA783-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:19 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_15.d	P2-B5
5396699:FZA784-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:24 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_16.d	P2-B6
5396699:FZA785-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:29 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_17.d	P2-B7
5396699:FZA786-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:34 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_18.d	P2-B8
5396699:FZA788-01	Reported for PFUnA , PFTeDA only.	2018/02/15 5:39 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_19.d	P2-B9
5396699:FZA789-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:44 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_20.d	P2-C1
5396699:FZA790-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:49 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_21.d	P2-C2
5396699:FZA791-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:54 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_22.d	P2-C3
5396699:FZA792-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 5:59 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_23.d	P2-C4
5396699:FZA802-01	Reinjected due to low ext IS recovery- Reporte	2018/02/15 6:04 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_24.d	P2-C5
CCV	-	2018/02/15 6:09 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_25.d	P2-A5
5396699:FZH332-01	Reported for PFTrDA , PFTeDA only.	2018/02/15 6:14 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_26.d	P2-C6
5396699:FZH334-01:10x	Reported for PFTrDA , PFTeDA only.	2018/02/15 6:19 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_27.d	P2-C7
5396699:FZH336-01	-	2018/02/15 6:24 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_28.d	P2-C8
5396699:FZH338-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 6:29 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_29.d	P2-C9
5396699:FZH339-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 6:33 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_30.d	P2-D1
5396699:FZH340-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 6:38 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_31.d	P2-D2
5396699:FZH341-01	-	2018/02/15 6:43 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_32.d	P2-D3
5396699:FZH342-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 6:48 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_33.d	P2-D4
5396699:FZH343-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 6:53 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_34.d	P2-D5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
5396699:FZJ934-01	Reported for PFOSA only.	2018/02/15 6:58 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_35.d	P2-D6
CCV	-	2018/02/15 7:03 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_36.d	P2-A5
CCV	-	2018/02/15 7:23 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_40.d	P2-A5
ISC	-	2018/02/16 8:47 AM	PFC_Water_Low.m	WS#5396699_WS#5396714_r_43.d	P2-A2
5396699:FZA802-01:R	Reported for PFOA	2018/02/16 8:52 AM	PFC_Water_Low.m	WS#5396699_WS#5396714_r_44.d	P2-C5
CCV	-	2018/02/16 8:57 AM	PFC_Water_Low.m	WS#5396699_WS#5396714_r_45.d	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/15 10:39 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_02.d	P2-A2
STD 2	-	2018/02/15 10:41 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_03.d	P2-A3
STD 3	-	2018/02/15 10:44 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_04.d	P2-A4
STD 4	-	2018/02/15 10:46 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_05.d	P2-A5
STD 5	-	2018/02/15 10:48 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_06.d	P2-A6
STD 6	-	2018/02/15 10:51 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_07.d	P2-A7
IB	-	2018/02/15 10:53 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_08.d	P2-A8
ICV	-	2018/02/15 10:56 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_09.d	P2-A9
ISC	-	2018/02/15 10:58 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_10.d	P2-A2
5396699:BLANK	-	2018/02/15 11:00 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_11.d	P2-B1
5396699:SPIKE	-	2018/02/15 11:03 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_12.d	P2-B2
5396699:MTRX SPK	FZA786	2018/02/15 11:05 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_13.d	P2-B3
5396699:MTRX SPK:D1	FZA786	2018/02/15 11:08 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_14.d	P2-B4
5396699:FZA783-01	-	2018/02/15 11:10 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_15.d	P2-B5
5396699:FZA784-01	-	2018/02/15 11:12 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_16.d	P2-B6
5396699:FZA785-01	-	2018/02/15 11:15 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_17.d	P2-B7
5396699:FZA786-01	-	2018/02/15 11:17 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_18.d	P2-B8
5396699:FZA788-01	-	2018/02/15 11:20 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_19.d	P2-B9
5396699:FZA789-01	-	2018/02/15 11:22 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_20.d	P2-C1
5396699:FZA790-01	-	2018/02/15 11:25 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_21.d	P2-C2
5396699:FZA791-01	-	2018/02/15 11:27 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_22.d	P2-C3
5396699:FZA792-01	-	2018/02/15 11:29 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_23.d	P2-C4
5396699:FZA802-01	-	2018/02/15 11:32 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_24.d	P2-C5
CCV	-	2018/02/15 11:34 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_25.d	P2-A5
5396699:FZH332-01	-	2018/02/15 11:37 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_26.d	P2-C6
5396699:FZH334-01:10x	Not Used	2018/02/15 11:39 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_27.d	P2-C7
5396699:FZH336-01	-	2018/02/15 11:41 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_28.d	P2-C8
5396699:FZH338-01	-	2018/02/15 11:44 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_29.d	P2-C9
5396699:FZH339-01	-	2018/02/15 11:46 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_30.d	P2-D1
5396699:FZH340-01	-	2018/02/15 11:49 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_31.d	P2-D2
5396699:FZH341-01	-	2018/02/15 11:51 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_32.d	P2-D3
5396699:FZH342-01	-	2018/02/15 11:53 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_33.d	P2-D4
5396699:FZH343-01	-	2018/02/15 11:56 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_34.d	P2-D5

Maxxam Analytics

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
5396699:FZJ934-01	-	2018/02/15 11:58 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_35.d	P2-D6
CCV	-	2018/02/15 12:01 PM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_36.d	P2-A5

Maxxam Analytics

By Compound Report

Agilent Technologies

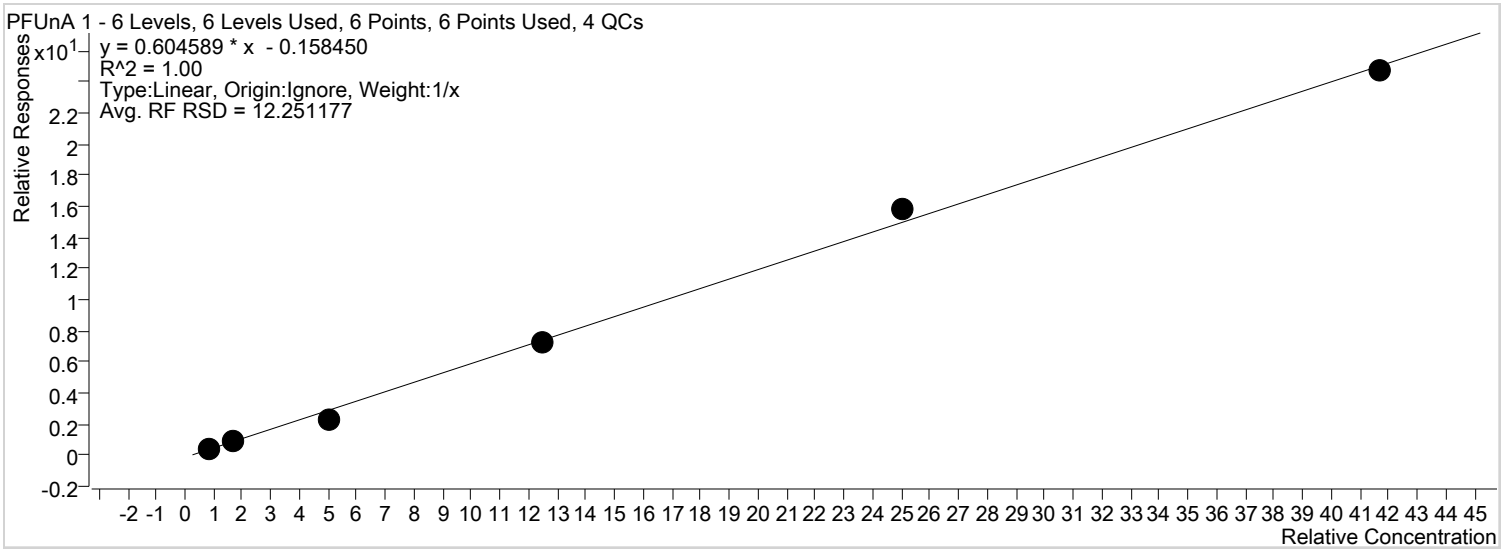
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin

Last Calib Update 2018/02/21 10:39:42 AM

Instrument: LCMS04

Analyte: PFUnA 1

Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.94	2510	0.4903	27	112.7
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.75	4875	0.5287	33	102.9
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.05	13534	0.4579	87	81.0
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.37	39617	0.5854	132	98.9
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	26.45	87768	0.6334	184	105.8
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	41.18	144868	0.5932	189	98.8

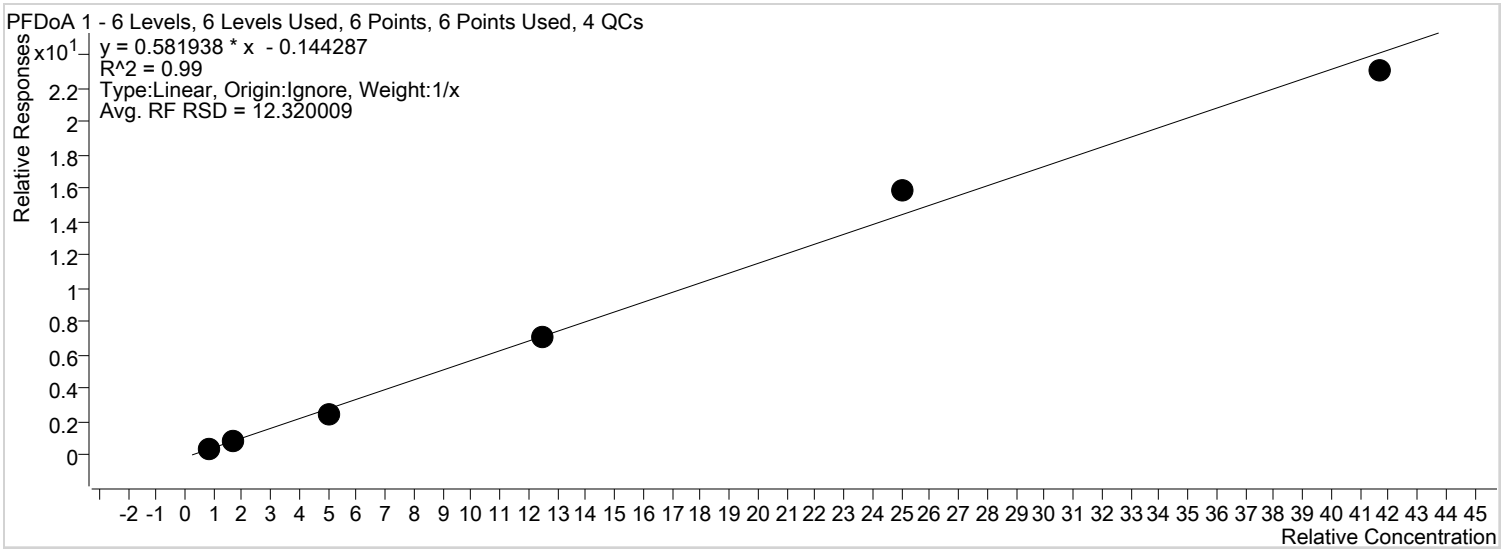
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin

Last Calib Update 2018/02/21 10:39:42 AM

Instrument: LCMS04

Analyte: PFDoA 1

Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.91	2949	0.4611	42	109.1
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.64	5881	0.4780	164	96.7
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.47	17518	0.4912	199	89.4
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.45	50698	0.5681	1115	99.6
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	27.40	114607	0.6321	3116	109.6
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	39.86	187876	0.5527	11140	95.6

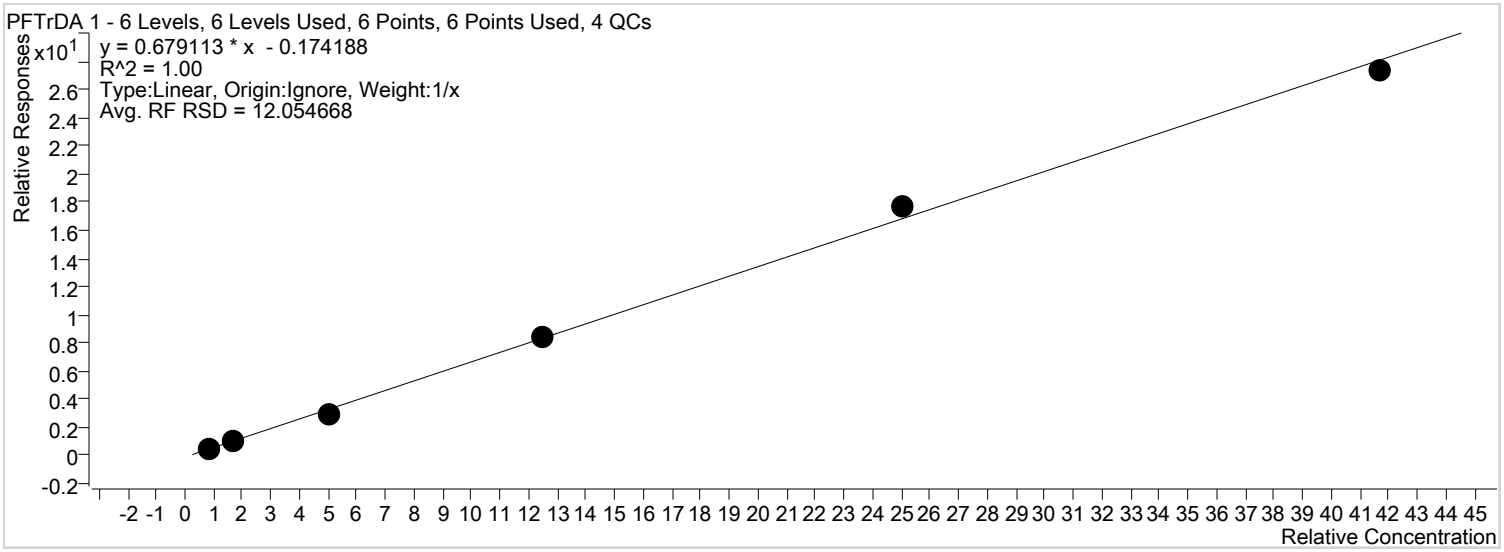
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin

Last Calib Update 2018/02/21 10:39:42 AM

Instrument: LCMS04

Analyte: PFTrDA 1

Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.89	2946	0.5169	26	107.0
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.67	5994	0.5666	51	98.5
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.51	18012	0.5780	126	90.2
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.65	51716	0.6735	212	101.2
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	26.43	117011	0.7109	248	105.7
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	40.58	195943	0.6566	318	97.3

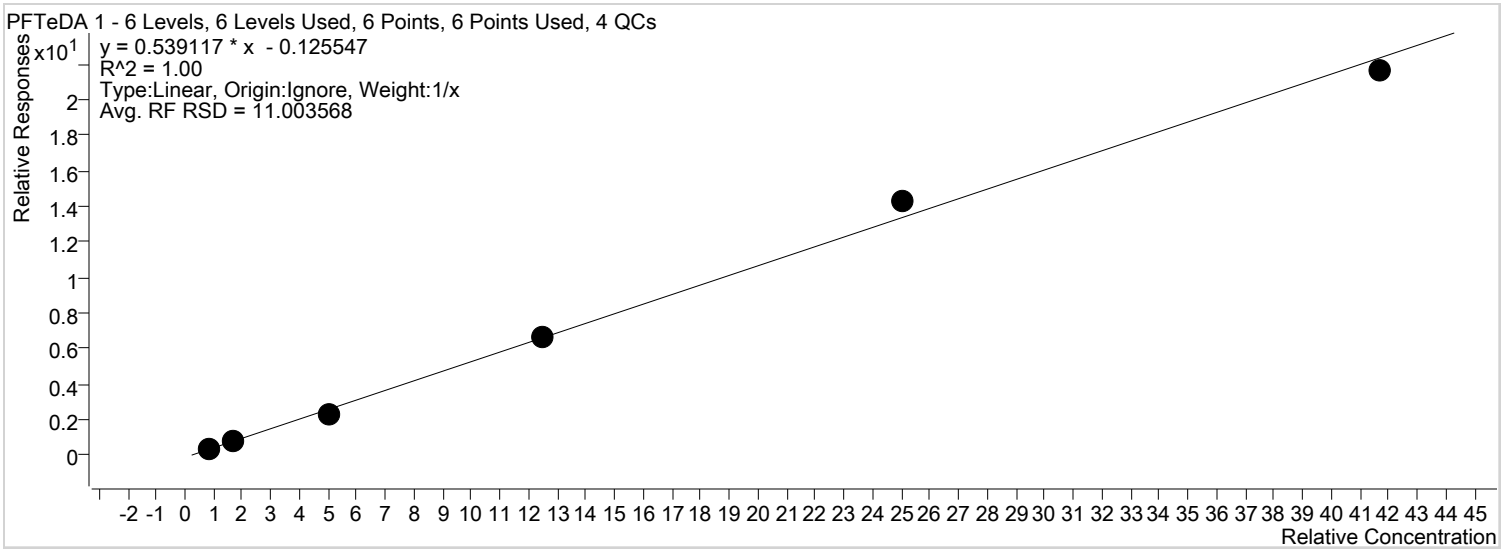
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin

Last Calib Update 2018/02/21 10:39:42 AM

Instrument: LCMS04

Analyte: PFTeDA 1

Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.92	2545	0.4465	21	110.9
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.62	4651	0.4396	37	95.2
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.48	14263	0.4577	103	89.5
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.53	40717	0.5303	197	100.2
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	26.83	94425	0.5737	337	107.3
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	40.35	154772	0.5187	334	96.8

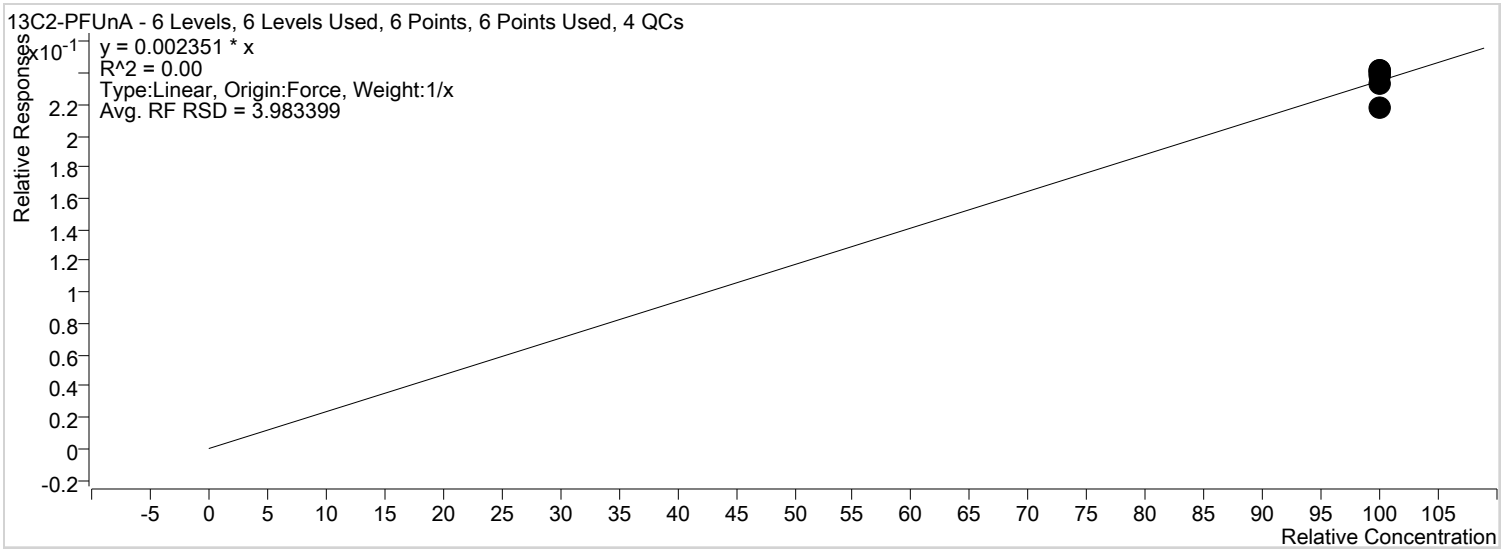
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin

Last Calib Update 2018/02/21 10:39:42 AM

Instrument: LCMS04

Analyte: 13C2-PFUnA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	100.00	101.19	6168	0.0024	395	101.2
STD 2	STD 2	x	2018/02/15 4:20:46 PM	100.00	92.40	5424	0.0022	198	92.4
STD 3	STD 3	x	2018/02/15 4:25:43 PM	100.00	98.92	5911	0.0023	161	98.9
STD 4	STD 4	x	2018/02/15 4:30:38 PM	100.00	102.10	5414	0.0024	112	102.1
STD 5	STD 5	x	2018/02/15 4:35:35 PM	100.00	102.66	5543	0.0024	149	102.7
STD 6	STD 6	x	2018/02/15 4:40:31 PM	100.00	102.73	5856	0.0024	96	102.7

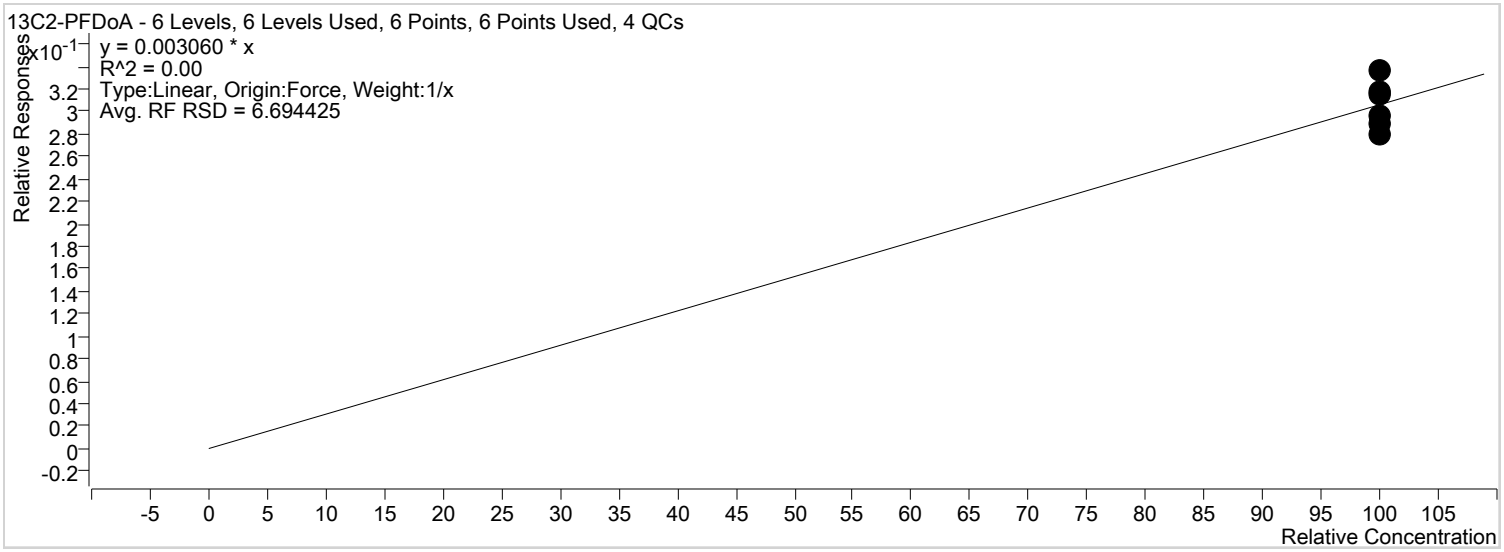
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin

Last Calib Update 2018/02/21 10:39:42 AM

Instrument: LCMS04

Analyte: 13C2-PFDoA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	100.00	97.12	7706	0.0030	327	97.1
STD 2	STD 2	x	2018/02/15 4:20:46 PM	100.00	94.71	7237	0.0029	297	94.7
STD 3	STD 3	x	2018/02/15 4:25:43 PM	100.00	91.70	7133	0.0028	379	91.7
STD 4	STD 4	x	2018/02/15 4:30:38 PM	100.00	103.43	7139	0.0032	254	103.4
STD 5	STD 5	x	2018/02/15 4:35:35 PM	100.00	103.18	7252	0.0032	348	103.2
STD 6	STD 6	x	2018/02/15 4:40:31 PM	100.00	109.85	8151	0.0034	481	109.9

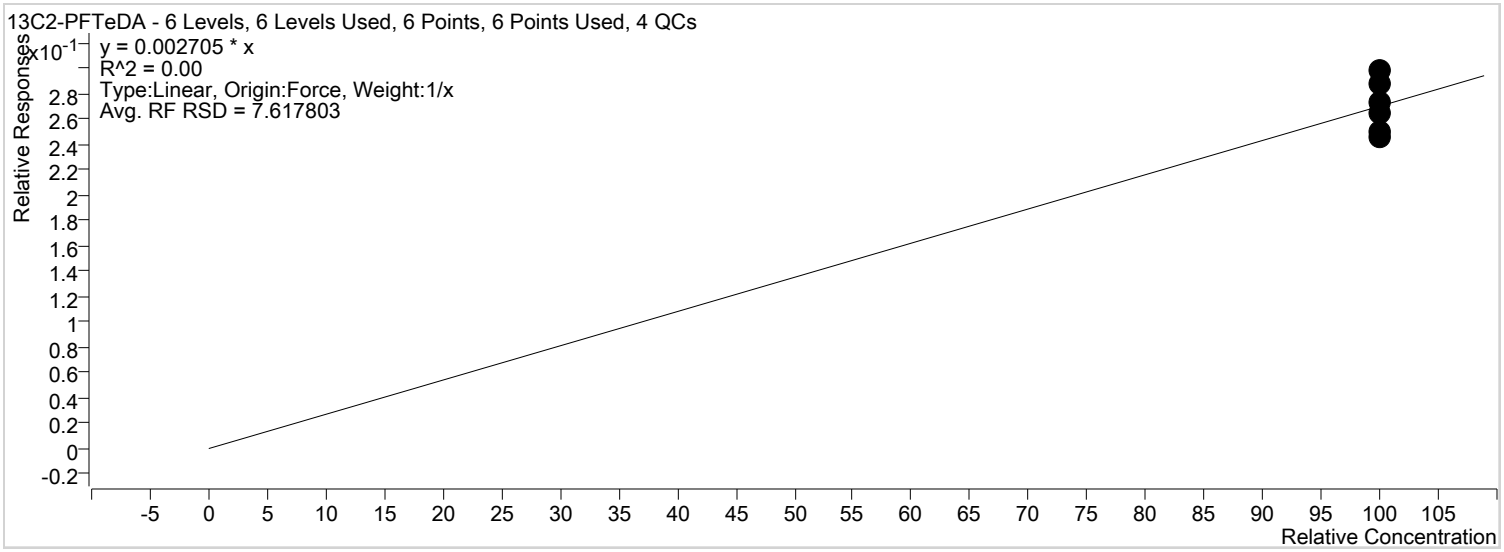
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_EToxics.batch.bin

Last Calib Update 2018/02/21 10:39:42 AM

Instrument: LCMS04

Analyte: 13C2-PFTeDA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	100.00	98.11	6881	0.0027	261	98.1
STD 2	STD 2	x	2018/02/15 4:20:46 PM	100.00	92.81	6269	0.0025	282	92.8
STD 3	STD 3	x	2018/02/15 4:25:43 PM	100.00	90.96	6254	0.0025	205	91.0
STD 4	STD 4	x	2018/02/15 4:30:38 PM	100.00	101.08	6167	0.0027	265	101.1
STD 5	STD 5	x	2018/02/15 4:35:35 PM	100.00	106.72	6630	0.0029	198	106.7
STD 6	STD 6	x	2018/02/15 4:40:31 PM	100.00	110.34	7237	0.0030	235	110.3

By Compound Report

Agilent Technologies

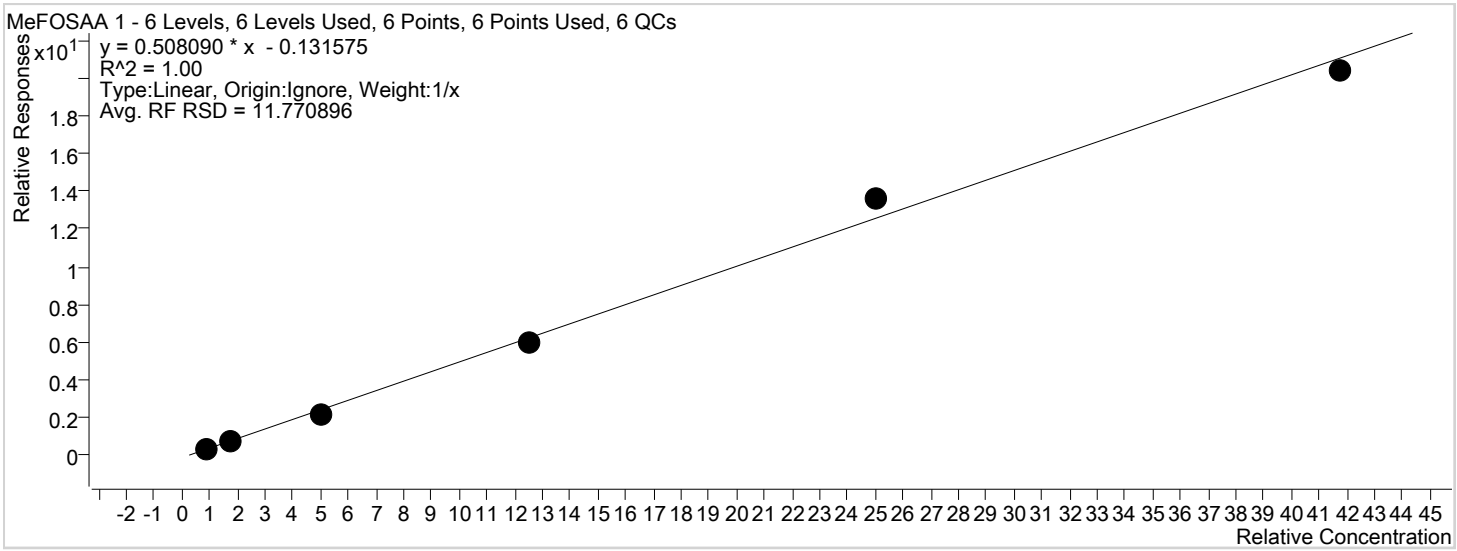
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics.batch.bin

Last Calib Update 2018/02/21 10:41:16 AM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	0.83	0.92	476	0.4067	143	111.3
STD 2	STD 2	x	2018/02/15 10:41:35 AM	1.70	1.64	1031	0.4131	168	96.5
STD 3	STD 3	x	2018/02/15 10:44:00 AM	5.00	4.49	3138	0.4302	294	89.8
STD 4	STD 4	x	2018/02/15 10:46:25 AM	12.50	12.10	8714	0.4814	319	96.8
STD 5	STD 5	x	2018/02/15 10:48:50 AM	25.00	27.16	19911	0.5466	355	108.6
STD 6	STD 6	x	2018/02/15 10:51:15 AM	41.70	40.41	32114	0.4893	353	96.9

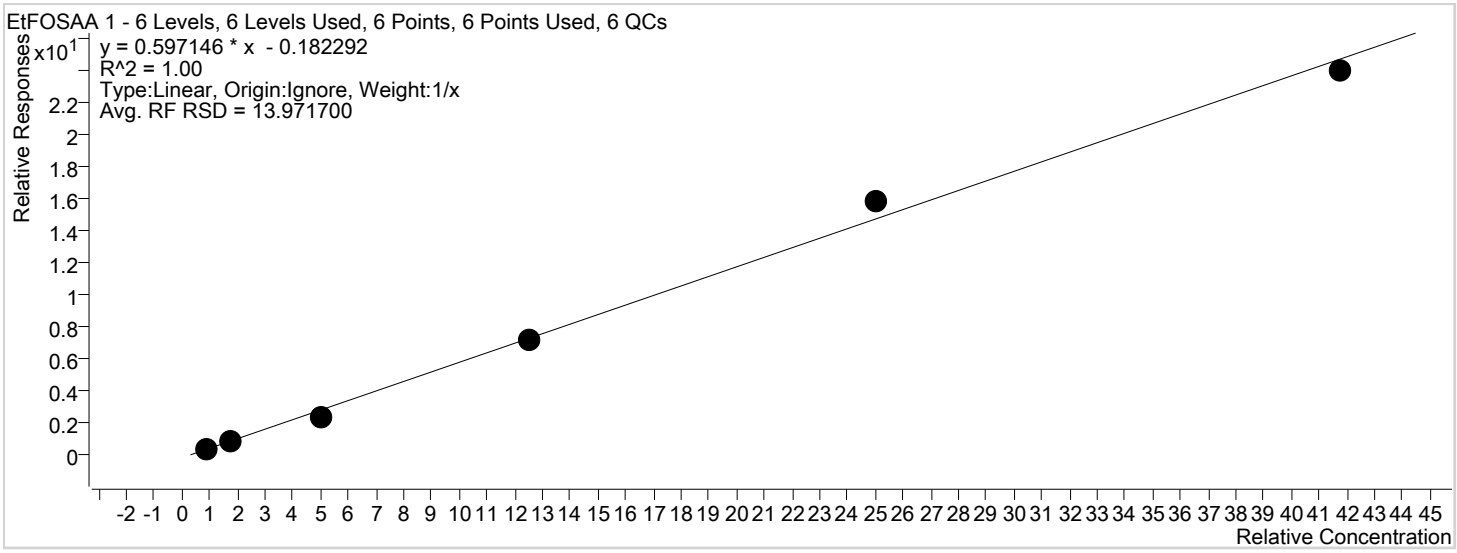
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics.batch.bin

Last Calib Update 2018/02/21 10:41:16 AM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	0.83	0.94	472	0.4575	72	113.4
STD 2	STD 2	x	2018/02/15 10:41:35 AM	1.70	1.65	1008	0.4717	130	97.0
STD 3	STD 3	x	2018/02/15 10:44:00 AM	5.00	4.26	3049	0.4727	411	85.3
STD 4	STD 4	x	2018/02/15 10:46:25 AM	12.50	12.45	8968	0.5800	575	99.6
STD 5	STD 5	x	2018/02/15 10:48:50 AM	25.00	26.91	20560	0.6355	2666	107.7
STD 6	STD 6	x	2018/02/15 10:51:15 AM	41.70	40.52	33330	0.5759	2755	97.2

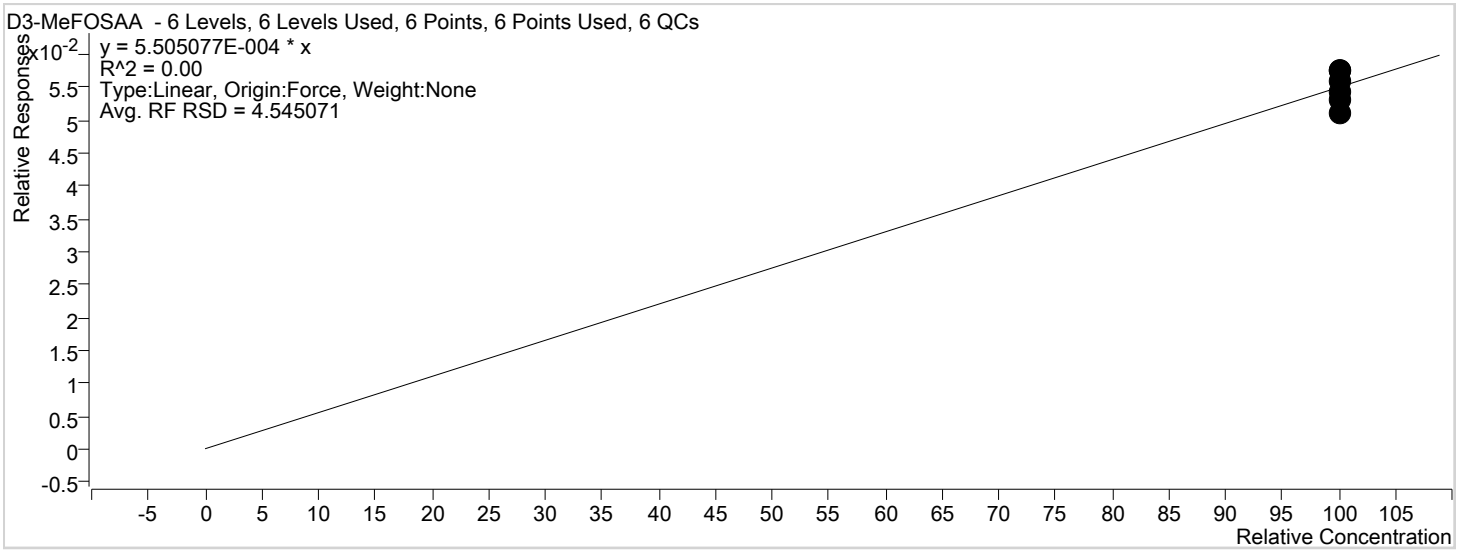
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics.batch.bin

Last Calib Update 2018/02/21 10:41:16 AM

Instrument: LCMS04

Analyte: D3-MeFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	100.00	93.19	1420	0.0005	233	93.2
STD 2	STD 2	x	2018/02/15 10:41:35 AM	100.00	96.76	1474	0.0005	172	96.8
STD 3	STD 3	x	2018/02/15 10:44:00 AM	100.00	98.91	1484	0.0005	150	98.9
STD 4	STD 4	x	2018/02/15 10:46:25 AM	100.00	104.50	1484	0.0006	126	104.5
STD 5	STD 5	x	2018/02/15 10:48:50 AM	100.00	102.09	1483	0.0006	126	102.1
STD 6	STD 6	x	2018/02/15 10:51:15 AM	100.00	104.55	1577	0.0006	161	104.5

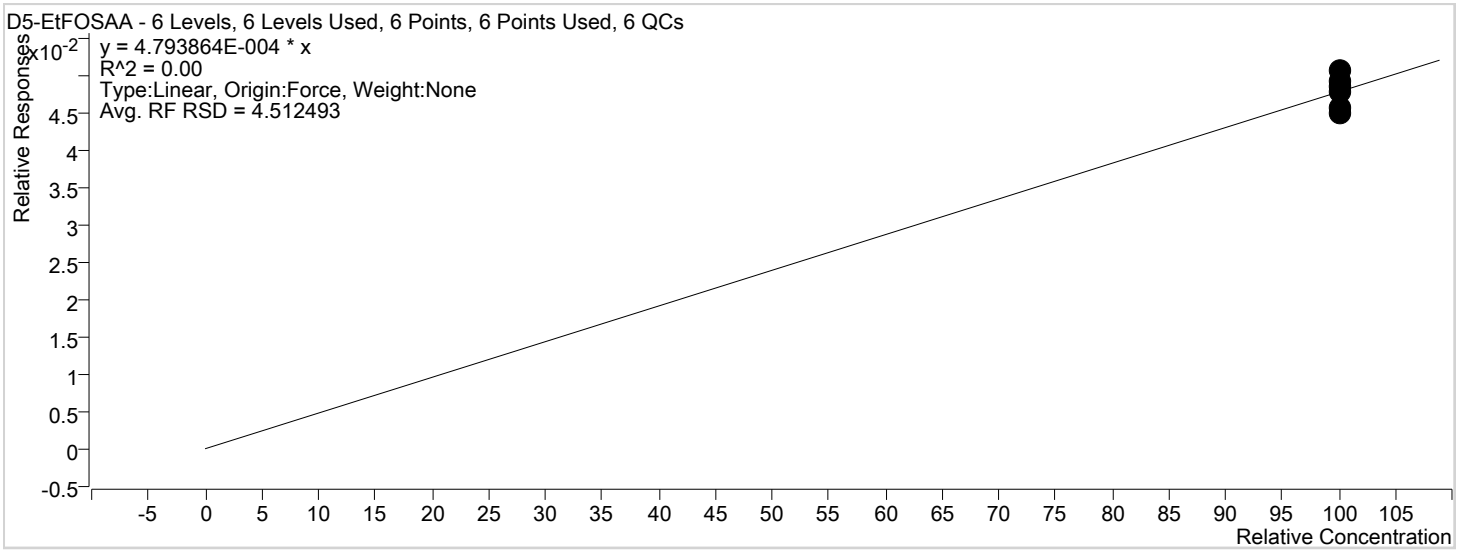
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics.batch.bin

Last Calib Update 2018/02/21 10:41:16 AM

Instrument: LCMS04

Analyte: D5-EtFOSAA

Internal Standard: 13C9-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	100.00	94.21	1250	0.0005	123	94.2
STD 2	STD 2	x	2018/02/15 10:41:35 AM	100.00	95.29	1264	0.0005	106	95.3
STD 3	STD 3	x	2018/02/15 10:44:00 AM	100.00	100.03	1307	0.0005	227	100.0
STD 4	STD 4	x	2018/02/15 10:46:25 AM	100.00	101.65	1257	0.0005	206	101.6
STD 5	STD 5	x	2018/02/15 10:48:50 AM	100.00	102.92	1302	0.0005	223	102.9
STD 6	STD 6	x	2018/02/15 10:51:15 AM	100.00	105.90	1391	0.0005	151	105.9

Quantitation Results

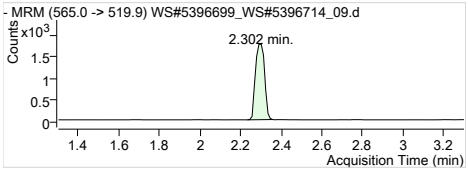
Agilent Technologies

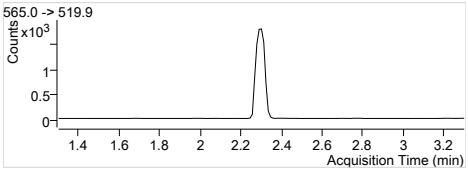
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A9
Acq. Date	2018/02/15 4:50:23 PM	**Injection Volume**	Per Method
Sample Annotation	-		

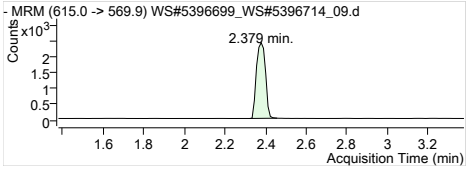
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5474	2.30	1 µg/L		
MPFDoA	7422	2.38	1 µg/L		
MPFTeDA	6580	2.51	1 µg/L		
13C9-PFDA IS	25421	2.20	1 µg/L		

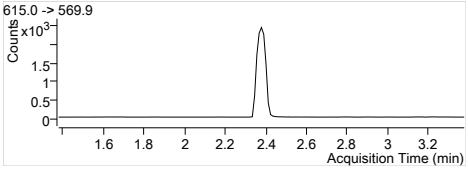
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	66871	2.29	20.80	20.47 µg/L	98.40
PFDoA 1	86416	2.38	20.80	20.26 µg/L	97.38
PFTrDA 1	88056	2.44	20.80	19.96 µg/L	95.97
PFTeDA 1	71404	2.51	20.80	20.36 µg/L	97.89
13C2-PFUnA	5474	2.30	100.00	91.59 µg/L	91.59
13C2-PFDoA	7422	2.38	100.00	95.40 µg/L	95.40
13C2-PFTeDA	6595	2.51	100.00	95.90 µg/L	95.90
13C9-PFDA	25421	2.20	100.00	104.41 µg/L	104.41



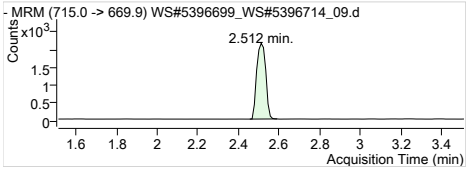


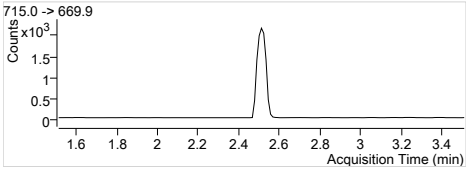
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: QC



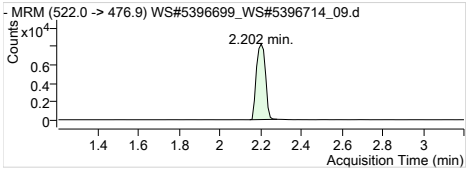


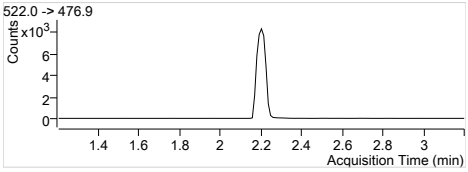
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: QC



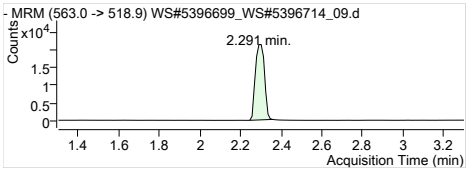


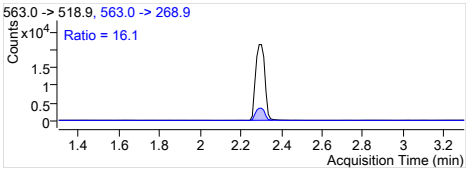
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: QC





13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: QC





PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 20.47 µg/L
Area ratio: 12.21611
Sample type: QC

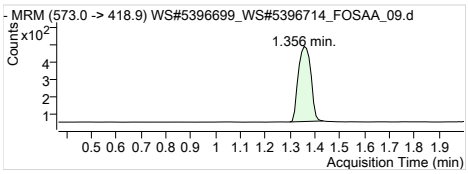
Quantitation Results

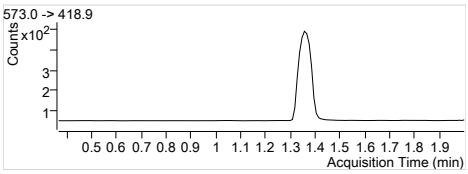
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A9
Acq. Date	2018/02/15 10:56:04 AM	**Injection Volume**	Per Method
Sample Annotation	-		

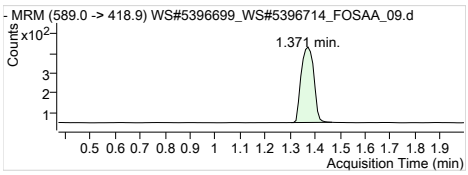
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1543	1.36	1 µg/L		
D5-EtFOSAA IS	1346	1.37	1 µg/L		
13C9-PFDA IS	28101	1.11	1 µg/L		

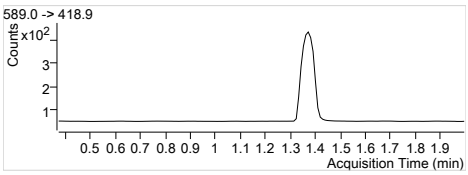
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	15484	1.36	20.80	20.01 µg/L	96.20
EtFOSAA 1	16102	1.37	20.80	20.34 µg/L	97.78
D3-MeFOSAA	1575	1.36	100.00	101.81 µg/L	101.81
D5-EtFOSAA	1357	1.37	100.00	100.73 µg/L	100.73
13C9-PFDA	27642	1.11	100.00	104.09 µg/L	104.09



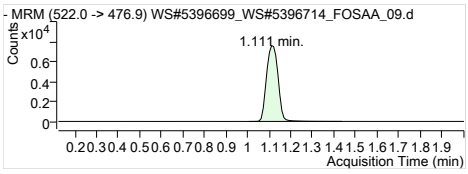


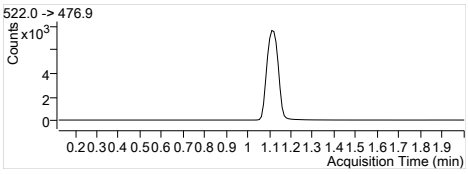
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: QC



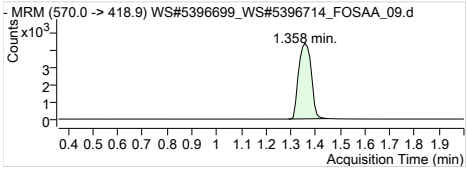


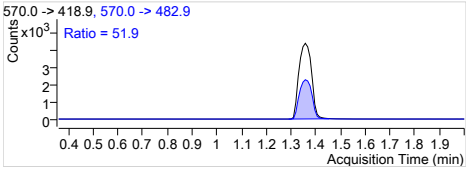
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: QC



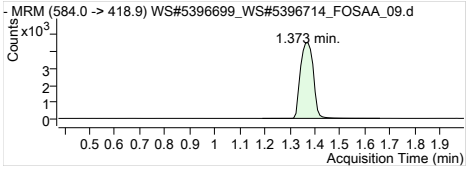


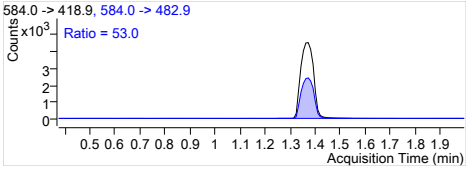
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.111 (1.121)
Concentration: 1 µg/L
Sample type: QC



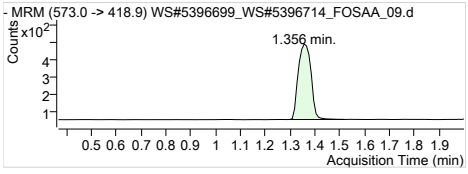


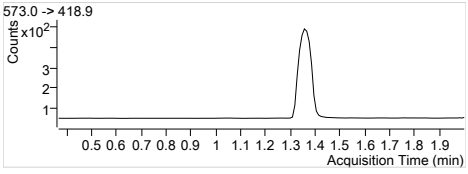
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 20.01 µg/L
Area ratio: 10.03500
Sample type: QC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 20.34 µg/L
Area ratio: 11.96285
Sample type: QC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 101.81 µg/L
Area ratio: 0.05605
Sample type: QC

Quantitation Results

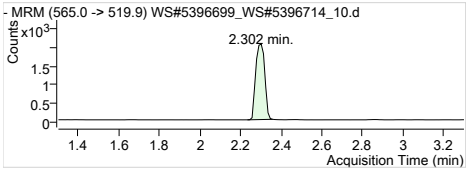
Agilent Technologies

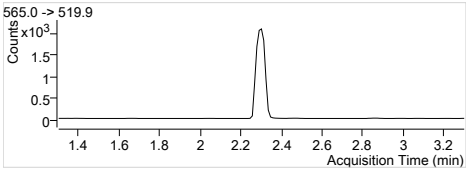
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/15 4:55:18 PM	**Injection Volume**	Per Method
Sample Annotation	-		

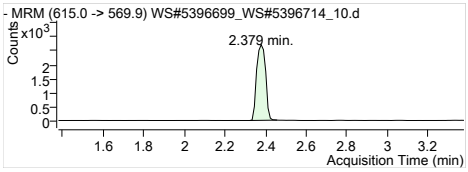
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6327	2.30	1 µg/L		
MPFDoA	8157	2.38	1 µg/L		
MPFTeDA	7028	2.51	1 µg/L		
13C9-PFDA IS	26238	2.20	1 µg/L		

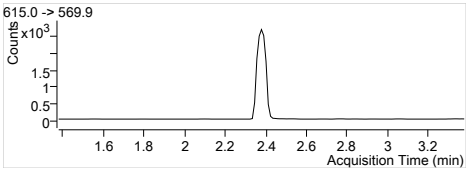
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	2334	2.30	0.83	0.87 µg/L	105.09
PFDoA 1	3175	2.38	0.83	0.92 µg/L	110.46
PFTrDA 1	3314	2.44	0.83	0.95 µg/L	114.56
PFTeDA 1	2539	2.51	0.83	0.90 µg/L	108.79
13C2-PFUnA	6327	2.30	100.00	102.57 µg/L	102.57
13C2-PFDoA	8157	2.38	100.00	101.59 µg/L	101.59
13C2-PFTeDA	7085	2.51	100.00	99.82 µg/L	99.82
13C9-PFDA	26238	2.20	100.00	107.77 µg/L	107.77



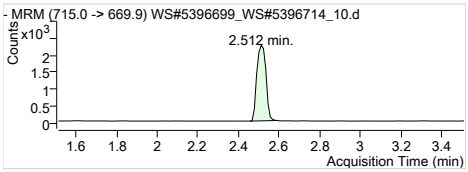


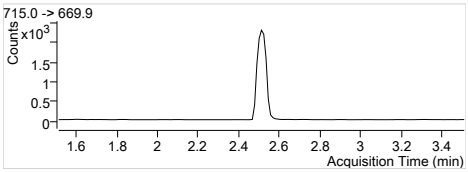
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: CC



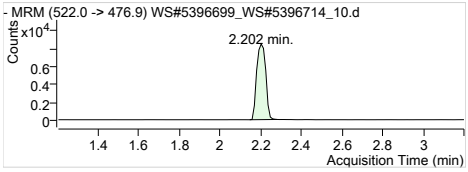


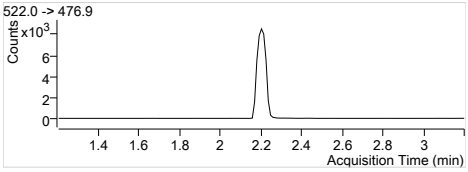
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



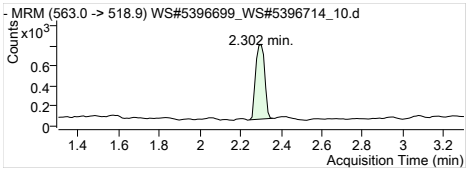


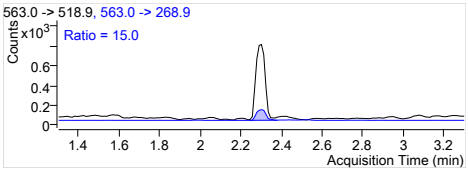
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC





13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC





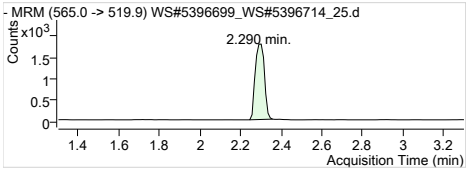
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 0.87 µg/L
Area ratio: 0.36890
Sample type: CC

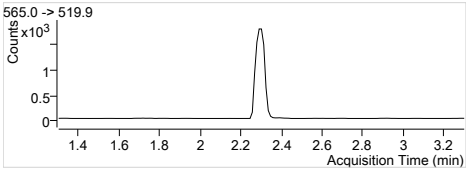
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/15 6:09:18 PM	**Injection Volume**	Per Method
Sample Annotation	-		

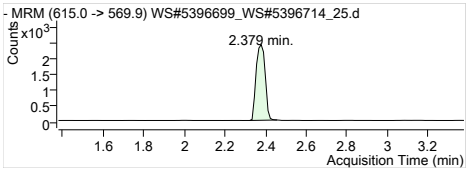
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5530	2.29	1 µg/L		
MPFDoA	7425	2.38	1 µg/L		
MPFTeDA	6845	2.51	1 µg/L		
13C9-PFDA IS	24750	2.20	1 µg/L		

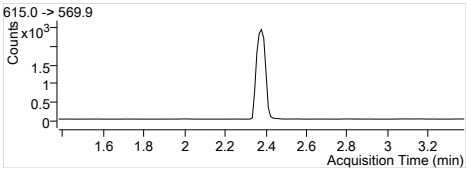
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	39896	2.29	12.50	12.19 µg/L	97.56
PFDoA 1	52915	2.38	12.50	12.49 µg/L	99.95
PFTrDA 1	56339	2.44	12.50	12.38 µg/L	99.01
PFTeDA 1	44336	2.51	12.50	12.25 µg/L	97.98
13C2-PFUnA	5530	2.29	100.00	95.04 µg/L	95.04
13C2-PFDoA	7425	2.38	100.00	98.03 µg/L	98.03
13C2-PFTeDA	6903	2.51	100.00	103.10 µg/L	103.10
13C9-PFDA	24750	2.20	100.00	101.66 µg/L	101.66



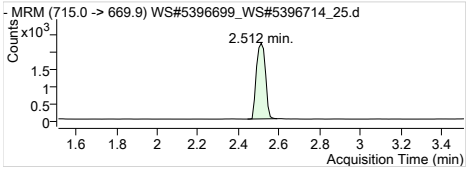


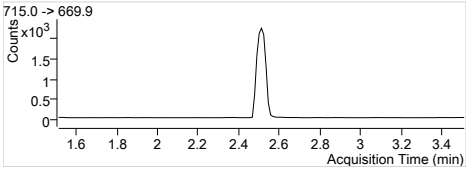
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: CC



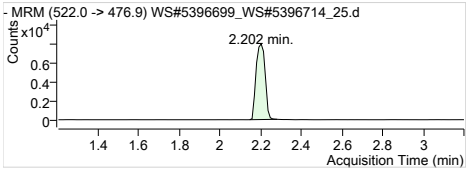


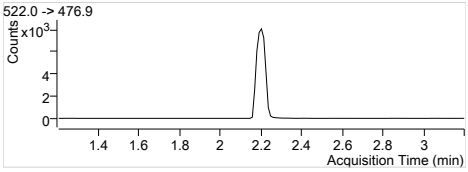
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



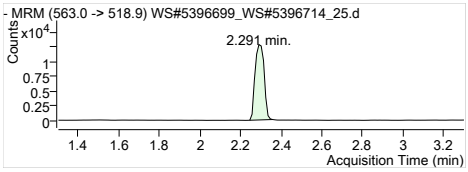


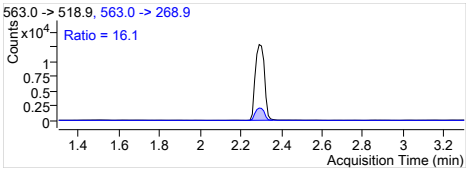
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC





13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC





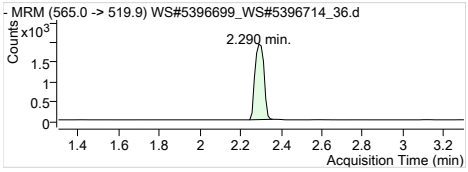
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 12.19 µg/L
Area ratio: 7.21447
Sample type: CC

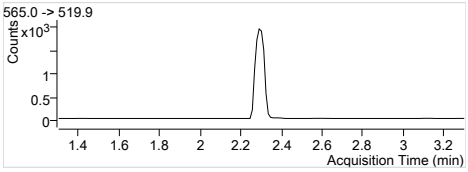
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_36.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/15 7:03:36 PM	**Injection Volume**	Per Method
Sample Annotation	-		

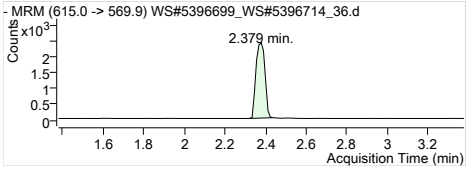
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5902	2.29	1 µg/L		
MPFDoA	7321	2.38	1 µg/L		
MPFTeDA	6965	2.51	1 µg/L		
13C9-PFDA IS	24591	2.20	1 µg/L		

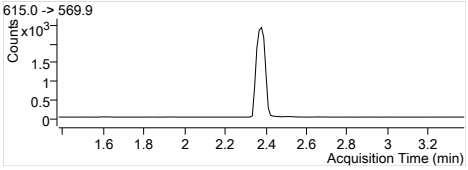
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	41882	2.29	12.50	12.00 µg/L	96.00
PFDoA 1	54333	2.38	12.50	13.00 µg/L	104.01
PFTrDA 1	54911	2.44	12.50	11.87 µg/L	94.92
PFTeDA 1	44587	2.51	12.50	12.11 µg/L	96.86
13C2-PFUnA	5902	2.29	100.00	102.09 µg/L	102.09
13C2-PFDoA	7321	2.38	100.00	97.28 µg/L	97.28
13C2-PFTeDA	7046	2.51	100.00	105.92 µg/L	105.92
13C9-PFDA	24591	2.20	100.00	101.00 µg/L	101.00



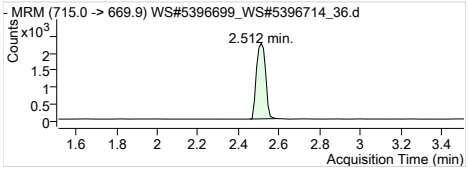


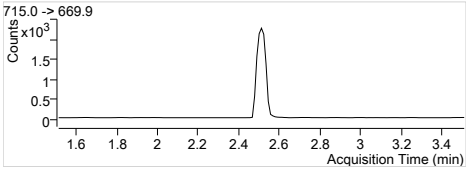
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: CC



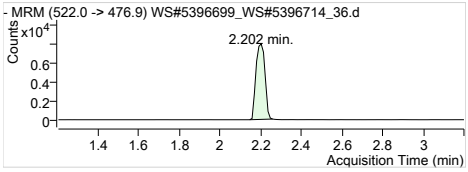


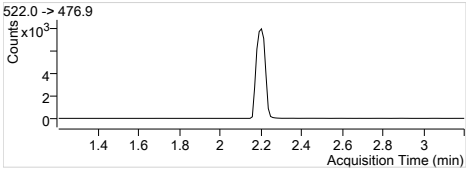
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



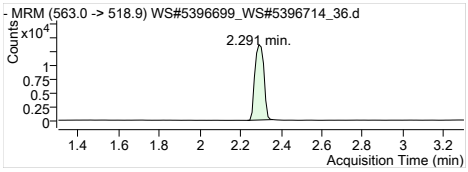


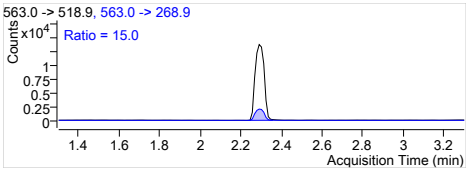
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC





13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC





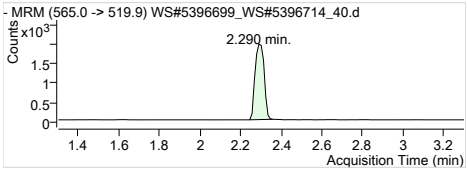
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 12.00 µg/L
Area ratio: 7.09624
Sample type: CC

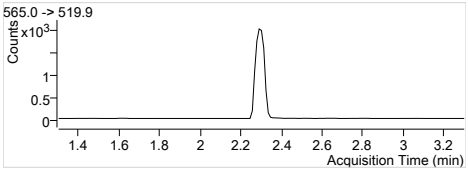
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_40.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/15 7:23:19 PM	**Injection Volume**	Per Method
Sample Annotation	-		

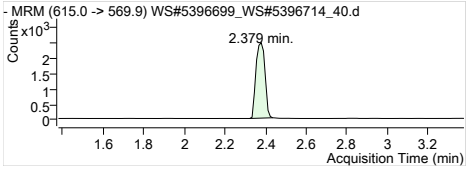
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6093	2.29	1 µg/L		
MPFDoA	7597	2.38	1 µg/L		
MPFTeDA	7433	2.51	1 µg/L		
13C9-PFDA IS	24736	2.20	1 µg/L		

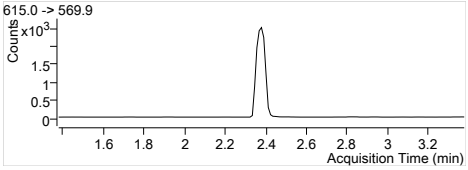
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	41167	2.29	12.50	11.44 µg/L	91.50
PFDoA 1	53422	2.38	12.50	12.33 µg/L	98.65
PFTrDA 1	58326	2.44	12.50	11.81 µg/L	94.49
PFTeDA 1	45687	2.51	12.50	11.63 µg/L	93.07
13C2-PFUnA	6093	2.29	100.00	104.77 µg/L	104.77
13C2-PFDoA	7597	2.38	100.00	100.36 µg/L	100.36
13C2-PFTeDA	7533	2.51	100.00	112.57 µg/L	112.57
13C9-PFDA	24736	2.20	100.00	101.60 µg/L	101.60



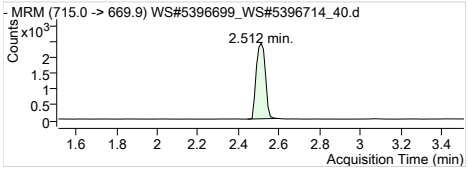


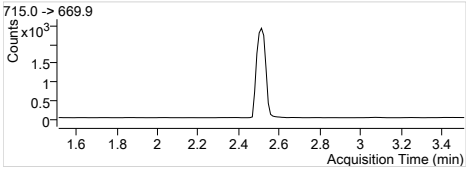
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: CC



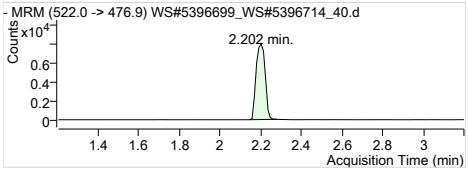


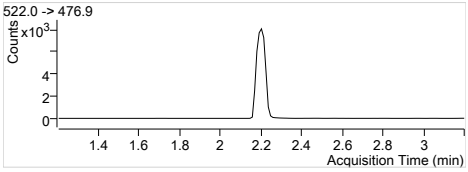
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



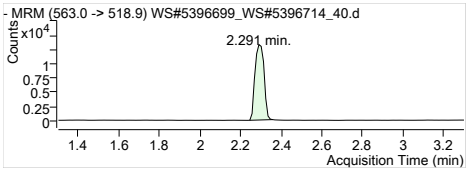


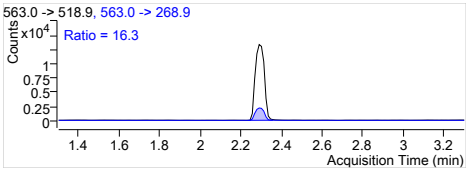
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC





13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC





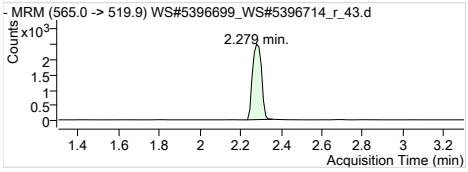
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 11.44 µg/L
Area ratio: 6.75644
Sample type: CC

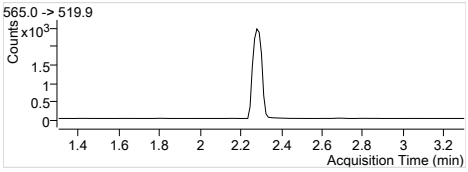
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_r_43.d	**Operator**	
Sample Type	CC	**Dilution**	0.024
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/16 8:47:49 AM	**Injection Volume**	Per Method
Sample Annotation	-		

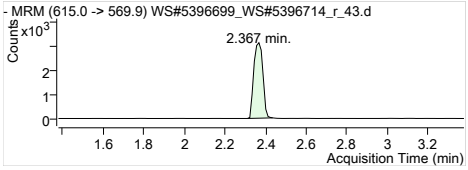
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	7507	2.28	1 µg/L		
MPFDoA	9664	2.37	1 µg/L		
MPFTeDA	9370	2.50	1 µg/L		
13C9-PFDA IS	32416	2.19	1 µg/L		

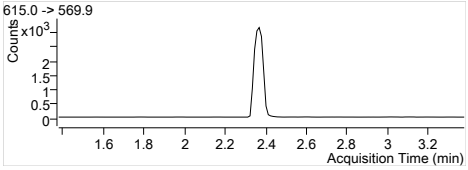
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	2926	2.28	0.83	0.02 µg/L	109.25
PFDoA 1	3770	2.37	0.83	0.02 µg/L	110.64
PFTrDA 1	4217	2.43	0.83	0.02 µg/L	110.75
PFTeDA 1	3363	2.50	0.83	0.02 µg/L	108.27
13C2-PFUnA	7507	2.28	100.00	98.50 µg/L	98.50
13C2-PFDoA	9664	2.37	100.00	97.42 µg/L	97.42
13C2-PFTeDA	9508	2.50	100.00	108.42 µg/L	108.42
13C9-PFDA	32416	2.19	100.00	3.20 µg/L	133.14



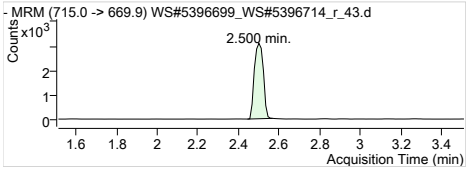


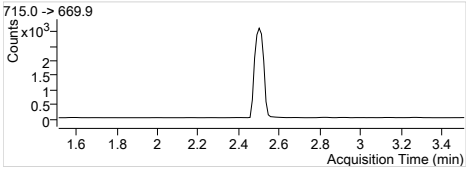
MPFUnA Internal Standard
RT (Exp. RT): 2.279 (2.302)
Concentration: 1 µg/L
Sample type: CC



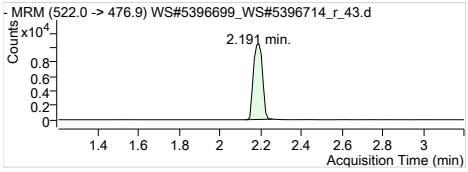


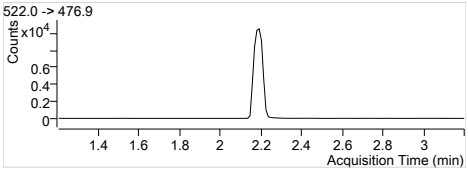
MPFDoA Internal Standard
RT (Exp. RT): 2.367 (2.379)
Concentration: 1 µg/L
Sample type: CC



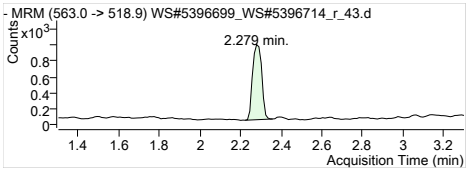


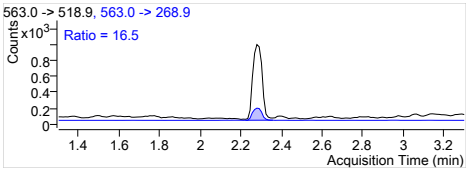
MPFTeDA Internal Standard
RT (Exp. RT): 2.500 (2.512)
Concentration: 1 µg/L
Sample type: CC





13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.191 (2.202)
Concentration: 1 µg/L
Sample type: CC





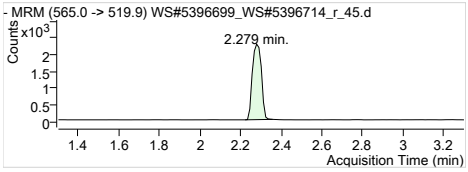
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.279 (2.302)
Calc. conc. 0.02 µg/L
Area ratio: 0.38977
Sample type: CC

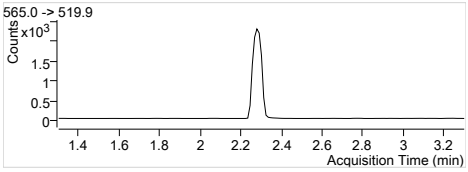
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396699_ETo xics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_r_45.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/16 8:57:41 AM	**Injection Volume**	Per Method
Sample Annotation	-		

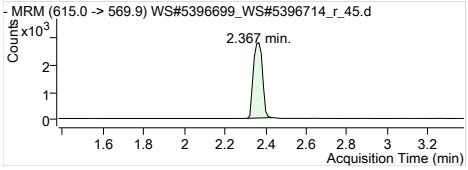
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6983	2.28	1 µg/L		
MPFDoA	8642	2.37	1 µg/L		
MPFTeDA	8576	2.50	1 µg/L		
13C9-PFDA IS	28392	2.19	1 µg/L		

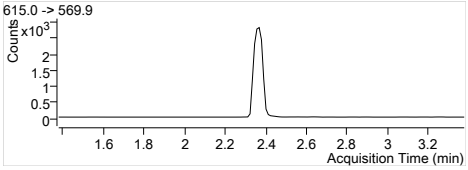
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	48890	2.28	12.50	11.84 µg/L	94.74
PFDoA 1	61990	2.37	12.50	12.57 µg/L	100.59
PFTrDA 1	68583	2.43	12.50	12.03 µg/L	96.26
PFTeDA 1	54399	2.50	12.50	12.00 µg/L	95.99
13C2-PFUnA	6983	2.28	100.00	104.61 µg/L	104.61
13C2-PFDoA	8642	2.37	100.00	99.46 µg/L	99.46
13C2-PFTeDA	8672	2.50	100.00	112.91 µg/L	112.91
13C9-PFDA	28392	2.19	100.00	116.62 µg/L	116.62



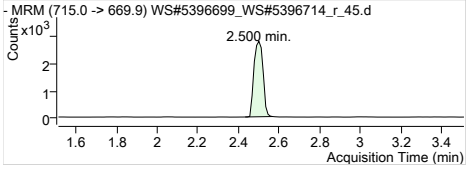


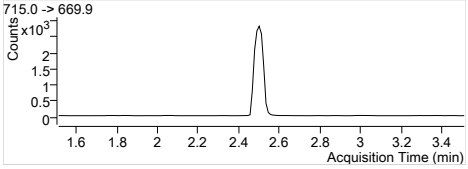
MPFUnA Internal Standard
RT (Exp. RT): 2.279 (2.302)
Concentration: 1 µg/L
Sample type: CC



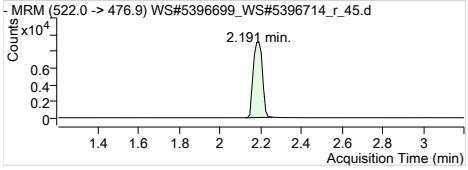


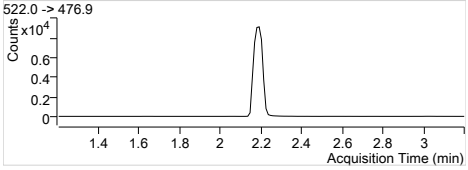
MPFDoA Internal Standard
RT (Exp. RT): 2.367 (2.379)
Concentration: 1 µg/L
Sample type: CC



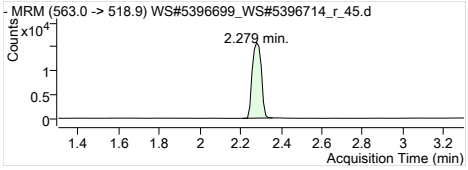


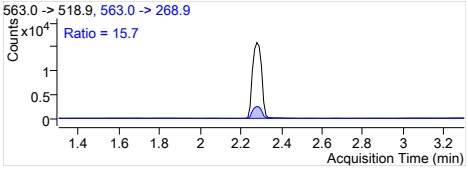
MPFTeDA Internal Standard
RT (Exp. RT): 2.500 (2.512)
Concentration: 1 µg/L
Sample type: CC





13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.191 (2.202)
Concentration: 1 µg/L
Sample type: CC





PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.279 (2.302)
Calc. conc. 11.84 µg/L
Area ratio: 7.00129
Sample type: CC

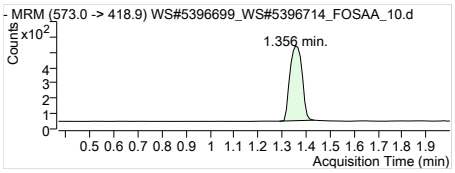
Quantitation Results

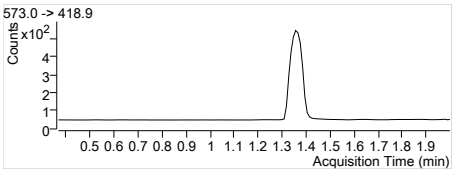
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/15 10:58:29 AM	**Injection Volume**	Per Method
Sample Annotation	-		

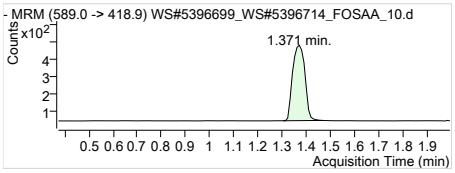
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1728	1.36	1 µg/L		
D5-EtFOSAA IS	1534	1.37	1 µg/L		
13C9-PFDA IS	28624	1.11	1 µg/L		

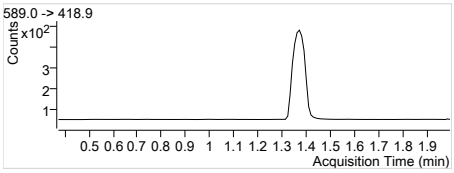
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	631	1.36	0.83	0.98 µg/L	117.79
EtFOSAA 1	620	1.37	0.83	0.98 µg/L	118.33
D3-MeFOSAA	1771	1.36	100.00	112.39 µg/L	112.39
D5-EtFOSAA	1546	1.37	100.00	112.67 µg/L	112.67
13C9-PFDA	28210	1.11	100.00	106.23 µg/L	106.23



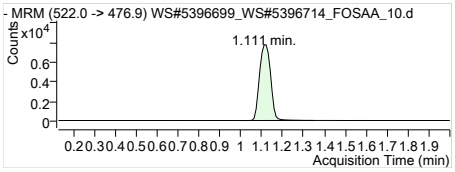


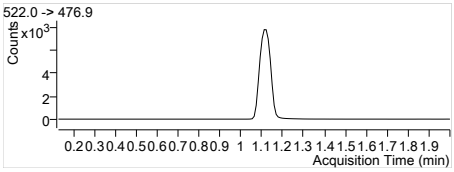
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: CC



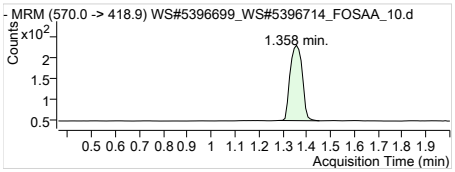


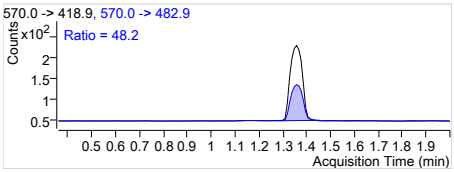
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: CC



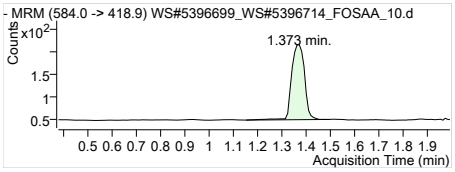


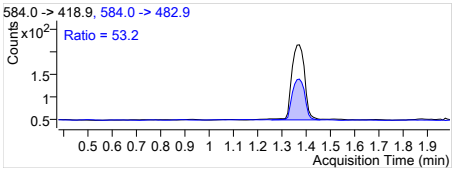
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.111 (1.121)
Concentration: 1 µg/L
Sample type: CC



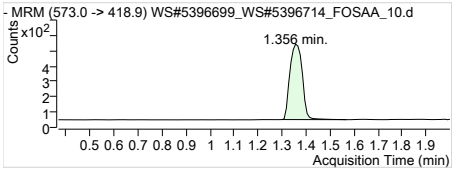


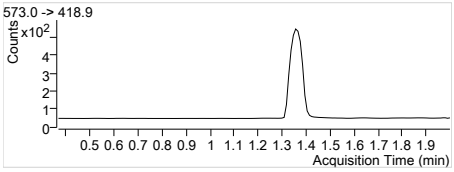
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 0.98 µg/L
Area ratio: 0.36516
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 0.98 µg/L
Area ratio: 0.40417
Sample type: CC



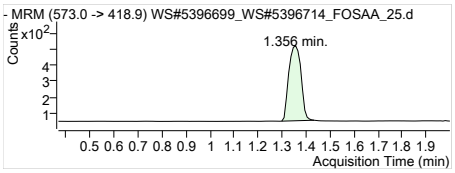


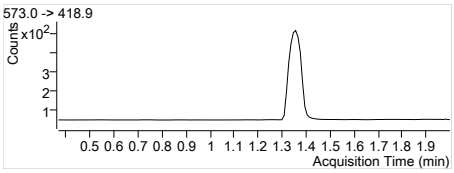
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 112.39 µg/L
Area ratio: 0.06187
Sample type: CC

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_25.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/15 11:34:40 AM	**Injection Volume**	Per Method
Sample Annotation	-		

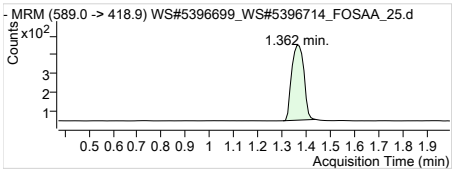
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1658	1.36	1 µg/L		
D5-EtFOSAA IS	1409	1.36	1 µg/L		
13C9-PFDA IS	26628	1.10	1 µg/L		

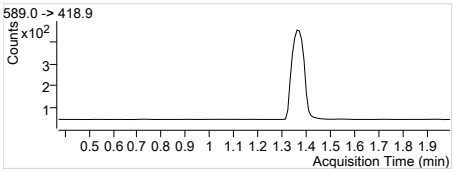
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	9942	1.36	12.50	12.06 µg/L	96.49
EtFOSAA 1	10337	1.36	12.50	12.59 µg/L	100.73
D3-MeFOSAA	1693	1.36	100.00	115.49 µg/L	115.49
D5-EtFOSAA	1442	1.36	100.00	112.96 µg/L	112.96
13C9-PFDA	26064	1.10	100.00	98.15 µg/L	98.15



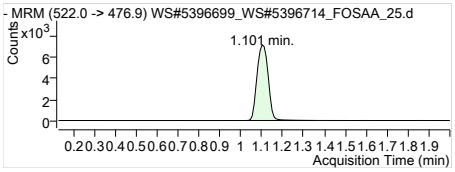


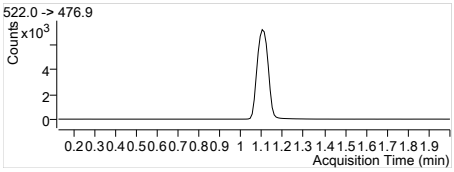
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: CC



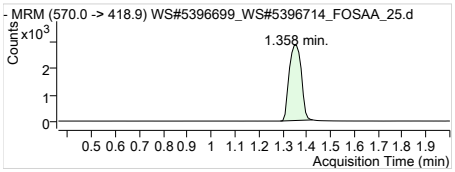


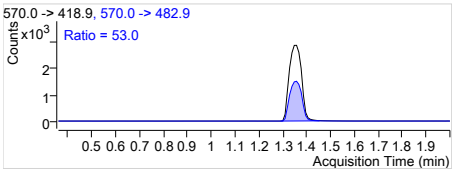
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: CC



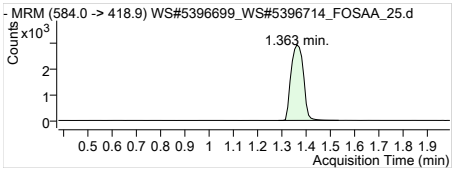


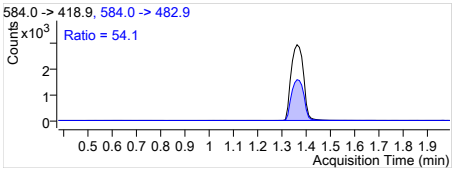
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: CC



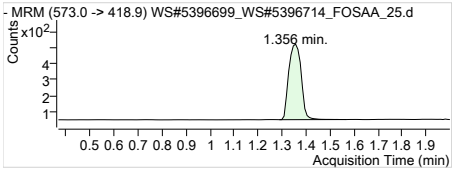


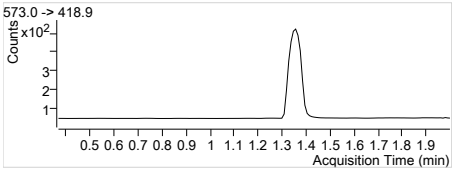
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 12.06 µg/L
Area ratio: 5.99638
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.363 (1.373)
Calc. conc. 12.59 µg/L
Area ratio: 7.33641
Sample type: CC



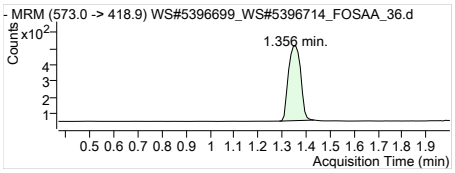


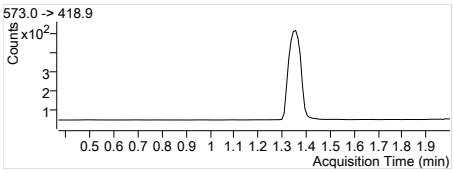
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 115.49 µg/L
Area ratio: 0.06358
Sample type: CC

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396699_FOSAA_EarthToxics		
Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_36.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/15 12:01:09 PM	**Injection Volume**	Per Method
Sample Annotation	-		

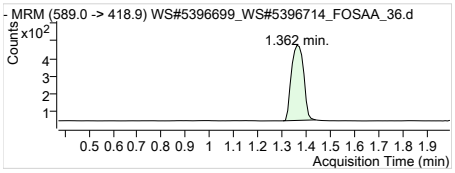
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1653	1.36	1 µg/L		
D5-EtFOSAA IS	1491	1.36	1 µg/L		
13C9-PFDA IS	26549	1.10	1 µg/L		

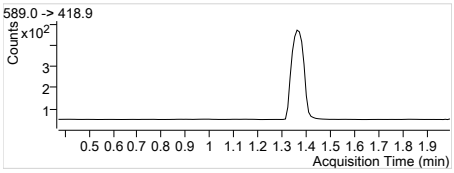
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10075	1.35	12.50	12.25 µg/L	98.04
EtFOSAA 1	10287	1.36	12.50	11.86 µg/L	94.87
D3-MeFOSAA	1680	1.36	100.00	114.95 µg/L	114.95
D5-EtFOSAA	1516	1.36	100.00	119.11 µg/L	119.11
13C9-PFDA	26014	1.10	100.00	97.96 µg/L	97.96



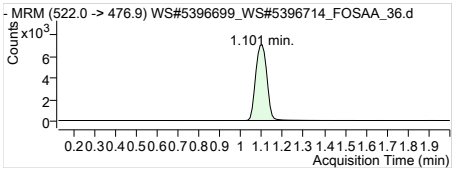


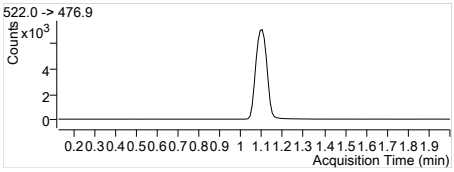
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: CC



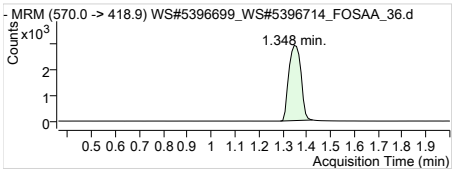


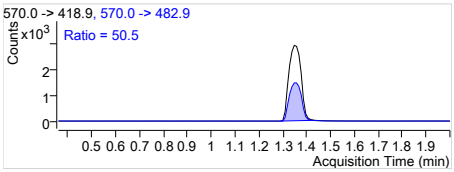
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: CC



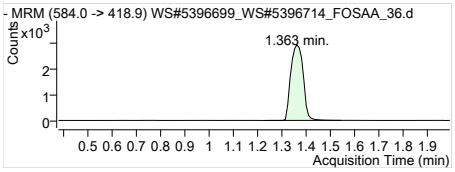


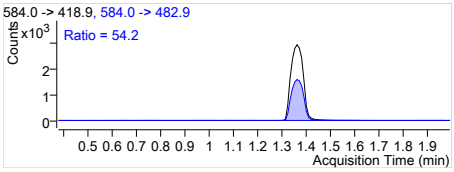
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: CC



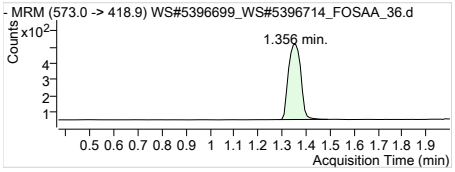


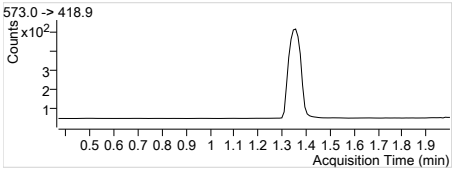
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.348 (1.358)
Calc. conc. 12.25 µg/L
Area ratio: 6.09498
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.363 (1.373)
Calc. conc. 11.86 µg/L
Area ratio: 6.89940
Sample type: CC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 114.95 µg/L
Area ratio: 0.06328
Sample type: CC

DoD Projects - Internal Data Validation Checklist

Run date: 20180215

Worksheet # (s): 5396714

Analysis: PFOSALCM-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control			✓	✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria			✓	✓
7	Surrogate Recovery(s) is within acceptance criteria	✓			✓
8	Method Blank meets acceptance criteria			✓	✓
9	Matrix Spike recovery(s) meets acceptance criteria	✓			✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed			✓	✓
17	Dilution factors (where justified) have been checked for correctness and entered			✓	✓
18	Analytical observations/anomalies documented in LIMS	✓			✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: MP Date: 20180216

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced			✓
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: MM Date: 2018/02/16

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 5396714 Testcode: PFOS ACCM-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time		✓	
2	Client sample ID verified against Lab ID (waters & oils)			✓
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded			✓
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: SAD Date: 2018/02/13

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: Date:

Comments:

Refer to BEL-FCD-00002 2018/02/14

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: Date:

Comments:

WS# : 5396714

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Tuesday, February 13, 2018

Assigned to : Shahbaz Ahmad

Test Code : PFOSALCM-W

Instrument Id:

Test Description : PFOS and PFOA in water by LC-MS/MS

sediment cm gml gml SMD 2018/2/13

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	MTRX SPK	0	PFC-W FZH337-01		~~co~~ 1	125	3	1X					2018/02/13
	MTRX SPK	1	PFC-W FZH337-01		00.1	125	3	1X					2018/02/13
B819794	*FZH337-01R		CEF-076-109S-0118		00.1	125	3	1X	6	2018/02/05	2018/02/09 18:00	DOD	2018/02/13

SMD 2018/02/13

Remarks: Spike, blank and Standards are referenced with WS # 5396711, 5396699 SMD 2018/2/13

Samples extracted by: Shahbaz Ahmad SMD 2018/02/13

Instrumentation performed by: AD Date: 2018/02/15

Calculations performed by: MG Date: 2018/02/16

Validated by: SM Date: 2018/02/16

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB819794	SP8 Earth Toxics Inc	Rick Carr	Tier 5 (Enviro.)	AECOM

SAP 2017/2/13

NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 F/C by NGV 2018/02/08 Project #: JM10 CECIL

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
B819794	FZH337-01R	

SAP 2017/2/13

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GB818419	[redacted]			
GB819794	**SP8 Earth Toxics Inc** NREG. PFOSALCM-W MS/MSD required on FZH334, FZH337, FZH347 Level IV Package and TetraTech EDD required Following samples will not be reportable: FZH307, FZH308, FZH309, FZH310, FZH313, FZH314, FZH315, FZH316, FZH317, FZH328, FZH319, FZH320, FZH321, FZH322, FZH323, FZH330, FZH335, FZH336, FZH341, FZH344, FZH345, FZH346 F/C by NGV 2018/02/08 Project #: JM10 CECIL	**Rick Carr**	**Tier 5 (Enviro.) AECOM**	
GB820260	[redacted]			

SAD 2018/2/13

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
B818419	FZA783-01R	
B818419	FZA784-01R	
B818419	FZA785-01R	
B818419	FZA786-01R	
B818419	FZA788-01R	
B818419	FZA789-01R	
B818419	FZA790-01R	
B818419	FZA791-01R	
B818419	FZA792-01R	
B818419	FZA802-01R	
B819794	FZH332-01R	
B819794	FZH334-01R	
B819794	FZH336-01R	
B819794	FZH338-01R	
B819794	FZH339-01R	
B819794	FZH340-01R	
B819794	FZH341-01R	
B819794	FZH342-01R	
B819794	FZH343-01R	
B820260	FZJ934-01R	

S1 2825 25
S2 2800 50
S3 2700 15
} SK 7377 2/3

S4 2813 37.5
S5 2775 75
S6 2725 125
} I-5297 2/3

ICV 2788 62.5 — I-5299 2/3
IB 2850 —

ICAL + ICV info req. @ 2018/02/22

Worksheet Reagent Tracking Record

Worksheet # 5396714

Volume (µL)

Surrogate/Spike solutions	√	Solution ID #	Conc.	Blk-Spk		MS		Samples	
				Solid	Liquid	Solid	Liquid	Solid	Liquid
DGT Spike			100 ug/mL	60	30	60	30	NA	NA
Diquat Dibromide			50 ug/mL	NA	350	NA	350	NA	NA
Explosives Spiking solution A			20 ug/mL	250	100	250	100	NA	NA
Explosives Spiking solution B			20/80 ug/mL	250	100	250	100	NA	NA
Formaldehyde Spike			100 ug/mL	25	25	25	25	NA	NA
Glyphosate Spike			25 ug/mL	500	20	500	20	NA	NA
Nonylphenol Ethoxylate Spike			100 ug/mL	100	100	100	100	NA	NA
Nonylphenol Spike			10 ug/mL	100	100	100	100	NA	NA
Paraquat Cl Tetrahydrate			20 ug/mL	NA	125	NA	125	NA	NA
Perchlorate Standard Spike			10 ng/mL	NA	100	NA	100	NA	NA
Perchlorate Standard Spike			500 ng/mL	40	NA	40	NA	NA	NA
Perchlorate O-18 Internal Standard			0.10 ng/uL	20	20	20	20	20	20
Morpholine Second Source Working Std			2500 ug/L	NA	80	NA	80	NA	NA
Morpholine-D8 Internal Standard			10 ug/mL	NA	50	NA	50	NA	50
Steril Second Source Spiking Solution			NA	20	NA	20	NA	NA	NA
Sterilants Comp. IS Working Solution			3 ug/mL	50	NA	50	NA	50	NA
Comp. PFC Working Solution A	✓	I-5299 1/3 DM3	1ug/mL	75	21 (62.5)	75	21 (62.5)	NA	NA
PFC Internal Standard Solution	✓	ST 6801 1/4 DM3	50/125 ng/mL	200	100 (150)	200	100 (150)	200	100/(150)
PFC Injection IS	✓	ST 6770 1/2	400 ng/mL	20	20	20	20	20	20
ICV	✓	I-5299 1/3							

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/ Prepared
DCM				50% NaOH			
Ottawa Sand				o-Phosphoric Acid			
Methanol	✓	SHBJ5451	2018/2/13	Borax			
2-Propanol (IPA)				Calcium Chloride			
Acetonitrile				EDTA			
Sodium Sulfate				Phosphate Buffer			
70:30 Methanol: Water				Sodium Thiosulphate			
60:40 Water: Methanol	✓	PRLRE	108-348	DNPH			
DCM:Ethyl Ether (75:25)				FMOC			
Hexane:IPA (98:2)				5M Acetate Buffer			
2% Formic Acid	✓	PRLRE	108-342	0.2% NH_4OH	✓	PRLRE	108-357
0.2% Formic Acid				Leachate Fluid			
0.05M KOH				Reagent Water	✓	57297	2018/2/13
0.05M HCl							

*Spiked by: SAP

Spike Date: 2018/2/13

Spike Syringe/Pipette ID#: G243906

Int. Std Syringe/Pipette ID#: M410 11F

*Spiking Witnessed by: DM3

Final pH:

Equipment & ID	√	Equipment	ID#	√	Equipment	Lot #	Bottle Tracking
Pipettor K39732F	✓	SPE Cartridge	0033371478	✓	QC Balance ID	FC-1	Bottle# 18801
K55191G	✓	Filter			Thermometer ID &Temp		Cap# 18778
Dispenser		Centrifuge	42148682	✓			Systems plus Lot# 18-01-31
		Sonicator					

Comments:

* - SPIKING OF QC's & SAMPLES MUST BE WITNESSED AT ALL TIMES.

Worksheet Number: **5396714**

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

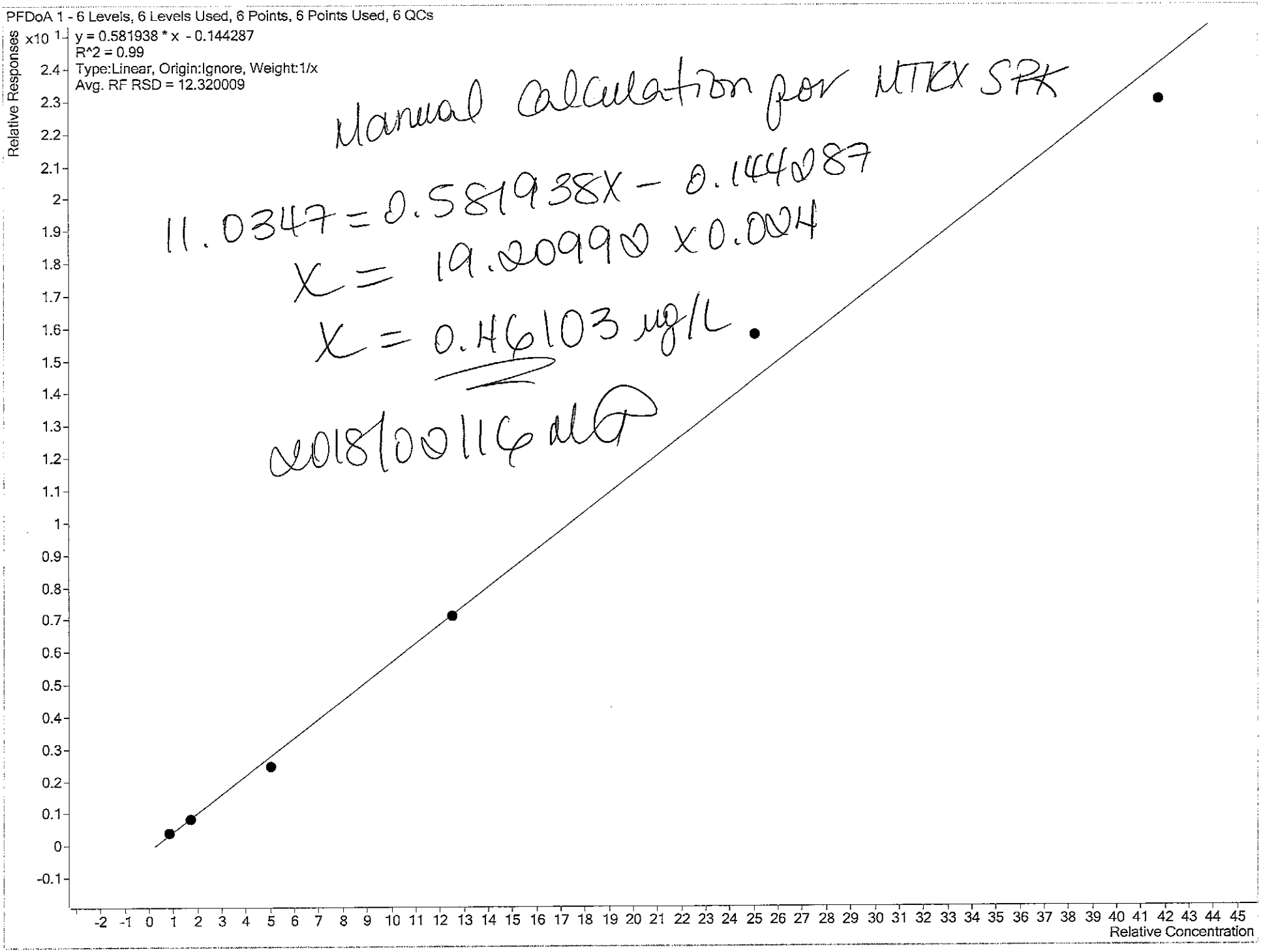
Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	B819794 FZH337 ReWork	DL	RDL	MDL
6:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0066
8:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0066
N-ethylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.01
EtFOSAA	ug/L	86.78801	80.14263	0	0.02	0.02	0.0033
N-ethylperfluorooctane sulfonamidoe	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0079
N-methylperfluorooctane sulfonamide	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.013
MeFOSAA	ug/L	86.53541	80.43983	0	0.02	0.02	0.0029
N-methylperfluorooctanesulfonamidol	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.012
Perfluorobutanoic acid	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0055
Perfluorobutane Sulfonate (PFBS)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0054
Perfluorodecane Sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.006
Perfluoroheptanoic Acid (PFHpA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0074
Perfluoroheptane sulfonate	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.008
Perfluorohexanoic Acid (PFHxA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0035
Perfluorohexane Sulfonate (PFHxS)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0056
Perfluorononanoic Acid (PFNA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0087
Perfluorooctane Sulfonamide (PFOSA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0034
Perfluoropentanoic Acid (PFPeA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0075
Perfluorotetradecanoic Acid	ug/L	88.39458	81.27698	0	0.02	0.02	0.0027
Perfluorotridecanoic Acid	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0038
Perfluoroundecanoic Acid (PFUnA)	ug/L	89.46859	85.72518	0	0.02	0.02	0.0025
Perfluorodecanoic Acid (PFDA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0061
Perfluorododecanoic Acid (PFDoA)	ug/L	92.20755	88.47387	0	0.02	0.02	0.005
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.0033
Perfluorooctane Sulfonate (PFOS)	ug/L	N/A*******	N/A*******	N/A*******	0.02	0.02	0.006
13C2-6:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******			
13C2-8:2 Fluorotelomer sulfonate	ug/L	N/A*******	N/A*******	N/A*******			
13C2-perfluorotetradecanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C4-Perfluorobutanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
D3-MeFOSAA	ug/L	113.987707	122.281086	121.161036			
D5-EtFOSAA	ug/L	111.890400	121.524434	111.791646			
N-methyl-d3-perfluorooctane sulfona	ug/L	N/A*******	N/A*******	N/A*******			
N-ethyl-d5-perfluorooctane sulfonam	ug/L	N/A*******	N/A*******	N/A*******			
13C2-Perfluorodecanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C2-Perfluorododecanoic acid	ug/L	102.664221	103.894579	105.230821			
13C2-Perfluorohexanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C2-Perfluoroundecanoic acid	ug/L	106.786555	117.246318	107.177760			
13C4-Perfluoroheptanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C5-Perfluorononanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C4-Perfluorooctanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C4-Perfluorooctanesulfonate	ug/L	N/A*******	N/A*******	N/A*******			
13C5-Perfluoropentanoic acid	ug/L	N/A*******	N/A*******	N/A*******			
13C8-Perfluorooctane Sulfonamide	ug/L	N/A*******	N/A*******	N/A*******			
18O2-Perfluorohexanesulfonate	ug/L	N/A*******	N/A*******	N/A*******			

2018/09/14

PFOS and PFOA in water by SPE/LCMS - Water

ug/L

Parameter Name	IDL						
6:2 Fluorotelomer sulfonate	0						
8:2 Fluorotelomer sulfonate	0						
N-ethylperfluorooctane sulfonamide	0						
EtFOSAA	0						
N-ethylperfluorooctane sulfonamidoe	0						
N-methylperfluorooctane sulfonamide	0						
MeFOSAA	0						
N-methylperfluorooctanesulfonamidol	0						
Perfluorobutanoic acid	0						
Perfluorobutane Sulfonate (PFBS)	0						
Perfluorodecane Sulfonate	0						
Perfluoroheptanoic Acid (PFHpA)	0						
Perfluoroheptane sulfonate	0						
Perfluorohexanoic Acid (PFHxA)	0						
Perfluorohexane Sulfonate (PFHxS)	0						
Perfluorononanoic Acid (PFNA)	0						
Perfluorooctane Sulfonamide (PFOSA)	0						
Perfluoropentanoic Acid (PFPeA)	0						
Perfluorotetradecanoic Acid	0						
Perfluorotridecanoic Acid	0						
Perfluoroundecanoic Acid (PFUnA)	0						
Perfluorodecanoic Acid (PFDA)	0						
Perfluorododecanoic Acid (PFDoA)	0						
Perfluoro-n-Octanoic Acid (PFOA)	0						
Perfluorooctane Sulfonate (PFOS)	0						
13C2-6:2 Fluorotelomer sulfonate							
13C2-8:2 Fluorotelomer sulfonate							
13C2-perfluorotetradecanoic acid							
13C4-Perfluorobutanoic acid							
D3-MeFOSAA							
D5-EtFOSAA							
N-methyl-d3-perfluorooctane sulfona							
N-ethyl-d5-perfluorooctane sulfonam							
13C2-Perfluorodecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-Perfluorohexanoic acid							
13C2-Perfluoroundecanoic acid							
13C4-Perfluoroheptanoic acid							
13C5-Perfluorononanoic acid							
13C4-Perfluorooctanoic acid							
13C4-Perfluorooctanesulfonate							
13C5-Perfluoropentanoic acid							
13C8-Perfluorooctane Sulfonamide							
18O2-Perfluorohexanesulfonate							



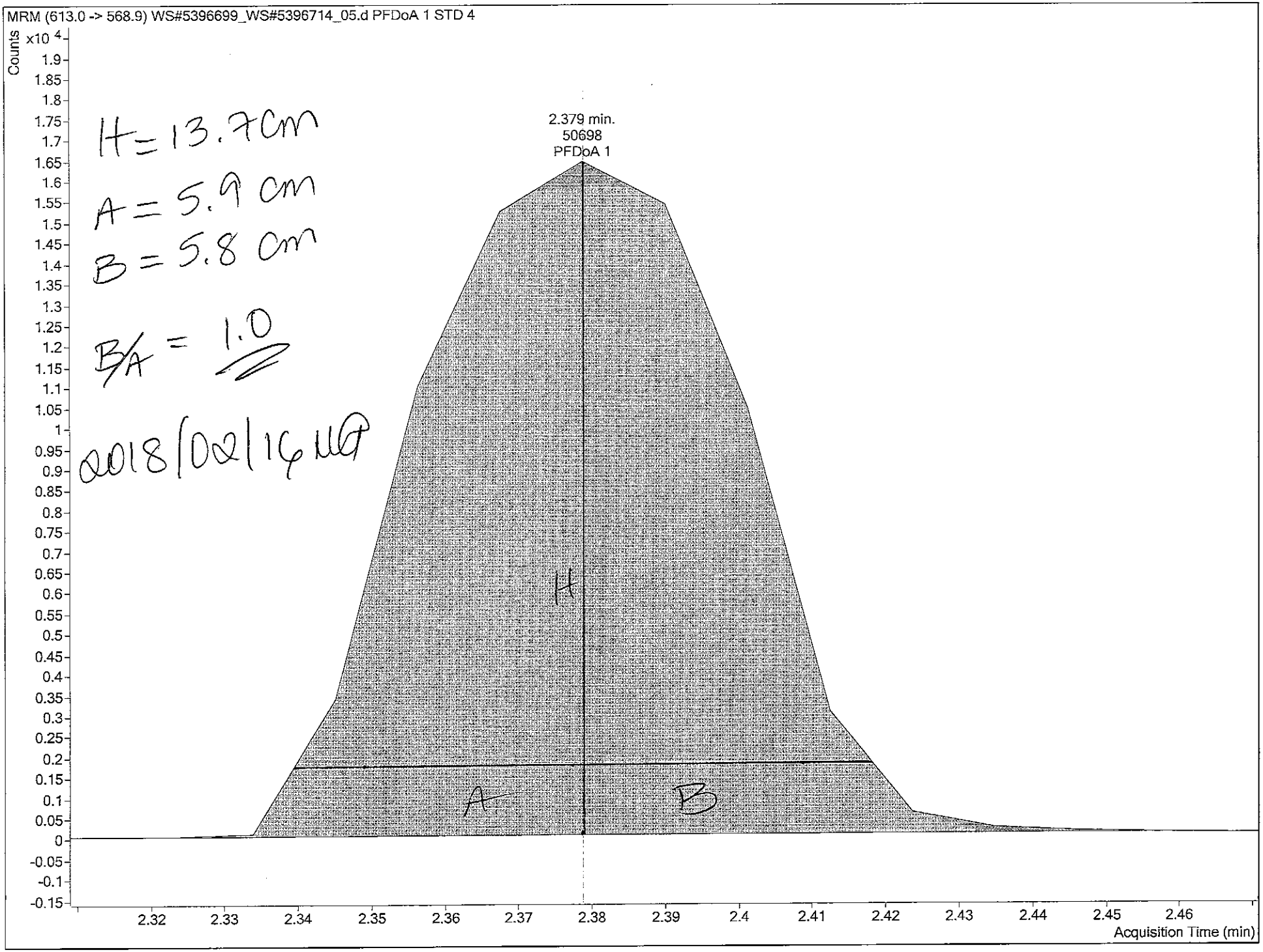
Manual calculation for MTKX SPK

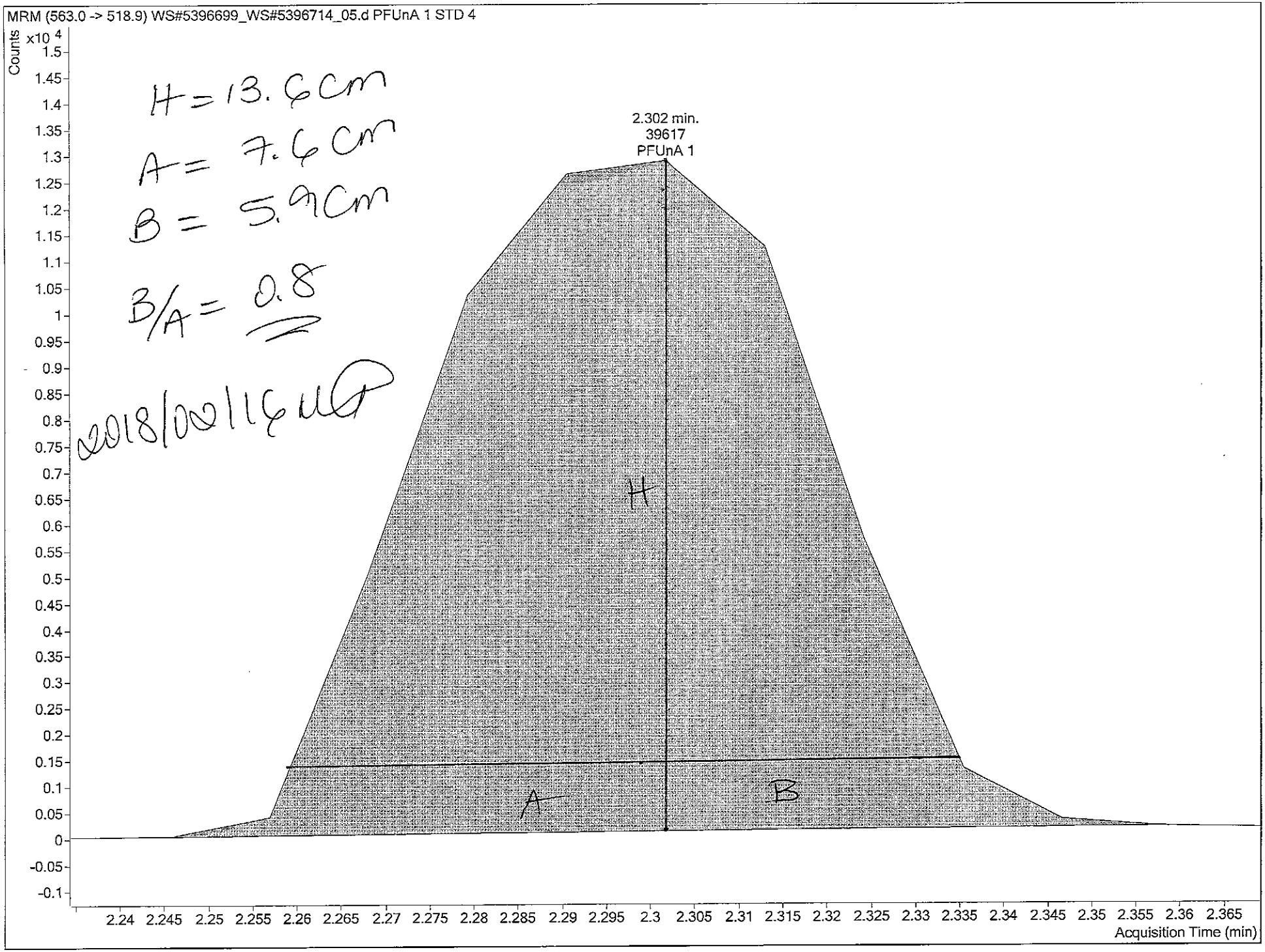
$11.0347 = 0.581938X - 0.144087$

$X = 19.20990 \times 0.004$

$X = \underline{0.46103}$ ug/L

2018/00116 MG


MRM (613.0 -> 568.9) WS#5396699_WS#5396714_05.d PFDoA 1 STD 4
Counts
x10 4
2.379 min.
50698
PFDoA 1
H = 13.7 cm
A = 5.9 cm
B = 5.8 cm
B/A = 1.0
2018/02/16 MG
H
A
B
Acquisition Time (min)


MRM (563.0 -> 518.9) WS#5396699_WS#5396714_05.d PFUnA 1 STD 4
Counts
x10 4
2.302 min.
39617
PFUnA 1
H = 13.6 cm
A = 7.6 cm
B = 5.9 cm
B/A = 0.8
2018/02/16
H
A
B
Acquisition Time (min)

Report Name: Worksheet - Parameter Lists

Report Date: 2018/02/13

Test Code: **PFOSALCM-W**

Worksheet Number: **5396714**

Sample Number	Parameter Code	Parameter	
FZH337-01	ETFOSAA	EtFOSAA	*
	MEFOSAA	MeFOSAA	*
	PFTEDA	Perfluorotetradecanoic Acid	
	PFUNA	Perfluoroundecanoic Acid (PFUnA)	
	PFDOA	Perfluorododecanoic Acid (PFDoA)	

SAD 2018/01/13

* - This parameter is usually off, but will be reported for this group of samples!

WorkSheet 5396714 Instrument Sequences

1. 5396714:MTRX SPK — MTRX SPK
2. 5396714:MTRX SPK:D1 — MTRX SPK :D1
3. 5396714:FZH337-01 — CEF-076-109S-0118

2011/02/13

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180215_Low.wkl

Maxxam Analytics

AD
2018/02/15

Operator Name:	---
Run Type:	Standard Start
Part of Method to Run:	Acquisition Only
Execution of Acquisition-DA:	Synchronous
Acquisition Method Path:	D:\MassHunter\Acquisition Method
DA Method Path:	D:\MassHunter\methods
Data File Path:	D:\MassHunter\Data\PFC\20180215\WS#5396699_WS#5396714
Pre-Worklist Script:	---
Post-Worklist Script:	SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script:	---
Overlapped Injection:	Yes
Clear Sample Selection After Run:	Yes
Wait Time for Ready(Min):	10
Threshold Disk Value(GB):	10
Comment:	Column #198 MP A1: Solution# 280 (FSRE18) MP B: Methanol, SHBJ5451, Sigma

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low.m	WS#5396699_WS#5396714_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low.m	WS#5396699_WS#5396714_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low.m	WS#5396699_WS#5396714_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low.m	WS#5396699_WS#5396714_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low.m	WS#5396699_WS#5396714_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low.m	WS#5396699_WS#5396714_07.d	Calibration	STD 6	As Method	-

2018/02/15

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
8	IB	P2-A8	PFC_Water_Low.m	WS#5396699_WS#5396714_08.d	Sample		As Method	-
9	ICV	P2-A9	PFC_Water_Low.m	WS#5396699_WS#5396714_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low.m	WS#5396699_WS#5396714_10.d	ConCal	STD 1	As Method	-
11	5396699:BLANK	P2-B1	PFC_Water_Low.m	WS#5396699_WS#5396714_11.d	Sample		As Method	-
12	5396699:SPIKE	P2-B2	PFC_Water_Low.m	WS#5396699_WS#5396714_12.d	QC	ICV	As Method	-
13	5396699:MTRX SPK	P2-B3	PFC_Water_Low.m	WS#5396699_WS#5396714_13.d	QC	ICV	As Method	-
14	5396699:MTRX SPK:D1	P2-B4	PFC_Water_Low.m	WS#5396699_WS#5396714_14.d	QC	ICV	As Method	-
15	5396699:FZA783-01	P2-B5	PFC_Water_Low.m	WS#5396699_WS#5396714_15.d	Sample		As Method	-
16	5396699:FZA784-01	P2-B6	PFC_Water_Low.m	WS#5396699_WS#5396714_16.d	Sample		As Method	-
17	5396699:FZA785-01	P2-B7	PFC_Water_Low.m	WS#5396699_WS#5396714_17.d	Sample		As Method	-
18	5396699:FZA786-01	P2-B8	PFC_Water_Low.m	WS#5396699_WS#5396714_18.d	Sample		As Method	-
19	5396699:FZA788-01	P2-B9	PFC_Water_Low.m	WS#5396699_WS#5396714_19.d	Sample		As Method	-
20	5396699:FZA789-01	P2-C1	PFC_Water_Low.m	WS#5396699_WS#5396714_20.d	Sample		As Method	-
21	5396699:FZA790-01	P2-C2	PFC_Water_Low.m	WS#5396699_WS#5396714_21.d	Sample		As Method	-
22	5396699:FZA791-01	P2-C3	PFC_Water_Low.m	WS#5396699_WS#5396714_22.d	Sample		As Method	-
23	5396699:FZA792-01	P2-C4	PFC_Water_Low.m	WS#5396699_WS#5396714_23.d	Sample		As Method	-
24	5396699:FZA802-01	P2-C5	PFC_Water_Low.m	WS#5396699_WS#5396714_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_25.d	ConCal	STD 4	As Method	-
26	5396699:FZH332-01	P2-C6	PFC_Water_Low.m	WS#5396699_WS#5396714_26.d	Sample		As Method	-
27	5396699:FZH334-01:10x	P2-C7	PFC_Water_Low.m	WS#5396699_WS#5396714_27.d	Sample		As Method	-
28	5396699:FZH336-01	P2-C8	PFC_Water_Low.m	WS#5396699_WS#5396714_28.d	Sample		As Method	-
29	5396699:FZH338-01	P2-C9	PFC_Water_Low.m	WS#5396699_WS#5396714_29.d	Sample		As Method	-
30	5396699:FZH339-01	P2-D1	PFC_Water_Low.m	WS#5396699_WS#5396714_30.d	Sample		As Method	-

Maxxam Analytics

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
31	5396699:FZH340-01	P2-D2	PFC_Water_Low.m	WS#5396699_WS#5396714_31.d	Sample		As Method	-
32	5396699:FZH341-01	P2-D3	PFC_Water_Low.m	WS#5396699_WS#5396714_32.d	Sample		As Method	-
33	5396699:FZH342-01	P2-D4	PFC_Water_Low.m	WS#5396699_WS#5396714_33.d	Sample		As Method	-
34	5396699:FZH343-01	P2-D5	PFC_Water_Low.m	WS#5396699_WS#5396714_34.d	Sample		As Method	-
35	5396699:FZJ934-01	P2-D6	PFC_Water_Low.m	WS#5396699_WS#5396714_35.d	Sample		As Method	-
36	CCV	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_36.d	ConCal	STD 4	As Method	-
37	5396714:MTRX SPK	P2-D7	PFC_Water_Low.m	WS#5396699_WS#5396714_37.d	Sample		As Method	-
38	5396714:MTRX SPK:D1	P2-D8	PFC_Water_Low.m	WS#5396699_WS#5396714_38.d	Sample		As Method	-
39	5396714:FZH337-01	P2-D9	PFC_Water_Low.m	WS#5396699_WS#5396714_39.d	Sample		As Method	-
40	CCV	P2-A5	PFC_Water_Low.m	WS#5396699_WS#5396714_40.d	ConCal	STD 4	As Method	-

Maxxam Analytics

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_180215_Low_FOSAA.wkl

Maxxam Analytics

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\Data\PFC\20180215\WS#5396699_WS#5396714_FOSAA
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: Yes
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #198
MP A1: Solution# 280 (FSRE18)
MP B2:Solution# 284 (FSRE18)

AD
2018/02/15

2018/02/15

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	Solvent	P2-A1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_07.d	Calibration	STD 6	As Method	-
8	IB	P2-A8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_08.d	Sample		As Method	-

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Worklist Report

Agilent Technologies

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
9	ICV	P2-A9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_10.d	ConCal	STD 1	As Method	-
11	5396699:BLANK	P2-B1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_11.d	Sample		As Method	-
12	5396699:SPIKE	P2-B2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_12.d	QC	ICV	As Method	-
13	5396699:MTRX SPK	P2-B3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_13.d	QC	ICV	As Method	-
14	5396699:MTRX SPK:D1	P2-B4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_14.d	QC	ICV	As Method	-
15	5396699:FZA783-01	P2-B5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_15.d	Sample		As Method	-
16	5396699:FZA784-01	P2-B6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_16.d	Sample		As Method	-
17	5396699:FZA785-01	P2-B7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_17.d	Sample		As Method	-
18	5396699:FZA786-01	P2-B8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_18.d	Sample		As Method	-
19	5396699:FZA788-01	P2-B9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_19.d	Sample		As Method	-
20	5396699:FZA789-01	P2-C1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_20.d	Sample		As Method	-
21	5396699:FZA790-01	P2-C2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_21.d	Sample		As Method	-
22	5396699:FZA791-01	P2-C3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_22.d	Sample		As Method	-
23	5396699:FZA792-01	P2-C4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_23.d	Sample		As Method	-
24	5396699:FZA802-01	P2-C5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_24.d	Sample		As Method	-
25	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_25.d	ConCal	STD 4	As Method	-
26	5396699:FZH332-01	P2-C6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_26.d	Sample		As Method	-
27	5396699:FZH334-01:10x	P2-C7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_27.d	Sample		As Method	-
28	5396699:FZH336-01	P2-C8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_28.d	Sample		As Method	-
29	5396699:FZH338-01	P2-C9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_29.d	Sample		As Method	-
30	5396699:FZH339-01	P2-D1	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_30.d	Sample		As Method	-
31	5396699:FZH340-01	P2-D2	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_31.d	Sample		As Method	-
32	5396699:FZH341-01	P2-D3	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_32.d	Sample		As Method	-
33	5396699:FZH342-01	P2-D4	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_33.d	Sample		As Method	-
34	5396699:FZH343-01	P2-D5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_34.d	Sample		As Method	-

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	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
35	5396699:FZJ934-01	P2-D6	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_35.d	Sample		As Method	-
36	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_36.d	ConCal	STD 4	As Method	-
37	5396714:MTRX SPK	P2-D7	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_37.d	Sample		As Method	-
38	5396714:MTRX SPK:D1	P2-D8	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_38.d	Sample		As Method	-
39	5396714:FZH337-01	P2-D9	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_39.d	Sample		As Method	-
40	CCV	P2-A5	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_40.d	ConCal	STD 4	As Method	-

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FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/15 4:15 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_02.d	P2-A2
STD 2	-	2018/02/15 4:20 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_03.d	P2-A3
STD 3	-	2018/02/15 4:25 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_04.d	P2-A4
STD 4	-	2018/02/15 4:30 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_05.d	P2-A5
STD 5	-	2018/02/15 4:35 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_06.d	P2-A6
STD 6	-	2018/02/15 4:40 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_07.d	P2-A7
IB	-	2018/02/15 4:45 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_08.d	P2-A8
ICV	-	2018/02/15 4:50 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_09.d	P2-A9
ISC	-	2018/02/15 4:55 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_10.d	P2-A2
CCV	-	2018/02/15 7:03 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_36.d	P2-A5
5396714:MTRX SPK	FZH337	2018/02/15 7:08 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_37.d	P2-D7
5396714:MTRX SPK:D1	FZH337	2018/02/15 7:13 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_38.d	P2-D8
5396714:FZH337-01	Reported for PFDoA, PFUnA , PFTeDA only.	2018/02/15 7:18 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_39.d	P2-D9
CCV	-	2018/02/15 7:23 PM	PFC_Water_Low.m	WS#5396699_WS#5396714_40.d	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Acq. Method File	Data File	Pos.
STD 1	-	2018/02/15 10:39 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_02.d	P2-A2
STD 2	-	2018/02/15 10:41 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_03.d	P2-A3
STD 3	-	2018/02/15 10:44 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_04.d	P2-A4
STD 4	-	2018/02/15 10:46 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_05.d	P2-A5
STD 5	-	2018/02/15 10:48 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_06.d	P2-A6
STD 6	-	2018/02/15 10:51 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_07.d	P2-A7
IB	-	2018/02/15 10:53 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_08.d	P2-A8
ICV	-	2018/02/15 10:56 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_09.d	P2-A9
ISC	-	2018/02/15 10:58 AM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_10.d	P2-A2
CCV	-	2018/02/15 12:01 PM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_36.d	P2-A5
5396714:MTRX SPK	FZH337	2018/02/15 12:03 PM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_37.d	P2-D7
5396714:MTRX SPK:D1	FZH337	2018/02/15 12:05 PM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_38.d	P2-D8
5396714:FZH337-01	-	2018/02/15 12:08 PM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_39.d	P2-D9
CCV	-	2018/02/15 12:10 PM	PFC_Water_Low_FOSAA.m	WS#5396699_WS#5396714_FOSAA_40.d	P2-A5

By Compound Report

Agilent Technologies

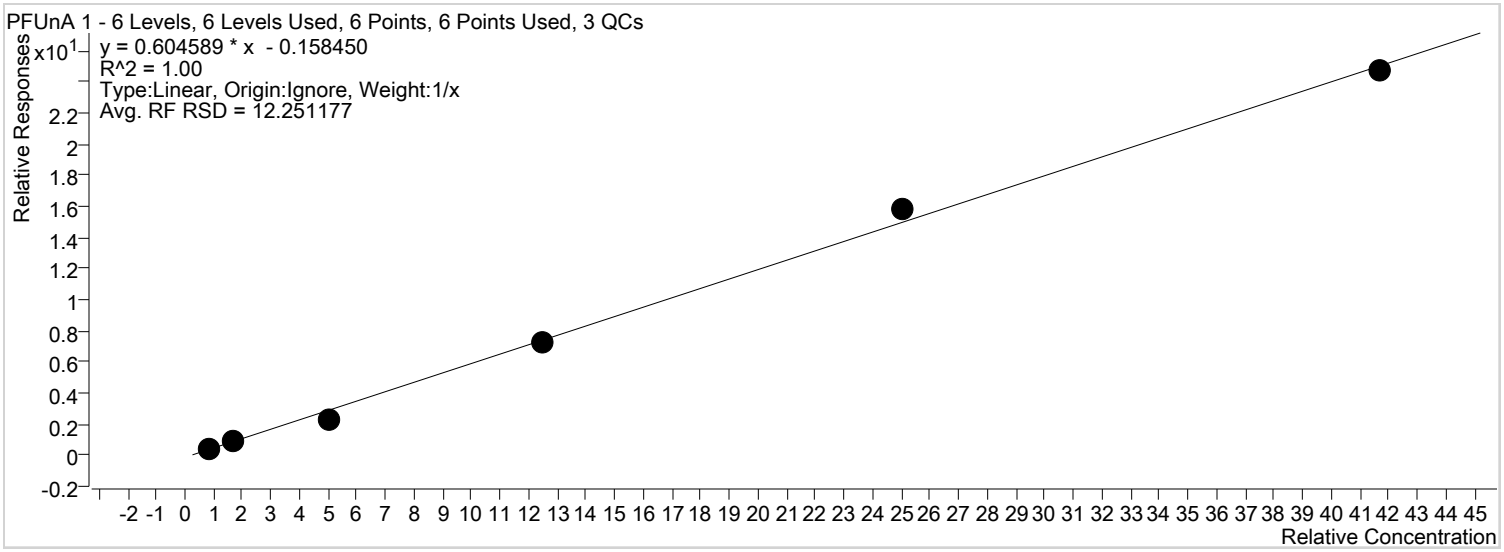
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_EToxics.batch.bin

Last Calib Update 2018/02/21 10:23:46 AM

Instrument: LCMS04

Analyte: PFUnA 1

Internal Standard: MPFUnA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.94	2510	0.4903	27	112.7
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.75	4875	0.5287	33	102.9
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.05	13534	0.4579	87	81.0
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.37	39617	0.5854	132	98.9
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	26.45	87768	0.6334	184	105.8
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	41.18	144868	0.5932	189	98.8

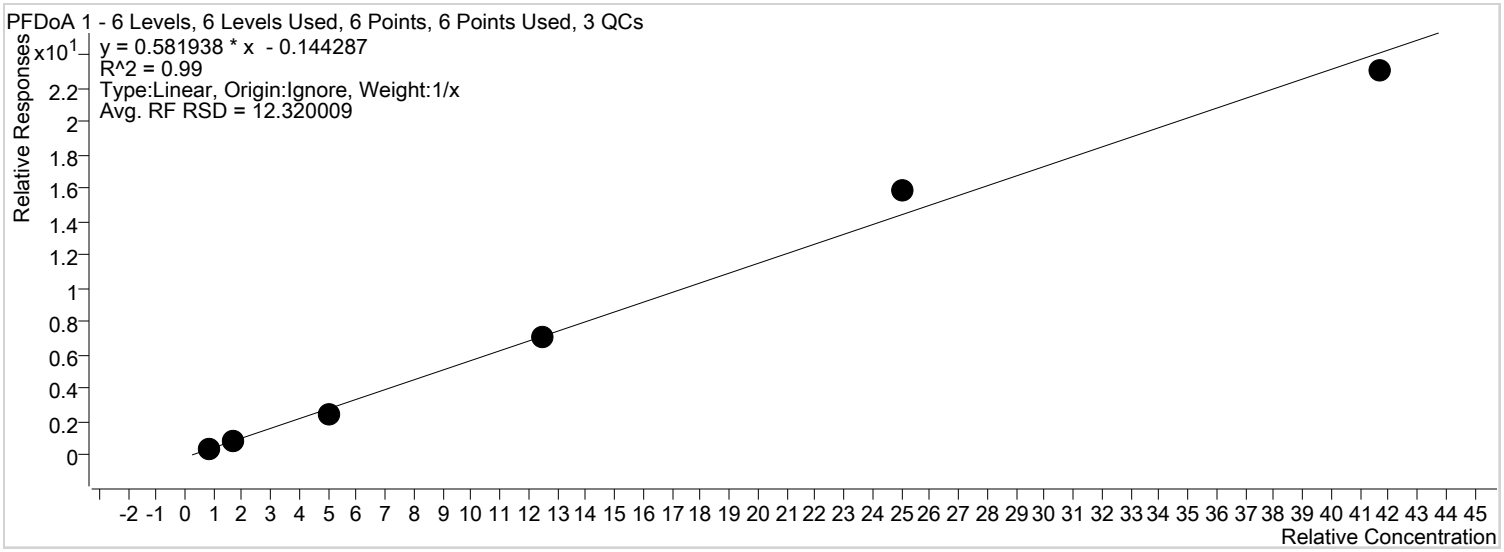
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_EToxics.batch.bin

Last Calib Update 2018/02/21 10:23:46 AM

Instrument: LCMS04

Analyte: PFDoA 1

Internal Standard: MPFDoA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.91	2949	0.4611	42	109.1
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.64	5881	0.4780	164	96.7
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.47	17518	0.4912	199	89.4
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.45	50698	0.5681	1115	99.6
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	27.40	114607	0.6321	3116	109.6
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	39.86	187876	0.5527	11140	95.6

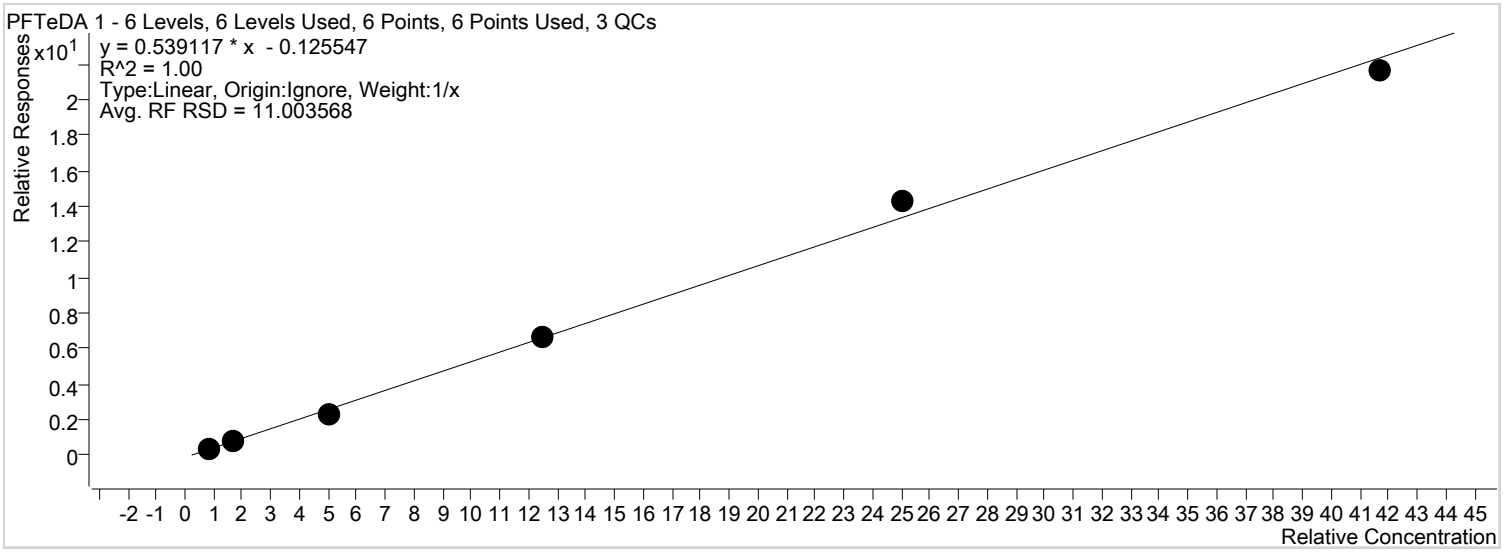
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_EToxics.batch.bin

Last Calib Update 2018/02/21 10:23:46 AM

Instrument: LCMS04

Analyte: PFTeDA 1

Internal Standard: MPFTeDA



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 4:15:51 PM	0.83	0.92	2545	0.4465	21	110.9
STD 2	STD 2	x	2018/02/15 4:20:46 PM	1.70	1.62	4651	0.4396	37	95.2
STD 3	STD 3	x	2018/02/15 4:25:43 PM	5.00	4.48	14263	0.4577	103	89.5
STD 4	STD 4	x	2018/02/15 4:30:38 PM	12.50	12.53	40717	0.5303	197	100.2
STD 5	STD 5	x	2018/02/15 4:35:35 PM	25.00	26.83	94425	0.5737	337	107.3
STD 6	STD 6	x	2018/02/15 4:40:31 PM	41.70	40.35	154772	0.5187	334	96.8

By Compound Report

Agilent Technologies

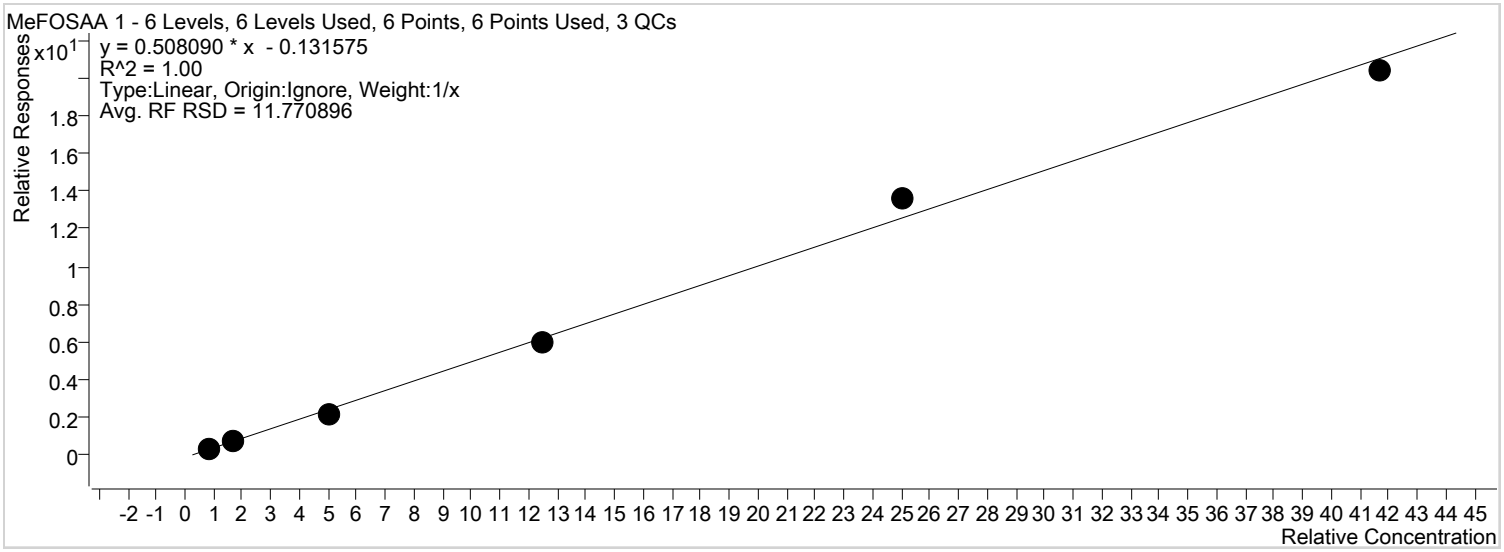
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 10:19:58 AM

Instrument: LCMS04

Analyte: MeFOSAA 1

Internal Standard: D3-MeFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	0.83	0.92	476	0.4067	143	111.3
STD 2	STD 2	x	2018/02/15 10:41:35 AM	1.70	1.64	1031	0.4131	168	96.5
STD 3	STD 3	x	2018/02/15 10:44:00 AM	5.00	4.49	3138	0.4302	294	89.8
STD 4	STD 4	x	2018/02/15 10:46:25 AM	12.50	12.10	8714	0.4814	319	96.8
STD 5	STD 5	x	2018/02/15 10:48:50 AM	25.00	27.16	19911	0.5466	355	108.6
STD 6	STD 6	x	2018/02/15 10:51:15 AM	41.70	40.41	32114	0.4893	353	96.9

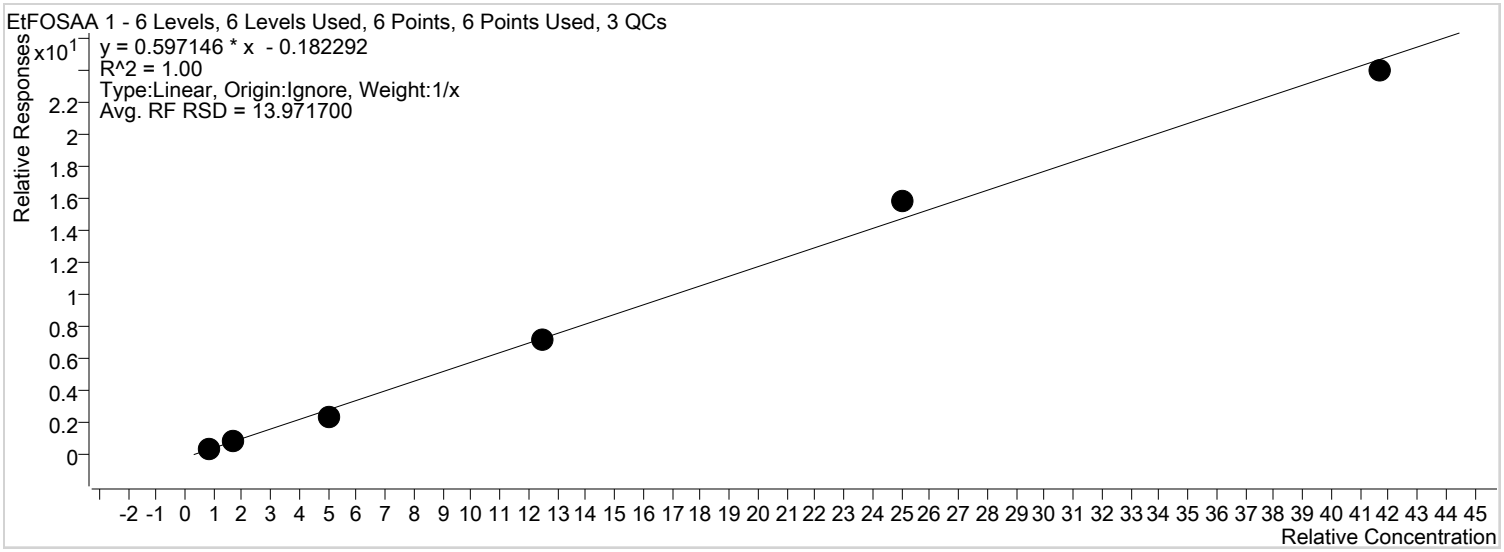
Batch Path T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics.batch.bin

Last Calib Update 2018/02/21 10:19:58 AM

Instrument: LCMS04

Analyte: EtFOSAA 1

Internal Standard: D5-EtFOSAA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2018/02/15 10:39:10 AM	0.83	0.94	472	0.4575	72	113.4
STD 2	STD 2	x	2018/02/15 10:41:35 AM	1.70	1.65	1008	0.4717	130	97.0
STD 3	STD 3	x	2018/02/15 10:44:00 AM	5.00	4.26	3049	0.4727	411	85.3
STD 4	STD 4	x	2018/02/15 10:46:25 AM	12.50	12.45	8968	0.5800	575	99.6
STD 5	STD 5	x	2018/02/15 10:48:50 AM	25.00	26.91	20560	0.6355	2666	107.7
STD 6	STD 6	x	2018/02/15 10:51:15 AM	41.70	40.52	33330	0.5759	2755	97.2

Quantitation Results

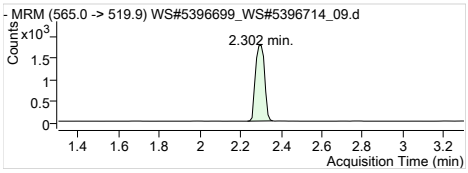
Agilent Technologies

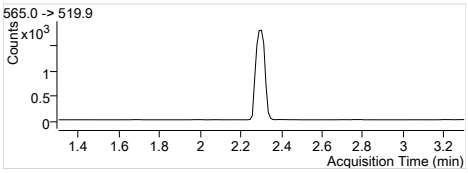
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**ICV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A9
Acq. Date	2018/02/15 4:50:23 PM	**Injection Volume**	Per Method
Sample Annotation	-		

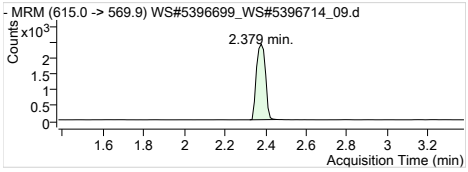
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5474	2.30	1 µg/L		
MPFDoA	7422	2.38	1 µg/L		
MPFTeDA	6580	2.51	1 µg/L		
13C9-PFDA IS	25421	2.20	1 µg/L		

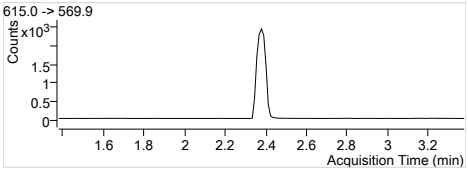
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	66871	2.29	20.80	20.47 µg/L	98.40
PFDoA 1	86416	2.38	20.80	20.26 µg/L	97.38
PFTeDA 1	71404	2.51	20.80	20.36 µg/L	97.89
13C2-PFUnA	5474	2.30	100.00	91.59 µg/L	91.59
13C2-PFDoA	7422	2.38	100.00	95.40 µg/L	95.40
13C2-PFTeDA	6595	2.51	100.00	95.90 µg/L	95.90
13C9-PFDA	25421	2.20	100.00	104.41 µg/L	104.41



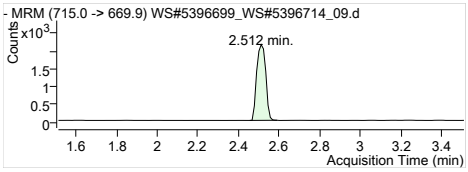


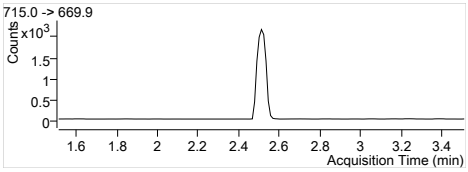
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: QC



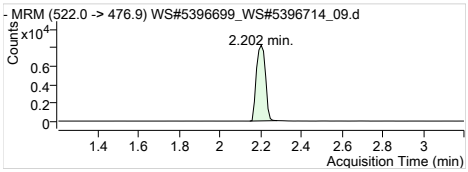


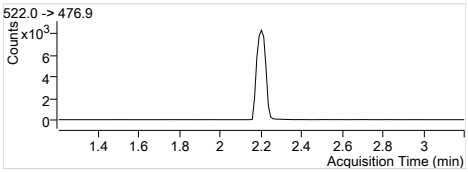
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: QC



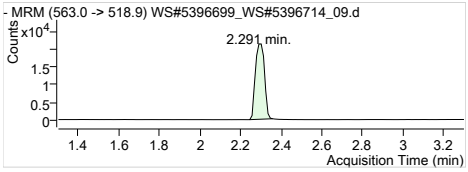


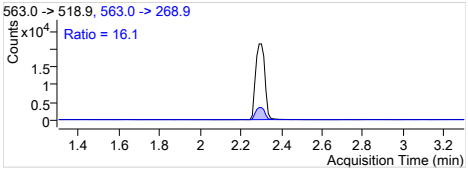
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: QC





13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: QC





PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 20.47 µg/L
Area ratio: 12.21611
Sample type: QC

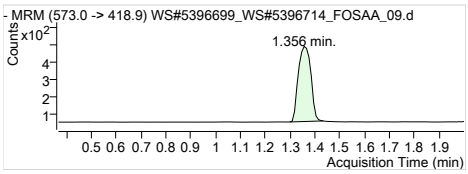
Quantitation Results

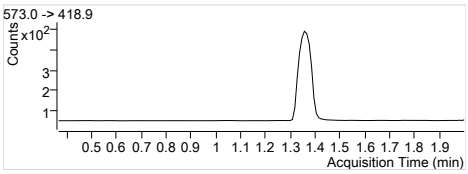
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_ETOxics		
Sample Name	ICV	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_09.d	**Operator**	
Sample Type	QC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A9
Acq. Date	2018/02/15 10:56:04 AM	**Injection Volume**	Per Method
Sample Annotation	-		

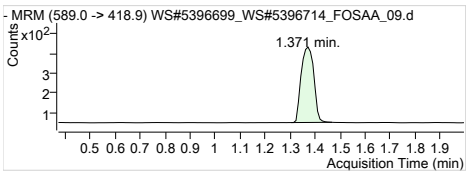
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1543	1.36	1 µg/L		
D5-EtFOSAA IS	1346	1.37	1 µg/L		
13C9-PFDA IS	28101	1.11	1 µg/L		

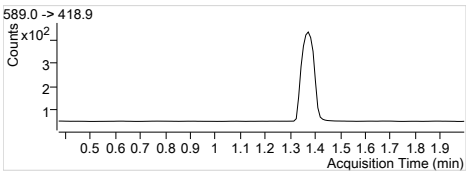
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	15484	1.36	20.80	20.01 µg/L	96.20
EtFOSAA 1	16102	1.37	20.80	20.34 µg/L	97.78
D3-MeFOSAA	1575	1.36	100.00	101.81 µg/L	101.81
D5-EtFOSAA	1357	1.37	100.00	100.73 µg/L	100.73
13C9-PFDA	27642	1.11	100.00	104.09 µg/L	104.09



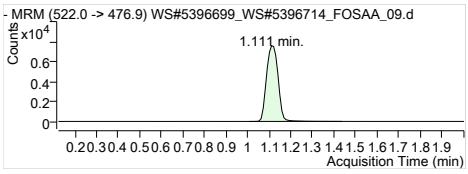


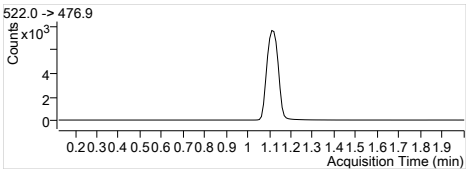
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: QC



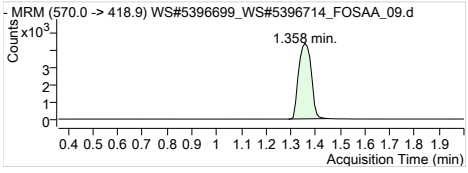


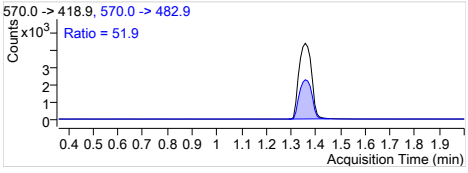
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: QC



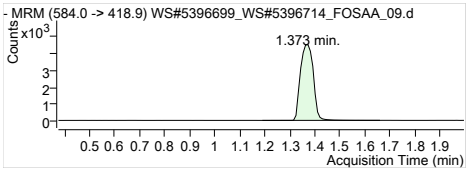


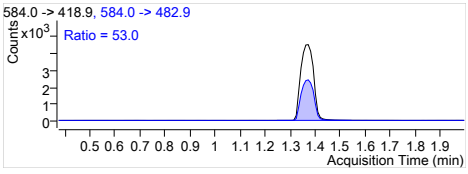
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.111 (1.121)
Concentration: 1 µg/L
Sample type: QC



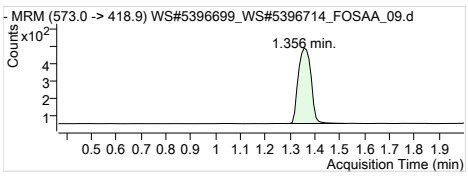


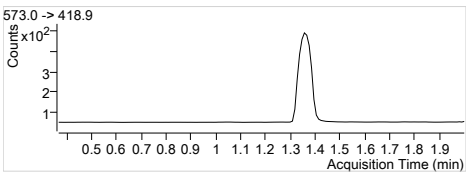
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 20.01 µg/L
Area ratio: 10.03500
Sample type: QC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 20.34 µg/L
Area ratio: 11.96285
Sample type: QC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 101.81 µg/L
Area ratio: 0.05605
Sample type: QC

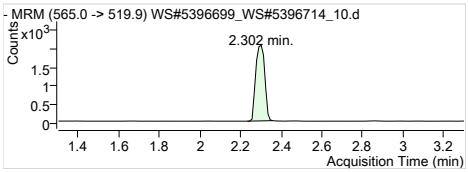
Quantitation Results

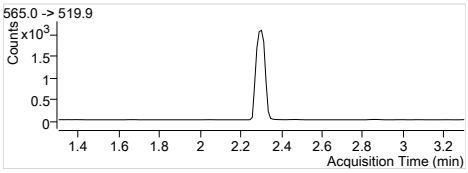
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics		
Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A2
Acq. Date	2018/02/15 4:55:18 PM	**Injection Volume**	Per Method
Sample Annotation	-		

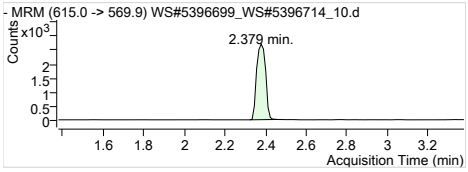
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6327	2.30	1 µg/L		
MPFDoA	8157	2.38	1 µg/L		
MPFTeDA	7028	2.51	1 µg/L		
13C9-PFDA IS	26238	2.20	1 µg/L		

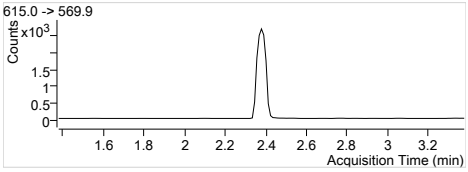
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	2334	2.30	0.83	0.87 µg/L	105.09
PFDoA 1	3175	2.38	0.83	0.92 µg/L	110.46
PFTeDA 1	2539	2.51	0.83	0.90 µg/L	108.79
13C2-PFUnA	6327	2.30	100.00	102.57 µg/L	102.57
13C2-PFDoA	8157	2.38	100.00	101.59 µg/L	101.59
13C2-PFTeDA	7085	2.51	100.00	99.82 µg/L	99.82
13C9-PFDA	26238	2.20	100.00	107.77 µg/L	107.77



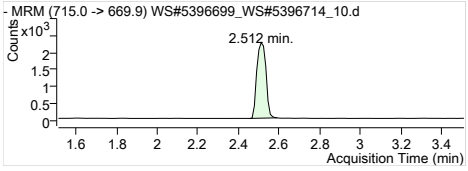


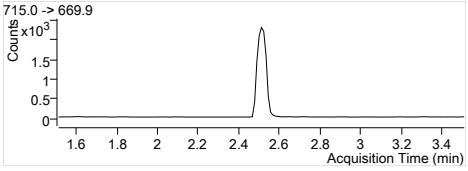
MPFUnA Internal Standard
RT (Exp. RT): 2.302 (2.302)
Concentration: 1 µg/L
Sample type: CC



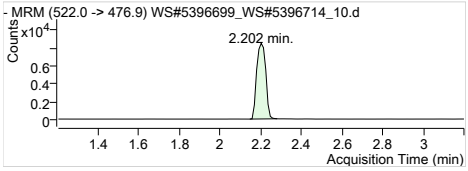


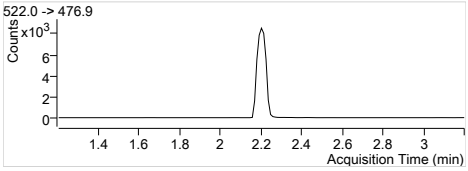
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



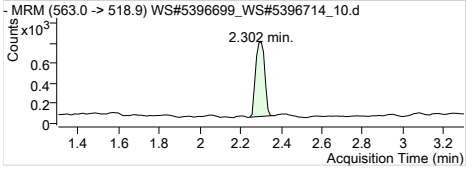


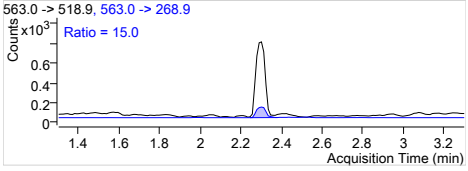
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC





13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC





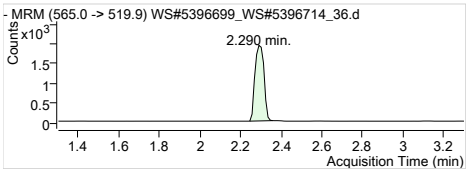
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.302 (2.302)
Calc. conc. 0.87 µg/L
Area ratio: 0.36890
Sample type: CC

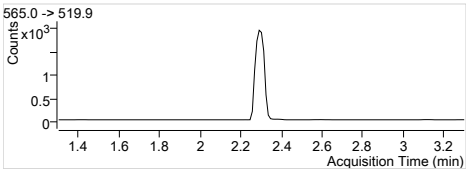
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_36.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/15 7:03:36 PM	**Injection Volume**	Per Method
Sample Annotation	-		

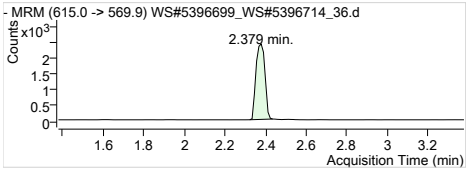
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	5902	2.29	1 µg/L		
MPFDoA	7321	2.38	1 µg/L		
MPFTeDA	6965	2.51	1 µg/L		
13C9-PFDA IS	24591	2.20	1 µg/L		

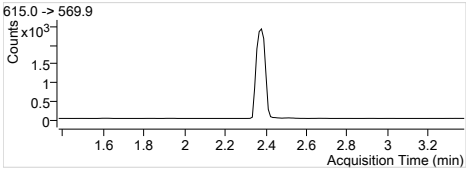
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	41882	2.29	12.50	12.00 µg/L	96.00
PFDoA 1	54333	2.38	12.50	13.00 µg/L	104.01
PFTeDA 1	44587	2.51	12.50	12.11 µg/L	96.86
13C2-PFUnA	5902	2.29	100.00	102.09 µg/L	102.09
13C2-PFDoA	7321	2.38	100.00	97.28 µg/L	97.28
13C2-PFTeDA	7046	2.51	100.00	105.92 µg/L	105.92
13C9-PFDA	24591	2.20	100.00	101.00 µg/L	101.00



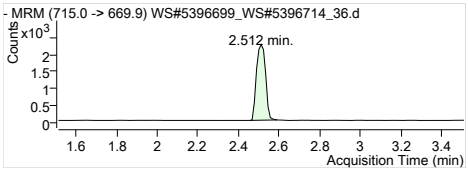


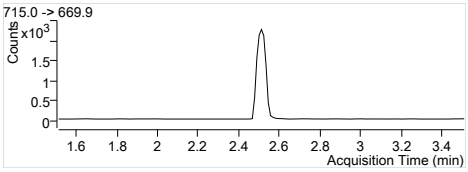
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: CC



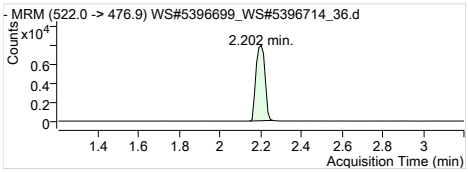


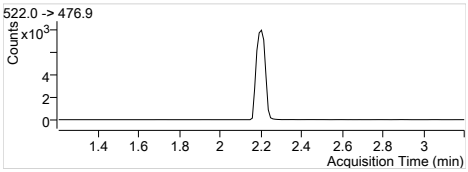
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



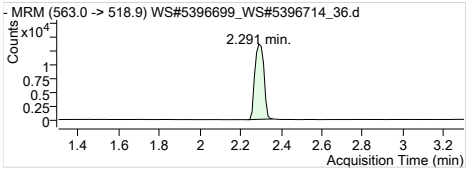


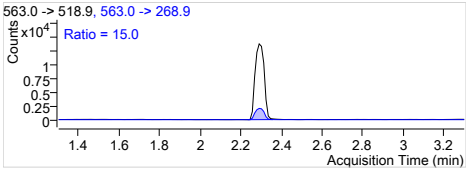
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC





13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC





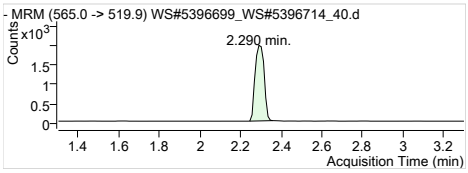
PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 12.00 µg/L
Area ratio: 7.09624
Sample type: CC

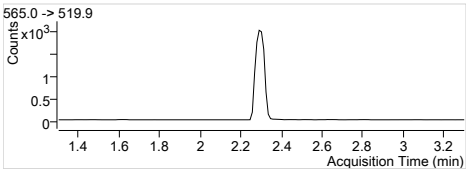
Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714\QuantResults\PFC_Water_Low_180215_WS#5396714_ETo xics

Sample Name	**CCV**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_40.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low.m	**Position**	P2-A5
Acq. Date	2018/02/15 7:23:19 PM	**Injection Volume**	Per Method
Sample Annotation	-		

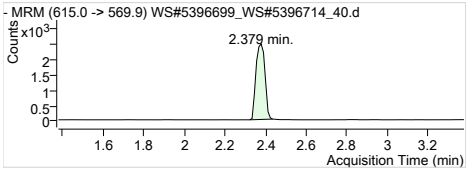
ISTD Compounds	Response	RT	Target conc.		
MPFUnA	6093	2.29	1 µg/L		
MPFDoA	7597	2.38	1 µg/L		
MPFTeDA	7433	2.51	1 µg/L		
13C9-PFDA IS	24736	2.20	1 µg/L		

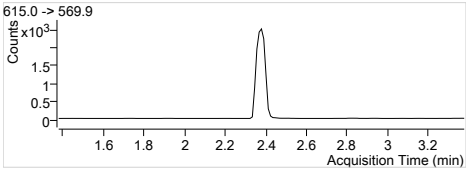
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
PFUnA 1	41167	2.29	12.50	11.44 µg/L	91.50
PFDoA 1	53422	2.38	12.50	12.33 µg/L	98.65
PFTeDA 1	45687	2.51	12.50	11.63 µg/L	93.07
13C2-PFUnA	6093	2.29	100.00	104.77 µg/L	104.77
13C2-PFDoA	7597	2.38	100.00	100.36 µg/L	100.36
13C2-PFTeDA	7533	2.51	100.00	112.57 µg/L	112.57
13C9-PFDA	24736	2.20	100.00	101.60 µg/L	101.60



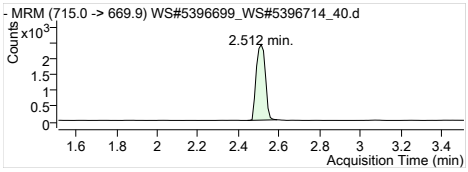


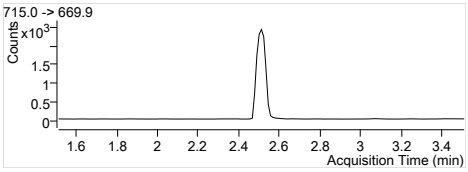
MPFUnA Internal Standard
RT (Exp. RT): 2.290 (2.302)
Concentration: 1 µg/L
Sample type: CC



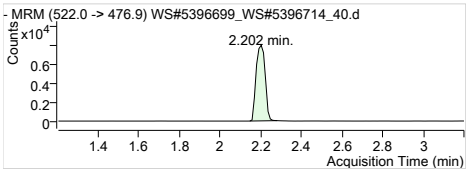


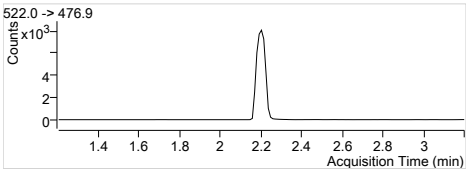
MPFDoA Internal Standard
RT (Exp. RT): 2.379 (2.379)
Concentration: 1 µg/L
Sample type: CC



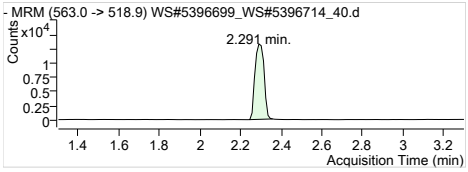


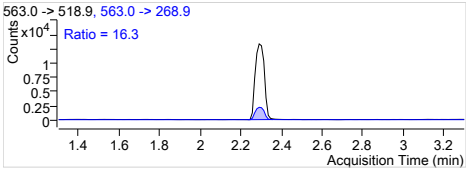
MPFTeDA Internal Standard
RT (Exp. RT): 2.512 (2.512)
Concentration: 1 µg/L
Sample type: CC





13C9-PFDA IS Internal Standard
RT (Exp. RT): 2.202 (2.202)
Concentration: 1 µg/L
Sample type: CC





PFUnA 1 563.0 -> 518.9
RT (Exp. RT): 2.291 (2.302)
Calc. conc. 11.44 µg/L
Area ratio: 6.75644
Sample type: CC

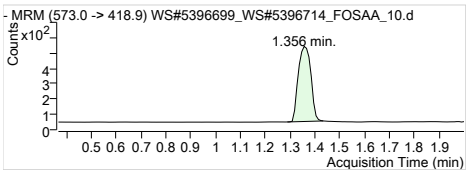
Quantitation Results

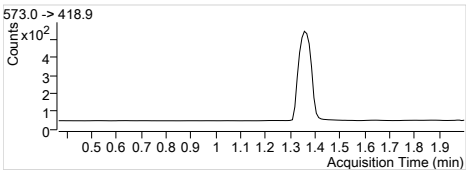
Agilent Technologies

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_ETOxics		
Sample Name	**ISC**	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_10.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A2
Acq. Date	2018/02/15 10:58:29 AM	**Injection Volume**	Per Method
Sample Annotation	-		

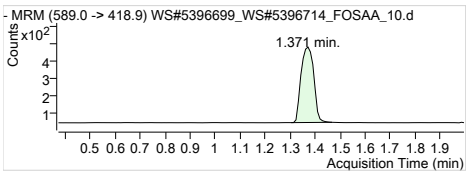
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1728	1.36	1 µg/L		
D5-EtFOSAA IS	1534	1.37	1 µg/L		
13C9-PFDA IS	28624	1.11	1 µg/L		

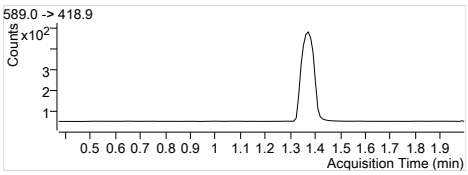
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	631	1.36	0.83	0.98 µg/L	117.79
EtFOSAA 1	620	1.37	0.83	0.98 µg/L	118.33
D3-MeFOSAA	1771	1.36	100.00	112.39 µg/L	112.39
D5-EtFOSAA	1546	1.37	100.00	112.67 µg/L	112.67
13C9-PFDA	28210	1.11	100.00	106.23 µg/L	106.23



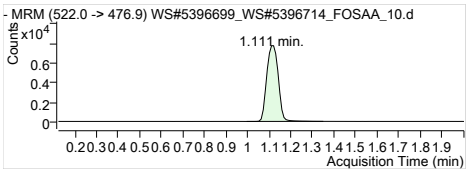


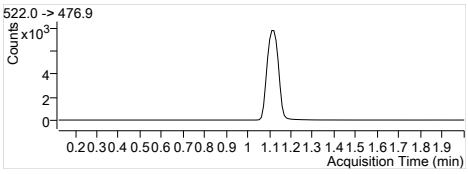
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: CC



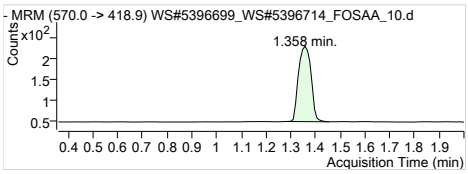


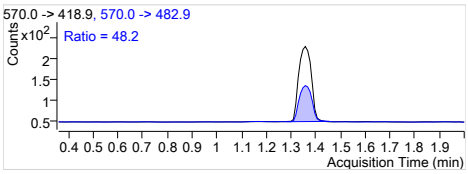
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.371 (1.371)
Concentration: 1 µg/L
Sample type: CC



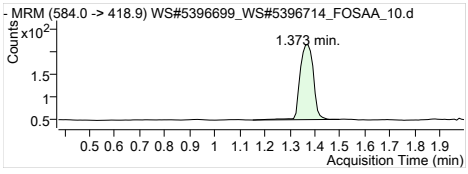


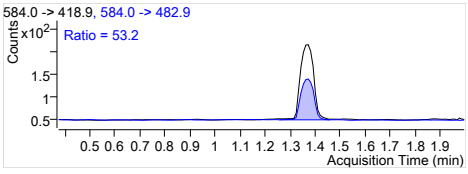
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.111 (1.121)
Concentration: 1 µg/L
Sample type: CC



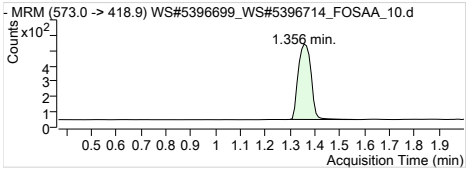


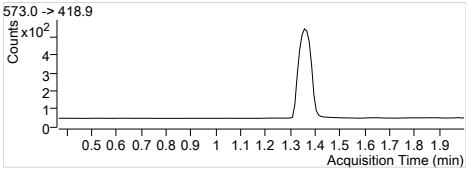
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.358 (1.358)
Calc. conc. 0.98 µg/L
Area ratio: 0.36516
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.373 (1.373)
Calc. conc. 0.98 µg/L
Area ratio: 0.40417
Sample type: CC



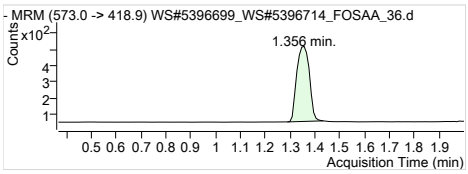


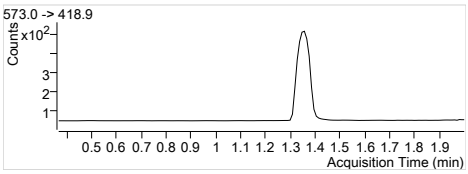
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 112.39 µg/L
Area ratio: 0.06187
Sample type: CC

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	CCV	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_36.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/15 12:01:09 PM	**Injection Volume**	Per Method
Sample Annotation	-		

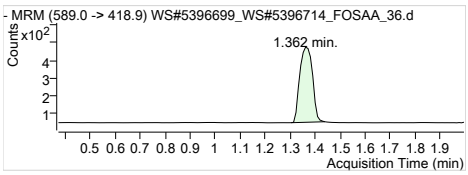
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1653	1.36	1 µg/L		
D5-EtFOSAA IS	1491	1.36	1 µg/L		
13C9-PFDA IS	26549	1.10	1 µg/L		

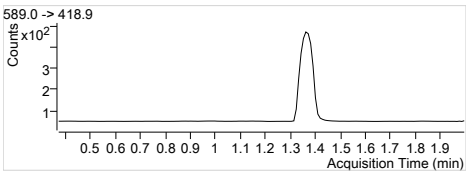
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	10075	1.35	12.50	12.25 µg/L	98.04
EtFOSAA 1	10287	1.36	12.50	11.86 µg/L	94.87
D3-MeFOSAA	1680	1.36	100.00	114.95 µg/L	114.95
D5-EtFOSAA	1516	1.36	100.00	119.11 µg/L	119.11
13C9-PFDA	26014	1.10	100.00	97.96 µg/L	97.96



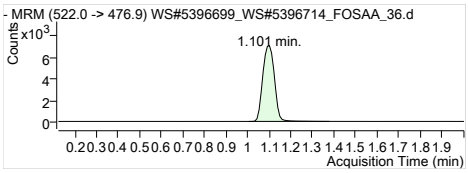


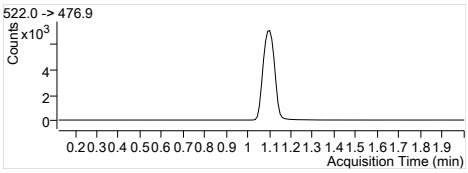
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.356 (1.366)
Concentration: 1 µg/L
Sample type: CC



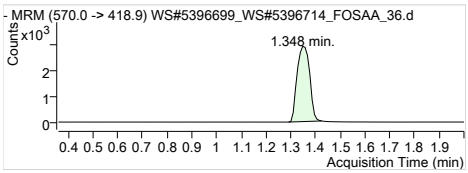


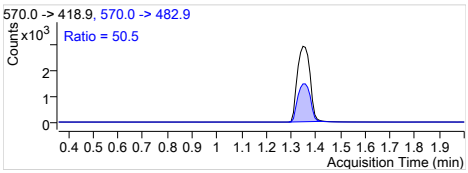
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: CC



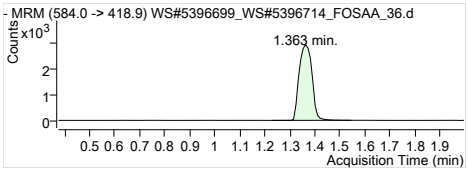


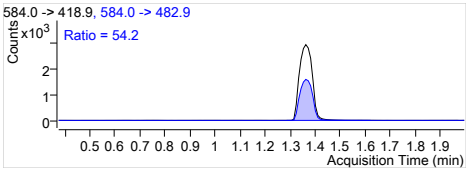
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.101 (1.121)
Concentration: 1 µg/L
Sample type: CC



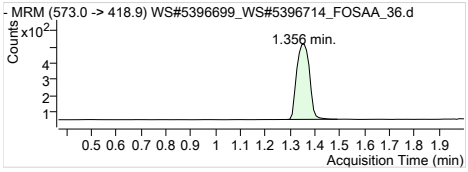


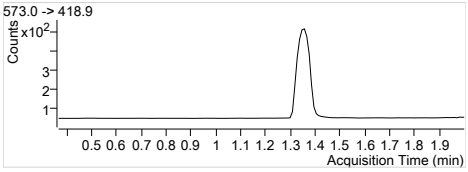
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.348 (1.358)
Calc. conc. 12.25 µg/L
Area ratio: 6.09498
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.363 (1.373)
Calc. conc. 11.86 µg/L
Area ratio: 6.89940
Sample type: CC



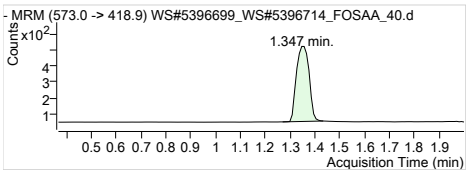


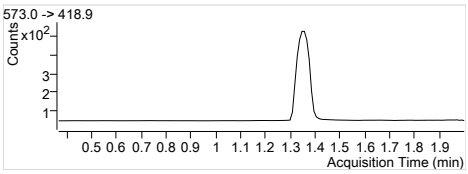
D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.356 (1.366)
Calc. conc. 114.95 µg/L
Area ratio: 0.06328
Sample type: CC

Batch Path	T:\lcms4\PFC\20180215\WS#5396699_WS#5396714_FOSAA\QuantResults\PFC_Water_Low_180215_WS#5396714_FOSAA_EToxics		
Sample Name	CCV	**Instrument**	LCMS04
Data File	WS#5396699_WS#5396714_FOSAA_40.d	**Operator**	
Sample Type	CC	**Dilution**	1
Acq. Method	PFC_Water_Low_FOSAA.m	**Position**	P2-A5
Acq. Date	2018/02/15 12:10:49 PM	**Injection Volume**	Per Method
Sample Annotation	-		

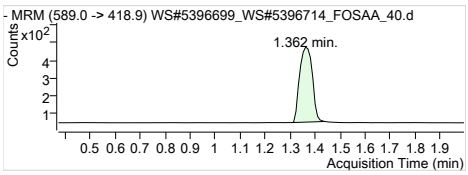
ISTD Compounds	Response	RT	Target conc.		
D3-MeFOSAA IS	1675	1.35	1 µg/L		
D5-EtFOSAA IS	1491	1.36	1 µg/L		
13C9-PFDA IS	26293	1.09	1 µg/L		

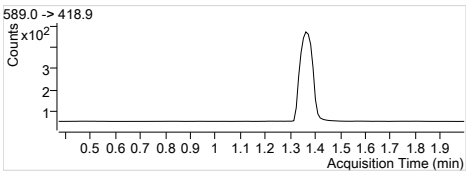
Compound	Response	RT	Target Conc.	Calc. Conc.	Accuracy
MeFOSAA 1	9939	1.35	12.50	11.94 µg/L	95.50
EtFOSAA 1	10160	1.36	12.50	11.72 µg/L	93.73
D3-MeFOSAA	1706	1.35	100.00	117.86 µg/L	117.86
D5-EtFOSAA	1528	1.36	100.00	121.23 µg/L	121.23
13C9-PFDA	25810	1.09	100.00	97.19 µg/L	97.19



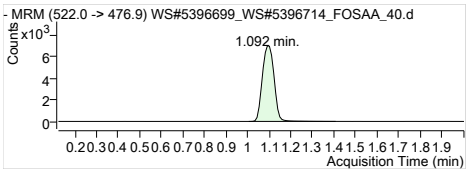


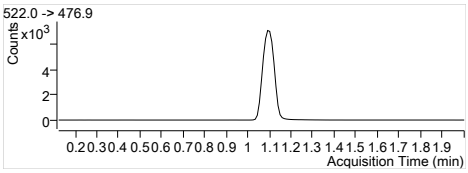
D3-MeFOSAA IS Internal Standard
RT (Exp. RT): 1.347 (1.366)
Concentration: 1 µg/L
Sample type: CC



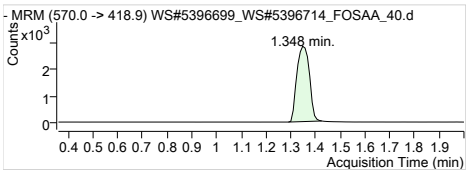


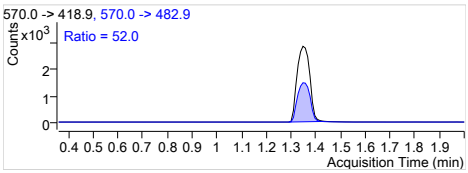
D5-EtFOSAA IS Internal Standard
RT (Exp. RT): 1.362 (1.371)
Concentration: 1 µg/L
Sample type: CC



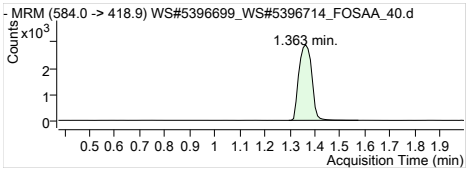


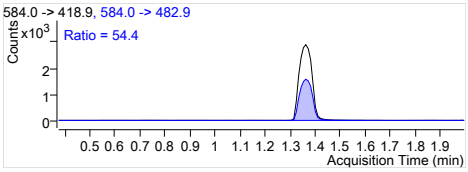
13C9-PFDA IS Internal Standard
RT (Exp. RT): 1.092 (1.121)
Concentration: 1 µg/L
Sample type: CC



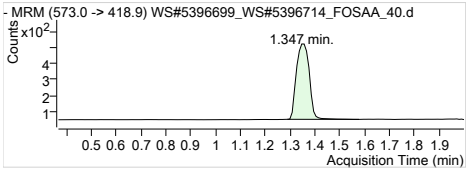


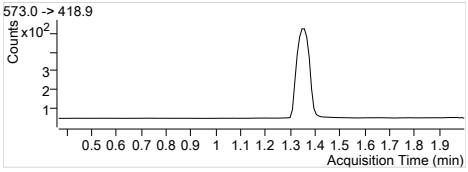
MeFOSAA 1 570.0 -> 418.9
RT (Exp. RT): 1.348 (1.358)
Calc. conc. 11.94 µg/L
Area ratio: 5.93373
Sample type: CC





EtFOSAA 1 584.0 -> 418.9
RT (Exp. RT): 1.363 (1.373)
Calc. conc. 11.72 µg/L
Area ratio: 6.81422
Sample type: CC





D3-MeFOSAA 573.0 -> 418.9
RT (Exp. RT): 1.347 (1.366)
Calc. conc. 117.86 µg/L
Area ratio: 0.06488
Sample type: CC

DODCMD_ID	INSTALLATION_ID	SDG	SITE_NAME	NORM_SITE_NAME	LOCATION_NAME	LOCATION_TYPE_DESC	COORD_X	COORD_Y	CONTRACT_ID	DO_CTO_NUMBER	CONTR_NAME	SAMPLE_NAME
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00003	SITE 00003	CEF-003-28S	Monitoring well	372004.93	2139969.09	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-003-28S-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00003	SITE 00003	CEF-003-04S	Monitoring well	371217.46	2139992.81	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-003-04S-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00003	SITE 00003	CEF-003-38S	Monitoring well	371500.55	2140002.91	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-003-38S-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00003	SITE 00003	CEF-003-04S	Monitoring well	371217.46	2139992.81	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-003-04S-0118-D
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00007	SITE 00007	CEF-007-TW01	Temporary well point	373669.684	2141420.699	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-007-TW01-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00007	SITE 00007	CEF-007-TW02	Temporary well point	373669.684	2141267.048	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-007-TW02-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00008	SITE 00008	CEF-008-TW01	Temporary well point	375267.476	2137979.397	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-008-TW01-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00008	SITE 00008	CEF-008-TW02	Temporary well point	375385.016	2137888.911	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-008-TW02-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00016	SITE 00016	CEF-016-17S	Monitoring well	377472.75	2144984.79	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-016-17S-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00016	SITE 00016	CEF-016-07S	Monitoring well	377718.76	2145060.99	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-016-07S-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 01/02	SITE 00001	CEF-002-04S	Monitoring well	371905.39	2138232.72	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-002-04S-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 01/02	SITE 00001	CEF-002-06S	Monitoring well	372262.62	2138147.87	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-002-06S-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 36/37	UST TNKDT2	CEF-342-06S	Monitoring well	377718.8	2141094.63	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-342-06S-0118-D
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 36/37	UST TNKDT2	CEF-013-12S	Monitoring well	375873.05	2141054.27	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-013-12S-0118-D
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 36/37	UST TNKDT2	CEF-342-12S	Monitoring well	377919.16	2140866.18	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-342-12S-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 36/37	UST TNKDT2	CEF-013-12S	Monitoring well	375873.05	2141054.27	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-013-12S-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 36/37	UST TNKDT2	CEF-013-03S	Monitoring well	375504.85	2141352.82	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-013-03S-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 36/37	UST TNKDT2	CEF-342-06S	Monitoring well	377718.8	2141094.63	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-342-06S-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE TRKST	UST 000001	CEF-372-08	Monitoring well	377947.54	2147826.23	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-372-08-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE TRKST	UST 000001	CEF-372-08	Monitoring well	377947.54	2147826.23	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-372-08-0118-D
SOUTHEAST	CECIL_FIELD_NAS	B819794	UST 000001	UST 000001	CEF-076-109S	Monitoring well	377831.66	2148209.91	N6247008D1001	JM10	TETRA TECH NUS, INC.	CEF-076-109S-0118
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	FB-CEF-342-012318-4
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	FB-CEF-002-012318-5
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	EB-CEF-007-012518-9
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	FB-CEF-003-012318-3
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	EB-CEF-007-012518-8
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	EB-CEF-008-012418-6
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	EB-CEF-008-012418-7
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	FB-CEF-013-012518-7
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	FB-CEF-008-012418-6
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	FB-CEF-016-012218-2
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	FB-CEF-007-012518-8
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	EB-CEF-007-012518-10
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	FB-CEF-860-012518-9
SOUTHEAST	CECIL_FIELD_NAS	B819794							N6247008D1001	JM10	TETRA TECH NUS, INC.	EB-CEF-008-012418-5

DODCMD_ID	INSTALLATION_ID	SDG	SITE_NAME	SAMPLE_MATRIX_DESC	SAMPLE_TYPE_DESC	COLLECT_DATE	ANALYTICAL_METHOD	ANALYTICAL_METHOD_GRP_DESC	RES_META_ID
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00003	Ground water	Normal (Regular)	22-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00003	Ground water	Normal (Regular)	23-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00003	Ground water	Normal (Regular)	23-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00003	Ground water	Field duplicate	23-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00007	Ground water	Normal (Regular)	25-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00007	Ground water	Normal (Regular)	25-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00008	Ground water	Normal (Regular)	24-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00008	Ground water	Normal (Regular)	24-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00016	Ground water	Normal (Regular)	22-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 00016	Ground water	Normal (Regular)	22-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 01/02	Ground water	Normal (Regular)	23-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 01/02	Ground water	Normal (Regular)	25-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 36/37	Ground water	Field duplicate	23-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 36/37	Ground water	Field duplicate	25-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 36/37	Ground water	Normal (Regular)	23-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 36/37	Ground water	Normal (Regular)	25-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 36/37	Ground water	Normal (Regular)	23-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE 36/37	Ground water	Normal (Regular)	23-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE TRKST	Ground water	Normal (Regular)	22-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	SITE TRKST	Ground water	Field duplicate	22-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794	UST 000001	Ground water	Normal (Regular)	22-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	23-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	23-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	25-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	23-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	25-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	24-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	24-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	25-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	24-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	22-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	25-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	25-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	25-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00
SOUTHEAST	CECIL_FIELD_NAS	B819794		Water for QC samples	QC Sample	24-Jan-18	537	Perfluoroalkyl Compounds	20190201053458.00